Linking Science — Changing Healthcare Practices

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When Rachel Carson released *Silent Spring* in 1962, environmental leaders and the public were not concerned about what the exact concentration levels of DDT (dichloro-diphenyl-trichloroethane) were that contributed to weak bird eggshells (Mark Schleshinger, conversation with the author, May 16, 2014). Instead, the public understood that the chemical was harming wildlife and they demanded that measures be taken to ban the substance. Enough of a scientific understanding existed to warrant constructive action.

Today, a similar case should be made for increased access to and use of natural areas for improved human health. While the increased utilization of green space is not an outright cure, and questions, uncertainties and risks still exist (Hartig et al., 2014), enough science is understood to begin to move forward in conserving green space for the public’s health.

The presence and utilization of natural areas is a factor that has the potential to cumulatively benefit human health and wellness in a number of ways. As the 2013 Berkley Workshop background paper entitled “Improving Human Health by Increasing Access to Natural Areas: Opportunities and Risks” explored, many opportunities exist to improve mental health, foster cognitive development, manage obesity and diabetes, and to mitigate the harmful effects of heat waves. Likewise, the *Annual Review of Public Health* article “Nature and Health” by Hartig et al. (2014) investigated how nature positively contributes to improved air quality, physical activity, social contacts, and reduced stress in urban environments. Robust, scientifically based cases can also be made around clean drinking water and nutritious, locally produced food. The healthful benefits of the natural environment are increasingly understood, and they should be promoted and more fully utilized for the public’s good.

The question is, how best to do so? The following four sections explore how the known benefits of green space might best be brought to tangible land conservation and public health action at scale. These sections include:
1. Laying the groundwork and building capacity
2. Influencing the health care industry
3. Taking political and policy action
4. Pursuing strategic opportunities

The concepts addressed below reflect a wide review of the ingredients and pathways for affecting deep change in our approaches to health. These ideas focus on ways and places to build capacity, spread awareness, and take effective action.

To accomplish this goal, and as described in the diagram below, these efforts should seek to utilize and influence both:

- Vertical networks, where specific audiences and goals are targeted, and
- Horizontal networks, where a large and diverse constituency is mobilized to support change.

While this chapter is organized in a categorical fashion, it is important to realize that many of the concepts discussed below are directly interrelated and build on one another.
4.1 Laying the Groundwork and Building Capacity

Many health care and land conservation organizations are beginning to use access to natural areas as a way to achieve their respective goals of improving human health and expanding the purpose and role of open space.

These initiatives, however, currently lack the depth and breadth needed to realize widespread, positive actions at scale. To succeed at advancing land conservation’s role in improving the health of communities, a strong operational foundation should be created. To accomplish this, both human and financial resources should be mobilized and organized to focus specifically on the connections and opportunities that exist between human health and land conservation.

What follows are a series of initial recommendations designed to provide a more coordinated and unified strategy to improve health and wellness through access to and use of natural areas.

Developing a Common Language

The common goal of creating and improving access to natural areas for improved human health is challenged by the differing perspectives, values, and vocabularies of health care and conservation professionals. Land trusts and the health care industry work in vastly different arenas and day-to-day operations share very few similarities. By developing a common language and understanding, the goals of both groups can be more effectively achieved.

A common language affords several positive benefits. Standardizing vocabulary promotes goal clarity, communication, and collaboration. Such efforts allow for health care and conservation groups to understand and utilize their respective strengths and roles. Developing a joint land conservation-public health lexicon will create a unified message for how and why green space should be protected. This will be beneficial not only to practitioners and policymakers, but also to the general public. To achieve a common language, workshops and educational materials should be used to increase capacity between disciplines and respective organizations.

Many organizations take steps to define meanings within their discipline. Work within the conservation biology field, for instance, has attempted to create consistency around the meaning of certain terms and particular types of efforts. A specific example of this was led by a group from the Conservation Science Program at the World Wildlife Fund. Here, efforts were undertaken to standardize meanings around the monitoring and evaluation of conservation projects. Within their Biological Conservation paper, these practitioners specifically discuss the risks of not having a common understanding across the field. They write: “Commonalities and complementarities among approaches to conservation monitoring and evaluation are not well articulated, creating the potential for confusion, misuse, and missed opportunities to inform conservation policy and practice” (Mascia et al., 2014). To head off such problems, efforts should be taken to define meaning and goals within efforts to promote land conservation for improved public health.

Connecting Networks to Networks

Across the United States, many networks of organizations and professionals already exist
within both the health care and land conservation communities. On a regional level, hospitals, community health centers, and municipal health departments all actively work together to coordinate health initiatives. Likewise, there are extensive networks of land conservation organizations that operate at local, regional, and national levels. In Connecticut, for example, there are national organizations like the Land Trust Alliance, but also midsized umbrella organizations like the Connecticut Land Conservation Council, as well as 137 small, local land trusts. As an ever-growing number of organizations are coalescing around the beneficial connections between open space and human health, efforts should be taken to formalize these connections as a way to increase idea sharing, capacity, and action.

The networks and structures that exist within and across local, state, and federal government agencies should also be better connected. Here, creative solutions should be sought to achieve greater action by bridging agencies and levels of government. Departments of health, agriculture, and environmental protection are just a few of the many government agencies whose missions align with our efforts to improve human health and land conservation objectives. Moreover, the physical and mental health needs of veterans have the potential to further incentivize government agencies to invest in the access and use of green space.

Furthermore, it is important to consider how other organizations that may not specifically be focused on health care or land conservation might also be included in this work. Organizations with shared goals, like groups working on green infrastructure, have the potential to further expand the constituency working towards healthy, sustainable communities (Hartig et al., 2014).

The role that private industry plays within the relationship of land conservation and health should also be explored. Here, outdoor gear and apparel companies have the potential to facilitate increased time spent outdoors and improve experiences within natural settings. Such companies could help advance this cause through marketing campaigns and formally sponsored initiatives.

In addition, large employers are looking for ways both to improve the health of their workers, as well as reduce costs – increasing time in nature may help both. In such instances, while direct missions may be different, the desired outcomes of using and appreciating natural environments overlap and provide opportunities to create a constituency and movement with an even larger voice.

Efforts to build such “networks of networks” might also work at the horizontal and vertical scales by building:

- Regional partnerships/collaborations to connect health and access to natural areas in a particular town, city, county, etc. – such as those described in Chapters 2 and 3 above;
- National or global information sharing networks across health and nature organizations, including those focusing on particular issues (exercise, food, mental health, etc.).
Elevating Awareness

The connection between the natural environment and peoples’ health and wellness is not a novel idea. For well over 100 years, people have been utilizing the healthful benefits of nature. However, in an age of technological medical fixes and human disconnection from nature, special efforts must be made to rekindle awareness about the benefits of time spent outdoors. Outreach, potentially in the form of media coverage and campaigns, should be undertaken specifically to communicate the healthful benefits of nature to the general public, health care professionals and conservation organizations. Advertisements and public service announcements on radio, television, and social media are all possible ways to share this information – as are efforts to bring these connections into the scripts used on popular TV shows hosted by doctors and other medical professionals.

Bolstering the general public’s awareness can have many beneficial implications. Awareness can help mobilize grassroots advocates and lead to interest group and coalition formation. Such changes can help create a broad horizontal constituency that is willing to actively support the healthful benefits of open space.

Arguably one of the most successful health advocacy organizations in the United States is the American Cancer Society. From local Relay for Life events to Daffodil Days, this group has developed an extremely powerful brand and a substantial horizontal network in support of cancer research and policy. Achieving such a strong presence within mainstream society should be a major goal of health-nature advocates.

Moreover, as with cases of well-advertised pharmaceuticals, if patients know of certain treatment options, they will be more likely to ask their health care provider about their use. In these instances, changes to the health care system may effectively be created by a public demand for a particular type of service. In this case, an increased awareness could create a greater demand for access to green space.

Health care providers and conservation organizations also need to be exposed to information about the benefits of open space. The relationship between open space and human health offers exciting opportunities of which many land trusts and health care providers are simply not yet aware. Efforts to disseminate information to these organizations should focus on how to build understanding of health benefits and promote collaboration within geographic regions.

Curating the Science and Promoting Further Research

While the scientific understanding behind access to and use of green space and its connections to human health is limited compared to other medical and public health concepts, there is an ever-growing body of literature on the subject.

This information should be reviewed and catalogued in order to comprehensively utilize known findings and understand the state of the science (Sarah Milligan-Toffler, conversa-
improving human health by increasing access to natural areas: linking research to action at scale

Such curation would allow for more effective usage and increase the dissemination of this information to land conservation and health professionals. Moreover, such an undertaking would bring attention to knowledge gaps and facilitate additional research.

Case Study: Children and Nature Network

The Children and Nature Network (C&NN) is widely considered the leader in the effort to reconnect children, families, and communities with the natural world. C&NN’s work offers many constructive parallels to our efforts to improve public health, control health care costs, and improve access to green space through land conservation. C&NN actively works to develop and expand partnerships, as well to steward academic and multimedia resources on child development and nature. Moreover, C&NN’s 2014 Agenda has particular relevance to efforts to advance the important connections between the environment and human health.

In 2014, the organization’s four areas of focus include: 1) Improving community health, 2) Engaging families, 3) Inspiring nature-smart leaders, and 4) Building the worldwide network.

Additional information available at: http://www.childrenandnature.org/

4.2 Influencing the Health Care Industry

Increasing numbers of health care professionals understand the connections between wellness and time spent outdoors. However, using green space as a preventative measure and management tool has not been widely accepted and employed.

In an effort to build and advance the case around the health benefits of access to green space, specific efforts to influence and alter the health care industry should be taken. The concepts discussed below begin with health care education and build to increasingly larger concepts within the field.

Professional School Training

Today, public health, nursing, and medical schools rarely teach the breadth of ways that the natural environment impacts human health. Despite increasing efforts to train providers about the biopsychosocial paradigm, a framework that takes a more holistic perspective on what it means to prevent and treat disease (Stineman and Streiim, 2013), health care professionals typically receive little or no education on the importance of access to open space.

While all professional school curriculums face time constraints, efforts should be made to promote formal training and specialty tracks that will educate future health care providers and health care leaders about the physical and emotional benefits of time spent in natural environments.
Such training should cover a spectrum of topics about the relationship between time spent outdoors and health outcomes. As research on this topic enhances our understanding, it should include the physiological and biomedical benefits of nature at the cellular level, as well as how access to green space may positively contribute to various social determinants of health. With this knowledge, health professionals should also be trained in how to use natural environments as a prescriptive tool to manage and treat conditions.

While improving professional school training is a very bottom-up, long-term approach in expanding the role of green space, it has the potential to establish a new set of norms around the importance of land conservation for human health.

**Continuing Education**

Almost all health care professions, including nurse practitioners, physicians, and therapists, require relicensing at regular intervals. To successfully maintain certification, these professionals must pass board exams and complete continuing education (CE) requirements.

While state and professional requirements vary, CE’s offer a unique chance to engage a segment of the health care profession already in the midst of their careers. Similar to the introduction of a new pharmaceutical or medical technology, CE’s offer an opportunity to change the way clinicians see, manage, and potentially solve health care challenges.

The creation of a new CE program focused on health and nature, which would need to be formally approved by an accredited organization of health professionals, could help advance this initiative in many ways. A CE on the health benefits of the natural environment could focus on how access to nature can improve health outcomes through prevention and improved disease management.

CE’s could also offer an opportunity to mobilize medical professionals and their networks around land conservation and stewardship efforts. If green spaces are part of a larger solution to improve health, clinicians and public health leaders have a professional obligation to promote the protection and stewardship of green space. As such, CEs have the potential to train medical professionals about the role of green space and the ways they can help protect it.

**Influential Health Publications**

There are several publications within the health care field that carry significant prestige and clout. These documents, which are often authored by well-respected scientists and clinicians, are considered to be at the forefront of what is believed to be the most reputable science. Government-sponsored publications from the National Institutes of Health (NIH), or private publications, like *The Cochrane Review* and *The New England Journal of Medicine*, offer an academic and professional venue to promote the human health benefits of time spent in natural environments.

Commissioning formal reports and reviews for these types of publications has the potential to elevate awareness and understanding around the importance of green space for human health. Credible publications within these venues are also a powerful step in gaining the
support of professional societies and the larger medical community, as these groups rely heavily on these documents to guide their decision-making and actions.

Popular books also have a role to play in the promotion of green space for improved health outcomes. These materials have the ability to reach a larger audience who may not have formal medical or scientific training. The most well-known, and arguably most influential of these works is Richard Louv’s book *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. While academic publications can influence vertical networks within the health care field, such popular publications have the potential to mobilize broader horizontal networks for constructive action.

**Professional Societies**

In many ways, professional specialty organizations are the gatekeepers of health care change. These organizations, which are made up of practitioners from all fields, assert considerable influence in defining standards of care, best practices, and recommendations for change within the profession.

Formal efforts should be made to comprehensively outline the latest and best evidence for why green space is beneficial to the public’s health. Upon building this body of knowledge, supportive members of professional societies should be identified to help push their organizations to adopt and promote recommendations that incorporate the utility of open space within their standards and guidelines of medical practice.

The American Academy of Pediatrics (AAP) is one of the most prominent organizations that could become an advocate for this topic. The AAP is widely considered one of the most progressive medical academies in the country and has even taken on such public health challenges as gun control. It is probable, based on its mission and history, that this group would be receptive to advocating for the many ways that access to green space positively contributes to the growth and development of children. (See also: “Strategic Areas of Focus: Inequality and Children” below)

Professional societies offer a significant leverage point because they are also often the groups that most effectively influence political action. Elected officials frequently rely on the recommendations and expertise of professional societies as a way to guide and provide political cover for novel health care programs. As such, achieving professional society support can effectively pave the way for political action that supports formal policy initiatives focused on conservation and the use of nature areas for health.

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**Case Study: American Public Health Association Policy Statement**

On November 5, 2013, the American Public Health Association (APHA) issued a policy statement on “Improving Health and Wellness through Access to Nature.” Within this document, the APHA describes several nature-health connections, offers recommendations and provides a series of action steps to promote this important public health topic.
This policy statement (#20137) has substantial implications for efforts to improve health by increasing land conservation and the use of green space. Such a statement offers legitimacy to this work and a solid platform for moving this cause forward.


**Accreditation and Certification**

Similar to professional societies, health care accreditation and certification organizations offer a constructive opportunity to better medical principles. These groups work to sustain and improve standards across the health care field by maintaining uniform requirements for public health, nursing, and medical schools and within various clinical settings.

Efforts should be taken to expand these organizations’ understanding of how and why natural areas are important to human health. From here, improved principles should be developed and incorporated into standards of accreditation and certification.

As with efforts to leverage professional societies and influential publications, work should be focused on targeting the accreditation and certification bodies that have the greatest ability to influence change in the health care system.

Two organizations that offer promise in advancing land conservation for the public’s health are the Facilities Guidance Institute Guidelines and The Joint Commission. (See also: “Facilities Guidance Institute Guidelines” below) These organizations set standards for health care in order to ensure consistent quality, safety, and accountability. The reach of these guidelines can be significant. For example, the Guidelines for the Design and Construction of Health Care Facilities, from the Facility Guidelines Institute, have been adopted entirely or partially by 42 states (Sachs et al., 2014). As such, expanding accreditation and certification standards has the potential to achieve substantial positive change with both vertical and horizontal networks.

**Making the Business Case**

The business aspect of improved access to green space for human health offers an additional opportunity to leverage action. Health care providers need proof that a proposed initiative is cost effective and that there will be a financial return on investments.

Fortunately, an ever-growing body of research is showing that access to green space is improving outcomes and reducing medical costs. As mentioned in Section 2, Robert Ulrich’s seminal 1984 *Science* paper “View Through a Window May Influence Recovery from Surgery” is widely considered the first paper to demonstrate the health and potential economic benefits of the natural environment. Ulrich found that postoperative patients with a view of nature had shorter hospital recovery stays, less negative evaluative comments and needed fewer negative evaluative comments, and high-strength painkillers (Ulrich, 1984). Additionally,
more recent studies have found that approximately $93 million can be saved annually in health care costs by simply providing patients a view of nature (Terrapin Bright Green LLC, 2012). Such benefits from the natural environment have the potential to significantly reduce health care expenses while improving patients’ recovery experience and overall condition. The business dynamics of the health care industry should also be considered and promoted in relation to the role and benefits of nature. If health care providers can reduce costs, improve patients’ comfort, and lessen recovery time, they are likely to gain a significant competitive advantage. In such scenarios, improved access to nature can help to improve providers’ treatment services and brand, while also incentivizing the protection and stewardship of open space. Partnerships should be coordinated and pursued between academic institutions and health care providers to conduct additional research on the business benefits of improved access and use of natural areas.

It should be acknowledged, however, that the business model on which the U.S. health care industry is built – treatment of illness, rather than prevention – does not easily accommodate investments in increasing access to nature. Research on the health benefits of a new drug might yield a patent and years of sales revenue. Research on the health benefits of time in nature might yield a reduction in the number of patients that need to be treated – but not sales revenue. As such, it will be a less attractive investment to many businesses in the health sector.

New business models need to be developed and promoted that allow health funders/investors to capture the financial benefits of improving health at lower cost by increasing access to nature.

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**Case Study: Facilities Guidance Institute Guidelines**

The case of the Facilities Guidance Institute’s Guidelines for the Design and Construction of Health Care Facilities offers a useful example of how policy changes can be achieved. In 2014, after persistent efforts over many years to incorporate language on access to nature directly into the formal standards, the Environmental Standards Council (ESC) succeeded in doing so.

The ESC’s accomplishment is largely attributable to three primary factors (Sachs et al., 2014):

- Synthesizing a rich body of research
- Demonstrating clear health benefits
- Making a convincing businesses case

Future efforts should utilize these approaches when seeking to advance the use of green space for improved health outcomes.
4.3 Taking Political and Policy Action

In addition to improving how the health care industry understands and utilizes the benefits of green space, significant efforts should be taken to educate elected officials about known public health problems and how green space can be part of larger solutions for the public’s health and wellness. Land conservation at the local level, still widely considered a bipartisan issue, offers an opportunity to achieve a multitude of social and health benefits for any particular community.

*Hearings*

Formal hearings offer a unique opportunity to promote policy action around the beneficial connections between human health and green space. State and federal hearings offer an elevated platform to explain the best-known science and the rationale behind the connections between natural environments and public health. In such a setting, the positive connections between open space and human health can be directly conveyed to policymakers within vertical networks and formally entered into the public record. Such settings also offer a constructive opportunity to garner positive media coverage that can bring awareness and attention to this issue, and expand the horizontal scope of this work.

*Ordinances and Laws*

Formalized public health and governmental land use policies in the form of ordinances and laws have the ability to mandate land protection for the health and welfare of communities. This form of regulation would be an acknowledgement of a new set of norms on nature’s role within society. In addition to achieving new regulation around this cause, efforts should also be made to use elements and opportunities within existing ordinances and laws to promote green space for improved public health.

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**Strategic Areas of Focus: Inequality and Children**

Identifying constructive leverage points to promote the benefits of green space for improved health outcomes requires targeted initiatives. Improving health equality and the benefits that natural areas provide children are two specific focus areas that should be pursued.

*Inequality*

Many health disparities, such as diabetes and obesity, disproportionately affect minority and lower socio-economic populations. Likewise, these populations typically have less access to green space and natural areas (Wen et al., 2013). The protection of undeveloped land and the use of green space within underserved communities have the potential to mitigate the disproportional health burden that these populations face by improving the conditions necessary for more healthy lifestyles.
**Children**

Kids offer a constructive and powerful leverage point to advance the benefits of access to green space for improved health outcomes. Policymakers and the general public care deeply about the welfare of children and child development is an undertaking that innately has long-term implications (Mark Schleshinger, conversation with the author, May 16, 2014). It takes decades and a tremendous investment to raise a child. Likewise, improving health through increased access and use of natural areas requires a long-term view that involves comprehensive planning within urban, suburban, and rural communities. The health benefits of land conservation are cumulative and will likely only be truly realized over time.

This concept can be further illustrated by comparing an adult with a chronic condition and the health and development of a child. While the creation of park may help a 70-year-old man with diabetes better manage his condition, increased access to green space will not cure his disease. A child, however, who grows up with access to a safe park and community gardens is arguably less likely to develop diabetes in the first place. The power of children and the temporal relationship between raising a child and the protection of natural areas offers an effective platform to advance this cause.

### 4.4 Pursuing Strategic Opportunities

The 2010 passage of the Patient Protection and Affordable Care Act (PPACA) offers several novel opportunities for action. What follows is a review of two provisions that have the potential to advance policies and opportunities that connect access to open space with improved health outcomes and lower medical costs.

**Leveraging Community Health Needs Assessments**

Periodically, health care organizations, such as nonprofit hospitals, are required by the Internal Revenue Service (IRS) to prepare a document called a community health needs assessment (CHNA). These documents offer a constructive opportunity for a variety of health care professionals and community stakeholders to develop a plan that identifies health care challenges and constructive opportunities for concerted action.

Considerable opportunity exists to expand the scope of CHNAs to include efforts to use green space for health care and to protect and steward green space for improved health outcomes. As discussed earlier, efforts should be taken to connect land conservation networks to health care organizations and to develop a common language. By building understanding and capacity around these documents, land conservation organizations can effectively influence the direction of these assessments to include provisions for open space protection. Such language has the potential to feed into implementation strategies, and then formalized plans of action (CDC, 2014). Moreover, limited guidance exists around what should be included within a CHNA. This flexibility offers an additional opportunity to shape the goals and objectives for what this type of document can achieve.
Building Capacity: Community Health Needs Assessment Process

Sara Rosenbaum of The George Washington University School of Public Health and Health Services recently published “Principles to Consider for the Implementation of a Community Health Needs Assessment Process.” This document is an insightful reference for understanding and developing effective community health needs assessments. In addition to exploring the ways the PPACA hopes to improve community health, the paper outlines a variety of principles and concepts ranging from multi-sector collaborations to community engagement and the use of evidence-based interventions.


Expanding Nonprofit Hospital Community Benefits

There are approximately 2,700 nonprofit hospitals in the United States that currently receive an estimated $13 billion in federal tax exemptions per year (Young et al., 2013). As part of the PPACA, hospitals are now more formally required to prove their community benefit through IRS reporting mechanisms.

A comprehensive national review of community benefit funding allocations found that 85% of expenditures were devoted to charity care, 5% was spent on community health improvements and that the remaining 10% was spent on professional education, research, and grants to community groups (Young et al., 2013).

With the known health benefits of access to green space, efforts should be made to steer community benefit financial resources to work specifically focused on human health and land conservation initiatives. Hospitals typically serve a roughly defined geographic region with a particular population. This structure innately allows hospitals and other providers to invest in the populations they are charged with keeping healthy.

4.5 Conclusion

It is time to deepen this work. While there are unknowns, and there will always be unknowns in this field, we have enough information to act in more communities. After laying a strong foundation and building capacity, there are numerous opportunities to leverage both vertical and horizontal networks to achieve positive action in promoting green space for human health. As described above, this work ranges from simply promoting awareness to leveraging certain elements of the PPACA. As these efforts progress, they will build on and reinforce one another.

As noted earlier, while the benefits of green space collectively contribute to improved health, it will take time to achieve noticeable public health benefits. As such, it is important to realize that promoting the health benefits of natural areas is a truly long-term investment. The
goal of incorporating access to green space into communities will require a sustained and dedicated focus.

Promoting access to green space for peoples’ wellbeing is not just about land conservation and public health. It is about envisioning and working towards creating the most positive human experience in harmony with the natural world. With thoughtful and logical action, this can be achieved.

**Possible Questions for Discussion**

• What actions can be taken to develop and foster better relationships between land conservation and health care organizations?

• Most municipal and state governments already have separate environment and health programs. How can networks that already exist among and within local, state, and federal government agencies be better connected?

• What are some inexpensive or free ways to boost awareness about the benefits of open space for improved health?

• Who should spearhead efforts to increase the awareness within professional health care societies about the healthful benefits of access to green space?

• Through what venues can the business case around the healthful benefits of access to natural environments be further promoted?

• How should work on this subject continue past the 2014 Berkley Workshop? How can actions across multiple organizations best be coordinated or at least communicated/shared?

**Useful Information & Other Organizations Doing Interesting Work on this Topic**

**Maximizing the Impact of Public Hearings:** The Institute for Local Government has published a document titled “Getting the Most Out of Public Hearings: Ideas To Improve Public Involvement.” This publication offers a considerable amount of helpful information about public hearings for both public health and land conservation organizations. Complete document available at: [http://www.cnrep.org/documents/handbooks/Getting_the_Most_Public_Hearings.pdf](http://www.cnrep.org/documents/handbooks/Getting_the_Most_Public_Hearings.pdf)

**Kaiser Permanente:** This well-known and well-respected managed plan organization has actively been pursuing work on the connections between open space and human health. Specific efforts have involved grants for land conservation and walking programs. Additional information available at: [http://share.kaiserpermanente.org/article/environmental-stewardship-overview/](http://share.kaiserpermanente.org/article/environmental-stewardship-overview/)
Useful Readings/Works Cited


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