Healthy Environments Across Generations

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Collaborative on Health and the Environment
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HEALTHY ENVIRONMENTS ACROSS GENERATIONS

Introduction

On June 7-8, 2012 over a hundred and fifty participants gathered at the New York Academy of Medicine (NYAM) for the “Healthy Environments Across Generations” meeting which focused on the impacts that multiple, interacting environments can have on health (including the socioeconomic, chemical, food, built, natural, and psychosocial environments) as well as intergenerational and creative approaches to improve public and planetary health. CHE partnered with NYAM, AARP, the US EPA, The Intergenerational School, WE ACT for Environmental Justice, The Whole Child Center, and Gray is Green, along with over 60 co-sponsors from across many disciplines, to conduct this event.

The ecological or “systems” approach to health was the central theme. This document is designed to summarize key concepts about this approach to health through the eyes of leading thinkers in this area as well as those who participated in the event.

Our goal for this document is to provide a comprehensive and cogent argument for broader and deeper investments in collaborative, cross-and multi-sector efforts to help prevent disease and disability and promote health and resilience across the lifespan.

We have seeded it with videos, illustrations, photos and excerpts from the rich discussions that took place over two days, to help mirror the stories that we believe will help us change existing paradigms.

Watch: Dr. Larry Rosen, an integrative pediatrician and founder of the Whole Child Center, describes an ecological approach from his medical perspective.
How and where we live, eat, work, play, pray and socialize influence our physical and mental health. Healthy aging begins even before birth. Ted Schettler MD MPH, science advisor to both the Science and Environmental Health Network and the Collaborative on Health and the Environment, helps unravel and describe the complexities of multiple environmental influences on health and how they interact, and a health approach that considers these issues.

Dr. Schettler further summarized these concepts in an opening panel. “At this conference we want to dive more deeply into the messy interactions of the various environments: food, built, natural, chemical, socioeconomic. We have a long history of trying to understand this complexity by taking it apart, by trying to understand smaller and smaller pieces. Remarkable achievements in basic sciences have helped us learn more and more about how things work on smaller and smaller scales. The medical sciences have achieved dramatic advances in understanding the more proximate causes of diseases and interventions to address them in individuals.
The social sciences and public health take a more community-oriented approach, and are generally more interested in systemic causes. We see for example, the re-emergence of old infectious diseases and the emergence of new ones, as a direct consequence of ecological changes. Planetary health and the extent to which the planet will continue to be a hospitable place for people to live is getting increasing attention, particularly over the past 15-20 years. An ecological approach to health accommodates the multi-dimensional nature of this complexity. It grapples with the fundamental interactions across the food, built, natural, chemical, socioeconomic environments—their relationships.

This approach sees the individual as nested within a family, community, ecosystem, and society and recognizes influences of each on the others. An ecological framework recognizes the importance of time, the life-course and intergenerational considerations.

Others described the critical importance of an intergenerational approach to health. Peter Whitehouse MD PhD, co-founder of the award-winning Intergenerational School in Cleveland, spoke compellingly about the health benefits to all generations when all ages are honored and respected.
CHAPTER 2

What Does “Health” Mean?

Gail Christopher DN, Vice President for Programs, W.K. Kellogg Foundation, describes what health is from the molecular level to the community level. She makes the case for why health is “so much more than the absence of disease.”

It was fitting that this event took place at the NY Academy of Medicine, said Ruth Finkelstein ScD, Senior Vice President for Policy and Planning. “We’re not just the dance hall – we are part of the dance.”

Dr. Finkelstein also addressed health and underscored the need to think about place and the “upstream determinants of health,” as well as health disparities that are deep and troubling issues. “we are going to demand transformation of the built environment.”

WHAT WE MEAN BY “HEALTH” – Over two days participants from diverse sectors offered their insights into health. During the “Thinking Forward” sessions (break-out groups designed to evoke new ways of thinking), discussions included acknowledging a need to ensure that people – particularly when they are from different disciplines, sectors and communities – need to understand health can mean different things to different people. For some, health might mean not being sick, while to others “health” is a broader issue of quality of life.

Participants also discussed what “environment” means – some define environment as solely trees, land and rivers; others consider environment as everything from the womb to community development conditions. Learning more about how multiple environments impact health was a fundamental theme of this meeting.
CHAPTER 3
What Does “Environment” Mean?

LIFELONG HEALTH DEPENDS on multiple healthy environments from the individual to the ecosystem. Within these spheres, we have the natural, built, food, chemical, socioeconomic, and psychosocial environments. The overall health of these individual environments, as well as how they interact in the modern world, either promote health and resilience, or disease and disability. Insights from experts on these environments include:

THE BUILT ENVIRONMENT includes our homes and workplaces, schools and libraries, hospitals and long-term care facilities, streets and transportation systems, even our parks and playgrounds. The nature of our built environment, whether we are at home, work, school or play, can have a profound influence on our health, including our ability to exercise, buy nutritious food, socialize, and sleep. If it is safe, clean, accessible to all, and free of toxic chemicals and other kinds of pollution it can help foster exercise and stress reduction, provide fresh food, and offer opportunities for positive social activities.

WATCH: Richard Jackson, MD MPH, UCLA, School of Public Health – discuss improving health across the lifespan by improving the design of urban areas.
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Dr. Erika Svendsen from the U.S. Forest Service: “Even ordinary landscapes nourish us... a windowbox on a city street can speak to us.”

It is critical that our natural environment be incorporated as an integral part of the built environment, and preserved in urban and suburban parks and greenscapes, essential habitats, and wilderness areas. “Even ordinary landscapes nourish us,” said Dr. Erika Svendsen from the U.S. Forest Service, who added that even a windowbox on a city street can speak to us.

People benefit so much both physically and mentally from contact with nature that it should be considered a public health strategy. Nature can help heal people’s minds and bodies, by both simply experiencing it, or interacting with it such as in gardening. Sarita Daftary from East New York Farms, spoke about the youth mentoring program that brings city kids into alignment with nature and its benefits through a farming and farmer’s market program that brings fresh food to East New York.

Protecting our air, water, land and the biodiversity of all living things are critical to the health of humans and the planet. Climate change is arguably the most pressing natural environmental crisis of our time, as emphasized by Dr. Kim Knowlton of the Natural Resources Defense Council. She likened what we are doing to the planet through an explosion of fossil fuel emissions to a scientific experiment, but “there’s no control group” that isn’t exposed.

Many of the same drivers of climate change also drive chronic disease.
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Changes in the food supply over the past century, especially the growth of factory farming, processed, and “fast” food, have radically altered the typical American diet. It is now characterized by high intakes of refined carbohydrates and excessive saturated fats, while lacking in whole grains, sufficient fruits and vegetables, and omega 3 fatty acids. These dietary characteristics are linked to many major health problems.

“There are disconnections in our food environment,” said Dr. David Wallinga of the Institute for Agriculture and Trade Policy. “There is a lack of awareness of farmers and their issues. We need to change that.” Supporting a healthier food system provides a wide variety of health benefits.

David Wallinga MD MPA, Institute of Agriculture and Trade Policy – “Do you know a farmer? We are increasingly distanced from our food source, and we need more public funding of food system research”
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Virtually all people and wildlife, even from the first moment of conception, are exposed to a complex mixture of industrial chemicals and other environmental pollutants. These may contaminate air, drinking water, or food, and many are in consumer products.

The vast majority of the more than 80,000 chemicals in commercial use in the U.S., including several thousand high volume chemicals, have not undergone adequate safety testing. Many can contribute to the risk of common diseases through a variety of mechanisms.

Minimizing exposure to toxic chemicals through green chemistry, pollution prevention, safer substitution, toxic waste remediation, and cleaner forms of energy will help reduce the risks and health care costs of many chronic diseases and disabilities.

Frederica P. Perera, DrPH, Columbia Center for Children’s Environmental Health – discussed how after the 2001 ban by the EPA of the indoor use of chlorpyrifos – an insecticide linked to children’s IQ deficits and motor delays as well as lower birth weight, measures of chlorpyrifos in kids decreased significantly testifying to the immediate benefit of regulatory intervention.
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CLICK A SELECTION FOR DESCRIPTION

Built Environment

Natural Environment

Food Environment

Chemical Environment

Socioeconomic Environment

Psychosocial Environment

One of the strongest determinants of health status is an individual’s or community's socioeconomic status. Lower socioeconomic circumstances are associated with increased risk of most diseases and premature mortality. Reducing poverty and improving economic opportunities are the best ways to promote health for all people.

Peggy Shepard of WEACT for Environmental Justice talked about health and environmental justice in urban communities - that the right to clean air, water and soil extends to all people and communities.
Frequent social interaction and intergenerational learning can help maintain and even improve physical and mental health, while social isolation can have a negative impact. People who live in neighborhoods that lack social cohesion, sidewalks, or safety limit their exercise and have an increased risk of depression and obesity. Urban sprawl, television, and access to other electronic devices also contribute to increasing social isolation. In turn, social isolation can result in child abuse and neglect which has been shown to significantly increase the risk of various diseases and disorders later in life. As described by Dr. Peter Whitehouse earlier, a new focus on developing local economies and more sustainable communities and productive intergenerational institutions and activities bodes well for fostering healthier psychosocial environments.
The arts are often ignored as a gateway to health. To illustrate how art can help inspire and engage, a “Breath of Fresh Art” was integrated throughout the New York Academy of Medicine event. Artistic expressions included dance, music, drawing and poetry that were interwoven around sessions to remind participants that creativity and imagination – not just data – are needed to develop ‘real-world’ solutions to address complex issues.

Presentations were punctuated with musical interludes, invitations to attendees to stretch and even dance around the room! (All of this brought to us by Maria Genné, MD, Kairos Dance, Anthony Hyatt, Moving Beauty, Cris Anderson, Big Woods Theater.) Drawings and caricatures of panelists and ideas were posted via social media for community participation. (At right, Kath Schomaker of Gray is Green wrapped up a panel discussion with an inspirational poem).

And now...

A “Breath of Fresh Art”

All will come again into its strength:
the fields undivided,
the waters undammed,
the trees towering and
the walls build low.
And in the valleys, people as strong
and varied as the land itself.
And churches where no God
is imprisoned and lamented
like a trapped and wounded animal.
The houses welcoming all who knock
and a sense of boundless offering
in all relations, and in you and me.
No yearning for an afterlife,
no looking beyond,
no belittling of death,
but only longing for what belongs to us
and serving Earth,
lest we remain unused.

Rainer Maria Rilke, Rilke’s Book of Hours: Love Poems to God, Translated by Anita Barrows and Joanna Macy (Riverhead Press, 2005)
MoDeLS OF TRANSDiSCIPLINARY APPROACHeS AND COLLABORATIONS are not just distant dreams; they are realities being implemented around the country and world. A wide range of examples were offered by event participants, including those described on this page. How can we ramp up these efforts to put health at the center of all programs and policies? One participant suggested nothing less than another “space race,” which worked to put a man on the moon within ten years.

CHAPTer 4
Working Together
THE INTERGENERATIONAL SCHOOL, CLEVELAND – co-founded by neuroscientist Peter Whitehouse and his wife, the school is a model of how to successfully integrate multiple levels and types of healthy environments to form a “sense of community, sense of purpose, sense of legacy.” Intergenerational relationships are nourished, organic food is planted and harvested, toxic chemicals are banished, learning is exciting and play is encouraged. The result? An award winning school for kids, a restorative environment for elders, and a model of multiple environments interacting to foster health and resilience.

WEACT FOR ENVIRONMENTAL JUSTICE – “I started WEACT 24 years ago to create a powershift and address serious changes of environmental justice,” said Executive Director Peggy Shepard. She has been a leader for decades since then to help address the greater vulnerabilities of not only her own community but the communities of everyone who is disenfranchised and disempowered. WEACT’s “Theory of Change” has helped re-create Northern Manhattan as a healthy community.

WEACT FOR ENVIRONMENTAL JUSTICE
- WE ACT invests: funds, people, and materials
- WE ACT Program activities and products
- WE ACT produces essential knowledge
- Key constituents acquire essential knowledge
- Key constituents acquire relevant skills
- Key constituents develop organizational capacities
- Key constituents make strategic alliances
- Key constituents undertake effective, organized actions
- Short-term outcomes: WE ACT contributes to healthy community through key short-term, intermediate and long-term outcomes. See more here
- Outputs: WE ACT

BHUtan AND “GROSS NATIONAL HAPPINESS” – Donna Butts, Executive Director of Generations United, described the country of Bhutan’s decision to take a holistic or systems approach to national development, known as Gross National Happiness (GNH).

The four “pillars” of GNH are sustainable development, cultural preservation and promotion, environmental conservation, and good governance. Happiness indicators include physical, mental and spiritual health; social and community vitality; cultural vitality; education; living standards; good governance; and ecological vitality. Results are a dramatic increase in lifespan and one of the fastest growing economies in the world – along with being the “happiest.”

ExPERIential transformation – was the model for change recounted by both David Shuffler of Youth Ministries for Peace and Justice, and Sarita Daftary of East New York Farms, as they described their journeys to help restore their New York communities through youth involvement in community service, community gardens, and community farms and farmer’s markets. David suggested that everyone need to take the trip upriver and see how things change in areas of greater wealth, envision what could be with the right resources. “We need a multifaceted approach” said David.

‘Everyone needs to take the trip upriver and see how things change in areas of greater wealth, and envision what could be with the right resources.’
- David Shuffler of Youth Ministries for Peace and Justice
FORWARD-LOOKING GOALS that emerged from conversation amongst nearly 150 participants working in health care, urban planning, scientific research, environmental health, business, the arts, food and nutrition, aging, intergenerational, environmental justice, and the natural world reflected the need for new ways of approaching our health challenges.

The goals put forth relate back to in-depth discussions among participants on definitions of health and environment, the need for justice and reduction of health disparities, an imperative to foster intergenerational approaches, and the importance of life-course approaches to solve seemingly intransigent problems. The goals also emphasize a need for societies, foundations, businesses and communities to invest in many more collaborative efforts, and include all the environments in our approaches to health.

FOUR KEY GOALS that emerged include:

**Promote integration**

Foster innovation

Build a ‘culture of prevention’ through economic and legal incentives

Develop positive messaging and a network of communicators

PROMOTE INTEGRATION

- Develop cross-disciplinary and transdisciplinary approaches. ‘Cross-disciplinary’ tends to imply communicating from known positions across silos, while ‘transdisciplinary’ can mean coming up with something new altogether
- Identify values across disciplines and generations (what we care about; what guides us; what underlies choices and practices)
- Identify issues or practices that we want to prioritize collectively
- Create hybrid institutions that marry fresh thinking with best practices in multiple sectors

THROUGH OTHER GOALS

IMAGINE A WORLD UNPAVED—Communities designed to nurture our health and well-being! Conference attendees contributed some creative ideas online.

THOUGH I'M 80, NO WAY I'D CONSIDER RETIRING AFTER THIS INSPIRING MEETING!

My colleagues in Trinidad & Tobago are excited and eager for me to return home to plan our 2014 conference. There’s work to be done!”

– Dorrell Philip, attendee

**WATCH: Rick Moody talks about promoting integration.**

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FOSTER INNOVATION

- Solve problems with new ways of thinking and evaluate for efficacy, e.g., installing urban zip lines to deliver goods and reduce truck emissions pollution
- Develop “hybrid institutions” that do not meld old ideas but that marry new ideas with best practices from existing programs/approaches
- Develop another “space race”, which was launched in the 1950s and 1960s to put a person on the moon, for promoting primary prevention and life-long health
- Bridge gender, race and income gaps through building personal relationships, an idea offered by two of the youngest event participants from Cleveland and the Bronx who invited each to “come to my neighborhood.”

WATCH: Natalie Jeremijenko PhD, Director of NYU Environmental Health Clinic talks about fostering innovation.
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FOUR KEY GOALS that emerged include:

- **Build a ‘culture of prevention’ through economic and legal incentives**
  - Create new indicators of progress that don’t rely on “growth” but rather on a system of values that puts health at the center of all institutions, redefine “wealth” beyond money, and revalue our natural world as an integral part of our healthy economic ecosystem
  - Challenge the current corporate structures that make it a legal obligation for CEOs to maximize profit without concern for how their activities impact health
  - Increase incentives for prevention-oriented research and approaches, rather than rewarding focused attention on cures and responding to problems after the fact
  - Invest in projects and programs for the long term to help create systemic change

**Promote integration**

**Foster innovation**

**Build a ‘culture of prevention’ through economic and legal incentives**

**Develop positive messaging and a network of communicators**

BUILD A ‘CULTURE OF PREVENTION’ THROUGH ECONOMIC AND LEGAL INCENTIVES

- Imagine a world unpaved—Communities designed to nurture our health and well-being! Conference attendees contributed some creative ideas online.
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DEVELOP POSITIVE MESSAGING AND A NETWORK OF COMMUNICATORS

- Collect and disseminate stories, including stories of success, about integrative approaches to improving environmental health across the lifespan
- Provide examples that reach and engage people “where they’re at”
- Use social media to broaden the public’s understanding of these issues (Watch Dr. David Wallinga’s video at right)
- Educate key decision and policy makers in different sectors about the science so they can become stronger communicators within their organizations and communities and when talking with policymakers and others in positions of influence
- Use innovative terms to convey messages about integrative approaches, such as ‘interwell’, ‘interhealth’ or ‘intergenerativity’
The Story Continues...

Have you had success in collaborative work to improve health and environment across generations? Share your stories, and celebrate our collective victories! We’ll post innovative news on our webpage, and occasionally update this organic publication. Join our List Serve for updates and event news, and send your contributions to erika@healthandenvironment.org.

Follow us on Facebook

Participants attended post-conference activities in Central Park.

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Collaborative on Health and the Environment

www.healthandenvironment.org

The Collaborative on Health and the Environment (CHE), is an international partnership committed to strengthening the scientific and public dialogue on environmental factors linked to chronic disease and disability. Find out more.