

Targeting Health Care Providers Where They Are: How Do We Mobilize a Constituency?

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Strategic Role of Health Care Providers in Children's Environmental Health

- Health care providers as educators, investigators and advocates
- Trusted role of health care providers
- Influential role of health care providers
- Need for mobilized constituency in policy arena

How Do Health Providers Become Stronger Advocates?

- Learn the Science and Policy
- Educate Their Peers
- Learn From and Be a Resource for Communities –
“bi-directional communication” (Claudio)
- Inform Patients and Community Members
- Mobilize the Broader Health Care Community

How Do Health Care Providers Become Stronger Advocates?

- Work with Local Advocacy Groups – Local environmental organization, PSR chapter, PIRG, and others
- Speak to Elected Officials and Policy Makers
- Write to Newspapers and Magazines
- Organize Media Events
- Serve on Government Advisory Committees

**How Do We Move from
Roladexes to A Mobilized
Constituency?**

**Effectively Understand our
Target and Develop
Appropriate Interventions**

Key Messages for Health Care Providers

- Lead with health angle – what is the hook?
- Use scientific evidence as much as possible
- Convince providers that their patients and communities look to them for information
- Provide them with salient, understandable and credible messages
- Show them case examples
- Keep requests focused and achievable in little time

What Types of Providers Are Most Receptive?

- Primary Care Physicians and Nurses
- Providers who work with children—
pediatricians, pediatric nurses, family
practitioners
- School nurses
- Nurse midwives
- Ob/Gyn?
- Community-based providers

However, We Have Challenges.....

- Practitioner does not think it is his/her responsibility
- Practitioner is exposed to issue in his/her training
- Practitioner does not understand or accept science on children's environmental health
- Practitioner does not hear the information from an appropriate messenger
- Practitioner does not have the time

Let's Reframe Our Approach – Using Stages of Change Model

- Theory by Prochasta
- Used for individual behavior change
- Application to changing mindset of providers
- Reframe how we approach education and involvement of providers

Stages of Change Model

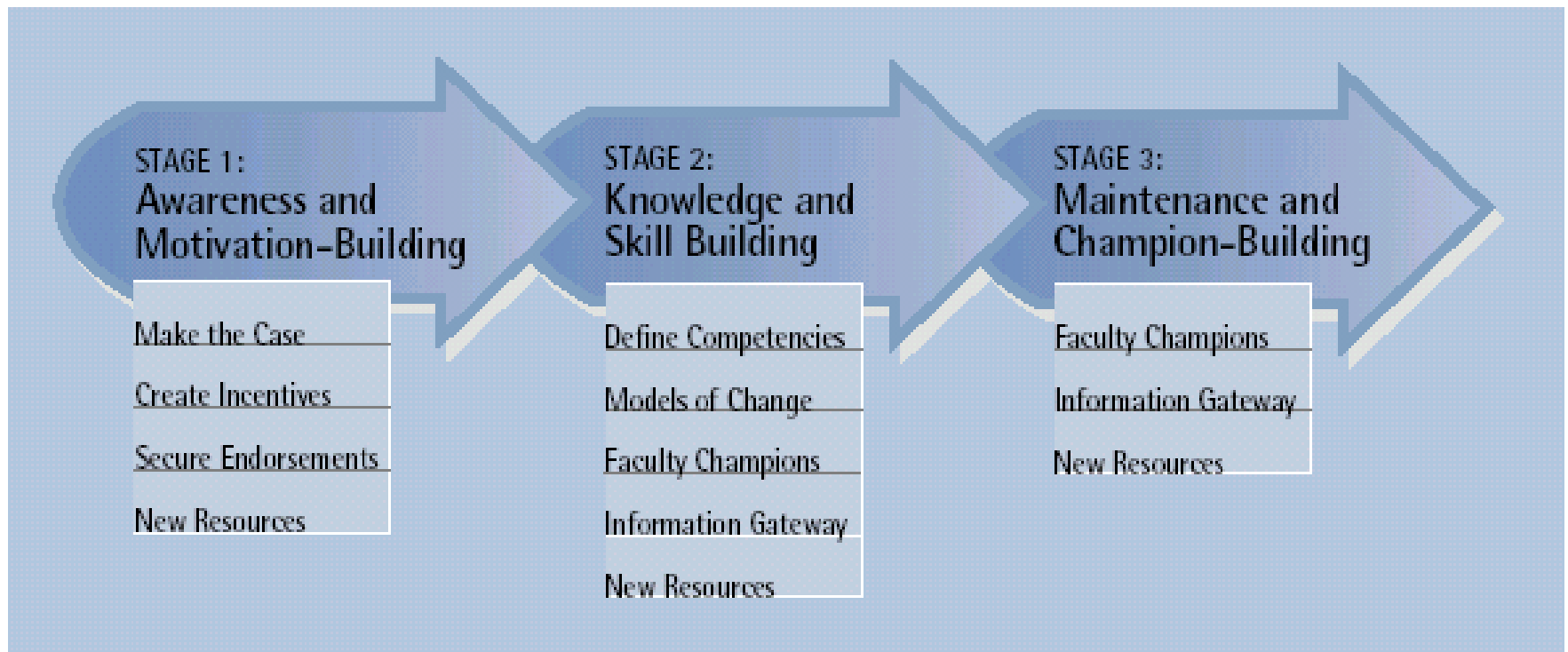
- Pre-contemplation
- Contemplation
- Decision/Determination
- Action
- Maintenance

Table 6: Stages of Change Model

Concept	Definition	Application
Pre-contemplation	Unaware of problem; has not thought through behavior	Increase awareness of need for change, personalize information and risks and benefits
Contemplation	Thinking about change in the near future	Motivate, encourage to make specific plans
Decision/Determination	Making a plan to change	Assist in developing concrete action plans, setting gradual goals
Action	Implementation of specific action plans	Assist with feedback, problem solving, social support, reinforcement
Maintenance	Continuation of desirable actions, or repeating periodic recommended step(s)	Assist in coping, reminders, finding alternatives, avoiding steps/relapses (as applies)

Source: Prochaska et al, 1995.

Figure 3: Stages of Change and Implementation Plan Components



Where Do Most Health Care Providers Sit?

- Hypothesis – 80% in pre-contemplation and contemplation
- We spend our time targeting Readiness to Change and Maintenance
- If goal is to build a deeper base of expert providers, focus on moving from readiness to maintenance
- If goal is to reach a larger number, focus on moving from pre-contemplation to readiness to change

Targeting Pre-contemplation

- Journal Articles
- Grand Rounds
- Build awareness of local community issue
- Make it relevant -- link science to health problems in their practice

Targeting Contemplation

- Peers as Role Models
- Involve in local community investigation or response
- Professional conferences
- Role for local medical society

Targeting

Decision/Determination

- Peers as Coach
- Easy, first steps
- Understand the opportunities for involvement
- “Chinese” menu of activities

Targeting Readiness to Change

- Health Care Specific Educational Materials
- Local medical society resolutions
- Env Health History Taking
- Partnership with public health departments
- Speaking and media training
- Slide shows and Grand Rounds presentation
- Patient Education Materials

PSR Resources Available for Health Care Providers

- Primers
- Patient Brochures
- Reports
- Slide Shows
- Drinking Water Advocacy Kit

Cancer and the Environment

WHAT HEALTH CARE PROVIDERS SHOULD KNOW

Consider for a moment the following disturbing facts about cancer in the U.S. (1):

- ▶ Cancer is the second leading cause of death, exceeded only by heart disease. Among children ages 1 to 14, cancer is the leading cause of death by disease.
- ▶ At current rates, invasive cancer will be diagnosed in half of all men and in one in three women in their lifetime.
- ▶ Almost 1.3 million new cases of invasive cancer will be diagnosed in 2002. Each day, more than 1,500 Americans will die of the disease.

These statistics are particularly troubling when one considers that the majority of cancer deaths are preventable. It is now believed that at least 60% of cancer deaths could be prevented through modification of personal behaviors, such as smoking cessation, dietary changes, and reducing sun exposure (1). Another significant cause of cancer is exposure to carcinogens in the environment—exposures that could be prevented by society, but over which the individual often has little or no control.

DO YOU HAVE THE ANSWERS?

Very often, news reports describe significant advances in the "War on Cancer." Increasingly, new cancer risk factors are identified, including exposure to chemicals in the environment. All this new information can leave the public confused and concerned and is likely to generate questions from your patients. "What are my chances of getting cancer?" "Are environmental pollutants making me sick?"

"How can I protect my child from exposure to harmful chemicals?" Your colleagues and communities may also be seeking answers to these same questions. Do you have the information you need to help answer such questions? Do you have practical solutions to help protect your patients and community from the hazards of environmental carcinogens?

This primer is intended to provide you, the health professional, with the latest information on what is known about links between environmental chemical exposures and cancer, what we still need to learn, and what actions you can take to reduce the public health threat posed by carcinogens in the environment.

This document addresses the following key topics about cancer and the environment:

- ▶ What we know about cancer and the environment 2
- ▶ What we still need to learn about cancer and the environment 13
- ▶ Patient questions & answers 14
- ▶ What is being done to reduce exposures to carcinogens, and what can health care providers do? 16

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your health**



PHYSICIANS FOR SOCIAL RESPONSIBILITY



MATERNAL AND CHILD HEALTH

What Health Care Providers Should Know

DRINKING WATER FACT SHEET #12

Why Are Pregnant Women and Children More Susceptible to Contaminants in Drinking Water?

Industrial chemicals, pesticides, fertilizers, lead from water supply pipes, water disinfection by-products, and pathogens from human and animal waste can all end up in drinking water, with adverse health outcomes ranging from acute diarrheal disease to long-term effects including neurological, developmental, and reproductive effects and even cancer. The interaction of unique physiologic, pharmacokinetic, and exposure factors for pregnant women, fetuses, infants, and children make these populations especially susceptible to certain waterborne contaminants.

Pregnant Women and Fetuses

Pregnant women can transmit some waterborne microbes, such as enteroviruses, to their unborn children. Transplacental spread may occur at different times during gestation, with manifestations present at birth or delayed for months or years. Transmission of infection from mother to infant may take place *in utero*, just before birth, or during delivery.

Other contaminants found in drinking water, including lead, readily cross the placenta. The specific chemical, dose, route of exposure, and genotype of the mother or fetus are all determinants of the effects on fetal health. Timing of exposure is thought to be especially important, with the fetus particularly vulnerable to chemicals that disrupt critical developmental processes at certain times. For instance, exposure to some chemicals during organogenesis can lead to dramatic structural abnormalities depending on the target organ (e.g., thalidomide's effect on developing limbs in the first trimester). During the second and third trimesters, exposure to substances such as lead primarily affects the differentiation of the central nervous system and overall fetal growth (1,2).

Infants and Children

Compared with adults, neonates and infants have a greater surface area-to-body mass ratio, a higher proportion of body water to body fat, different metabolic functioning and capacity, and different dietary consumption patterns (2,3). In the first six months after birth, children drink more water per pound of body weight than the average adult. Thus, children can ingest more waterborne contaminants, in proportion to their body weight, than adults (2,4). Infants fed formula reconstituted with tap water may be at risk of exposure to a number of drinking water contaminants, including lead, nitrate, and pesticides.

Children's immature enzymatic, metabolic, and immune systems may also provide less natural protection than those of an adult, and their ability to rid their bodies of toxic substances changes as they grow (2,3). Many of their organ systems, including the immune, reproductive, digestive, and central nervous systems, continue to develop after birth. Damage to an organ or organ system prior to full maturation could permanently hinder normal functioning (2,3,5). Furthermore, exposure to toxics that prevent normal physical development may permanently alter behavioral development (2).

Which Drinking Water Contaminants are of Most Concern for Maternal and Child Health?

Pesticides

Pesticides are a major health concern in the U.S., both because of their toxicity and because of their widespread use. In 1997 an estimated 4.63 billion pounds of pesticides were used in the U.S. (6). A variety of herbicides and pesticides are routinely found in drinking water sources at low concentrations. The herbicide atrazine has been detected in up to 97% of surface water supplied drinking water systems

During the second and third trimesters, exposure to substances such as lead primarily affects the differentiation of the central nervous system and overall fetal growth



A CLEAR THE AIR / PHYSICIANS FOR SOCIAL RESPONSIBILITY REPORT

Children at risk



How Air Pollution from Power Plants Threatens the Health of America's Children

Prepared by



77 Summer Street
Boston, MA 02110

April 2002



Targeting Maintenance and Building Champions

- Local advocacy and organizing opportunities
- Peer training – Train the Trainers
- Advocacy opportunities at state and national levels
- Op-Eds, Letters to the Editor
- Working with the media
- Expert testimony for governments
- International exchange and training

Local Advocacy -- Examples

- Resolutions in local medical/nursing/health professional societies
- Local ordinances and planning
- Partnering with local groups
- Advocacy for your patients

PSR's Web-Based Education & Action Center

Vision – Mobilize a broader constituency of health care providers on environmental health issues

Opportunity – A new Web-based center, hosted by PSR, where health care providers can learn and take action on environmental health issues

envirohealthaction

a place where the health community can learn and take action

[Educational Resources and Publications](#) [Action Center](#) [Tell a Colleague](#) [Communicate with Your Peers](#)

	Toxics and Health
	Children's Environmental Health
	Air Pollution and Health
	Climate Change, Energy and Health
	Chronic Disease and the Environment
	Safe Drinking Water
	Land Use and Public Health
	Vulnerable Populations

★ featured resources

» **Chronic Disease and the Environment:** Read the companion report to CDC's latest National Report on Human Exposure to Environmental Chemicals.

🔄 the latest

» **Chronic Disease and the Environment:** Learn about CDC's National Report on Human Exposure to Environmental Chemicals.

» **Air Pollution and Health:** EnviroHealthAction has a new section on New Source Review. Learn more about NSR, its

📄 featured action



Tell your Senators to protect public health and homeland security.

[Take Action...](#)

Join the EnviroHealthAction Network

EnviroHealthAction

	Toxics and Health
	Children's Environmental Health
	Air Pollution and Health
	Climate Change and Health
	Chronic Disease and the Environment
	Safe Drinking Water
	Land Use and Public Health
	Vulnerable Populations

- Tailored Participation
- Information on Specific Issue Areas
- Quick and targeted actions
- Timely access to reports and science
- On-line discussions with peers

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Children's Environmental Health

Children, infants, and adolescents, face a hostile environment as they grow and develop. Soils, air and water are polluted with chemicals and toxins, heavy metals, and gases that are harmful to growing and developing children. These substances can affect the development and function of multiple systems including the reproductive, endocrine, and respiratory systems, cognitive development, and immunity to disease. Unfortunately, the threats are only made worse by poverty, war, malnutrition and disease.

Children are more sensitive and more vulnerable to environmental health hazards than are adults. On a body-weight basis, infants and young children drink more water,

In This Section

- » Asthma
- » Birth Defects
- » Toxics and Heavy Metals
- » Healthy Schools

The Latest

- » Using Indicators to Measure Progress on Children's Environmental Health
- More Resources...

Learn More

- » Children's Environmental

Web Based Action Center

- Access to model letters to the editor, Op-eds, professional society resolutions, and education programs
- Links to critical children's environmental health information and tools
- Reports back on where efforts made a difference!

Relevance to Commission on Environmental Cooperation

- If goal is to build a deeper base of expert providers, focus on moving from readiness to maintenance
- If goal is to reach a larger number, focus on moving from pre-contemplation to readiness to change
- Determine the best “niche” for cross-cultural and cross-government involvement
- Strategic “framing” of the message to health care providers



Using Indicators to Measure Progress on Children's Environmental Health

A CALL TO ACTION



For More Information

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