



Pediatric Environmental Health Toolkit Training Program for Health Care Providers 2005-2007

**A Joint Project of Greater Boston and San Francisco Bay Area
Physicians for Social Responsibility**

**Funded by Environmental Protection Agency,
Office of Children's Health Protection**

**Mark Miller MD, MPH
Director, UCSF Pediatric Environmental Health Specialty Unit**

APHA Annual Conference November 2007



Pediatric Environmental Health Toolkit Developed to Fill Need for Clinical Tools

- Developed by Boston and San Francisco PSR chapters, AAP chapters in Northern CA and MA, and UCSF Pediatric Environmental Health Specialty Unit (PEHSU)
- To enable pediatric and family care providers to routinely include in well-child visits, easily accessible information on preventing toxic exposures.





Provider and Patient Materials

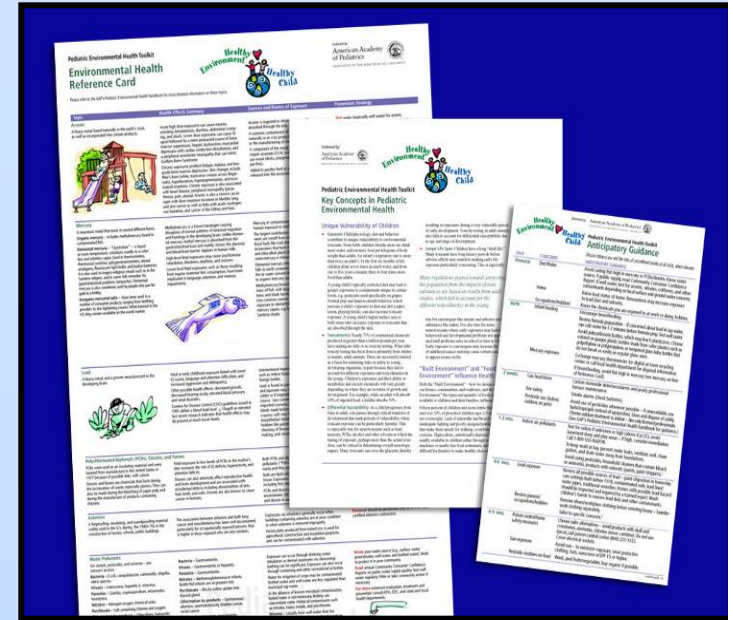
Designed to be visually appealing and easy to use by busy practitioners.

For Providers:

- Key Concepts
- Laminated Reference Card
- Laminated Anticipatory Guidance pocket card

For Patients:

- RX for Prevention slips
- Magnets
- Posters (developed later)



Healthy Environment Healthy Child *birth-1 year*

Rx for Prevention

- **Have a Healthy Home.** Keep your house well-ventilated, free of dust and tobacco smoke. Choose safer alternatives for cleaning and home renovation, such as water-based glues or paints, and citrus-based solvents. Avoid spraying pesticides in the home, garden, and on pets. Get rid of standing water that helps breed insects. Repair drips and holes. Clean up food crumbs and spills and put away all food that will attract unwanted insects or animals.
- **Don't Get Burned.** Enjoy the sun safely. Protect your child from excessive sun exposure with hats and cover-ups. Use sunscreen (SPF 15 or higher) once your child is 6 months old. Do NOT use sunscreens combined with the pesticide DEET or other insect repellent. Watch for the "UV Index" that provides guidance on sun exposure, on local weather forecasts in your area. Children can get sunburned even on cloudy winter days.

Endorsed by:
American Academy of Pediatrics
DEVELOPED BY THE HEALTHY ENVIRONMENTAL HEALTH TASK FORCE

Find out more: www.igc.org/psr

Healthy Environment Healthy Child



Tip: Don't Get Burned!
Protect your child from harmful rays with hats, sunscreen (SPF 15 or higher), clothing and cover-ups.

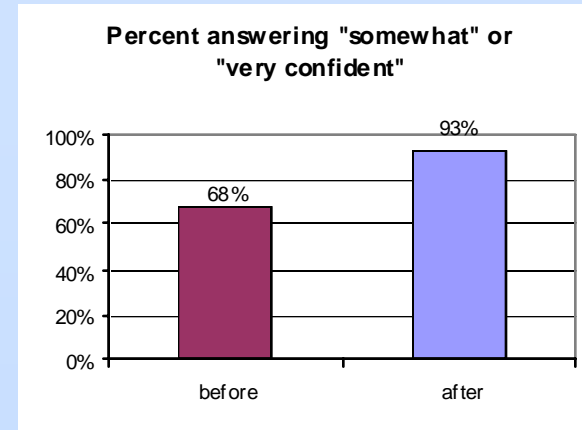
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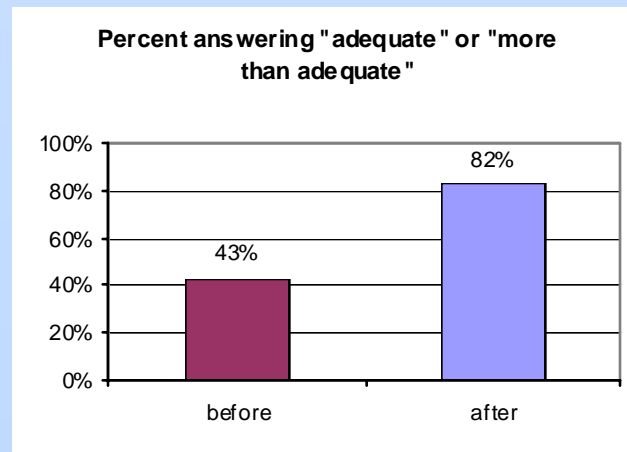
Toolkit Pilot Tested, Results Positive

- A demographic mix of 17 pediatric and family practices in MA and CA, 34 providers

- Also included Pediatric Residency program at UCSF (approx 80)



Change in provider self efficacy (p < .01)



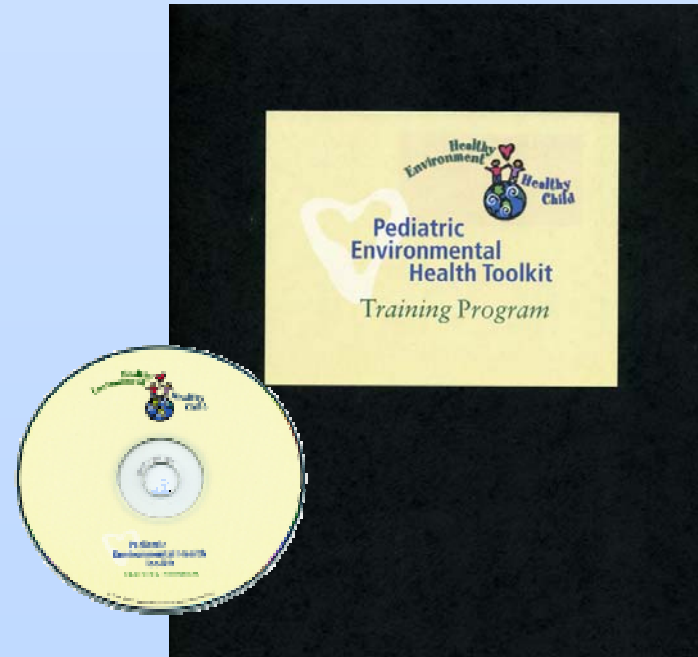
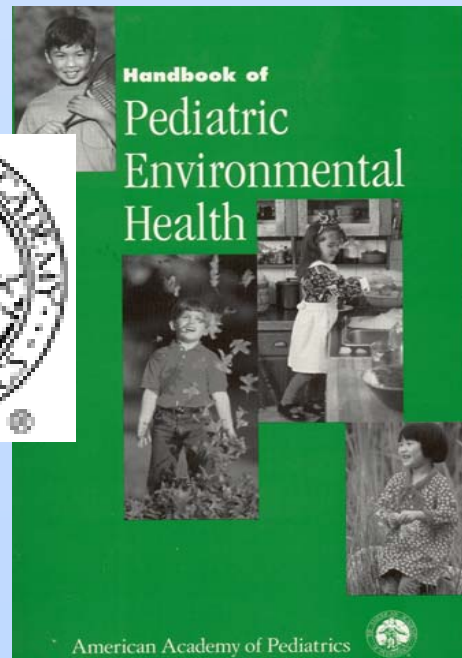
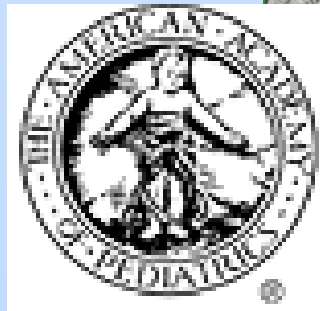
Change in provider self-rated knowledge (p < .01)



Toolkit Training Program Developed to Expand Knowledge and Use of Toolkit

Major goal achieved:
Toolkit Endorsed
by the AAP

Training Programs in 5
States funded by the EPA
OCHP



Toolkit Training Sessions: Local provider capacity building for attendees, faculty



Toolkit Training Includes Curriculum with Case Studies

Example: *Occupational/Take Home Exposures*

- ✓ A day laborer seen in ER for work related injury.
- ✓ He is working on demolishing a firing range. Lead level obtained - 74 mcg/dl after 3 days on job.
- ✓ Four other workers tested between 57 and 98
- ✓ What should be done?



Hipkins KL, Materna BL, Payne SF, Kirsch LC.,
Clin Pediatr 2004



Case 5 - continued

Occupational/Take Home Exposures

- ✓ 9 children of three workers tested between 13 and 34 mcg/dl. (highest 18 month old)
- ✓ Wife of one with symptoms and Pb level of 36 mcg/dl.
- ✓ Workers may bring home hazards on clothing, shoes, and body.
- ✓ In 2001-2002 year, 22% of California childhood lead poisoning cases had potential contribution from occupational sources.



Endorsed by:
American Academy
of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN



Pediatric Environmental Health Toolkit
Key Concepts in Pediatric
Environmental Health

KEY CONCEPTS

“Take-home” toxic exposures can be prevented by the following:

- Changing clothes at work;
- Showering before leaving work;
- Laundering work clothes separately;
- Removing shoes before entering the home, etc.

If hazardous substances are used by individuals working at home, care should be taken to keep the work and living areas separate – and hazardous materials must be stored and disposed of properly. Similarly, hobbies such as painting, model building, furniture refinishing, and auto repair often involve using toxic solvents. Pregnant and breastfeeding women, and children should avoid these exposures.



5 Toolkit Trainings: Over 200 attended



Breakout session at Lawrence
General Hospital MA



Toolkit materials for attendees

“As a nurse doing extensive discharge teaching, there will be lots of opportunity to discuss with parents some of the environmental concerns highlighted today.”

“It is heartening for me to be part of the solution,”



Secondary Trainings: A Commitment to Share

Over 1100 trained and counting. From Grand Rounds at medical centers to sharing with colleagues.

Trainings well received, enthusiasm to incorporate messages into:

- Patient education
- Resident and medical student training
- Ongoing public health program education

Sacramento County
Child Health & Disability Prevention Program
9333 Tech Center Dr., Suite 800
Sacramento, CA 95826
(916) 875-7151

Child Health and the Environment: Tools for Practice

Saturday June 2, 2007
8:30 am – 12:30 pm

Target Audience

Pediatricians, Family Practitioners, Nurse Practitioners, Physician's Assistants, and Public Health Nurses who serve CHDP children and families.

Objectives

The purpose of this seminar is to present practical tools that will enhance the ability of medical providers to incorporate environmental health guidance into their practice. Attendees will be able to:

- Apply environmental health related anticipatory guidance keyed to well-child visits
- Increase knowledge regarding routes of exposures for common toxic chemicals and substances
- Utilize the PSR* (Physicians for Social Responsibility) Pediatric Environmental Health Toolkit in their practice

Participating Sponsors

Sacramento County
Child Health & Disability Prevention (CHDP) Program

KAISER PERMANENTE. thrive

PSR
pac-lac
BlueCross of California

Healthy Environment
Healthy Kids

Sacramento conference organized by CA trainees with Kaiser Permanente, County Child Health and Disability Program, Blue Cross

Evaluation

The evaluation which is currently underway includes:

- **Written baseline survey to all participants**
- **Day of training on-site evaluation**
- **3 Month written follow-up survey**



Pediatric Toolkit: Next Steps

Current projects underway:

- **Online CE course: Collaboration with ATDSR/ CDC**
- **Nationwide marketing and distribution**
- **Incorporate Toolkit into educational components required for board certification**
- **Work with medical associations (AAP, ACOG, etc.) to include Toolkit in continuing medical education programs**



Provider Comment

“Having worked with the toolkit, instead of saying that you put all your cleaning products up high on the shelves, I now talk about how, as you do this it would be a good idea to look and see if you have alternatives that are less toxic... knowing that your baby is going to be crawling on the floor where you use these. That kind of becomes an entrée to talk about it and gives people something concrete that they can do.”



Planning and Development Physician Group

California

Lisa Asta MD FAAP - Chair, Department of Pediatrics, John Muir Medical Center

Guenter Hofstadler MD MPH FAAP - Pediatrician, Contra Costa Regional Medical Center

Brian Linde MD FAAP - Pediatric Hospital Based Specialist, Kaiser Permanente, Oakland, California

Mark Miller MD MPH FAAP - Pediatrician and Director, UCSF Pediatric Environmental Health Specialty Unit

Massachusetts

Siobhan McNally MD MPH FAAP- Berkshire Medical Center and the University of Massachusetts Medical School

Minnesota

David Wallinga MD MPA - Senior Scientist and Antibiotic Resistance Project Director, Institute for Agriculture and Trade Policy

