

# Appendix A:

## Expert Panel Proceedings

---

**T**o launch the *National Strategies for Health Care Providers: Pesticides Initiative*, EPA and several other federal agencies convened an expert forum. This forum initiated the development of national strategies to improve the education and awareness of health care providers in dealing with pesticide-related health concerns. The April 23-24, 1998 event in Arlington, VA, was sponsored by EPA in collaboration with the Department of Health and Human Services, Department of Agriculture, and Department of Labor. The Association of Teachers of Preventive Medicine and The National Environmental Education & Training Foundation worked with these federal agencies to organize the event (see US EPA, 1998).

The expert forum was conceived of as a deliberative session of representatives of 16 health organizations, open to the public, and with comments and questions from federal agencies and outside observers. The panel included representatives from: American Academy of Family Physicians, American Academy of Pediatrics, American Academy of Physician Assistants, American Association of Colleges of Nursing, American Association of Poison Control Centers, American College of Emergency Physicians, American College of Occupational and Environmental Medicine, American Nurses Association, Council of State and Territorial Epidemiologists, Migrant Clinicians Network, National Center for Farmworker Health, National Organization of Nurse Practitioner Faculties, National Pesticide Telecommunications Network, National Rural Health Association, Pennsylvania State University/National Agromedicine Consortium, and Suncoast Community Health Centers.

### Concerns About Provider Education and Training

The panel agreed that the principal focus of this Initiative should be on primary care providers. The panel found that primary care providers are not sufficiently trained at any stage of their education about pesticide exposure. The panel also recognized that the lack of training is larger than just pesticides and reflects a serious deficiency in education on environmental and occupational health. The panel briefly summarized the main concerns in provider knowledge about pesticide exposures:

- Pesticide exposures are often underreported.

- Providers often do not know how and where to report pesticide exposures; sometimes the reporting is considered burdensome given their demanding work environments.
- Health conditions associated with pesticide exposures are often misdiagnosed.
- Providers do not often see acute pesticide poisoning, and they do not possess enough knowledge to recognize chronic cases.
- Providers have not received training on pesticide exposures during their years of formal education.
- Pesticide exposures and associated health conditions are difficult topics to teach because they require additional knowledge on toxicology and other topics which are often not included in the curriculum of health professional education.

## Expected Outcomes for Primary Care Providers

The panel discussed at length what should be expected of primary care providers. Agreement was reached that all primary care providers should:

- Be knowledgeable about pesticides and recognize pesticide exposures as a health concern.
- Be able to diagnose and treat pesticide exposures at the earliest possible time and complete the appropriate follow-up and referral (exposure management).
- Take preventive measures in both the clinical and community settings, including anticipatory guidance and community education (prevention management).
- Report exposures and health outcomes of either patients or communities.
- Access the appropriate resources/specialists (local, regional, and national).

## Expert Panel's Overarching Strategies

The expert panel generated specific strategies that were consolidated into four general topic areas:

1. Define and recommend basic environmental health (emphasizing pesticides) competencies for primary care providers.
2. Develop a set of education and training strategies for students and primary care providers on the subject of pesticide-related health concerns.
3. Raise the awareness of primary care providers on pesticide issues and risk factors through professional meetings, information mailings by professional associations, and journal articles.
4. Centralize information resources for primary care providers and strengthen their linkage to existing resources.

## Expert Panel Membership

**Joni Berardino, MS, LSW**

National Center for Farmworker Health

**Candace M. Burns, PhD, ARNP**

National Organization of Nurse Practitioner Faculties, and University of South Florida College of Nursing

**Joe Fedoruk, MD, DABT, CIH**

American College of Occupational and Environmental Medicine

**J. Ward Donovan, Jr., MD, FACEP**

American College of Emergency Physicians, and Pennsylvania University Poison Center, Milton S. Hershey Medical Center

**Rugh Henderson, MD, MPH**

North American Agromedicine Consortium, Pennsylvania Agromedicine Program, and Penn State University College of Medicine

**Michael Hodgman, MD**

National Rural Health Association, and Bassett Healthcare/NY Center for Agricultural Medicine and Health

**Andrea R. Lindell, DNSc, RN**

American Association of Colleges of Nursing, and University of Cincinnati College of Nursing

**Mary Miller, MN, ARNP**

American Nurses Association, and Washington State Department of Labor and Industries

**Karen Mountain, MBA, MSN, RN**

Migrant Clinicians Network

**Dennis Penzell, DO, FACP**

Suncoast Community Health Centers, Inc.

**George C. Rodgers, Jr., MD, PhD**

American Association of Poison Control Centers, and University of Louisville School of Medicine

**Jackilen Shannon, PhD**

Council of State and Territorial Epidemiologists, and Texas Department of Health

**Elisabeth Spector, MD, MPH**

American Academy of Family Physicians

**Roger F. Suchyta, MD**

American Academy of Pediatrics

**Greg P. Thomas, PA-C**

American Academy of Physician Assistants

**Sheldon Wagner, MD**

National Pesticide Medical Monitoring Program, and Oregon State University

## Speakers and Facilitator

**Wilson Augustave**

Finger Lakes Migrant Health Care Project

**Louise M. Rauckhorst, EdD, MSN**

Philip Y. Hahn School of Nursing, University of San Diego

**Mark G. Robson, PhD, MPH**  
Environmental and Occupational Health  
Sciences Institute, and Rutgers University

**Susan T. West, MPH, Facilitator**  
The National Environmental Education  
& Training Foundation