State Administrative Rule Requirements (HFS 140.04)

All local health departments shall assume leadership for developing and maintaining the public health system for their area of jurisdiction and shall provide or arrange for the provision of at least the following services:

- Provide a generalized public health nursing program
- Prevent and control communicable disease
- Prevent other diseases
- Promote health
- Abate and remove human health hazards

Overview of the Module

Section I:
- Environmental Health in Wisconsin
Section II:
- Environmental Health Resources
Section III:
- Environmental Health Principles
Section IV:
- The Public Health Nurse’s Role

Learning Objective:

After completing the module, participants should be able to:

- Identify the public health environmental health programs in Wisconsin.
What is abatement or removal of human health hazards?

Environmental Health Terms and Definitions

- Abatement
- Absorption
- Acute
- Acute exposure
- Adverse health effect
- Ambient
- Carcinogen
- Chronic
- Chronic exposure
- Concentration
- Contaminant
- Detection limit
- Dose
- Environmental media
- Environmental media and transport mechanism
- EPA
- Exposure
- Exposure assessment
- Exposure pathway
- Groundwater
- Hazard
- Hazardous waste
- Human Health Hazard
- Ingestion
- Inhalation
- Minimal risk level (MRL)
- Plume
- Point of exposure
- Risk
- Route of exposure
- Sample
- Safe
- Site inspection
- Source of contamination
- Surface water
- Toxic agent
- Toxicological profile
- Volatile organic compound (VOC)

Wisconsin Statutes: Environmental Health

- Wisconsin Statute Chapter 254 directs environmental health programs

Public Health Interventions

Wisconsin Statutes: Environmental Health
Learning Objective:

After completing the section, participants should be able to:
- Identify environmental health resources available at the local, state, and national levels.

Environmental Health Resources

- Wisconsin Department of Natural Resources http://dnr.wi.gov/
- Environmental Protection Agency http://www.epa.gov/newsroom/
- Center for Disease Control and Prevention http://www.cdc.gov/Environmental/
- Agency for Toxic Substance and Disease Registry http://www.atsdr.cdc.gov/2p-data-resources.html
- National Center for Environmental Health http://www.cdc.gov/nceh/
- National Center for Occupational Safety and Health http://www.cdc.gov/niosh/

Website: http://dhfs.wisconsin.gov/eh/
Learning Objective:

After completing the section, participants should be able to:
• Describe the basic principles of environmental health
Principles of Environmental Health

• Promote health and quality of life
• Protect the public from health hazards
• Protect the environment from contamination

Environmental Health Principles for Public Health Nursing

• Safe and sustainable environments are essential conditions for the public’s health.
• Environmental health is integral to the role and responsibilities of all public health nurses.
• All public health nurses should possess environmental health knowledge and skills.
• Environmental health decisions should be grounded in sound science.
• The Precautionary Principle is a fundamental tenet for all environmental health endeavors.
• Environmental justice is a right of all populations.

Environmental Health Principles for Public Health Nursing Continued

• Public awareness and community involvement are essential in environmental health decision-making.
• Communities have a right to relevant and timely information for decisions on environmental health.
• Environmental health approaches should respect diverse values, beliefs, cultures, and circumstances.
• Collaboration is essential to effectively protect the health of all people from environmental harm.
• Environmental health advocacy must be rooted in scientific integrity, honesty, respect for all persons, and social justice.
• Environmental health research addressing the effectiveness and public health impact of nursing interventions should be conducted and disseminated.

Epidemiology Overview

The Chain of Infection

Environmental Health Skills

• Assessment
• Management
• Communication
Environmental Health Skills

• Assessment
  – information gathering
  – data analysis
  – evaluation

• Management
  – problem solving
  – project management
  – reporting

• Communication
  – education
  – risk communication
  – conflict resolution
  – marketing

Learning Objective:

After completing the section, participants should be able to:

• Recognize the public health nurse’s role and skills needed when performing environmental health related activities
Public Health Nursing Interventions

Policy Development & Enforcement
Consultation
Disease & Health Event Investigation

Lead Exposure

Lead Exposure: Resources

Wisconsin Childhood Lead Poisoning Prevention & Control Handbook
• Blood Lead Testing of Children
• Nutrition
• Pregnancy & Breastfeeding
• Public Health Intervention for Lead Poisoning
• Sources of Lead Exposure
• Treatment of Lead Poisoning

Website: http://dhfs.wisconsin.gov/lead

Lead Exposure: Resources

Wisconsin Lead Information:
• Product Alerts
• Wisconsin Lead Poisoning Information
• Knowing the Health Risks of Lead Exposure
• Training & Certification
• Protecting Children from Lead Exposure
• Creating Lead-Safe Housing
• Tools and Resources
• Center for Disease Control and Prevention Lead Poisoning Prevention Program
• Managing Elevated Blood Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention (2002)

Public Health Nurse Interventions: Disease and Health Event Investigation

“Disease and health event investigation systematically gathers and analyzes data regarding threats to the health of populations, ascertains the sources of the threat, identified cases and others at risk, and determines control measures.”
Public Health Nurse Interventions: Case Finding

Air Quality

Air Quality: Outdoor Wood Burners

http://dhfs.wisconsin.gov/eh/HlthHaz/fs/waterstoves.htm

Air Quality: Mold
- Mold Information for Consumers
  - Basic Information
  - Mold in Your Home
  - Landlord/Tenant Concerns
  - Contractor Hiring Tips
- Professional/Technical Information on Mold
  - Frequently Asked Questions
  - Contractors/Consultants
  - Health Professionals
  - Mycotoxins Resources

Website: http://dhfs.wisconsin.gov/eh/mold/index.htm

Air Quality: Radon

Website: http://dhfs.wisconsin.gov/dph_beh/RadonProt/index.htm
Hazardous Substances Emergency Events Surveillance (HSEES)

What HSEES system information has shown:

- Approximately 9,000 hazardous substances releases occur annually in the 15 states reporting (Wisconsin is one of the 15 states).
- Releases at facilities account for 70%–75%, and transportation-associated releases account for 25%–30% of reported events.
- Most releases occur on weekdays between 6 AM and 6 PM.
- Releases tend to increase in spring and summer.
- Releases of hazardous substances most often injure employees, followed by the general public and—less frequently—first responders and school children.
- Respiratory irritation and eye irritation are the most commonly reported symptom or injury.

Poison Control Center 1-800-222-1222.

Foodborne and Waterborne Outbreaks

Foodborne Outbreak:
2 or more persons experience a similar illness after ingestion of a common food
Foodborne and Waterborne Outbreaks

Foodborne and Waterborne Disease Outbreak Investigation Manual

Website: http://dnr.wi.gov/org/water/dwg/

Water

Website: http://dhfs.wisconsin.gov/eh/mercury/index.htm

Mercury

A Family Guide to Eating Fish from Wisconsin

Recreational Water Safety

Public Health Nursing Interventions
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