



**ENVIRONMENTAL HEALTH:  
OUR CHILDREN,  
OURSELVES,  
OUR COMMUNITY**



Connecticut  
Children's

**“No amount of medical knowledge will lessen the accountability for nurses to do what nurses do; that is, manage the environment to promote positive life processes”**

**~Florence Nightingale~**

# Florence Nightingale Museum London, March 2007



# Precautionary Principle

- When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

Monthly Guest Comic Strip

Bizarro By Dan Piraro



# Objectives

## Water

Audience will be able to identify  
three sources of water pollution

# What is the problem?

**Point source pollutants**

**Non-point source pollutants**





# What are the alternatives?



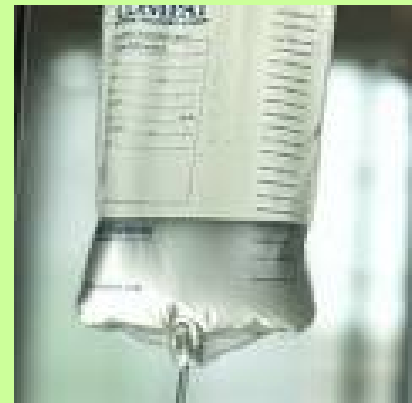
# Objectives

## Plastics

Audience will be able to identify at least three specific health risks associated with plastics.

# What is the problem?

Bisphenol A  
Phthalates



# What do they cause?

## **Phthalates:**

Lower levels of sperm production

Undescended testicles

Malformed urinary tracts

Lower testosterone levels

## **Bisphenol A:**

Hormone disruptor

# What are the alternatives?



# Objective

## **Cosmetics/Health and Beauty Products**

Audience will be able to identify at least three potentially harmful ingredients found in personal care products commonly used in children.

# What is the problem?

formaldehyde

“fragrance”



lead acetate



coal tar



# What do they cause?

Developmental toxicity

Eye irritation

Reproductive toxicity

Skin irritation

Lung irritation



# What are the alternatives?

[www.safecosmetics.org](http://www.safecosmetics.org)

**Click on skin deep report**

# Objective

## **Brominated Flame Retardants**

Audience will identify three sources of flame retardants

# What is the problem?

What are they?

Where are they found?

How do they get into our bodies?



# What do they cause?

They disrupt thyroid function

They suppress the immune system

They decrease sperm count

# What are the alternatives?



# **BODY BURDEN**

Toxic Chemicals, both naturally occurring and man-made that get into the human body. Body Burden is the total amount of these chemicals that are present in the human body at a given point in time.



# POP's- Persistent Organic Chemicals

- **PCB'**-(polychlorinated biphenyls)-small for gestational age infants
- **PBBs** (polybrominated biphenyls)-High levels cause cognitive and behavior disorders
- **DDT**-interferes with normal hormones
- **Dioxin**-birth defects, causes cancer, weight loss, liver and kidney problems.
- **Heavy metals**- including Lead, Mercury, Cadmium. Have been found to lower IQ scores.
- **Nicotine and Cotinine** -due to exposure to tobacco smoke in their environment. Cause-decreased milk production and decreased weight gain of the infant



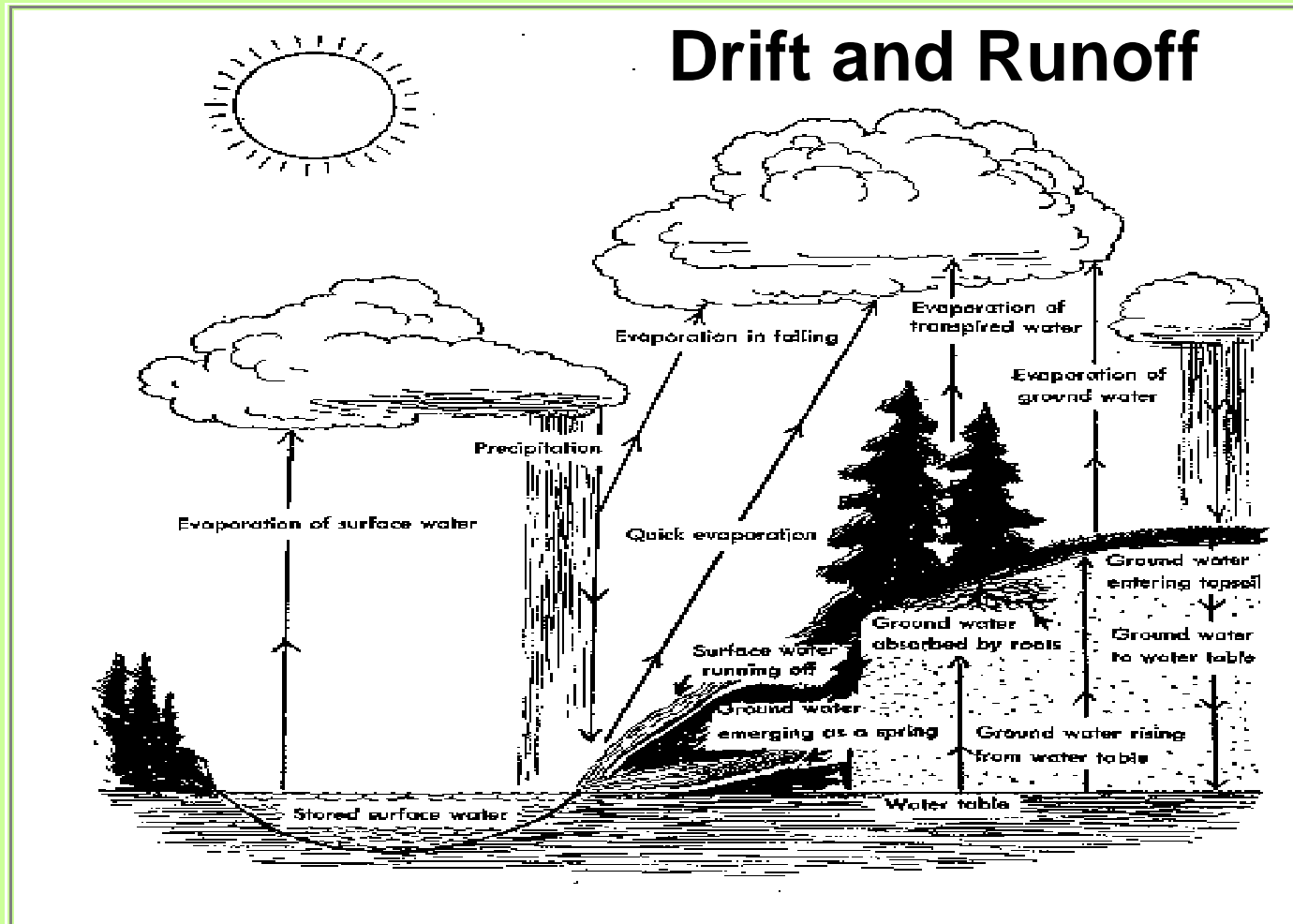
# Pesticides

A pesticide is any substance or mixture of substances intended for:

- ❖ preventing
- ❖ destroying
- ❖ repelling
- ❖ or mitigating any pest



# The Problem



**Figure 2. The hydrologic cycle. Water always flows to the lowest point.**

# Health Problems Caused by Pesticides

- Carcinogen
- Immune disease
- Neurological
- Reproductive
- Endocrine

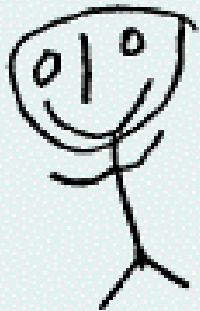


# Neurological Effects of Pesticides

## Yaqui Indian Pesticide Study

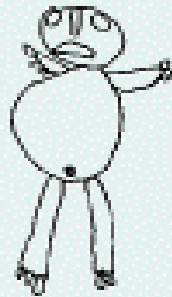
### Drawings of a Person

by Yaqui children (by age and gender)



Foothills  
(pesticide-free)

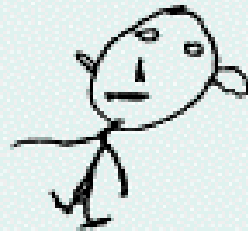
54 mos. girl



60 mos. girl



55 mos. girl



71 mos. boy



Valley  
(pesticide-exposed)

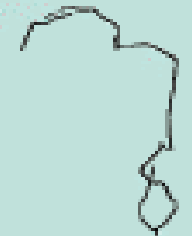
54 mos. girl



71 mos. girl



53 mos. girl



71 mos. girl

# **Some Alternatives to Pesticide Use on Lawns:**

- **Use compost instead of fertilizer, corn gluten for weeds.**
- **Use non-toxic traps**
- **Use organic pesticides such as desiccant powders or boric acid**
- **Mow high with a sharp blade to prevent weeds and fungus which pests like.**



# **Protect your Child From Lead Poisoning**

**It is much more serious when children are exposed to lead. Their brain has not yet completely developed.**



# Symptoms of Lead poisoning

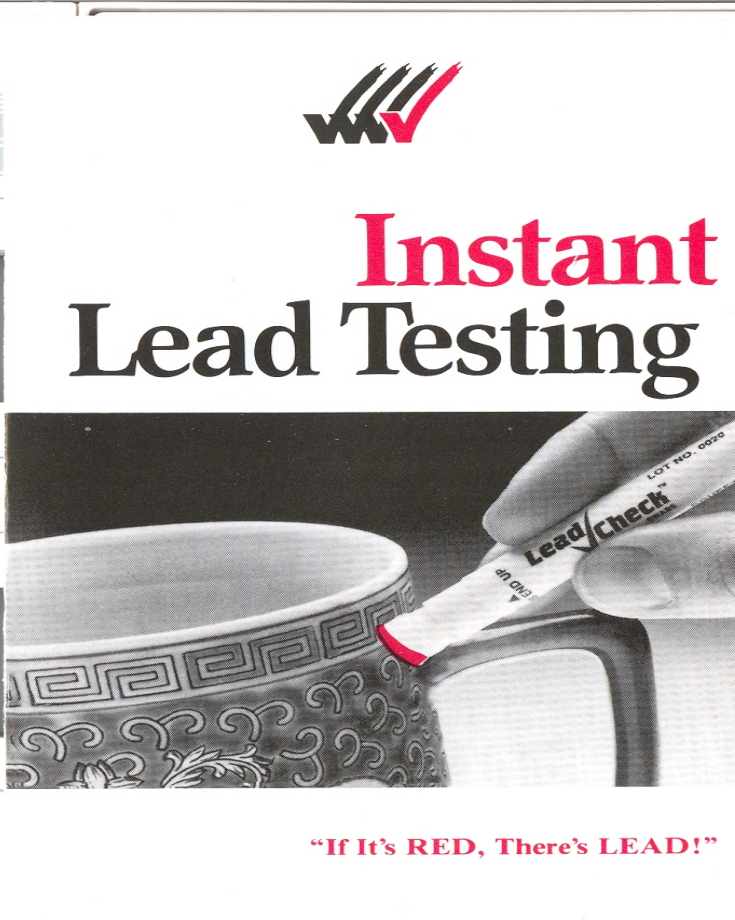
- Headaches
- Irritability
- Vomiting
- Anemia
- Weight Loss
- Poor Attention Span
- Noticeable Learning Difficulty
- Slowed Speech Development
- Hyperactivity

# Effects of Lead Poisoning

- Reading and Learning Disabilities
- Speech and Language Handicaps
- Lowered IQ
- Neurological Deficits
- Mental Retardation
- Behavioral Problems
- Heart Disease
- Stroke
- Death



# What can you do???



The advertisement features a white background with a logo at the top consisting of three black diagonal lines and a red checkmark. Below the logo, the text "Instant Lead Testing" is displayed in a large, bold font, with "Instant" in red and "Lead Testing" in black. The central image shows a hand holding a white test strip labeled "Lead/Check" and "an ORP" against the rim of a ceramic mug. The test strip has a red line at the end, indicating a positive result. The mug has a decorative Greek key pattern. At the bottom of the advertisement, the slogan "If It's RED, There's LEAD!" is written in red.

**Instant  
Lead Testing**

**“If It's RED, There's LEAD!”**

# Environmental Concerns With Household Cleaning Products

# The Problem

- Hazardous chemicals can often be found in common household cleaning products.
- How do you know what is in your cleaners???

# *Read the labels!!*



# The Consequences

- Respiratory irritation, allergic reactions, skin irritation & burns, eye, nose & throat irritation, dizziness, sleepiness, nausea, mental status changes, liver damage & cancer
- Accidental ingestions  
Poisons can be harmful or fatal if swallowed especially for children



# The Alternatives

- Stock up on a few safe, simple ingredients that can be used in most cleaning situations. Soap, water, baking soda, vinegar, lemon juice, borax, and a coarse scrubbing sponge can take care of most household cleaning needs.
- Consider buying “green” brands
  - Greening the Cleaning
  - Seventh Generation
  - Simple Green
  - Method

# Pharmaceutical Waste

## The Problem

- Studies show that small amounts of pharmaceuticals are found in surface water bodies
  - Rivers
  - Streams
  - Water supply reservoirs

# What about water treatment?

- Current municipal wastewater treatment facilities are unable to treat or remove many pharmaceutical substances.



# What can you do?



- Pharmacy take back programs.
- Placing old meds in plastic container such as laundry bottle and mixing with water and capping to avoid getting into water way.

no drugs down the drain



You are what you eat?

Toxins in a child's diet

# Children are vulnerable

- Children are growing, cells multiply
- Organs are not fully developed
- Pound per pound children ingest more food, water and breath more air than adults
- The Nervous system can not repair itself

# What contaminates our food?

- Pesticides
- Persistent Organic Pollutants
- Synthetic Hormones
- Mercury
- Banned pesticides from  
Third World countries

# The Dangers

- Environmental toxins have been linked to conditions such as:
  - Asthma
  - Behavioral and Learning disabilities
  - Cancer
  - Endocrine disorders
  - Autism

# Common foods that children consume that are concerning

- Fruits
  - Apples
  - Strawberries
  - Grapes
  - Raisins
  - Apple/grape juice
- Dairy
  - Milk
  - Yogurt
  - Cheese
  - Eggs
- Meats
  - Meat
  - Poultry
  - Fish



# Dirty Dozen

(most contaminated fruits and vegetables)

- Nectarines
- Peaches
- Sweet bell peppers
- Celery
- Spinach
- Lettuce
- Potatoes
- Cherries
- Pears
- Imported grapes
- Apples
- strawberries



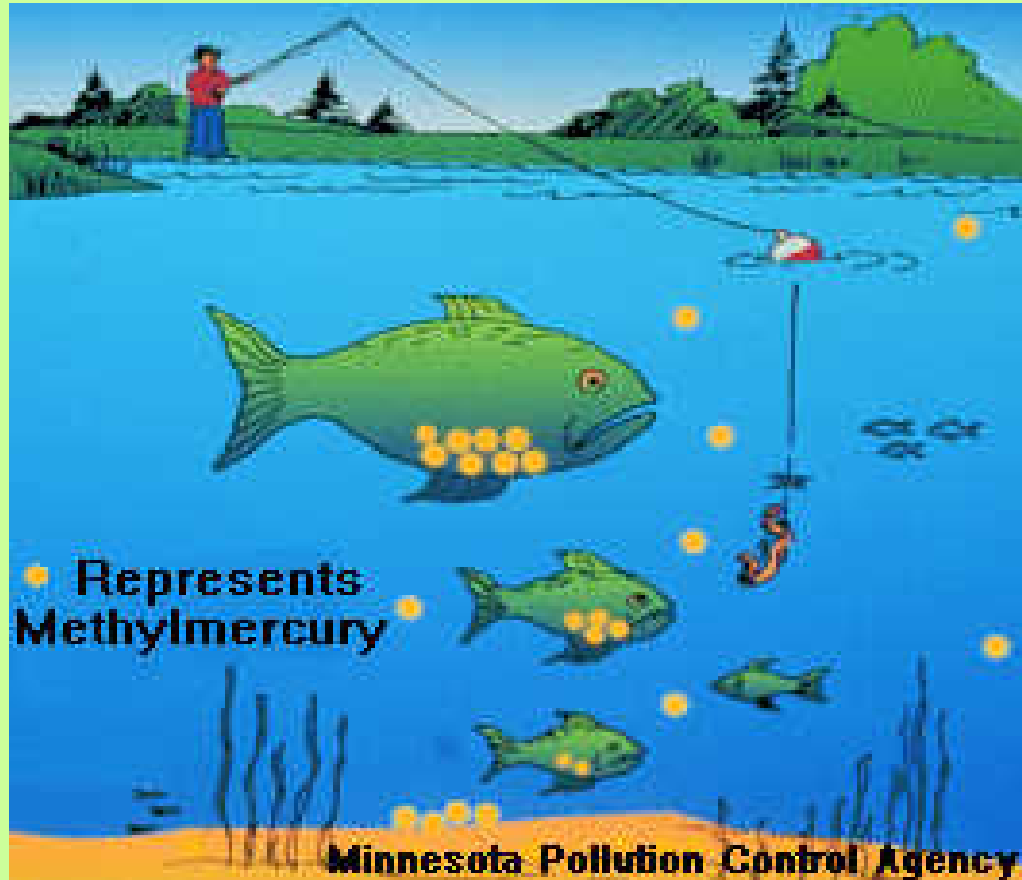
Invisible  
pollution  
linked to  
harmful  
effects.



# Mercury

- Present in varieties of fish pose health risks to children and other populations

# Bioaccumulation



# Alternatives

- Organic foods
  - Organic feed
  - Animals allowed freedom of movement
  - No antibiotics
  - Processed with restriction of antibiotics
  - No genetic modification
  - Safe composting standards
  - Regulated
- Synthetic free hormone foods
- Fruits and vegetables in season
- Eat low fat foods, especially if organic is not available



# Is Natural the same as organic?

- Natural
  - Minimally processed
  - No artificial flavors, colors or preservatives
  - May use antibiotics unless specifically labeled “raised without antibiotics” or “No antibiotics administered”

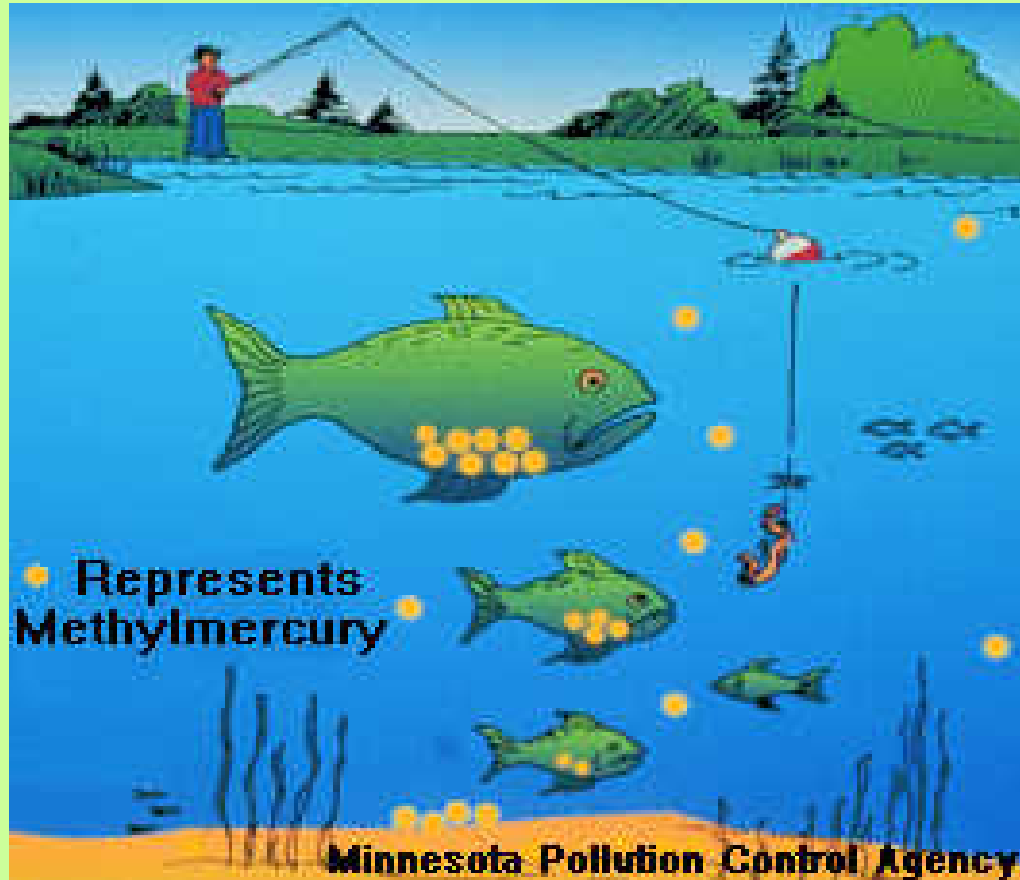
# What else can I do?

- Wash all produce
- Peeling may reduce nutrients but will reduce pesticide residue
- Eat a varied diet
- Choose organic whenever possible
- Become familiar with fruits and vegetables with high pesticide residue and choose organic over conventional

# Mercury

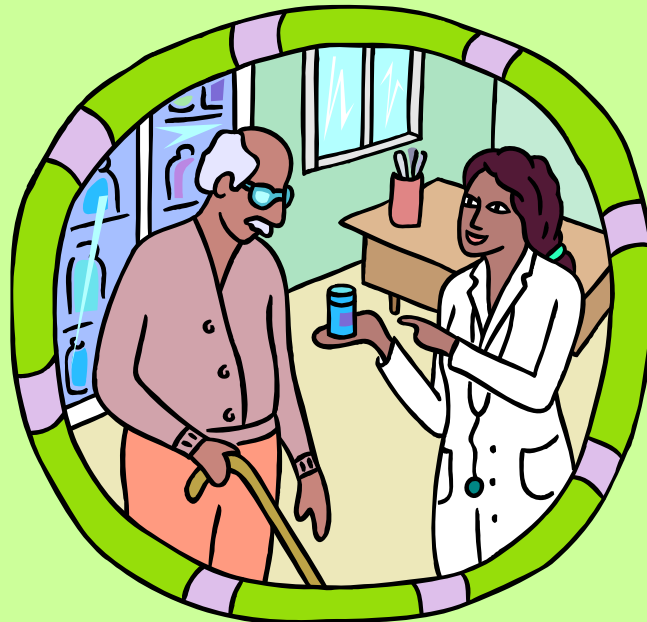
- Present in varieties of fish pose health risks to children and other populations

# Bioaccumulation





# What can you do to make a difference?





# Social Change

*“Acts of advocacy for the cause of changing society in a positive way”*



# Ways to Create Social Change



- Understanding your own value system
- Development of Community
- Demand Corporate Responsibility

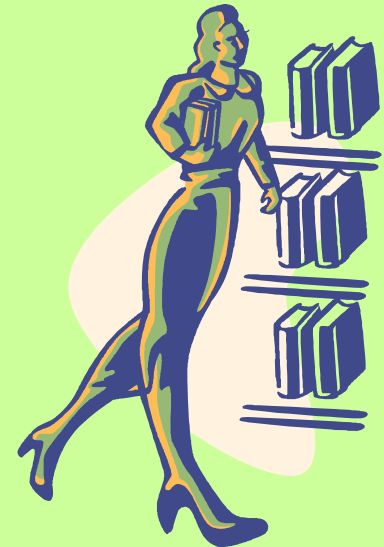




# Financial Support/ Non-support

- Education and Research

[www.ct.gov](http://www.ct.gov)



# • Political Involvement

- Become informed on issues affecting yourself, your home and your community
- Contact your legislators
- Join your local organizations (CNA)

General Assembly  
January Session, 2007

Committee Bill No. 5292  
LCO No. 6018  
\*06018HB05292ENV\*

Referred to Committee on Environment

Introduced by:  
(ENV)

**AN ACT PROHIBITING THE DISPOSAL OF PRESCRIPTION MEDICATIONS TO PUBLIC OR PRIVATE WASTE WATER TREATMENT FACILITIES.**

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (NEW) (Effective July 1, 2007) (a) Notwithstanding any provision of the general statutes, on or after October 1, 2007, no person shall dispose of any prescription medication to a public or private waste water treatment facility. For the purposes of this section, "person" means a hospital, nursing home or other private or public institution.

(b) Not later than August 31, 2007, the Department of Environmental Protection shall compile a list of prescription medications that are subject to the prohibition of subsection (a) of this section and shall publish such list on the department's Internet web site, and shall expand and update such list annually thereafter.

(c) The Commissioner of Environmental Protection may adopt regulations, in accordance with the provisions of chapter 54 of the general statutes, to carry out the provisions of this section.

(d) Any institution who violates or fails to comply with the provisions of this section shall be fined not more than thirty thousand dollars for each incidence of noncompliance. Prior to imposing any penalty pursuant to this subsection, the Commissioner of Environmental Protection shall notify the institution of the alleged violation and the accompanying penalty and shall permit such institution to request that the department review its findings. An institution shall request such review not later than fifteen days after receipt of the notice of violation from the department. The department shall stay the imposition of any penalty pending the outcome of the review. The commissioner may impose a penalty upon an institution pursuant to this subsection regardless of whether a change in ownership of the institution has taken place since the time of the violation, provided the department issued notice of the alleged violation and the accompanying penalty prior to the effective date of the change in ownership and record of such notice is readily available in a central registry maintained by the department. Payments of fines received pursuant to this subsection shall be deposited in the General Fund and credited to the Clean Water Fund established in section 22a-477 of the general statutes.

This act shall take effect as follows and shall amend the following sections:		
Section 1	July 1, 2007	New section

**Statement of Purpose:**

To prevent the disposal of prescription medications to waste water treatment facilities so that they do not pass through the aquatic environment and enter the food chain.



- **Register to Vote**
- **Know the Issues**
  - **Vote in every election!**

# We Do This For...



- **Our Children**
- **Ourselves**
- **Our Community**

# Mercury

- Present in varieties of fish pose health risks to children and other populations



# Bioaccumulation



# CCMC Small talk

## *The Green Corner*

### **Cosmetics: The Price of Beauty**

Welcome to the Green Corner! The Green Corner will be a regular feature of Small Talk where we'll discuss topics that impact health and the environment. We welcome comments or suggestions for topics you'd like to see covered. You can email any one of us through the CCMC GroupWise directory, **Michelle Cole, MSN, RN, Maria Sanzo, MSN, RN, CPN** and **Kathy Visinski, MSN, RN.**

**By Maria Sanzo, MSN, RN, CPN**

So, men, you think you're off the hook because you don't use concealer? Think again. People use an average of nine health and beauty products before they even step foot out of their house in the morning (men use six, women use 12). Think about it; soap, shampoo, conditioner, shaving cream, perfume, toothpaste, deodorant, concealer, eye shadow, mascara, lip gloss... well, you get the picture. But what does getting ready in the morning have to do with health and the environment?

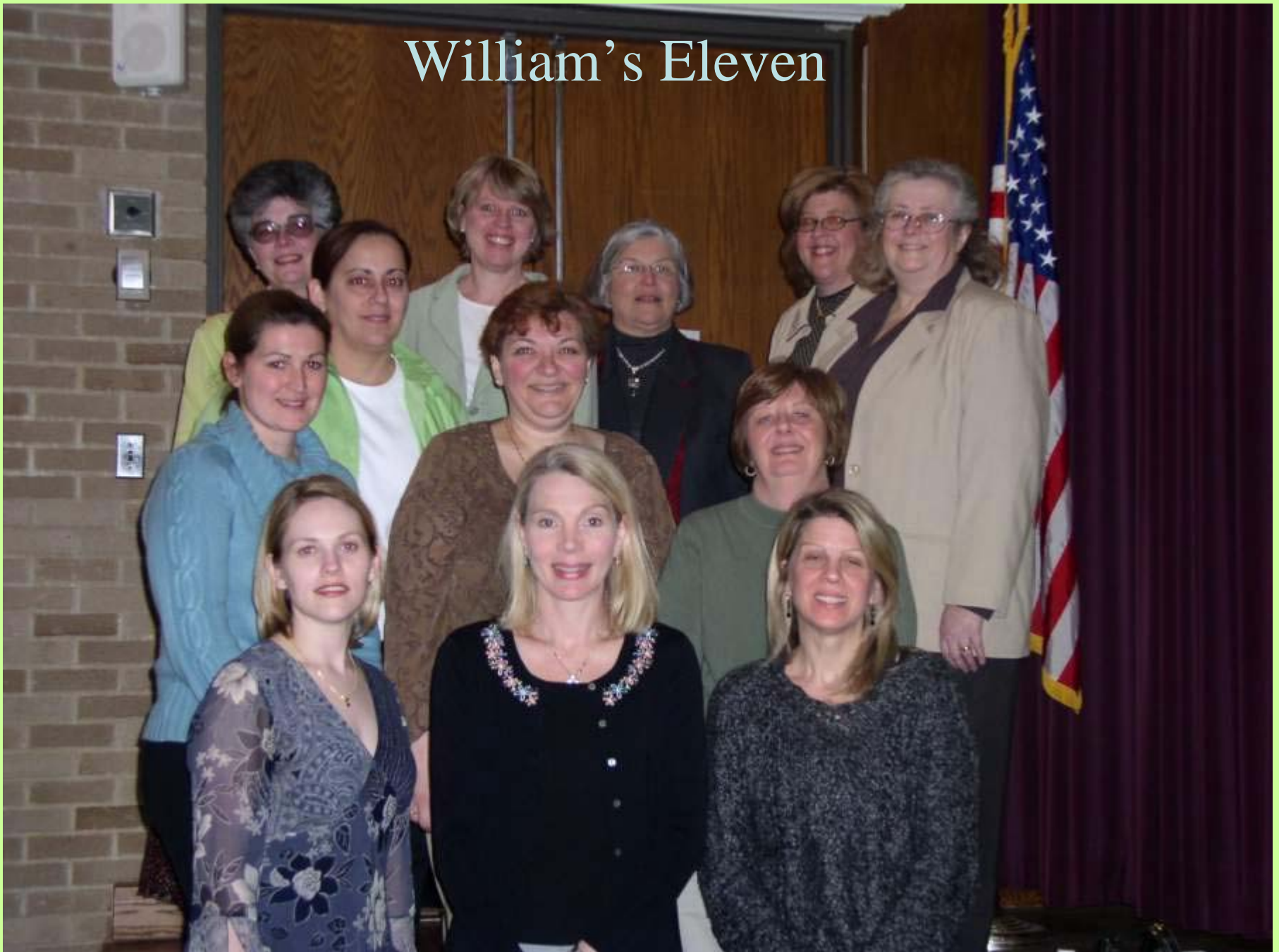
Some health and beauty products may contain such toxic chemicals as formaldehyde,

coal tar, petroleum distillates and lead acetate. These toxins have been linked to cancer, brain and kidney damage, neurological disorders and reproductive problems. And unlike nutrition labels with lots of information, health and beauty products have no such thing. Did you know the word "fragrance" on a bottle can mean it contains up to 200 additional chemicals? The European Union has banned more than 1100 chemicals. The U.S. has banned nine. When cosmetic companies formulate make-up to sell in Europe, they will eliminate the banned toxic chemicals. But when they formulate that exact same make-up for sale in the U.S., those toxic chemicals are left in.

Angry? Frustrated? You should be. So what can you do to protect yourself and your family? Log on to [www.safecosmetics.org](http://www.safecosmetics.org). Look up your products in the Skin Deep Report and find the toxic rating of the product. Be a smart consumer. Buy products with low ratings. Contact your cosmetics companies and tell them you want safer products. Using health and beauty products shouldn't be a risky business.

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# William's Eleven



**The journey of a thousand miles begins with a single step**

**~Confucius~**

