

Part III

Selected Presentation Slides Given at the 59th Annual Center
Directors Meeting, Austin, Texas, October 28, 2001

III.1 COEP Organization

Presenter: Liam O'Fallon



COEP Organization

COEP Annual Meeting
October 28, 2001



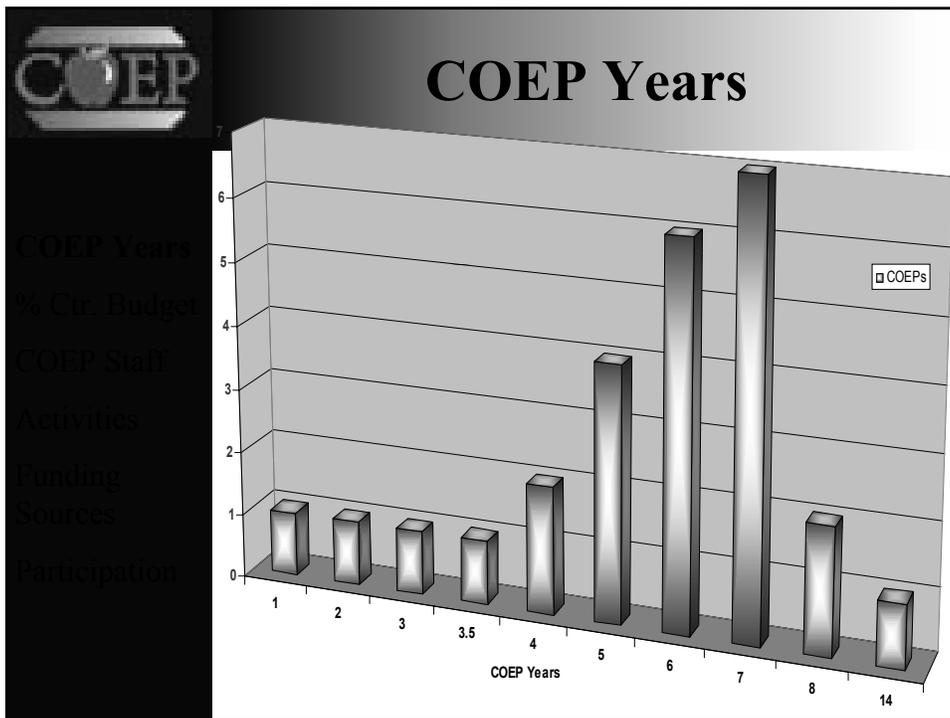
WHY?

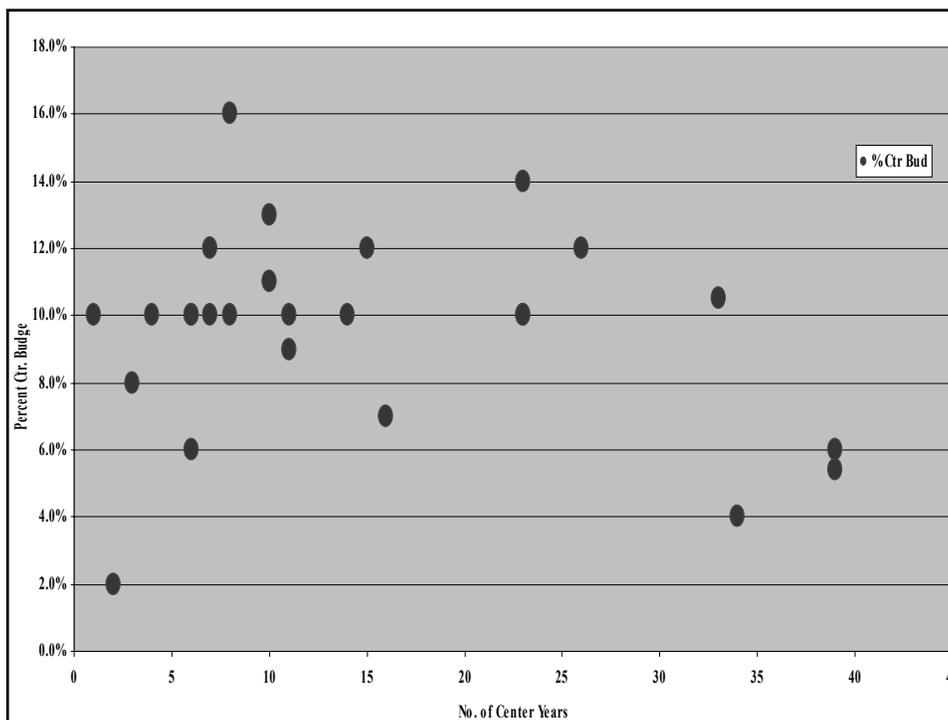
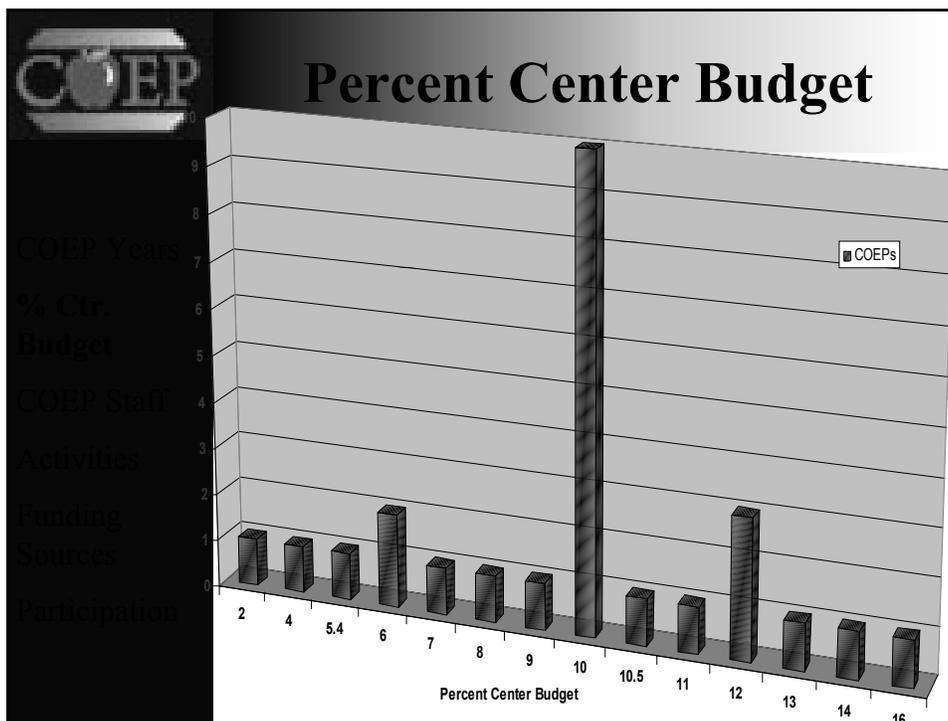
- Learn more about one another
- Highlight similarities and differences
- Consider COEP interaction within Center and with other Centers
- Provide insight into general structure and function of COEPs

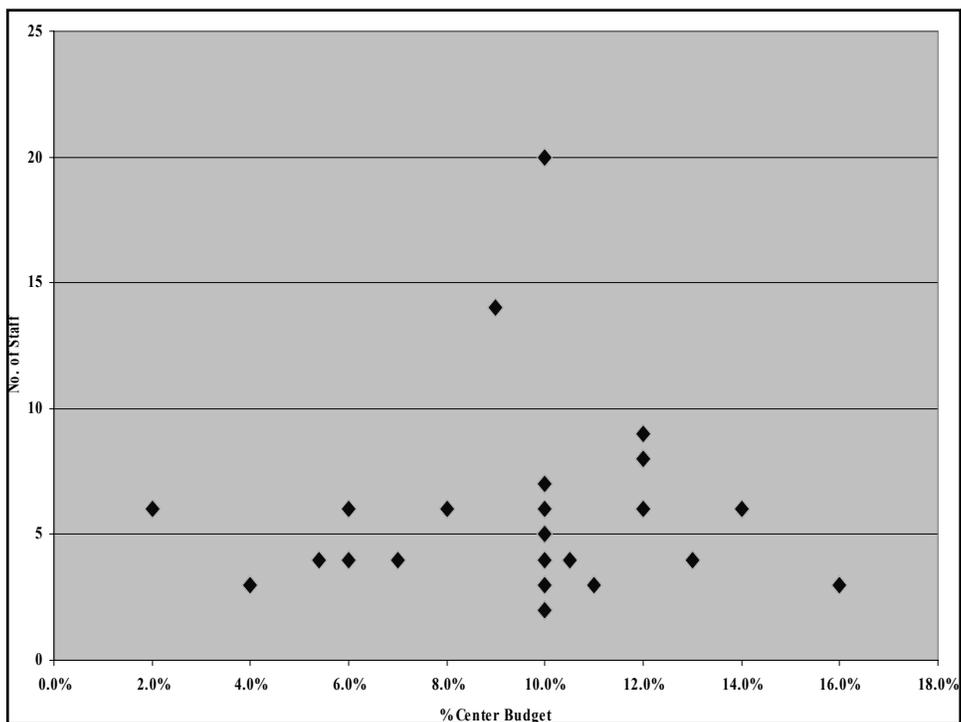
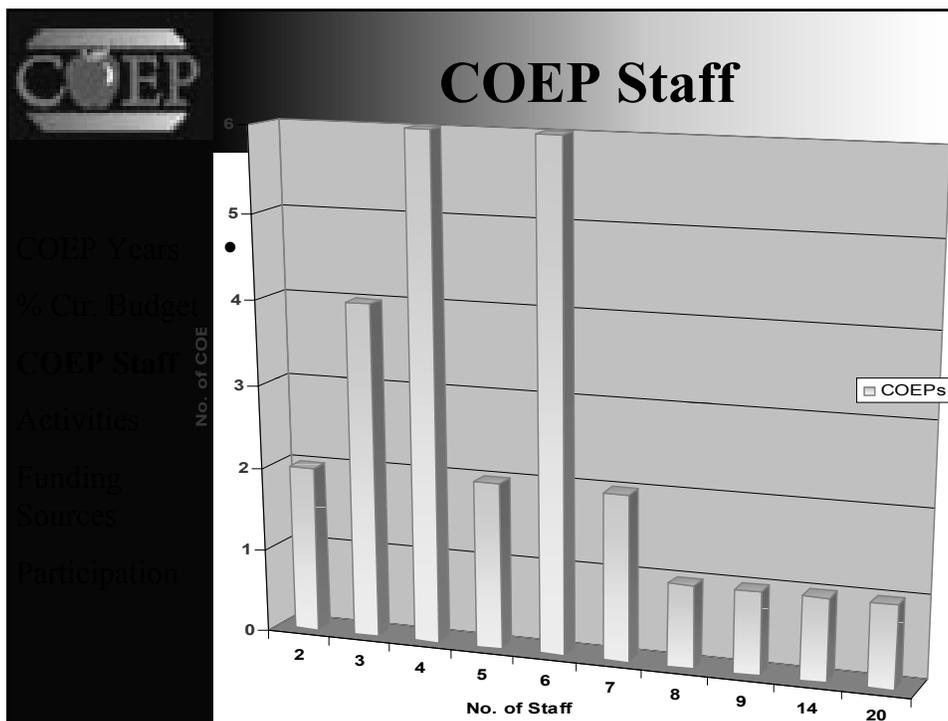


Major Interests?

- COEP Years
- Percent of Center budget to COEP
- Number of COEP staff
- COEP Activities
- Other Funding Sources
- Center member participation









Activities

- Community Awareness (n=24)
 - Forums
 - Web site development
 - General EH education
 - Articles, brochures, etc.
- Internships (n=4)
 - Research
 - Education
 - Teachers, students, community residents

COEP Years
% Cit. Budget
COEP Staff
Activities
Funding Sources
Participation



Activities

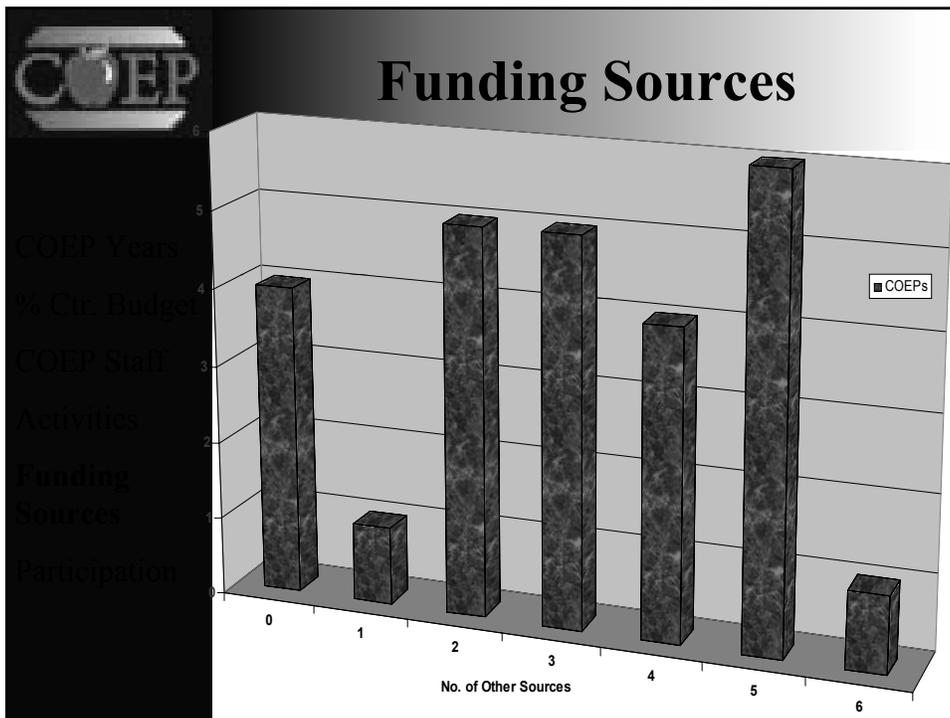
- K-12 Education (n=18)
 - Curriculum development
 - Internet-based materials
 - Videos
- Media/Policy (n=5)
 - TV broadcasts
 - Courses for reporters
 - Community resource

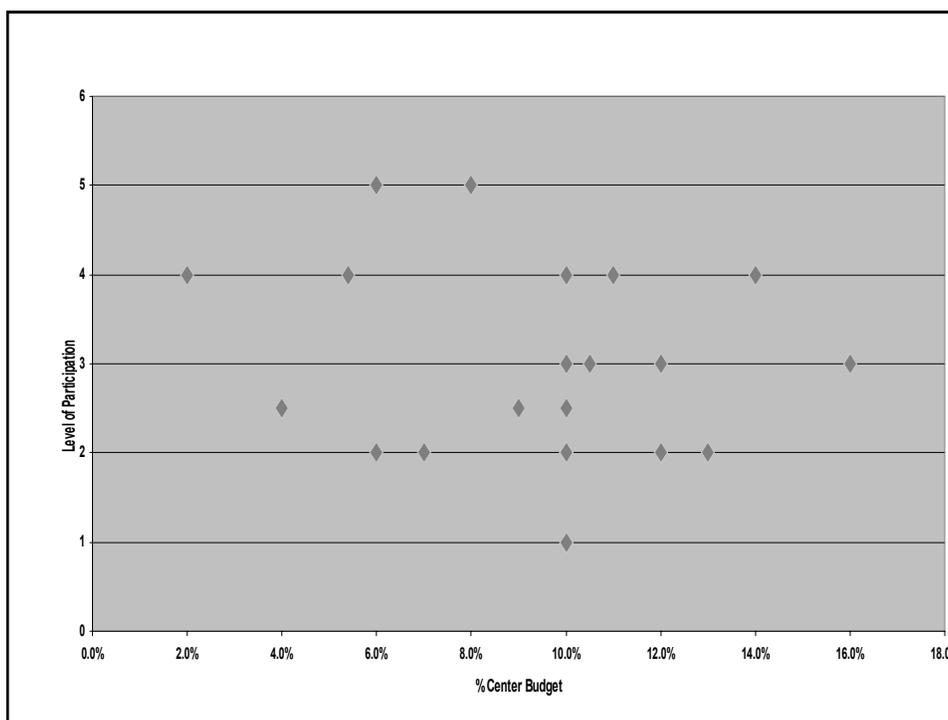
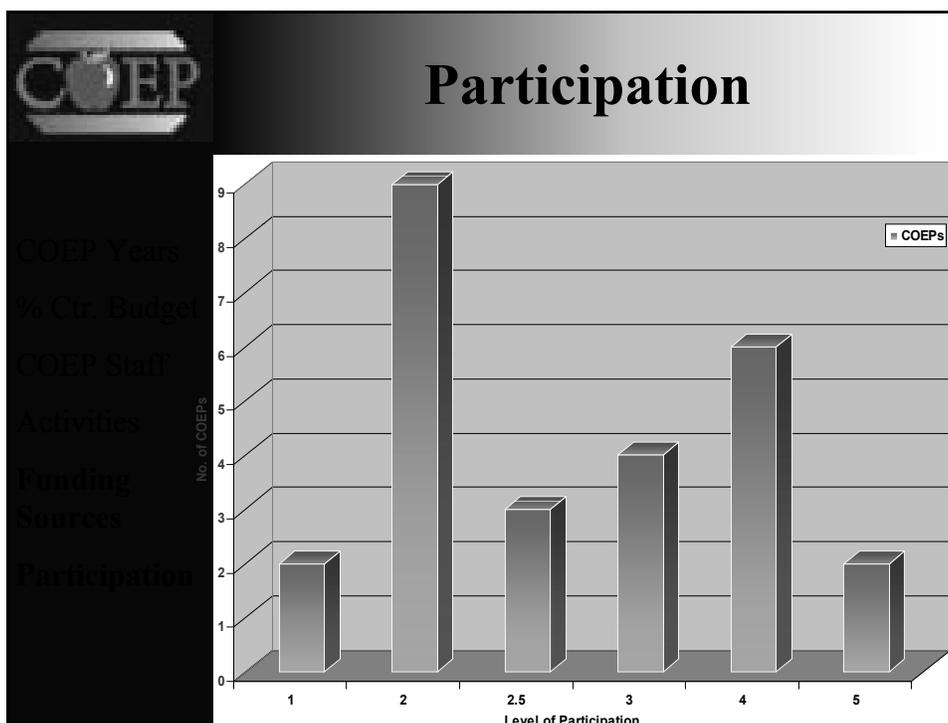
COEP Years
% Cit. Budget
COEP Staff
Activities
Funding Sources
Participation

COEP

Activities

- Professional Development (n=15)
 - Teacher training/workshops
 - Worker training
 - Health care professional outreach
- Undergraduate (n=5)
 - Summer research fellowships
 - Seminar courses
 - Environmental health outreach training







Center Investigators

- Speakers
- Joint projects
- Teacher training
- Advisors
- School visits
- Community interaction
- Mentoring
- Report writing
- Lab tours
- Media interviews
- Grant writing
- Review curriculum
- Technical writing
- Teach
- Sci. policy boards
- Career counseling
- Science fair judges



Mechanisms

- Center meetings
- Mutually beneficial
- Praise
- Convey impact
- Just ask personally
- Director encourages
- Honoraria
- Survey members
- Ctr. retreat present.
- Past history
- Schedule reg. mtgs.
- Promotional mats.
- Requirement of Ctr. membership
- Regular interaction
- Pilot projects
- Listserv/web ann.
- Cookies & bribery

III.2 K-12 Outreach Technologies, University of Arizona COEP

Presenter: Stefani Hines

K-12 Outreach Technologies

The UA



Uses the Web



Four Ways We Use the Web

1. Basic information delivery
2. Provide downloadable curricula
3. Organizational and delivery tool for a complex, "webbed," integrated curriculum
4. Fun, highly interactive activities



Basic Information Delivery

- Straight HTML
 - [Water & Health Activities](#)
- Basic & easy to read
- Simple interaction to raise interest
 - Q & A



Provide Downloadable Curricula



- Teachers have access to the web
- Teachers may want to use partially web-based or nonweb-based materials
- Provide free, high quality materials
- [Educational Resources](#)



Organizational Tool for a “Webbed,” Integrated Curriculum

- Year-long
- Completely integrated across all subjects
- Student pages
- Teacher pages



Fun, Highly Interactive Activities



- Uses more “advanced” web programming
 - Flash, Shockwave, Databases, Java
- Advantages
 - Kids (& adults) love it
 - Effective teaching tool
- Disadvantages
 - Requires more skilled personnel
 - Requires “plugins”
 - Requires higher memory & speed



Examples

- CHH - Environmental Tobacco Smoke & Lung Development
- Air and Health Activities
 - A Recipe for Ozone
 - Lung Attack
 - CO City
- Teachers guides &/or accompanying student worksheets

III.3 K-12 Outreach Technologies, University of Texas M.D.
Anderson Cancer Center COEP

Presenter: Robin Fuchs-Young



**Center for Research on
Environmental Disease**

**Community Outreach and
Education Program**



**A new environmental health and science
website for kids, grades 3 - 8**

**IICOMOH
stands for
“I’m in charge of my own health”**

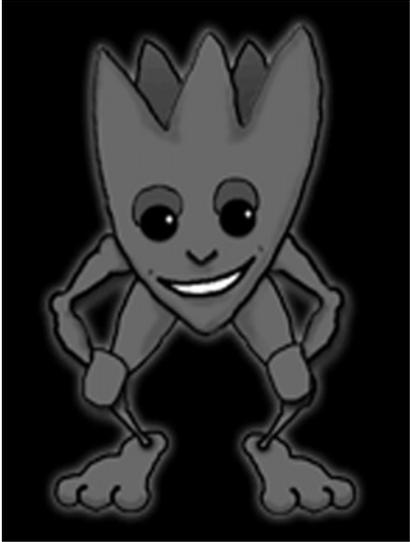
www.Veggie-mon.org

The Plan

I. Early Concepts:

- **Friendly website for kids
disease prevention
diet and sunlight**
- **Characters - the “Veg”**
- **Teacher involvement
paid internships
bring ideas**

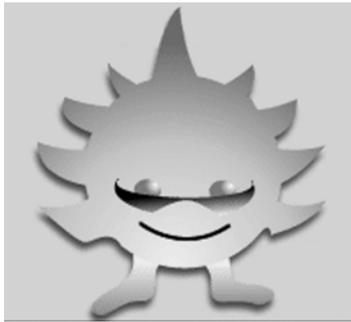
Veggie-mon



II. Content

- A. Assess needs and areas of potential impact
- B. Key on Center strengths
- C. Teachers translate

Sunspot



Strawberry girl

III. Site design

- Format - maximum flexibility
- Classroom access

Informative Fish

Veggie Mon Nutrition | Veggie Mon Under the Sun | The Laboratory | Ask a Scientist | Glossary

UV Did You Know? | Bacteria Blues | **Informative Fish**

Major Sections:
 Nutrition
 Under the Sun
 The Lab
 Ask a Scientist
 Glossary

Veggie-Mon

Hi Kids!
 I'm Veggie-Mon, your guide to the website called Ick-o-Moh. That stands for "I'm in charge of my own health".

How to find your way in this web site.

You can go through the different sections of this web site using this menu system. Each colored section will point to its sub-sections as they are available. Each sub-section will be the same color as its main section. Sub-sections may also expand in the same way.

Veggie Mon Nutrition | Veggie Mon Under the Sun | The Laboratory | Ask a Scientist | Glossary

Sub-section 1 | Sub-section 2 | Sub-section 3

Sub-section 2A | Sub-section 2A | Sub-section 2A

IICOMOH Home | Student Index

Veggie Mon Nutrition | Veggie Mon Under the Sun | The Laboratory | Ask a Scientist | Glossary

Did You Know These Things About NUTRITION?

Oxidation Experiment

Veggie Mon Nutrition | Veggie Mon Under the Sun | The Laboratory | Ask a Scientist | Glossary

Nutrition | Food Pyramid | Kid Cuisine

Nutrition is particularly important when the body is growing as in childhood and adolescence. The nutritional information shown below will teach you about a balanced diet that will help you be a healthier person.

Bacteria Blues

Home About Us Contact Us Privacy Policy

News

UV-Induced DNA Damage in Microbes in Antarctica

My name is Jarah A. Meador and I am a graduate student working under David L. Mitchell, Ph.D., at the UT MD Anderson Center for Research on Environmental Disease at Smithville Texas. My project involved collecting bacteria and sporebanking from water and ice samples in Antarctica in order to measure DNA damage caused by ultraviolet (UV) light. The two kinds of radiation that are most harmful are called UVA and UVB. I thought that it was important to study this damage because all living organisms have DNA and can be injured by UVA or UVB. We were also interested in how these organisms repaired themselves after being damaged.

The reason that we chose Antarctica for our samples is because of the location of the ozone layer over the Antarctic. The ozone layer allows UVA to pass through it while stopping most of the UVB from reaching the earth's surface. Since there is a thinning in the ozone layer over the Antarctic, more UVB reaches the earth's surface there than anywhere else in the world.

Dr. David Mitchell and graduate student Jarah Meador study UV induced DNA damage in microbes in Antarctica

II. Content

- Base content on Center research and contributions from Center members
- Teachers help communicate



Adventure, Animals and Cool Toys

Journey to Antarctica

I began my journey by boarding a jet and flying to Punta Arenas, Chile, on October 6, 1999. Chile is a country on the west coast of South America. Next, I took a 240 foot research ship named the Laurence M. Gould to a research station on the coast of Antarctica called Palmer Station. This ship is used by the National Science Foundation to conduct scientific research at sea and to take people to the different research stations in Antarctica.

The boat trip took seven days. I was worried about getting seasick, but luckily the seas were calm. The rooms on the ship were small and each person had a roommate. I spent most of my time reading. The rest of the time I watched movies or visited with other scientists. We were served three meals a day and the food was really good!

Return to Map Continue Trip

Wildlife

Several types of whales, seals, penguins, and other sea birds lived near the station. All of these animals are adapted to life in the frigid conditions of the Antarctic. As you look at the pictures of these animals, try to identify some of these adaptations.

While I was there I saw Mink whales, Crab-eating seals, and Leopard seals. On the peninsula next to the station there was a family of Elephant seals with one male, several females, and many young seals called pups.

The penguins that I saw there were the Adelle, Gentoo, and Chinstrap penguins. The Adelle penguins had a large **coolbox** that we could visit with the Zodiacs.

Some of the birds that I observed were the Giant Petrels, Snow Petrels, Cape Petrels, Wilson's Storm Petrels, Imperial Shags, Greater Black-backed Gulls, Arctic Terns, and Southern Skuas. The Skuas were the main **predators** on the penguin rookeries and would work in pairs to steal the eggs and young chicks.

On the trip from Chile to Palmer Station we also saw many birds including different types of Albatrosses.

Involve scientists who are passionate about their work

Why Study Fish At All?

Fish and humans are very different, right? The next question that you might ask is "so why do you study fish to learn about a human disease?" The answer to that question is that fish and humans have many things in common.

One thing that fishes and humans have in common is that they are both vertebrates. Vertebrates are animals that have a backbone. Vertebrates, such as fishes and humans, have between 35,000 and 60,000 genes. These genes hold all the genetic information for an organism.

Another thing that they have in common is that fishes and humans have similar genes. One of these similar genes is found in melanocytes. Melanocytes are cells that produce melanins, which are a group of pigments that range in color from brown to black. In some hybrid fish, like the ones we study, a particular gene pigmented mel divide more or normally do. If control in melan lead to the development of melanomas in the process occurs.

The primary source of environmental UV radiation is the sun. We are protected from much of the damaging UV radiation by the ozone layer. The ozone protects us by absorbing UVB light. Unfortunately, as the ozone becomes depleted due to pollution, a larger amount of UV radiation makes its way to the earth's surface.

Humans have a similar to a gene called a tumor suppressor gene, when we stop working p or humans can

scientists have also begun to study the effects of UV radiation on skin cancer. UVB is one type of ultraviolet radiation. UVB has been shown to cause sunburn, which damages the genetic material in cells. This damage can lead to skin cancer.

With the increase of UV radiation in our environment, there has also been an increase in the cases of melanoma. We have been using hybrid fish to study how UV radiation can contribute to the formation of melanoma. The hybrid fish that we use have a high risk of developing melanoma. We expose some of them, the test fish, to certain amounts and types of UV radiation. The control fish are not subjected to UV radiation. We then compare the percentage of how many fish got melanomas in the test group to how many fish got melanomas in the control group.

The table below shows the results of one of our experiments.

DEVELOPMENT OF MELANOMA			
Not Exposed to UVB		Exposed to UVB	
Melanomas	Total #	Melanomas	Total #
6	121	29	150
5.0%		19.3%	

The hybrid fish that were exposed to UVB showed a significant increase in melanoma development. This data tells us that exposure to UV radiation can lead to development of melanomas in the fish.

We continue our work with these little fish. These informative fish help us to answer some questions about melanoma and hopefully other cancers.



Dr. Steve Kazianis studies fish to learn about skin cancers caused by UV radiation.



Northern Swordtail from Ocampo in Northern Mexico:
Isn't this a beautiful fish?



Southern Swordtail from Rio Sarabia in Southern Mexico:
It's at the sword on that fellow!



Southern Swordtail from Rio Llaneta in Belize:
This is one of my favorites!



Southern Swordtail from Rio Candelaria in Southern Mexico:
Wow! What a gem!



Mollyfish from Rio Zamapa in Veracruz, Mexico:
How that's a pretty little gal! Notice the diamond spot on her dorsal (top) fin.

Drs. Steve Kazianis and Rodney Nairn study UV-induced melanoma in fish.

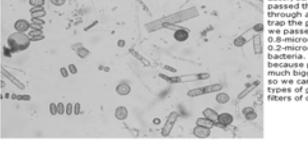
Teach some science and prevention

Ocean Sampling

To isolate bacteria from the ocean, we used a small rubber boat called a Zodiac to go to many sites out on the water. We used the global positioning system (GPS) to find these sites. Once we arrived at each site, we sent down containers to specific depths and collected a water sample.



Later, back in our lab, we passed the water samples through a 0.8-micron filter from the phytoplankton. We passed the filtrate from 0.8-micron filter through a 0.2-micron filter to trap the bacteria. This system works because phytoplankton are much bigger than the bacteria so we can separate the two types of organisms by using filters of decreasing size.



Palmer Station Area Map

Click icons for more information.



Graph your data using a line graph.

QUESTIONS

1. What time of day was the sun's UV intensity the greatest?
2. What time of day was the sun's UV intensity the least?
3. At what time of day would it be safest to take a walk? Explain your answer.
4. If you took a walk at 1:00 p.m., what type of precautions would you take before going out?

EXTENSION

- Using the scientific method, plan and conduct your own UV experiment using the Sun Smart UV Intensity Meter.

Skin cancer is the most common form of cancer. By going "undercover" to reduce your risk, it's also the most preventable!



UV Did You Know?

Hi I'm Sunspot, I'm a friend of yours. I'm a friendly and helpful sun. I'll provide you with information about the sun and its effects on your skin.



I have learned in recent years that some of us are susceptible to more skin cancer than others. It is important to understand how a person can take steps to prevent skin cancer.

Prevention is the best form of defense that we have in order to keep the sun's rays from causing skin cancer. There are many ways to prevent skin cancer. Some of the best ways to prevent skin cancer are to use sunscreen, wear protective clothing, and avoid tanning beds. Sunscreen should be applied liberally and frequently. Sunscreen should be reapplied every two hours, and more often if you are swimming or sweating. Sunscreen should be applied to all exposed skin, including the back of the neck, the back of the hands, and the tops of the feet. Sunscreen should be applied to the face, neck, and ears. Sunscreen should be applied to the scalp and hair. Sunscreen should be applied to the hands and feet. Sunscreen should be applied to the face, neck, and ears. Sunscreen should be applied to the scalp and hair. Sunscreen should be applied to the hands and feet.

Want to know what a word means? GLOSSARY

Antarctic Peninsula The southernmost part of the continent of Antarctica, extending from the tip of the continent to the tip of the continent.

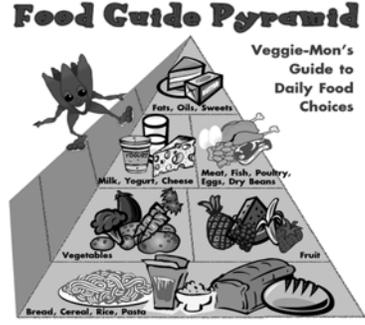
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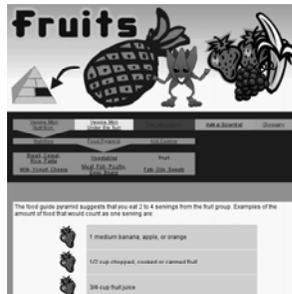
Antarctic Peninsula The southernmost part of the continent of Antarctica, extending from the tip of the continent to the tip of the continent.

Diet and Nutrition Information, Recipes





Diet is a major contributor to cancer risk and important intervention target

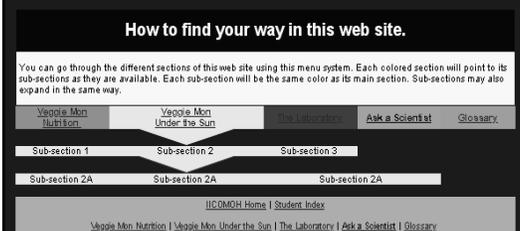


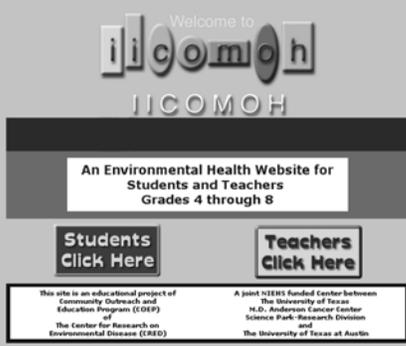
III. Site Design and Development Always storyboard, Always content poor



How to find your way in this web site.

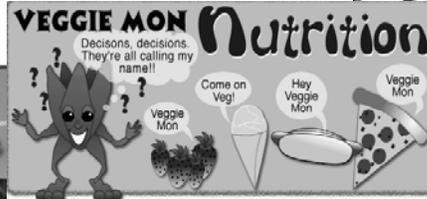
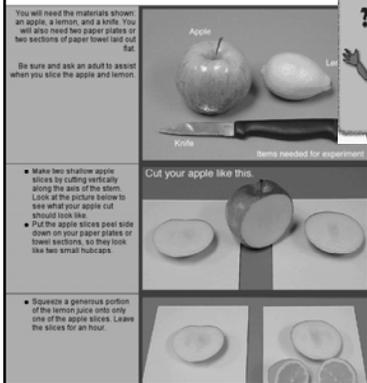
You can go through the different sections of this web site using this menu system. Each colored section will point to its sub-sections as they are available. Each sub-section will be the same color as its main section. Sub-sections may also expand in the same way.





Design colorful, flexible (easy to add to) and easy to pilot around

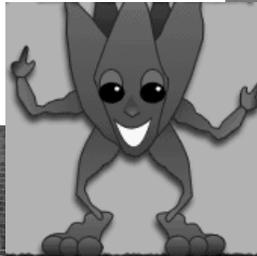
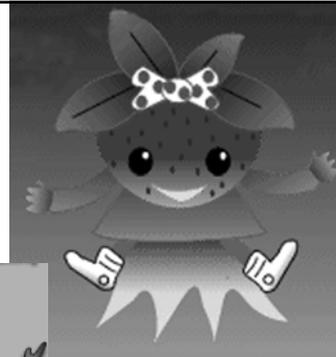
Enthusiastic, organized
and talented people
Seth Peebles
Sherry Scott
Marsha Jenkins
Teachers



Don Cook's apple
oxidation experiment

Impact

Numbers:
Check "hits" monthly
1842 since Dec. 2000
Increasing ~ 200/month

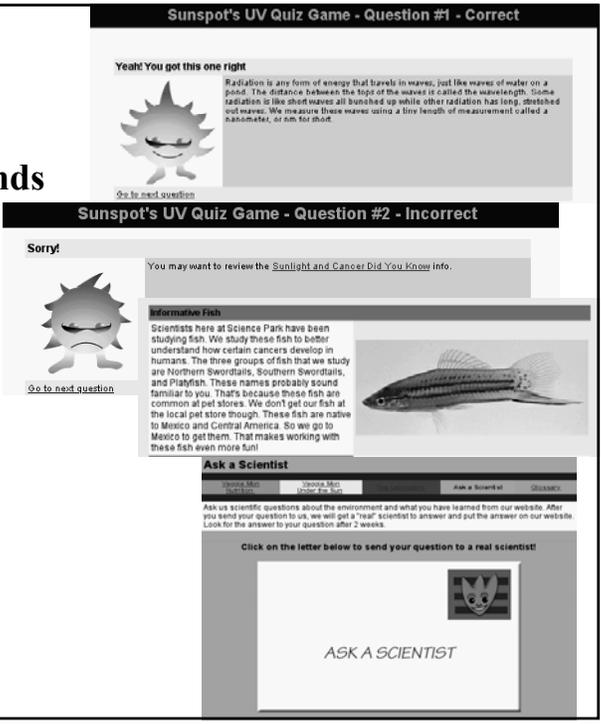


Spreading the word:
In-service programs
Fliers, cards
Letters to regional service ctrs.
EHE Quarterly

Kids Interviewed:
Liked the site
Would tell their friends
Want Action
Want to “do stuff”

Older kids migrated to experiments and expedition

Younger ones to food and characters



Veggie-mon goes International!

Euroskin and WHO Campaign against skin cancer in children

Primary cause - sun and UV

The screenshot displays the Veggie Mon website interface. At the top, there's a navigation bar with links: 'Veggie Mon Under the Sun', 'The Laboratory', 'Ask a Scientist', and 'Glossary'. Below this is a 'What Would You Like to Explore?' section with four options: 'I want to read about sunlight & cancer and I want to play Sunspot's quiz', 'I want to read about Antarctica in Bacteria Blues', 'I want to play Sunspot's quiz', and 'Informative Fish'. The main content area features a 'UV Did You Know?' section with a cartoon character Sunspot and a 'Under Cover - UV Experiment' section with a form and instructions. A sidebar on the right contains a 'BE SAFE IN THE SUN' graphic and a 'What Would You Like to Explore?' menu.

Coming:

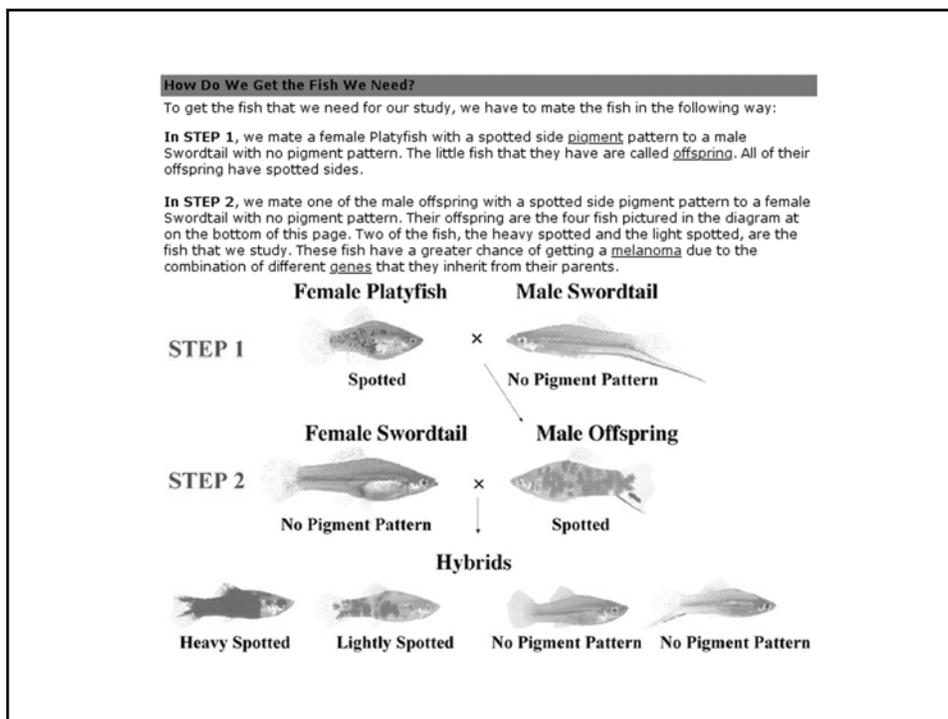
New sections on Tobacco avoidance - featuring "Igna Ray Mouse"

More experiments, games and puzzles in each section

Classroom evaluation - Sabra Spaw

Veggie-mon en Espanol y Deutch

The screenshot shows the 'The Laboratory' section of the website. It features a cartoon character in a lab coat and several test tubes. Text on the page includes: 'Welcome to Veggie Mon's Laboratory', 'Kids - be sure to visit the laboratory again - we'll be adding new experiments.', 'click on the experiment you would like to see', and 'The Laboratory' in the navigation bar.



III.4 K-12 Outreach Technologies, University of Washington COEP

Presenter: Jon Sharpe

Educational Technology in K-12 Outreach



Jon Sharpe
Center for Ecogenetics &
Environmental Health
Email: jsharpe@u.washington.edu

Presentation Goals

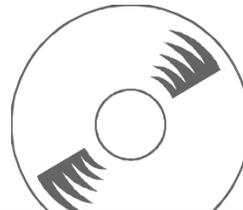
- Present three CEEH K-12 outreach projects that are enhanced by technology
- Compare and contrast strengths and challenges of the various media
- Provide a matrix comparing the media



Community Outreach & Education Program

Case 1: CD-ROM

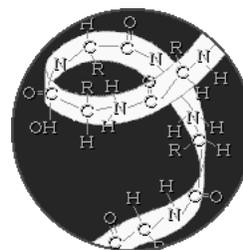
- *Essentials of Cell Biology: Toxicology in Action*
- Development funded by SEPA grant (94-97)



Community Outreach & Education Program

CD-ROM: Development

- PHASE 1: Beta version was “a textbook with animations” - state of the art for its time
- Cell Biology used as a “hook” for science teachers
- Toxic Connections introduced toxicology concepts



Community Outreach & Education Program

CD-ROM: Development

- PHASE 2: Second edition adds more interactive shell and introduces Professor Chen, toxicologist
- Much of the new content is recycled from other curriculum projects



Community Outreach & Education Program

CD-ROM: Dissemination

- SEPA grant funds 1000 CDs of 1st edition
- Partnership with SOT Toxicology Education Foundation (TEF) funds 2nd edition remastering, packaging and printing of 2000 copies
- CD is currently distributed at teacher conferences and through advertisement in *American Biology Teacher* (NABT).



Community Outreach & Education Program

CD-ROM: Evaluation

- Each recipient is asked to complete a one page evaluation (return reply envelope provided)
- Distribution list is being compiled and recipients will be sent a reminder to complete the evaluation, possibly with additional incentives



Community Outreach & Education Program

CD-ROM: Strengths

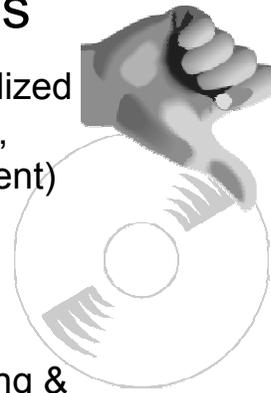
- Tangible product: attractive giveaway at conferences, etc.
- No Internet connectivity necessary to run the program
- High level of control over use and distribution



Community Outreach & Education Program

CD-ROM: Challenges

- Development requires specialized skills (programming, graphics, multimedia project management)
- Fixed medium
- No real-time interactive possibilities
- High cost of printing, packaging & mailing



Community Outreach & Education Program

Case 2: Web Curriculum

- *Project Greenskate*
- Partially supported by SEPA grant (96-00) and UW Superfund Basic Research Program (SBRP)



Community Outreach & Education Program

Web Site: Development

- Created as an adventure game - students seek out “key documents” to understand a fictional hazardous waste scenario
- Program asks students to gather information, then interpret it off-line
- Content shared with 2nd edition of CD-ROM



Community Outreach & Education Program

Web Site: Dissemination

- Site first published in 1999
- Database keeps demographic information about users
- Site is promoted at teacher conferences, in program newsletter and through web links on other sites



Community Outreach & Education Program

Web Site: Evaluation

- Site has been evaluated in focus groups and with teachers during workshops
- Evaluation has been mostly formative, (i.e. it has helped improve the site)
- User tracking through the database provides an opportunity for follow-up with users through email, etc.



Community Outreach & Education Program

Web Site: Strengths

- Instant availability once the site goes live
- Higher level of interactivity - users can easily connect to developers in real time and can jump to other sites
- Content can be continuously updated
- Users can be tracked and queried



Community Outreach & Education Program

Web Site: Challenges

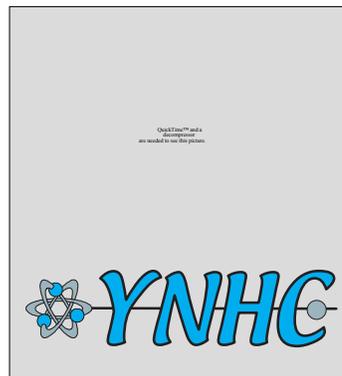
- Intangible product - tough to compete with the many other sites out there
- Depends on reliable connectivity in classroom and a robust server
- Low level of control over use and distribution



Community Outreach & Education Program

Case 3: Videoconferencing

- *Youth Network for Healthy Communities*
- Funded by Center COEP supplement (00-01)



Community Outreach & Education Program

VC: Development

- Project began as part of the CEEH town meeting, *Voices for Health Environments, Healthy Communities* (9/00)
- Partnership with 2 high school teachers
- Uses new statewide K20 network
- Materials include a *Teacher's Guide* and taped orientation session



Community Outreach & Education Program

VC: Dissemination

- Teachers are recruited through word of mouth and at regional teacher conferences
- Teachers attend a one hour orientation videoconference
- After five weeks of classroom work, students present a community-based EH research project via videoconference



Community Outreach & Education Program

VC: Dissemination

YNHC
Participating
sites
Fall 2000
through
Fall 2001



Community Outreach & Education Program

VC: Dissemination

Student research topics in 2000-01 included:

- Health hazards from diesel power generator emissions
- Health impacts of a proposed Gold Mine
- Heavy metals in the Coeur d'Alene watershed
- Safety of reclaimed water
- Human health effects of wildfires
- Migrant farmworkers at risk from pesticides
- Water quality in Lake Osoyoos



Community Outreach & Education Program

VC: Evaluation

- Overall project rating: Teachers = 4.2, Students = 3.8 (5 = outstanding)
- Teachers liked the use of new technology, the community connection, and the interaction between schools.
- “I found that it helped bring our class together. It made us be creative and insightful. We learned a lot about our town.” - *student*



Community Outreach & Education Program

VC: Strengths

- Minimal development time - orientation content and teacher materials only.
- Excellent “presence” and interactivity - especially for rural schools
- Students are active, not passive users of technology
- Easily involves CEEH experts



Community Outreach & Education Program

VC: Challenges

- Hook-ups can be unstable, technology is still new
- Steep learning curve for staff
- Teachers and students don't take full advantage of CEEH resources
- Researchers are somewhat hesitant to participate



Community Outreach & Education Program

	Ease of development	Max # students reached	Interactivity/ Presence	User enthusiasm
CD-ROM	LO	MED	MED	LO
Web-based	LO	HI	MED	MED
Video conference	MED	LO	HI	HI



Community Outreach & Education Program

III.5 K-12 Outreach Technologies, University of Wisconsin at Madison COEP

Presenter: Kevin Niemi

Selected Web Resources in EHS

Kevin Niemi, Ph.D.
UW-Madison, EHS Center for
Developmental and Molecular
Toxicology

1

Center research topics

- Developmental biology
- Model organisms
- Genomics
- Bioinformatics
- Stem Cell research

10/24/01

WISCONSIN

EHS Center

2

Microarray Technology

Davidson University

<http://www.bio.davidson.edu/courses/genomics/chip/chip.html>

10/24/01



3

Molecules

Visualization of molecular structures

<http://molvent.com>

10/24/01



4

Campus class visit activities

- Day-long visit of local Madison area high school and Tribal school group of 11th and 12th graders
- 50 students total, split group into two
- Dr. Ralph Albrecht, Advanced Microscopy FSC leader

10/24/01



5

Biotechnology Center activities

- DNA discussion (10 minutes)
- Computer lab activities (see PP handout, 90 minutes)
- Walking tour of building (e.g, sequencing lab, 20 minutes)

10/24/01



6

Questions?

10/24/01

UNIVERSITY OF WISCONSIN

EHS Center

7

III.6 Nursing and Environmental Health: Emerging Roles in Education, Research, and Practice

Presenter: Barbara Sattler

Nursing and Environmental Health



Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing

Nurses:
1:100 Americans
2.5 million



Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing

Demographics of the Nursing Profession:

- Primarily white and female
 - 5.4% male
 - 4.2% African American
 - 3.4% Asian/Pacific Islander
 - 1.6% Hispanic
 - .5% Native American / Alaskan Native
- Average Age 46 years old

Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing



RN Licensure:
Graduate School of Nursing
Pass State Boards

Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing

Registered Nurses must be
licensed by the state in the
state in which they practice.



Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing

Educational Preparation: (1992 Data)

- 2-year Associates Degree Programs (731,613)
- 3-year Diploma Programs (hospital affiliated) (502,959)
- 4-year Baccalaureate Programs (672,915)

193,159 Master's prepared
14,300 Doctorally prepared

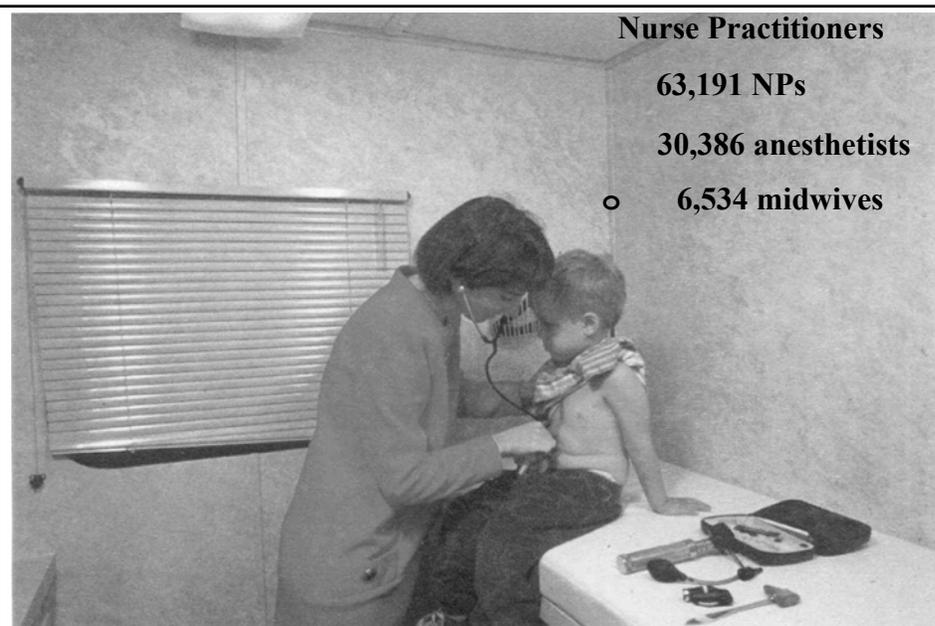
Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing



Master's Degree Preparation:

Nurse Practitioners (Adult, Pediatric, Family,
Psychiatric and other)

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University of Maryland
School of Nursing



Nurse Practitioners

63,191 NPs

30,386 anesthetists

○ **6,534 midwives**

Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing



Doctoral Preparation in Nursing
and other fields (microbiology,
epidemiology, health education,
health policy)



Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing



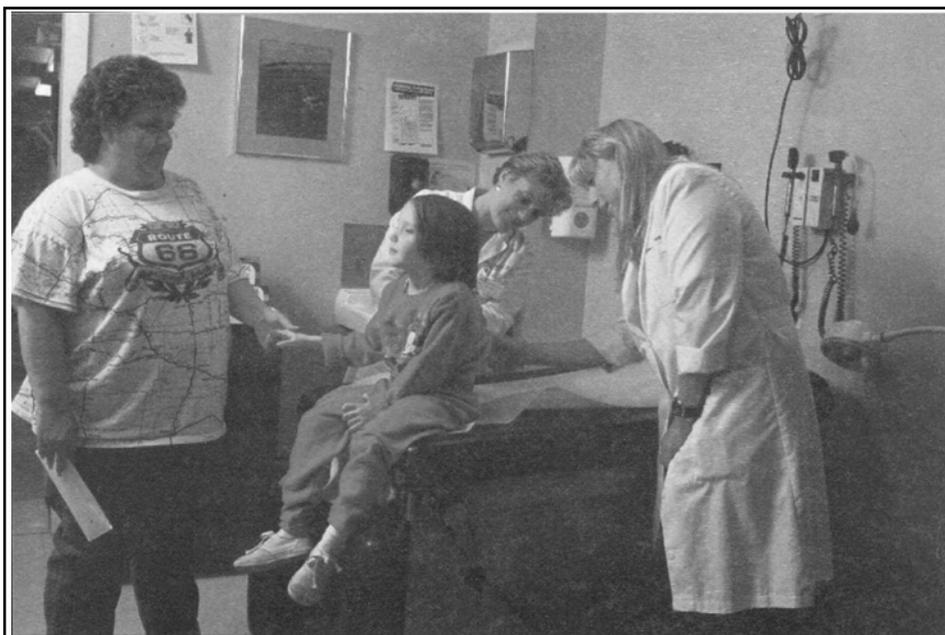
Where do nurses work?

Within tradition “health care settings” – hospitals, clinics, nursing homes, doctors’ offices, mental health facilities

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University of Maryland
School of Nursing



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School of Nursing



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University of Maryland
School of Nursing



Nurses also work where
people work, play, live, and
learn



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University of Maryland
School of Nursing

Nurses identify “communities” in order to deliver care, education, and interventions:

- Geographically
- By age
- By disease
- By logical groupings
- By behaviors/exposures

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University of Maryland
School of Nursing



Nursing practice is science/evidence based.

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University of Maryland
School of Nursing

PUBLIC HEALTH NURSING PHN INTERVENTIONS:

Advocacy
Case Management
Coalition Building
Collaboration
Community Organizing
Consultation

Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing

PHN Interventions

Counseling
Delegated medical Rx

Disease investigation
Health teaching
Outreach/case finding

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PHN Interventions

Policy development
Provider education
Referral and follow up
Screening social marketing
Surveillance

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Nurses are trusted sources of health
information.



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University of Maryland
School of Nursing

New Environmental Health and Nursing Initiatives:

- Kellogg Faculty Development
- NEETF Health Professional Project
- ATSDR Nursing Initiative
- EPA Activities
- HRSA Advanced Nursing Education
- Health Care Without Harm
- APHA

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University of Maryland
School of Nursing

Why connect with nurses?

- Enhance community connections / facilitate dialog
- Identify populations at risk
- Improve community education and risk communication
- Expand the multidisciplinary nature of your EH work
- Assist with translating science into policy
- Enlist undergraduate and graduate students for data collection

Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing

How to connect to nurses?

- State and local health departments
- Hire nurses as project managers.
- Nursing professional associations
- Nursing Schools
- Schools of Public Health

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School of Nursing

www.enviRN.umaryland.edu

bsattler@son.umaryland.edu

Barbara Sattler, RN, DrPH
University of Maryland
School of Nursing

III.7 Outreach to Nurses: Lessons Learned by an ERC Visiting Scholar

Presenter: Ellen Ceppetelli

Outreach to Nurses: Lessons Learned by a Visiting Scholar

Ellen Ceppetelli, MS,RNC
Director of Nursing Education
Dartmouth Hitchcock Medical Center

Community Outreach Education Program
Annual Meeting
Austin ,Texas October 28, 2001

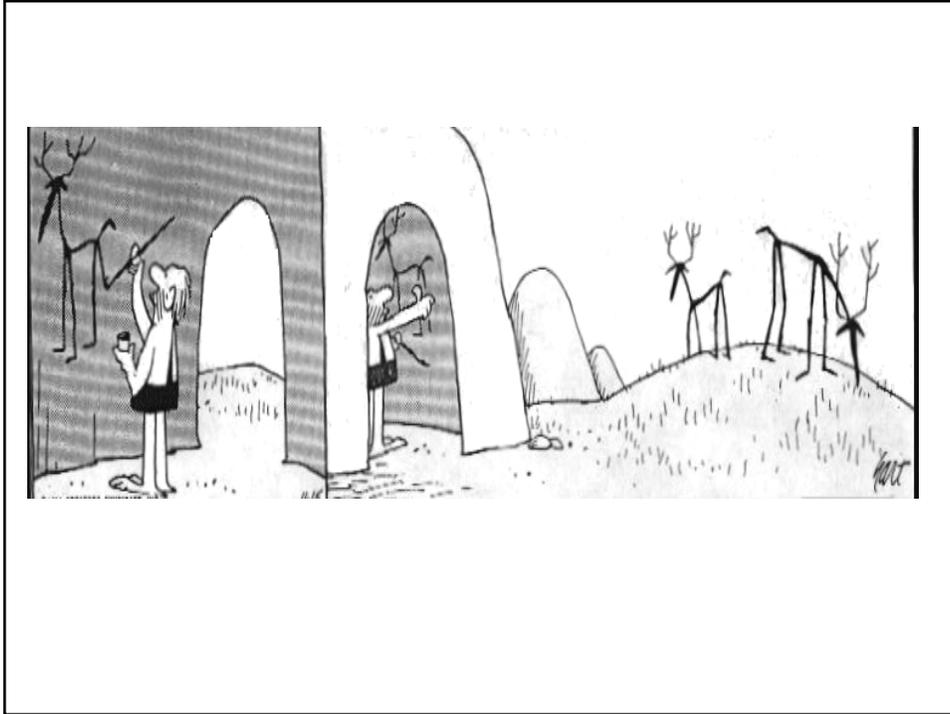


Community Outreach Education Program

Serves as a bridge between research
& community by converting the
science to understandable &
culturally appropriate formats

My Goal

Assist COEP to develop or
enhance interactions with the
nursing community

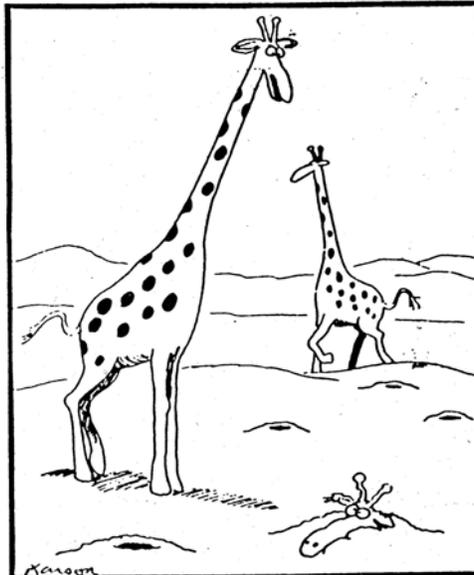


OUTCOMES

- Think about new opportunities
- Tailor existing outreach efforts to connect with the nursing community

Why Outreach to Nurses?

- Trusted health-care professionals
- Knowledge workers
- Values / passion
- Privileged intimacy
- 2.4 million nurses
- Nurses are everywhere
- Your link to guide in the community

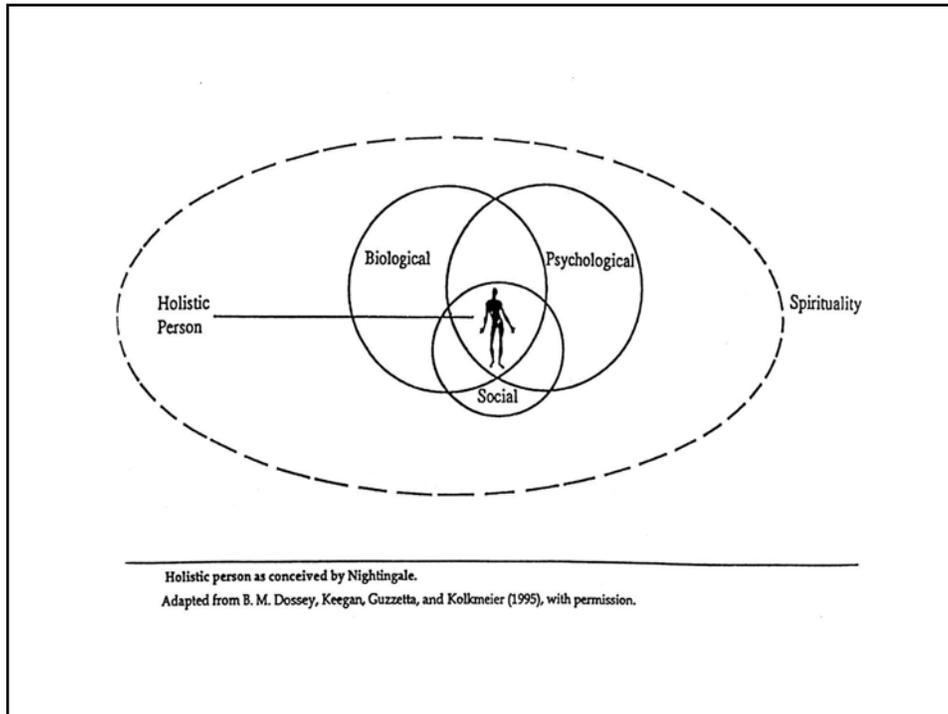


**"You've got to watch out for them
gopher holes, Roger."**

The Challenges of Connecting to Nurses: A SWAT Analysis

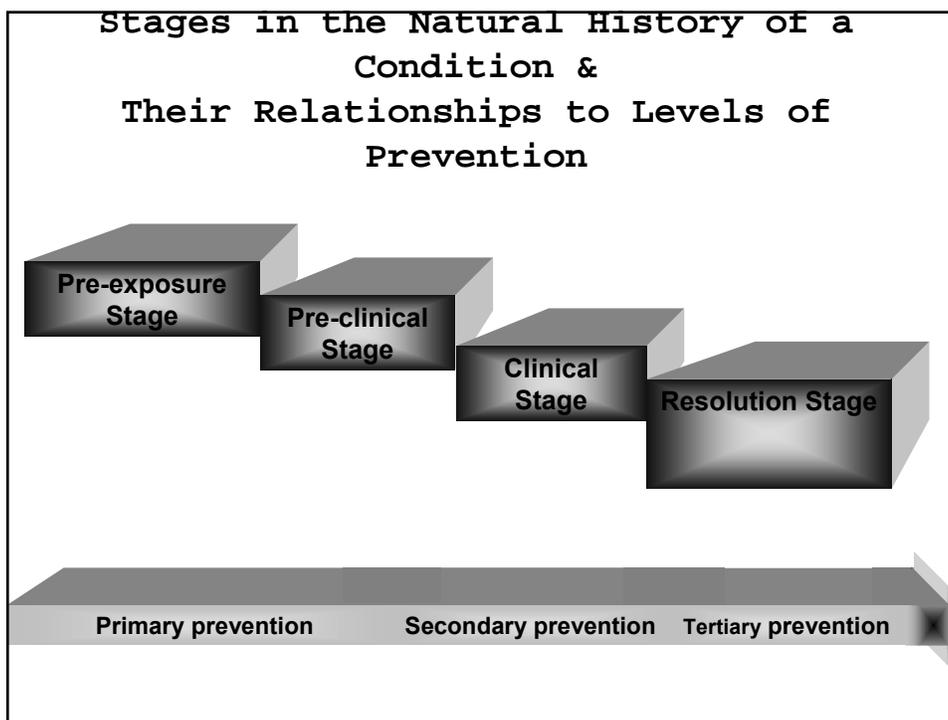
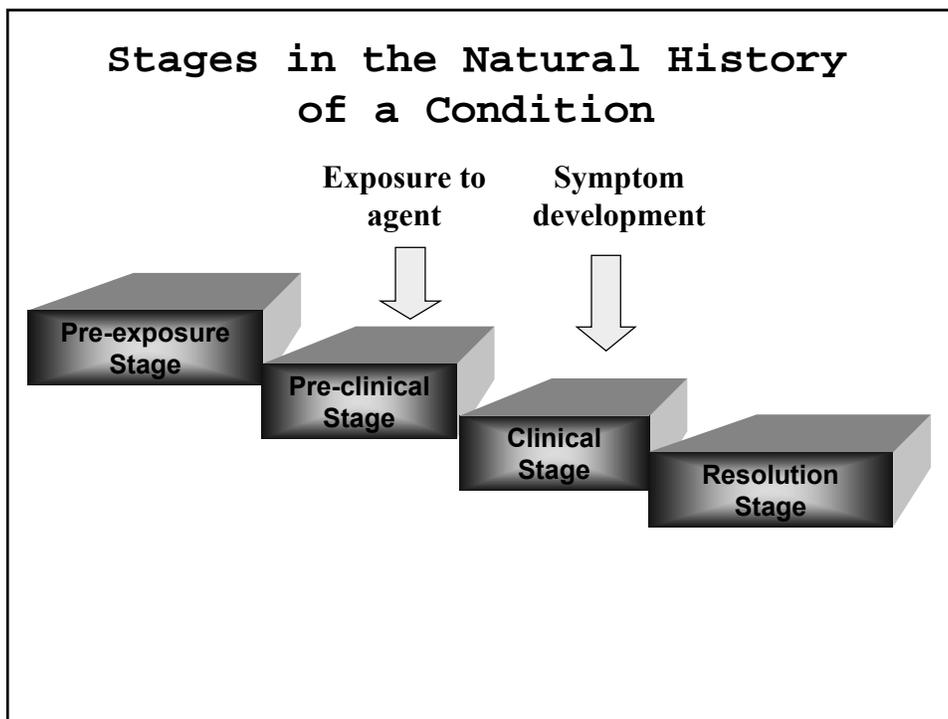
Strengths

- Continuous learners
- Advocates for patients
- Team players & ideal partners
- Skilled communicators]
- Value competency/ quality care
- Holism



Weaknesses

- Unaware of significance of environment-health connection
- Untapped role in health promotion
- Lack role models in practice
- Lack skills to advocate for populations
- Assume environment is responsibility of public health nurses
- Don't know they need to know



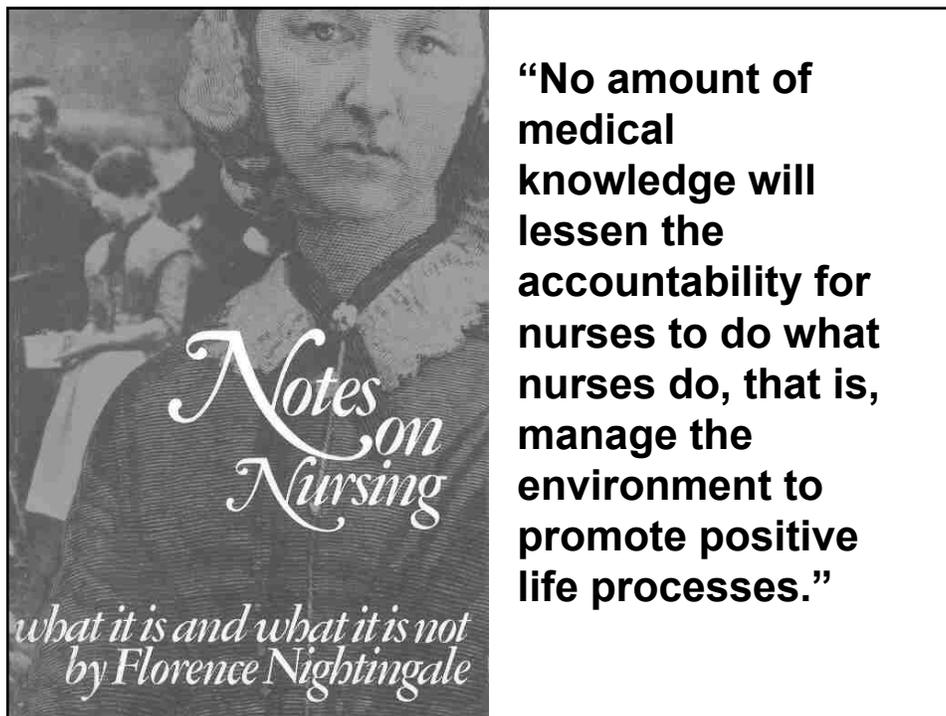
IOM Recommendations

Basic Knowledge and Concepts

Assessment and Referral

Advocacy, Ethics, and Risk
Communication

Legislation and Regulation

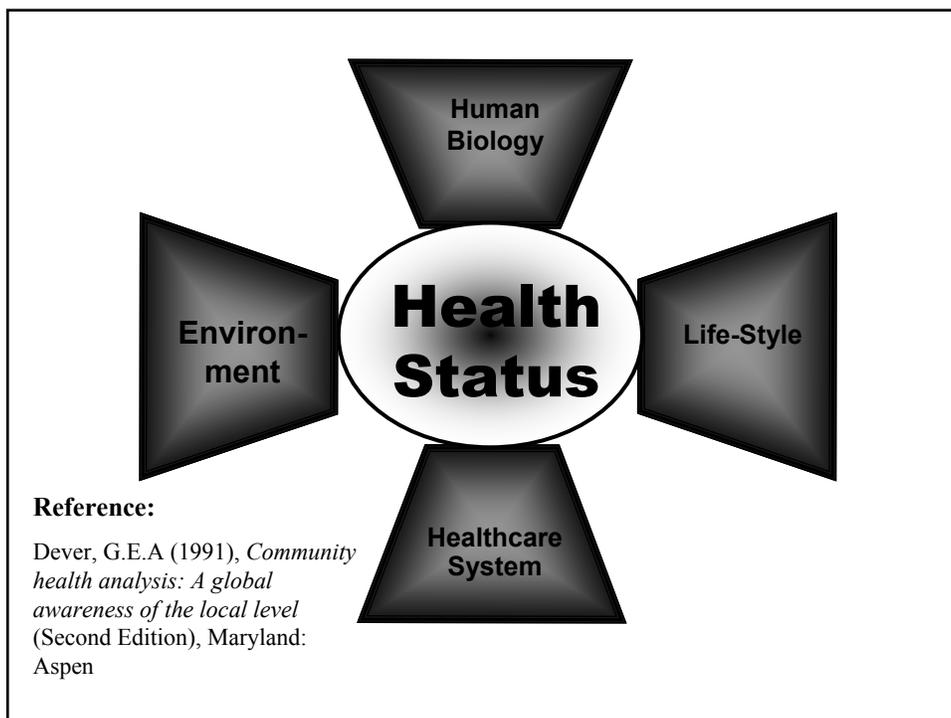


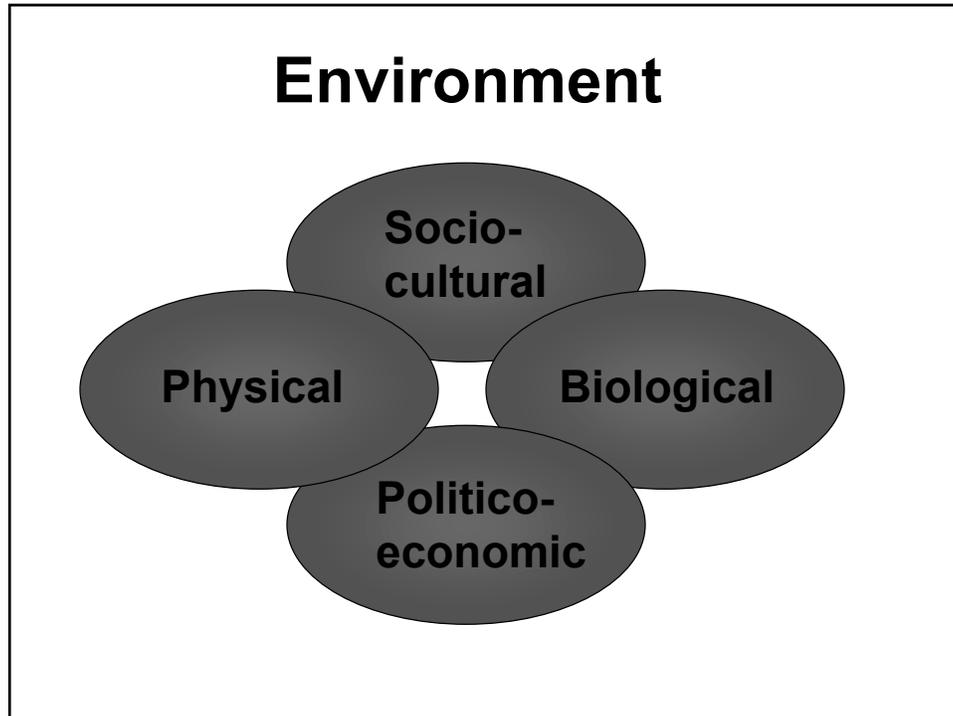
Metaparadigm of Nursing

- *Person*
- *Environment*
- *Health*
- *Nursing*

Threats

- Increasing environmental threats to health
- Nursing shortage
- Missed diagnoses
- Missed opportunities
- Reimbursement
- Continue to select non-environmental CE activities
- HCDS focus-episodic care to acute and chronically ill





Opportunities

- **Unanswered patient questions**
- **Vulnerable populations**
- **Environmental concerns in own community**
- **Unexpected national events**



My Journey

HARVARD VISITING SCHOLAR

1986

2002

ASSOCIATE PROFESSOR NORWICH UNIVERSITY

1982

1996

CURRICULUM DEVELOPER/ASSISTANT PROFESSOR DCE UVM

1996

2001

DIRECTOR OF NURSING EDUCATION DHMC

2001

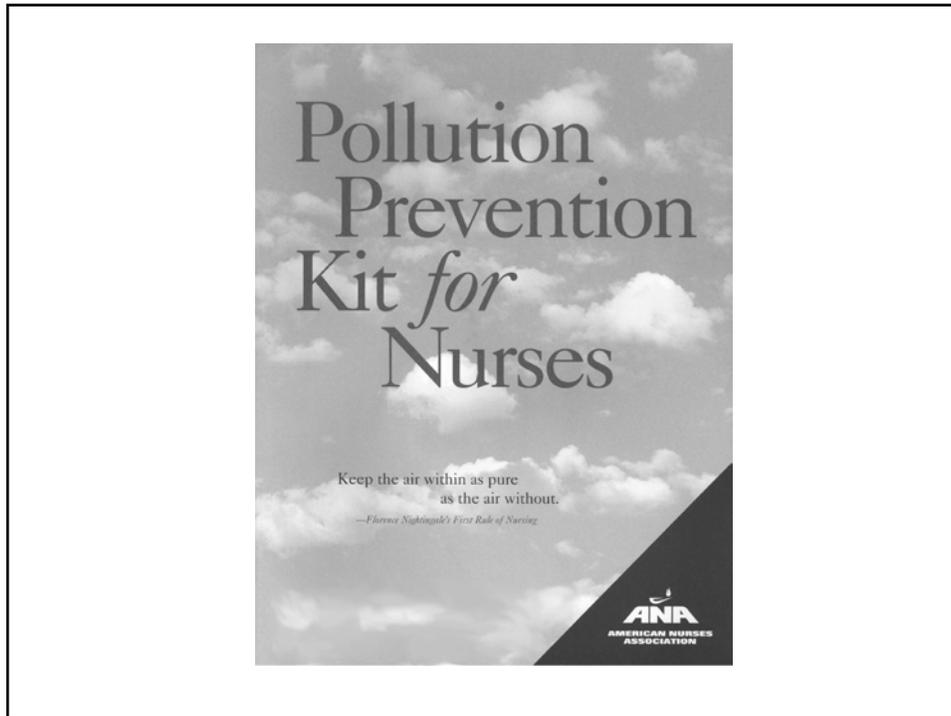
2002

Nursing Summit-Jan 1997

- American Nurses Association
- VT State Nurses Association
- University of Vermont
 - School of Nursing
 - Continuing Education
- Association of Operating Room Nurses
- Physicians for Social Responsibility
- Healthcare Without Harm

1998 Summit Outcomes

- VSNA resolution changed ANA CE agenda
- HCI Impact Teleconference
- John Merck Fund-EPA Connection
- ANA -IAQ
- Pollution Prevention Kit
- NEPHA meeting
- UVM /ANA partner to create "Need to Know" ISM video series



1999 Outcomes

- SNA of Vermont
- SNA of New York
- Association of State and Territorial Directors of Nursing
- International Council of Nursing
- Nightingale Institute for Health and in the Environment Board
- American Lung Association Council Member
- ERC Advisory Committee

2000 Outcomes

- Health & Environment ISMS
- EPA waste management video
- Needlestick Teleconference, ISMs & Workshops
- AONE
- NHONE
- ANA Council Nurse Educators
- American Public Health Association

Health & Environment Teleconference Series

- University of Maryland
- NIEHS
- EPA REGION One
- ATSDR
- HSPH/Divinity
- ANA
- USC
- ALA of VT
- VT DOH

2001 Outcomes

- Adjunct Professor-University of Vermont
- EPA Waste plan video
- American Lung Association Board member
- Simmons College Advisory Committee
- Planning for New England Nursing Summits

Lessons Learned

- First educate nurse leaders
- Next:
 - Workshops
 - Distance learning
 - Independent study modules
 - Toolkits for action

Lessons Learned

- Partner to get environmental health on the agenda of national associations
- Maximize connections with leaders, disciplines, and schools with mutual interest/goals
- Connect with funding sources

Lessons learned

- National Speaker Experience
 - Vulnerable population connection
 - Feature as general session
 - Fewer chose voluntarily
 - Everyone needs to know
 - Personalize the reality of exposed communities

Enhance COEP Programs

- University of Arizona
- University of Iowa
- University of Rochester
- ****University of Southern California

“Nursing is a progressive art in which to stand still is to go back.”

Florence Nightingale



III.8 COEP Resource Center Update and Future Activities

Presenter: Karalyn Colopy

Development of the COEP Resource Center: Current Status and Future Plans

Karalyn Colopy
COEP Resource Center Director



Presentation Outline



Presentation Outline



Why Create a Resource Center?

- Interest expressed by Center Directors
- To help COEPs communicate with each other
- To be a centralized source of information about NIEHS-supported outreach and education efforts
- To maintain archives of COEP materials



Background

Current Status

Future Plans

Questions

Resource Center Components

- Physical Resource Center
 - ◆ Library in Durham, NC
 - ◆ Printed catalog
- Virtual Resource Center
 - ◆ Web Site
 - ◆ On-line database of materials



Background

Current Status

Future Plans

Questions

Timeline

- October 2000
 - ◆ Begin contract with Analytical Sciences, Inc. (ASI)
- Spring 2001
 - ◆ Complete initial collection of COEP materials
- October 2001
 - ◆ Send printed catalog to COEPs
 - ◆ Open library
 - ◆ Launch Web site
- April 2002
 - ◆ Add database of downloadable materials to Web site



Presentation Outline



Resource Center Advisory Board

- Formed at 2000 Center Directors Meeting
- Nine volunteers
- Consulted for feedback
 - ◆ Scope of library and selection criteria
 - ◆ Web site issues



Background > **Current Status** > Future Plans > Questions

Collecting Materials

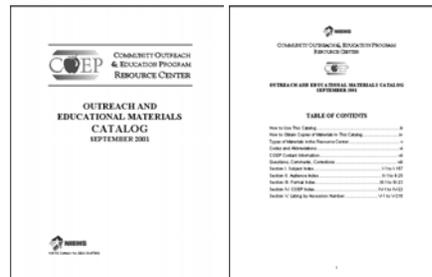
- Wrote Scope Statement and Selection Criteria
- Sent to COEPs with request to submit materials
- Created database of information about materials received
 - ◆ Bibliographic information
 - ◆ Subject terms
 - ◆ Availability
 - ◆ Abstract



Background > **Current Status** > Future Plans > Questions

Catalog

- Mailed to each COEP Director
- Information on all materials received as of August 2001
- Five indexes



Background > **Current Status** > Future Plans > Questions

Physical Resource Center

- Open to NIEHS and COEP visitors
- Houses collection and provides hardcopies of COEP materials
 - ◆ Videos
 - ◆ Newsletters
 - ◆ Curricula
 - ◆ Posters
 - ◆ Training manuals
 - ◆ And much more!



Background > **Current Status** > Future Plans > Questions

Web Site

- Wrote a design document to describe site features and navigation
- Incorporated COEP feedback
- Created designs
- Added content and programmed features
- <http://benson.niehs.nih.gov/coeprc>



Background > **Current Status** > Future Plans > Questions

NIEHS Community Outreach & Education Program Resource Center

SEARCH

Site Map Contact Us Policies/Disclaimers

The COEP Resource Center is a gathering place for NIEHS-supported COEPs to

- Exchange information and ideas, and
- Share educational and outreach materials with each other and the public.

Please select a link to explore all the resources available.

Spotlight On:
UT's Center for Research on Environmental Disease

Readings

COEP Listserv (Members Only)

Links

Electronic Information Resource Center

Calendar

About Us

Visit FirstGov

Background > **Current Status** > Future Plans > Questions

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UT's Center for Research on Environmental Disease

COEP Listserv
(Members Only)

Visit FirstGov

Background > **Current Status** > Future Plans > Questions

The screenshot shows the homepage of the NIEHS Community Outreach & Education Program Resource Center. At the top, there is a navigation bar with 'Background', 'Current Status', 'Future Plans', and 'Questions'. Below this is a search bar and links for 'Site Map', 'Contact Us', and 'Policies/Disclaimers'. The main content area features a banner with various images and a central text block: 'The COEP Resource Center is a gathering place for NIEHS-supported COEPs to Exchange information and ideas, and Share educational and outreach materials with each other and the public. Please select a link to explore all the resources available.' To the right, a 'Spotlight On:' section highlights 'UT's Center for Research on Environmental Disease'. Below the main text are several circular icons representing different sections: 'About Us', 'Calendar', 'Electronic Information Resource Center', 'Links', and 'COEP Listserv (Members Only)'. A large arrow points from the central text block to the 'Electronic Information Resource Center' icon. The NIEHS logo is in the bottom right corner.

Background > **Current Status** > Future Plans > Questions

This screenshot is identical to the one above, showing the NIEHS Community Outreach & Education Program Resource Center website. However, a large arrow points from the right side of the page to the 'Links' icon in the navigation bar.

Background > **Current Status** > Future Plans > Questions

NIEHS Community Outreach & Education Program Resource Center

SEARCH GO

Site Map Contact Us Policies/Disclaimers

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(Members Only)

About Us

Calendar

Electronic Information Resource Center

Links

Visit FirstGov

Background > **Current Status** > Future Plans > Questions

Visit FirstGov

Presentation Outline



Background >> Current Status >> **Future Plans** >> Questions

Web Site Maintenance and Upgrades

- Integrate database of downloadable materials, with ability to submit new materials on-line (by April 2002)
- Add new calendar events and Reading Room materials
- Write new Spotlight articles monthly
- Make other improvements based on feedback



Background >> Current Status >> **Future Plans** >> Questions

Library Expansion

- Continue adding new materials to the library
- Update catalog (in print and on Web) as necessary



Background > Current Status > **Future Plans** > Questions

Evaluation

- Ask for COEP evaluation of Resource Center services
 - ◆ Catalog
 - ◆ Web site



Background > Current Status > **Future Plans** > Questions

Under Consideration

- Write a periodic COEP newsletter
- Create a COEP informational brochure
- Develop a traveling COEP conference exhibit
- Assist COEPs with final production of materials
- Expand Resource Center to include other NIEHS outreach/education programs
- Other suggestions?



Your Homework Assignment



Your Homework Assignment

Continue to send in materials and
calendar items!



Presentation Outline

