

Empowering Communities through Environmental Health Education

Kari Lyons, Health Educator

BA, Master of Intercultural and International Management

Multnomah County Environmental Health Services

Portland, Oregon

Welcome to Multnomah County Environmental Health Services Community Education.

The goals, strategies and key learnings in this PowerPoint are snapshots of a two-year project that hoped to strengthen community members' understanding of environmental health prevention messages and create healthier and safer homes and environments in Multnomah County.

What is lacking are the stories and the experiences of how people were impacted, which truly demonstrated to us the value of environmental health in our neighborhoods.



The strategies are seeds we planted. The community organizations and members who supported outreach are the gardeners. The changes we have all made to create healthier homes and environments are the flowers that have grown in our community today.

We invite you to enjoy our road map – how we found direction and our journey to establishing a flourishing education and outreach team of environmental health services.

Finding Direction

A scenic landscape photograph showing a two-lane asphalt road that winds through a lush green valley. The road curves from the bottom left towards the center, then continues straight up a gentle slope towards the background. The surrounding area is filled with rolling green hills, dense forests, and distant blue mountains under a bright blue sky with scattered white clouds. The overall atmosphere is peaceful and open.

1. Working with the community and supporting their needs

2. Assess our capacity to support community education and outreach

3. Identify resources



Assessing the Community

- Multnomah County is an urban environment, with 1/5 of Oregon's residents
- Diversity and poverty are concentrated within different parts of the county
- Environmental health problems are dispersed throughout county
- Disparate communities are concerned about mold, mildew, trash and "feel ignored"
- There is a decline in environmental health specialists and educators



How we know this

- Community Assessment in 2003 (Protocol for Assessing Community Excellence in Environmental Health)
- Other Existing Data
 - *City of Portland Demographic Data*
 - *Community Alliance of Tenants' Mold Report*
 - *Coalition for a Livable Future Data*



Our Internal Gap Analysis

Used format identified in Essential Services of Environmental Health A Training Module developed by Carl Osaki, RS MSPH and the Northwest Center for Public Health Practice (<http://www.nwcphp.org>)



Identified Resources

- Three year Essential Services grant from Center for Disease Control
- Prioritized Grant Needs:
 - Community Outreach, Involvement and Education
 - Mobilizing Educational Partnerships
 - Collect and Analyze data to support educational messages
- Strong environmental health community organization network in county

Starting our Journey

1. Identifying work goals

2. Identifying education content areas

3. Creating tools and strategies

4. Building strong partnerships

5. Documenting key learnings





Identify work plan goals

- Connect with clinical and health promotion staff within the health department
- Build and sustain community partnerships
- Educate and empower the community
- Create an informed advisory council
- Support workforce development



Identify Education Focus Areas

- Food Safety Education
 - On-line Food Handler Test, 7 languages
 - Norovirus outbreak response
- Vector Education
 - West Nile virus
 - Rodent prevention
 - Integrated Pest Management
- “Disease of the Day”



Identify Education Focus Areas

- Social Marketing Campaign
- Vector Advisory Committee
- Culturally Specific Outreach



Environmental Health Educator Kari Lyons and Natalie Simpson, intern at a mobile lead testing clinic, worked together on a community-based participatory research project with a Somali community neighborhood in NE Portland



Create tools and strategies

On-line Food Handlers Test

- Worked with Information Technology department to develop web-based food handler test
- Tested curriculum in focus groups to assure linguistically appropriate
- Tested food safety messages in focus groups to assure culturally competent
- Translated test in seven languages
- Culturally competent promotion and marketing in bi-lingual publications and on buses



Create tools and strategies

Food Safety Month

- Education with seniors at Loaves and Fishes Meal sites and with Aging and Disability Case Managers
- Education with Meals on Wheels drivers
- Checklist on food storage, safe handling and resource list





Create tools and strategies

Restaurant Risk Survey

- Evaluated food inspection model based on risk
- Created food safety educational messages based on inspection and outbreak findings from risk survey



Create tools and strategies *Vector Education*

- Developed Vect-O – Bingo style game on West Nile virus and rodent prevention
- Workshops at sustainability fairs, home and garden shows, and neighborhood associations
- Rodent Prevention training with Inspectors
- “How to Rodent Proof your Home” DVD in three languages





Create tools and strategies

West Nile virus

- Developed:
 - Educational display board
 - “Fight the Bite!” brochure
 - E-newsletter and new West Nile website
- Tailored community outreach:
 - Senior Case Managers
 - Homeless community
 - DEET-Free and DEET insect repellent donations





Create tools and strategies *“Disease of the Day”*

- Avian Flu
 - Created FAQ sheet
 - Tailored presentation to Urban Chicken Owners
- Bed Bugs
 - Multi-agency Best Practices developed
- Mercury Fire Emergency Response
 - Education to Affected Community Members

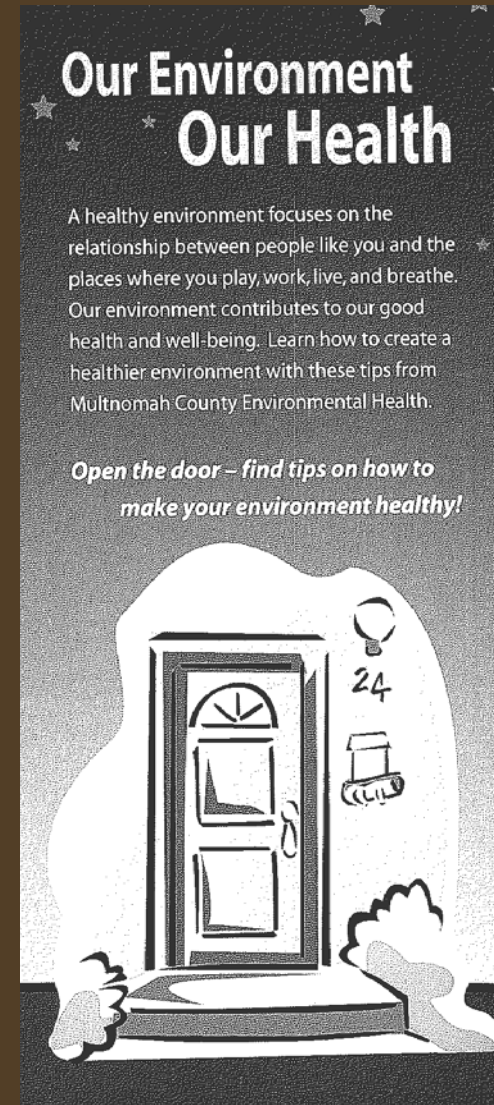




Create tools and strategies

Social Marketing

Created a logo and brochure to give our department its own unique brand





Create tools and strategies *Healthy Homes Training*

- Principles of Healthy Home brochure
- 50-minute interactive training
- User-friendly environmental health assessment and action plan
- Presented at neighborhood associations, health fairs at scheduled trainings with community organizations, such as Head Start



Community Health Fair

- Coordinated environmental health organization booths
- Free chili and cornbread, donations from local organic grocer
- Sponsored blues and gospel music all day
- Clowns, face painting
- Grassroots marketing (flyers, door knocking)
- Public Service Announcements



*Health Educator Kari Lyons
and Community Outreach
Worker Ben Duncan show
some smiles at the health fair*



Community Health Fair

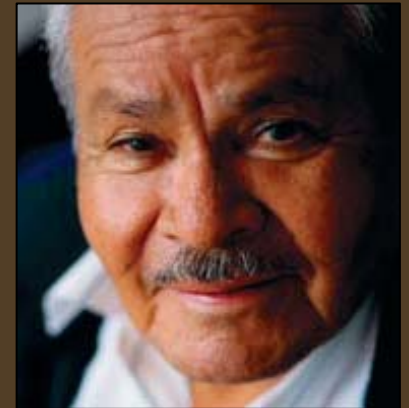




Create Tools and Strategies

Latino Outreach

- Mercury Fish Advisory Outreach
- Distribution of WNV materials to Mexican consulate
- Health Education “Message of the Week” at Hispanic Chamber of Commerce listserv





Create Tools and Strategies

Somali Lead Poisoning Prevention

- Recruited PSU Intern for bicultural, bilingual community health specialist position
- Focus Groups, Informal Interviews
- Messaging in Storyboard Format
- Advocacy and Education in Clinical Setting



A Somali woman speaks up at a lead poisoning prevention focus group

I have bigger dreams because of this internship. Now more than ever I want to be a Community Health Outreach Worker, my primary focus will be on helping to reduce health disparities in our communities.

*- Kamar Haji,
Somali Lead Poisoning
Prevention Intern*





- People care what you know when they know that you care
- Demonstrate commitment and flexibility – sometimes you work weekends and nights!
- Demonstrate a compassionate understanding of people's needs – i.e. have meetings with food, spaces that are accessible and with childcare.
- Use education as a means by which individuals participate in the transformation of their world



Use an education model that supports sharing and listening to the community's needs

Our Model: Popular Education Training Model

- Values people's education, life experience and knowledge of their communities
- Learning is a process based on dialogue
- Share stories and experiences and histories, reflection
- Evaluating trainings to support improved educational workshops and messages



Create tools and strategies

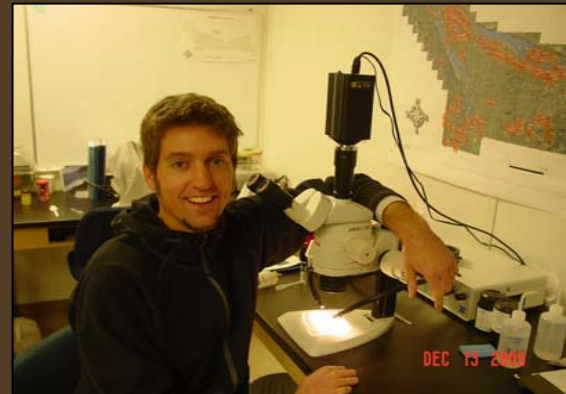
Workforce Development Goals

- Developed post-secondary internship:
Developing on-the-job skills and applying academic theory to workplace practice
- Developed high school environmental health educational curriculum and clubs
Developing a curiosity for the environment and health; EH career exposure



Post-secondary internship goals

- Gain practical “on-the-job” skills
- Better able to apply academic theory into workplace practice
- Outcome-based experience





Sample Internship Concepts

- Bi-cultural bi-lingual lead poisoning prevention outreach to Somali community
- West Nile virus education to homeless and elder service providers
- Researching an exotic mosquito species
- Ride-a-longs with EH Specialists



Outcomes

- Increased education our local community about environmental health hazards such as West Nile Virus
- Culturally Competent Somali Lead Poisoning Prevention outreach
- Support development of high school environmental health curriculum
- Hired three interns



Thank you for creating an atmosphere here at MCEHS that welcomes interns into a effective learning experience. I appreciate all of the time and effort given to help me grasp public health practices/regulation and education.

~ Joe Laxson, Benson High School EH Curriculum Development Intern



Characteristics of a Model Program

- Need management support
- Ability to provide hands-on experience to apply university learning
- Clearly defined, tangible work plan
- Resources available, such as desk, phone
- Resource capacity to develop and implement a solid internship infrastructure prior to student placement



- Develop strong program infrastructure
 - *Supervision of interns*
 - *Student intake and orientation*
 - *Marketing program to academic institutions*
- Nurture relationships with institutions
- Develop strong evaluation to improve program



High School Curriculum Goals

- Establish partnership with Portland Public Schools Health Occupation Teachers
- Flexible to students' clinical needs and after school schedules
- Tap into existing community resources
- Align with school standards



Benson High School Environmental Health club students practice a presentation on indoor air quality and water quality for the administration



The Need

95% of parents support environmental education in our schools. National Environmental Education Training Foundation states that “this support probably stems from a common perception that exposing a child to the wonders of nature, animals and cleaner communities helps overcome apathy and teaches respect.”





Meeting State Health Occupation Standards

Examples:

- Ability to practice health-enhancing behaviors and reduce health risks.
- Analyze the influence of culture, media, technology, and other factors on health.
- Demonstrate interpersonal communication skills to enhance health.
- Demonstrate goal-setting and decision-making skills to enhance health.



Objectives

- Support young people to research, design and organize neighborhood and school-based improvement projects
- Support a workforce that reflects the community



Students learn about the connection between water quality and health with assistance from the Portland Water Bureau

DO YOU KNOW ABOUT VECTORS?

A vector is an organism capable of transmitting disease, such as fleas, mosquitoes or rodents. Vectors are able to spread disease to humans by biting, burrowing, or contaminating our living spaces.

Did you know a coffee can with an inch of water can produce **over a thousand mosquitoes every 7 days!**

Mosquitoes can be controlled by eliminating mosquito breeding sources, such as buckets, tires, bird baths, and cans of water. Keep rain gutters cleared of debris. Keep vegetation around ornamental ponds thinned and minimize mosquito production by adding mosquito fish.

Did you know that the average mosquito lives an average of two weeks in the summer, but may live up to one month?

The Life Cycle of a Mosquito



Did you know only the female mosquito "bites"?



Did you know rodents are illegal in the City of Portland?

A specified animal permit is required if a total of four or more chickens, ducks, doves, pigeons, rabbits and pygmy goats are kept.



Did you know it only takes a hole the size of a quarter for a rat to squeeze through and a mouse only requires a hole the size of a dime?



Rodents can enter through open crawl space vents, pet doors, windows or garage doors, gaps around pipes or wires entering into home, uncapped floor drains, or structural gaps.

Tram Pham educates classmates about rodent- and mosquito-borne diseases. Tram entered into Environmental Sciences and Community Health as a dual degree at Oregon State University in the fall of 2007



Objectives

- Foster academic motivation, youth empowerment
- Create pathways for youth to succeed as community leaders
- Foster an understanding of the principles of environmental justice, environmental health practices



Health Educator Role

- Provide suitable experiences, pose problems, support learning, and help facilitate the learning process
- Listen to students, take risks in project development, openness to connecting with community partners, patience



Environmental Health Educator Kari Lyons spends a day in the field with five health occupation students at the Portland Water Bureau



Sample Curriculum Topics

Benson High School Clinical Curriculum:

- Environmental Health 101 class
- Air quality and water quality testing
- Asthma education
- Asthma/allergy student survey
- Advocacy with school administration for student on health and safety committee



Sample Club Curriculum

- Environmental Health 101 presentation
- Community Organizations serve as “content experts”
- Global Climate Change focus:
 - Increase in emerging EH diseases
 - Increase in asthma rates throughout Oregon
 - School based marketing and assemblies, such as no idling campaign



How We Learn Matters

- Experiential and inquiry-based education model: Helps students to become engaged in investigating, posing questions, and solving problems
- Students explore and examine their own values and career paths



How we learn matters

- Students are supported by reflection and analysis
- Results of the learning are personal and form the basis for future experience and career choices



Outcomes

- Two students university focus on pediatric environmental health
- Two students accepted in OSU Environmental Sciences and Community Health dual degree
- Two Environmental Health clubs formed with 2007-2008



Benson High School students finish their EH clinical, with Joe Laxson, Portland State University Intern, and Kari Lyons, EH Educator



Building and Sustaining Community Partnerships

Environmental Health

Education Work Group:

- Networking bi-monthly
- Resource sharing of materials
- Article exchange, workshop, training list serve
- Joint public relations capacity
- Joint outreach capacity



Building Community Partnerships *Vector and Code Enforcement Advisory Board*

Health Educator role:

- Recruit diversity in Membership
- Facilitate “Form, Norm, Storm, PERFORM!!”
- Strategic Agenda Setting
- Informative summer workshops
- Support subcommittees and recommendations



*Environmental Health Educator
Kari Lyons and Josiah Hill
Clinic – a local mobile lead
testing - Executive Director
Erin McNally at their annual
fundraiser.*



- Build strong relationships through listening, caring and sharing
- Employ creative brainstorming - wonderful partnerships happen when you least expect it!
- Keep people informed and connected by consistently checking in on community partners

Final Thoughts

The Health Educator role has immeasurably increased capacity to connect with the community with messages that resonate with them.

– Lila Wickham,
Program Director





The Drivers

- Kari Lyons, Health Educator
- Lynn George, Program Development Specialist Sr.
- Lila Wickham, Program Director
- Chris Wirth, Vector Control Program Manager
- Mark Fulop, Community Services Program Supervisor



Lila Wickham, Program Director
lila.a.wickham@co.multnomah.or.us

Kari Lyons, Health Educator
lyonsk@co.multnomah.or.us

mchealthinspect.org
503-988-3400