

***Applying Ecological Economics to
Puget Sound:
Health, Environment, Economy***

**Kate Davies MA DPhil
Director and Core Faculty,
Center for Creative Change
Antioch University Seattle**

The Take-Away Messages

- Human health depends on a complex system of inter-dependent factors. Of these, the environment is the most important.
- The economic costs of environmental diseases and disabilities are huge.
- We know what needs to be done to design a Puget Sound economy that's good for health and for the environment.

What Makes People Healthy?

- What do you think makes people healthy?

What Makes People Healthy?

- Social and economic conditions
 - Social and community networks
 - Income level and disparities
 - Education

What Makes People Healthy?

- The physical environment
 - Natural & built environments and land use
 - Microbiological & chemical agents in air, water, soil and food
 - Climate change

What Makes People Healthy?

- Lifestyle and Personal Health Practices
 - Smoking
 - Drug and alcohol use
 - Diet and exercise
 - Healthy child development

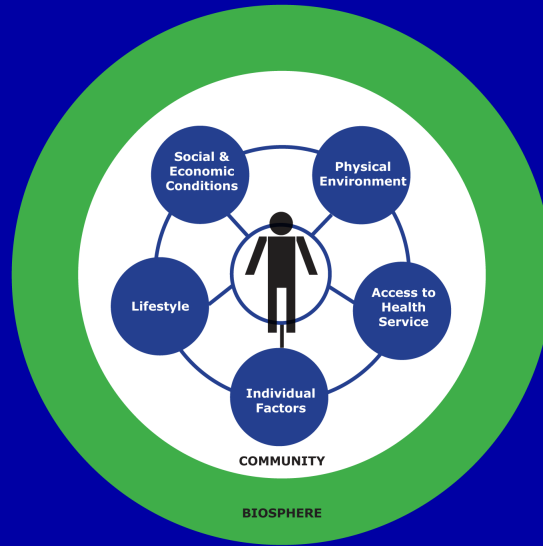
What Makes People Healthy?

- Health services
 - Public health and health protection services
 - Preventive care
 - Medical care

What Makes People Healthy?

- Individual Factors
 - Genetics
 - Gender
 - Natural variations in the population

The Determinants of Health



The Environmental Burden of Disease

- Asthma?
- Cancer?
- Cardiovascular disease?

Proportions of Selected Diseases and Disabilities Due to Environmental Conditions

Disease	Proportion (%)	Range (%)
Asthma	44	26-53
Cancer	19	12-29
Cardiovascular disease	16	7-23
Perinatal conditions	6	2-10
Birth defects	5	2-10

First Take-Away Message

- Human health depends on a complex system of inter-dependent factors. Of these, the environment is the most important.

***Costs of Environmental Diseases in WA State
(in 2004 million \$)***

- Diseases and disabilities due to the environment in WA cost about \$2.6 billion a year in 2004 \$
- The direct health costs of this are about 4.7% of WA healthcare costs
- The direct and indirect costs combined are about 1% of WA Gross State Product

***Cost of Environmental Diseases in
Puget Sound (in 2004 \$)***

- Diseases and disabilities due to poor environmental quality cost the Puget Sound region approx \$1.5 billion a year in 2004\$
- This is comprised of \$444.3 million in direct health care costs and \$1.1 billion in indirect costs

Second Take-Away Message

- The economic costs of environmental diseases and disabilities are huge.

Designing a Health Promoting, Sustainable Economy for the Puget Sound Region (1)

- Social and economic conditions
 - Strengthen social and community networks
 - More equitable income distribution
 - Support education in schools

Designing a Health Promoting, Sustainable Economy for the Puget Sound Region (2)

- A healthy natural environment with low/no levels of harmful agents and land use patterns that encourage exercise and community-building.
- Lifestyle and Personal Health Practices
 - Further reduce smoking and drug & alcohol use
 - Continue to promote healthy diets and exercise. Discourage unhealthy choices
 - Ensure that every child grows up healthy

Designing a Health Promoting, Sustainable Economy for the Puget Sound Region (3)

- Health services
 - Enhance public health and health protection services
 - Offer free preventive care
 - Universal health insurance

Countries that Invest in the Determinants of Health have Better Health

- Countries that invest in the determinants of health have better health than the US...

	Sweden	Canada	US
Life expectancy (y)	80.6	80.3	78.0
Infant mortality (per 1,000)	2.8	4.6	6.4

Third Take-Away Message

- We know what needs to be done to design Puget Sound economy that is good for health and good for the environment.

Kate Davies

kdavies@antiochsea.edu

www.antiochsea.edu/academics/creativechange