

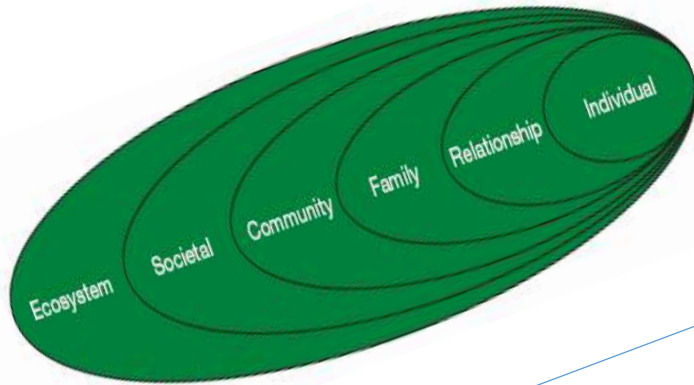
# Ecologic Models of Health

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Collaborative on Health and the Environment

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## Multiple levels; nested



## Multiple variables

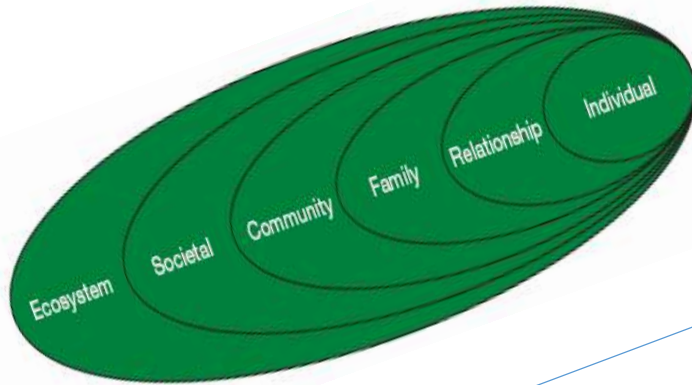
Genetic background  
Toxic chemicals, pollutants  
New technologies; e.g. nanotech, synthetic biology, GMOs  
Radiation (ionizing, non-ionizing)  
Infections  
Physical agents (e.g., heat, noise)  
Diet, Nutrition  
Socioeconomic status; income disparities; social stressors  
Clean air and water  
Housing  
Community safety, assets, services  
Access to food, health care  
Climate change  
Ocean acidification  
Habitat destruction

Note: Some are individual level variables; some community level; some societal; some planetary.

Multiple, dynamic interactions;  
feedback loops

## Multiple variables

### Multiple levels; nested



### Scale;

### Proportion;

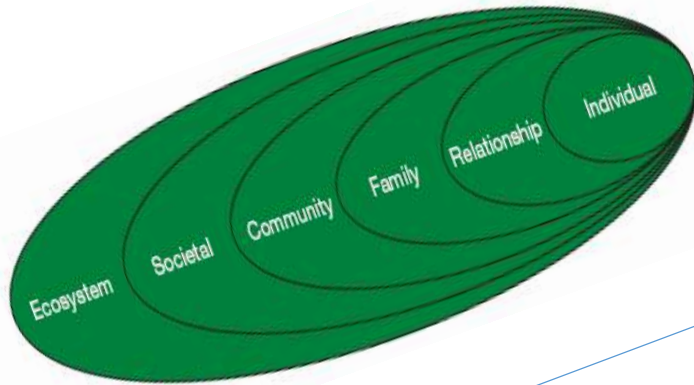
### Ratios;

### Relationships

- the “right mix”;
- e.g., sleep/wake; exercise/sedentary activity
- healthy dietary patterns/proportions, etc.
- social networks; relationships
- growing income disparities
- these and others influence the nature of networks, connections, feedback loops, system behavior, vulnerability, resilience

## Multiple variables

### Multiple levels; nested



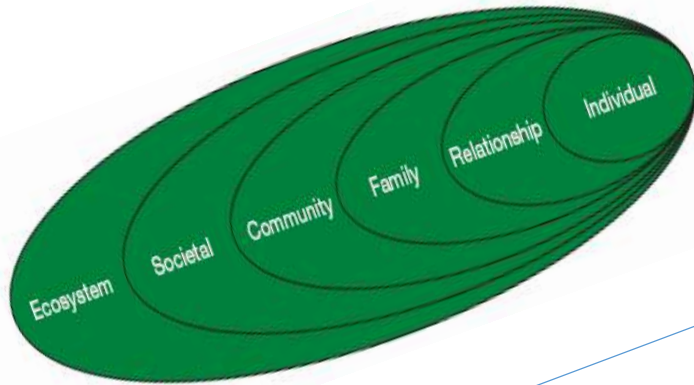
Scale;  
Proportion;  
Ratios;  
Relationships

### Time

- timing of exposures or events
- personal lifespan, aging
- recent historical time (decades, century)
- evolutionary time
- cyclicity, rhythmicity (daily, seasonal)
- latency

# Multiple variables

## Multiple levels; nested



Scale;  
Proportion;  
Ratios;  
Relationships

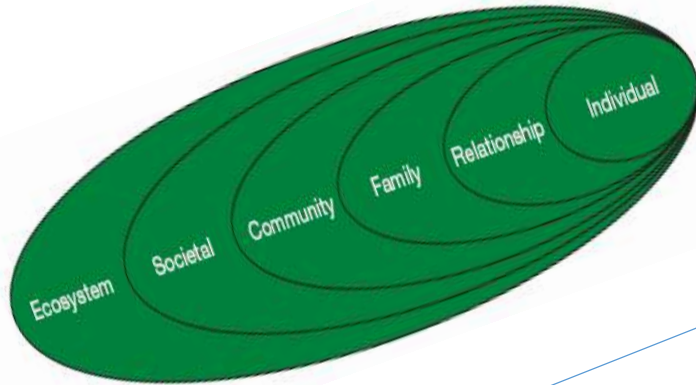
Time

## Aesthetic

- response to pattern, beauty
- response to nature
- response to an aesthetically barren environment

# Multiple variables

## Multiple levels; nested



## Spiritual

- inner path
- immaterial reality
- has aesthetic components
- can add narrative
- may be secular or religious
- influences worldviews; how people act in the world
- influences attitudes about aging, death, dying
- sense of oneness

Scale;  
Proportion;  
Ratios;  
Relationships

## Time

Aesthetic