Ecologic Models of Health

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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

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

Scale;
Proportion;
Ratios;
Relationships

Multiple levels; nested
Multiple levels; nested

Scale; Proportion; Ratios; Relationships

Aesthetic
- response to pattern, beauty
- response to nature
- response to an aesthetically barren environment
Multiple levels; nested

Scale; Proportion; Ratios; Relationships

Multiple variables

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

Aesthetic

Time