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PATHWAYS TO ILLNESS, PATHWAYS TO HEALTH

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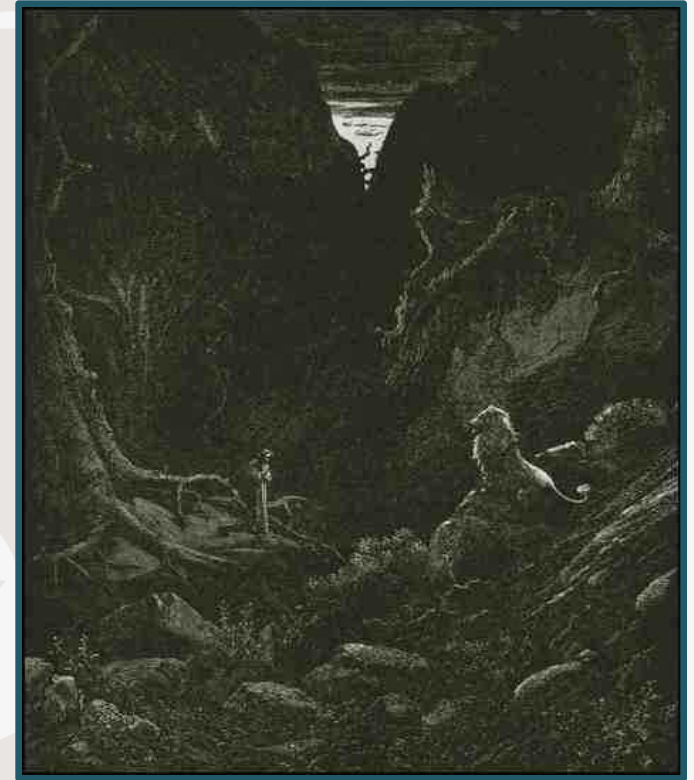


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DANTE'S FAMOUS PATHWAY

- *“Midway in this mortal life I found myself astray, in a dark wood. Ah, who can say how terrible it was!”*
 - Divine Comedy, Dante Alighieri (1265-1321)



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THE FACE OF ILLNESS HAS CHANGED

- In 1900 physicians faced the scourge of acute conditions, which often killed quickly
 - infectious disease
 - bacterial parasites
 - unhealed physical trauma

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ERADICATION OF THE DISEASES OF THE PAST

- The impact of public health, immunization, and antibiotic medications have reduced the illnesses of the past to the margin in health care
 - Today's Western primary care clinic rarely sees typhoid, cholera, smallpox, or polio

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THE FACE OF ILLNESS HAS CHANGED

- Today's primary care clinic encounters
 - Diseases of lifestyle
 - Diseases of adaptation
 - Stress related conditions
 - Chronic illnesses and conditions
 - Complex biopsychosocial conditions

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Table 1. Top Ten Causes of Death (Lynn, 2004)

Ranking	1900	2000
1.	Pneumonia	Heart Disease
2.	Tuberculosis	Cancer
3.	Diarrhea and Enteritis	Stroke
4.	Heart Disease	Emphysema and Chronic Bronchitis
5.	Liver Disease	Unintentional Injuries
6.	Injuries	Diabetes
7.	Stroke	Pneumonia and Influenza
8.	Cancer	Alzheimer's Disease
9.	Senility	Kidney Failure
10.	Diphtheria	Septicemia

Sources: For 1900, US Dept. of Health and Human Services, 2000. For 2000, National Ctr. for Health Statistics, 2001.



TEN LEADING CAUSES OF DISABILITY IN DEVELOPED REGIONS IN 2020, AS MEASURED BY DISABILITY ADJUSTED YEARS

- Ischemic heart disease
- Cardiovascular disease
- Unipolar major depression
- Trachea, bronchus, and lung cancer
- Road traffic accidents
- Osteoarthritis
- Dementia and other degenerative and hereditary CNS disorders
- COPD
- Self-inflicted injuries
 - Fleischman (2003).

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THE PATHWAYS MODEL, I.

- This Model conceives of illness as a pathway running from genetic predisposition, through diet and level of exercise, through a series of lifestyle choices, through the impact of life and work stress, culminating in medical conditions that are largely avoidable, and that in some cases can be reversed.



THE PATHWAYS MODEL, II.

- Patients who can clearly see their role in illness creation, through past choices and lifestyle habits, can better dedicate themselves to new pathways, to wellness and health



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PATHWAY TO ILLNESS: FACTORS IN ILLNESS ONSET

- Obesity. 34% of U.S. adults are overweight and 31% are obese. Producing heart attacks, strokes, diabetes, back problems, arthritis.
 - This trend continues to worsen

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PATHWAY TO ILLNESS: FACTORS IN ILLNESS ONSET

- Poor diet (including Anorexics/Bulimics) and not enough physical activity caused 400,000 deaths in the year 2000 (16% deaths.)
- Tobacco products, 435,000 (18%) cause heart attacks, strokes, lung cancer and other cancers.

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PATHWAY TO ILLNESS: FACTORS IN ILLNESS ONSET

- Alcohol causes liver disease, lack of proper diet (85,000 deaths 3.5%)
- Microbial agents (75,000 deaths)
- Toxic agents (55,000 deaths)

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PATHWAY TO ILLNESS: FACTORS IN ILLNESS ONSET

- Car accidents (43,000 deaths)
- Firearms (29,000 deaths)
- Sexual diseases (20,000 deaths)
- Illegal drug use (17,000 deaths)

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Disease

Challenged
Health

Negative
Health
Behaviors

Positive
Health
Behaviors

Moderate
Wellness

High
Wellness

Figure 1. The Continuum of Health and Disease



PATHWAYS TO ILLNESS: THE GEOGRAPHY OF ILLNESS

- Is the problem of disorders of lifestyle, stress, and emotional maladaptation merely a problem in the affluent societies of North America and Western Europe?

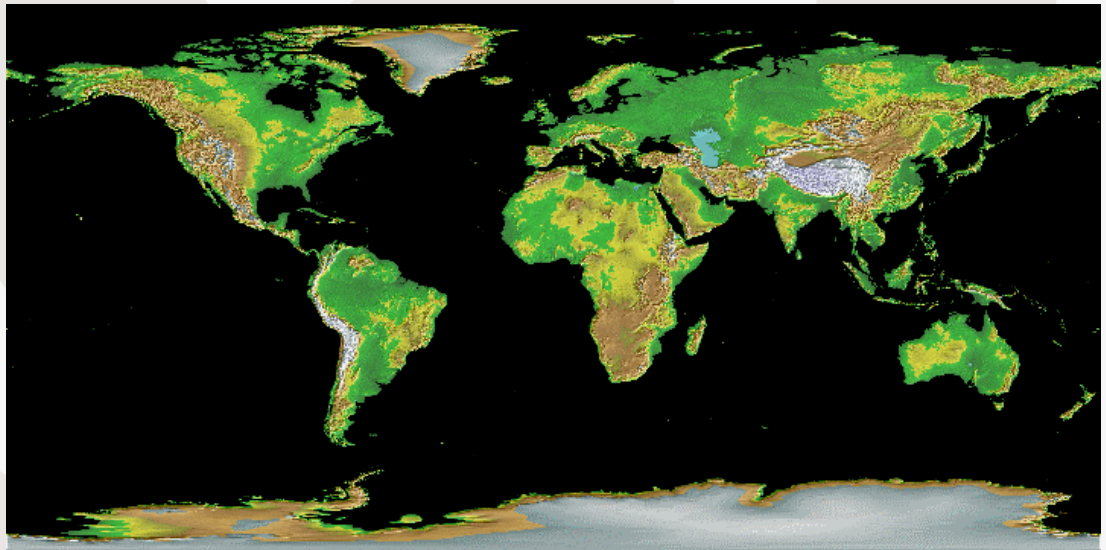


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PATHWAYS TO ILLNESS: THE GEOGRAPHY OF ILLNESS

- These problems are global, exported along with Western lifestyles, products, and diets



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EXAMPLE: THE CALL CENTER

- 1.6 million Indians work in call centers and other jobs outsourced from the US
- These employees, mostly in 20's and 30's, show sleep disorders, heart disease, digestive problems, depression and family discord
 - (R. Mahapatra, 12/30/2007, Outsourced prosperity has downside in India, Associated Press)

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EXAMPLE: THE CALL CENTER (CONT).

- Call center employees develop poor diets, excessive smoking and drinking, sedentary lifestyle, weight gain, disturbed sleep cycles due to shift work, and loneliness
 - (R. Mahapatra, 12/30/2007, Outsourced prosperity has downside in India, Associated Press)

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ECONOMIC/HEALTH IMPACT OF WESTERN LIFESTYLES

- Heart disease, strokes, and diabetes cost India \$9 billion in lost productivity in 2005
- Current estimates are for annual cost of \$200 billion within ten years
 - (Indian Council for Research on International Economic Relations, New Delhi)

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COMMUNITY PATHWAYS TOWARD ILLNESS

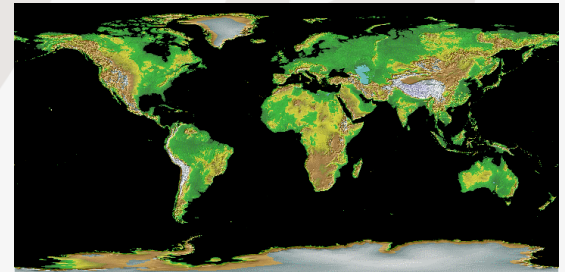
- Urbanization and industrialization
- Health effects of technological change and stress
- Decline of traditional communities, family supports, and values
- Impact of Western diet, alcohol, smoking
- Sedentary activities – automobile, television, the cyberworld

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WORLDWIDE HEALTH CHALLENGE

- Western lifestyles and work patterns are exporting Western pathways to illness as well
- Health care now is challenged to develop and communicate globally practical pathways to health and recovery





PATHWAYS TO HEALTH



- The Pathways Model challenges both individuals and communities to review past choices and turning points, and rededicate to positive choices and lifestyles

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WELLNESS IS AN OPTION

- Deaths from heart disease have fallen by 25.8 % in six years in the US
- Deaths from strokes are nearing their record low
- Individuals eating healthier, smoking less, and getting better medical care have made the difference (Sternberg, 2008)
- These factors can be chosen by others, increasing the trend



SIGNS OF TROUBLE REMAIN

- Epidemics of obesity, diabetes, and sedentary lifestyle in youth are troublesome
- The decrease in heart related deaths is lower for blacks in the US, due to diet, lifestyle and lower access to health care

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OBESITY IN YOUTH

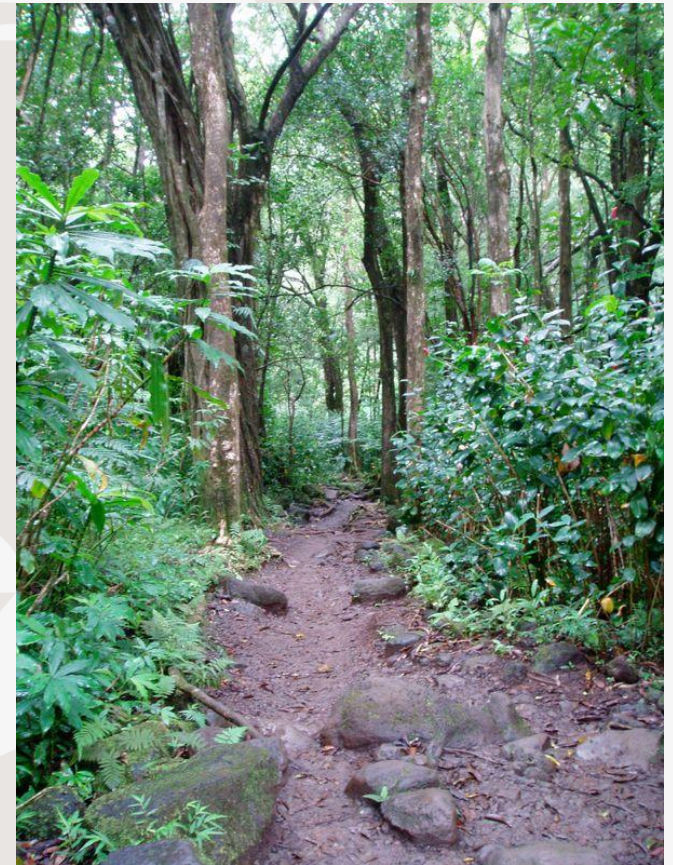
- Approximately 30.3 percent of children (ages 6 to 11) are overweight and 15.3 percent are obese. For adolescents (ages 12 to 19), 30.4 percent are overweight and 15.5 percent are obese.
- Obesity in children and adolescents is associated with increased incidence of asthma, diabetes, hypertension, orthopedic problems, sleep apnea, and social stigma.

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FINDING NEW PATHWAYS

“Do not go where the path may lead, go instead where there is no path and leave a trail.” (Ralph Waldo Emerson, 1803-1882)



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