

The Social Ecological Model for Public Health

Alan Melnick, MD, MPH, CPH

Clark County Public Health Director/Health Officer

Board of Health, August 24, 2016

Overview

- Causes of Death
- Public health approach
- Levels of public health intervention
- Social Ecologic Model with examples
- Disparities

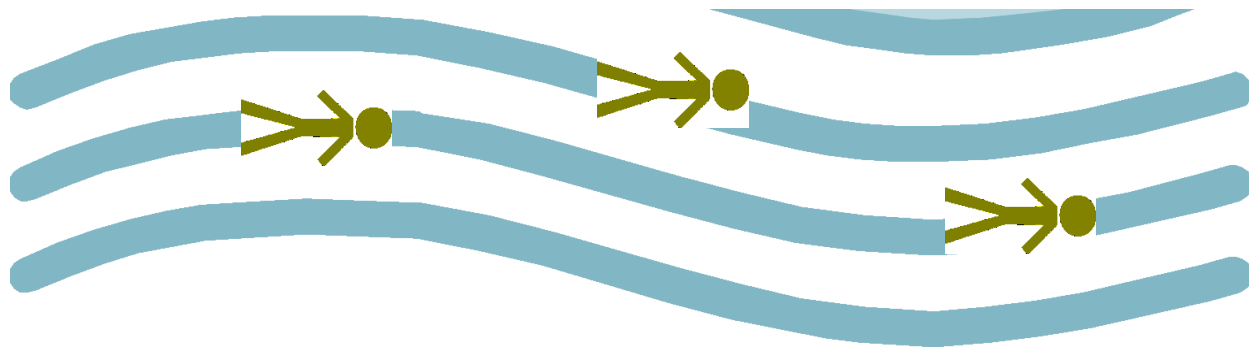
Leading Causes of Death in the United States 2000

Cause of Death	Number of Deaths	Death Rate/100,000 population
Heart disease	710,760	258.2
Malignant neoplasm	553,091	200.9
Cerebrovascular disease	167,661	60.9
Chronic lower respiratory tract disease	122,009	44.3
Unintentional injuries	97,900	35.6
Diabetes mellitus	69,301	25.2
Influenza and pneumonia	65,313	23.7
Alzheimer disease	49,558	18.0
Nephritis, nephrotic syndrome, and nephrosis	37,251	13.5
Septicemia	31,224	11.3
Other	499,283	181.4
Total	2,403,351	873.1

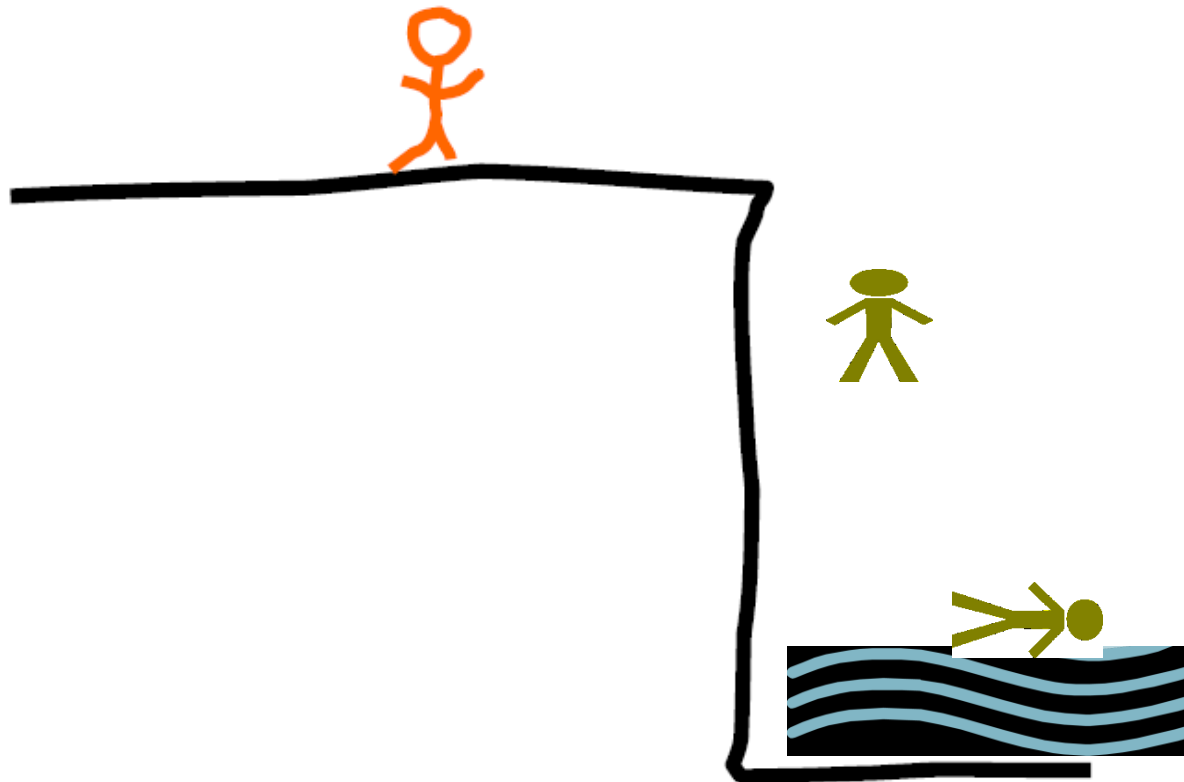
Actual Causes of Death in the United States 1990 & 2000

Actual Cause of death	Number of deaths (%) 1990	Number of deaths (%) 2000
Tobacco	400,000 (19)	435,000 (18.1)
Poor diet and physical inactivity	300,000 (14)	400,000 (16.6)
Alcohol consumption	100,000 (5)	85,000 (3.5)
Microbial agents	90,000 (4)	75,000 (3.1)
Toxic agents	60,000 (3)	55,000 (2.3)
Motor vehicles	25,000 (1)	43,000 (1.8)
Firearms	35,000 (2)	29,000 (1.2)
Sexual behavior	30,000 (1)	20,000 (0.8)
Illicit drug use	20,000 (<1)	17,000 (0.7)
Total	1,060,000 (50)	1,159,000 (48.2)

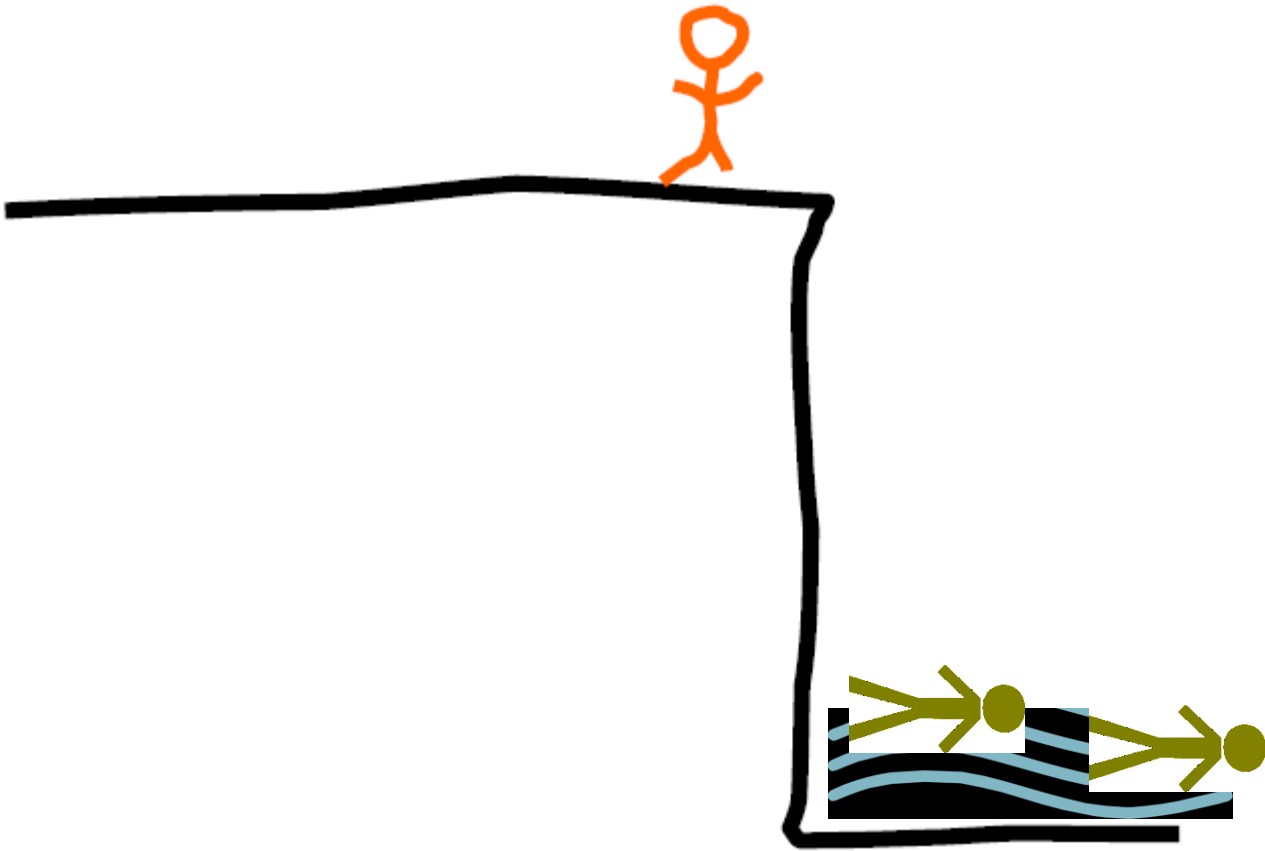
The River

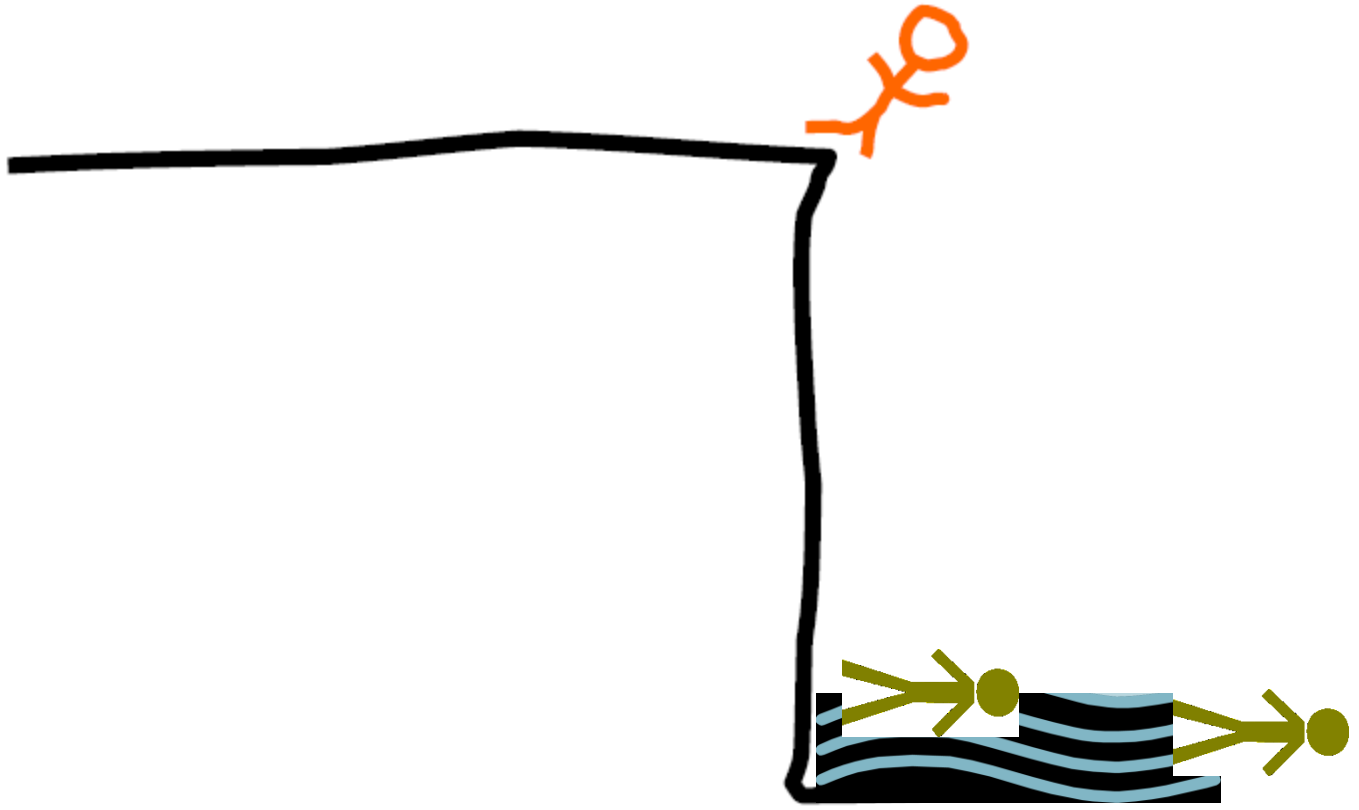


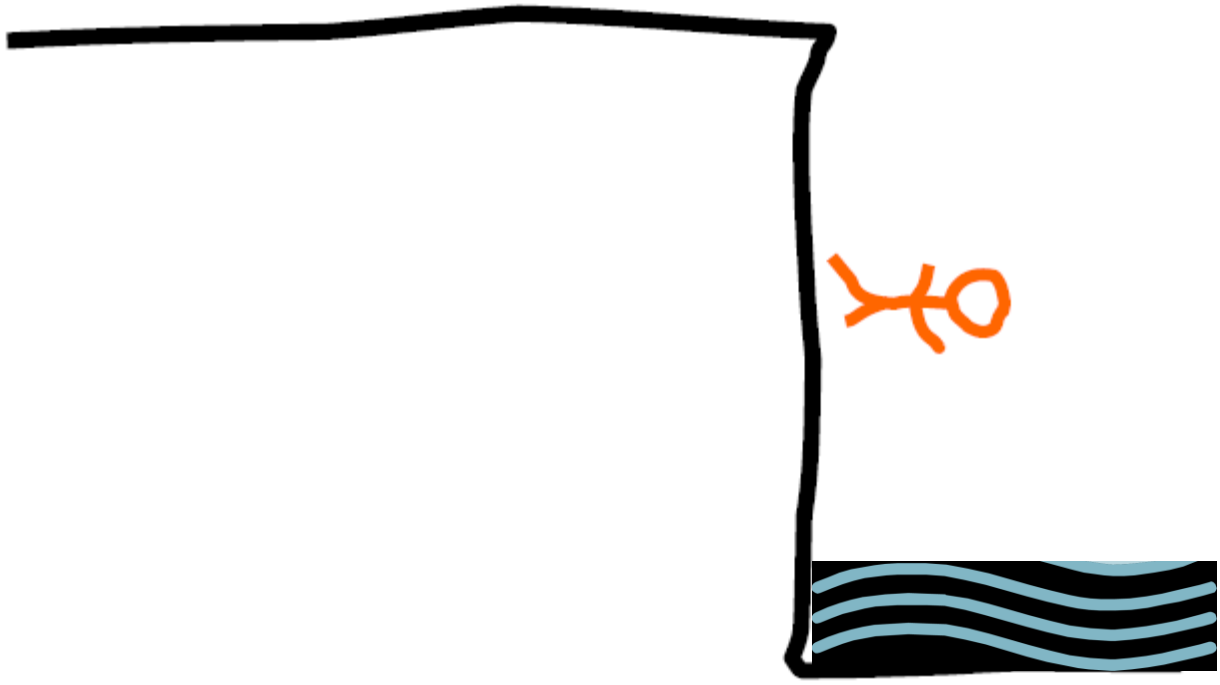
Moving Upstream

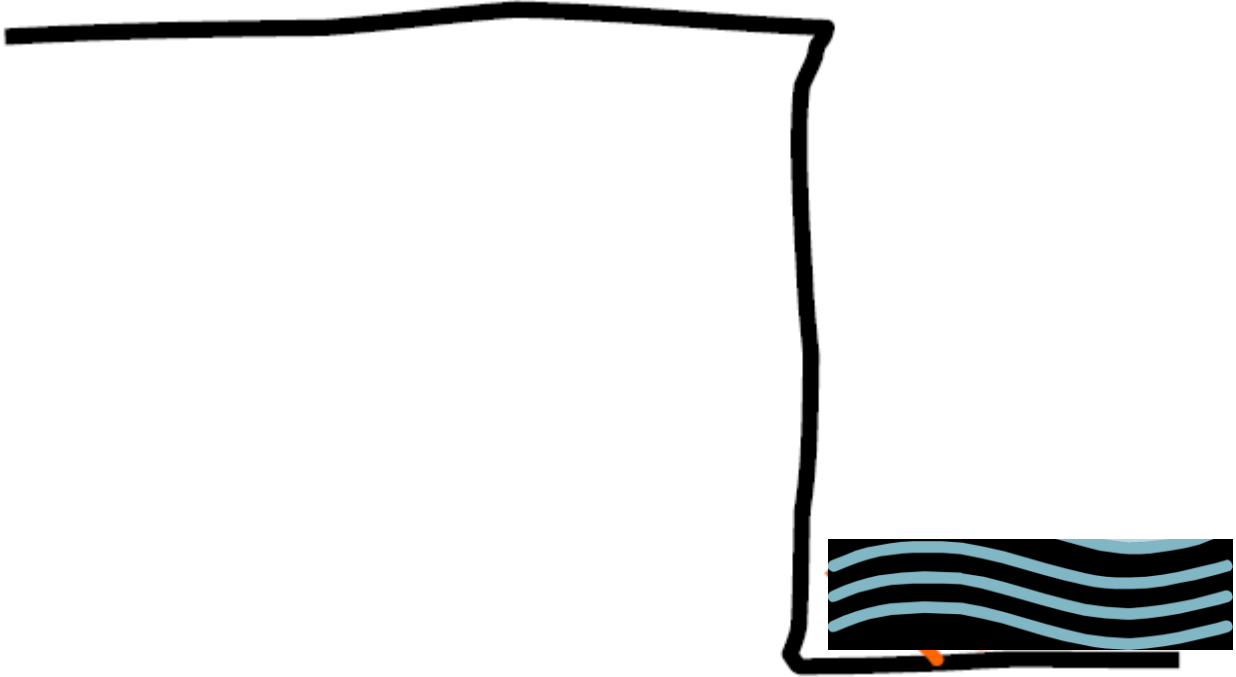


Adapted from Jones, CP, Jones, CY, Perry, GS, Barclay G and Jones CA. Addressing the social determinants of health: a cliff analogy. *Journal of Health Care for the Poor and Underserved*. 2009(4 suppl):1-12

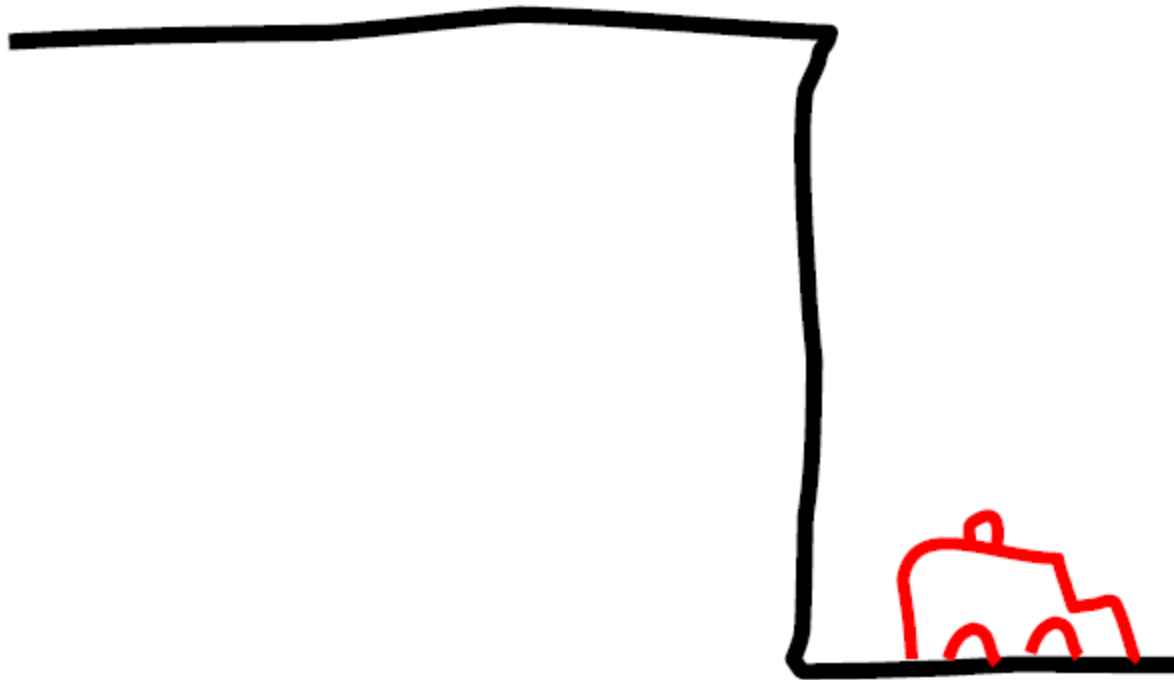


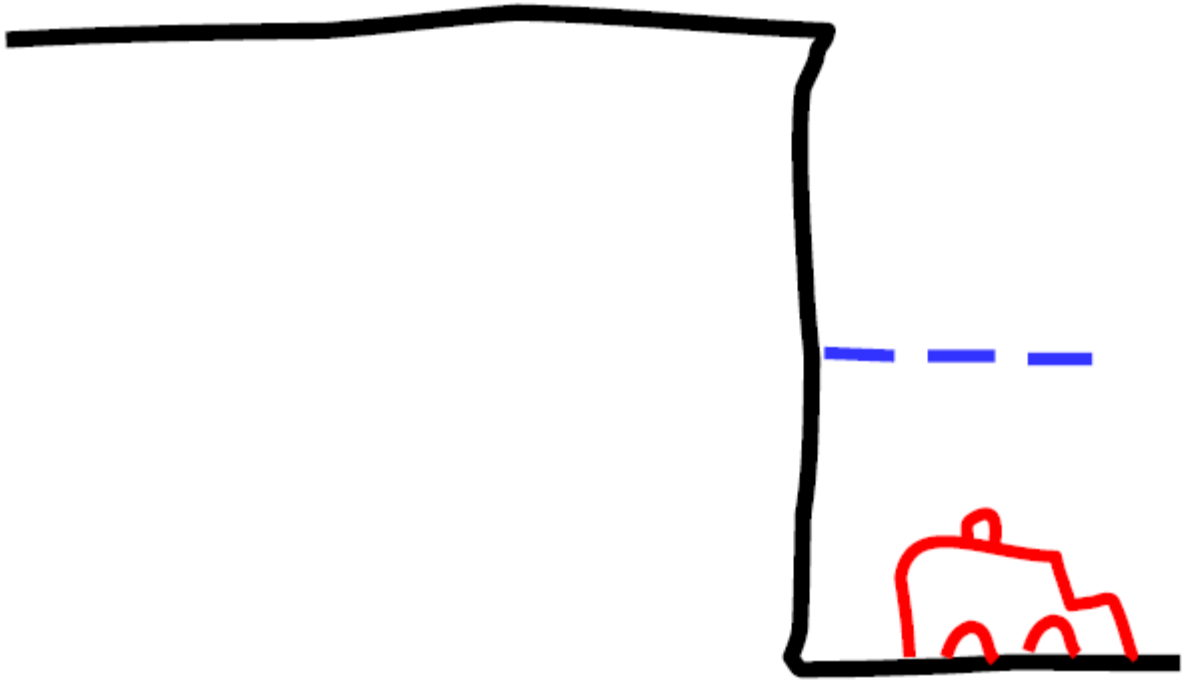


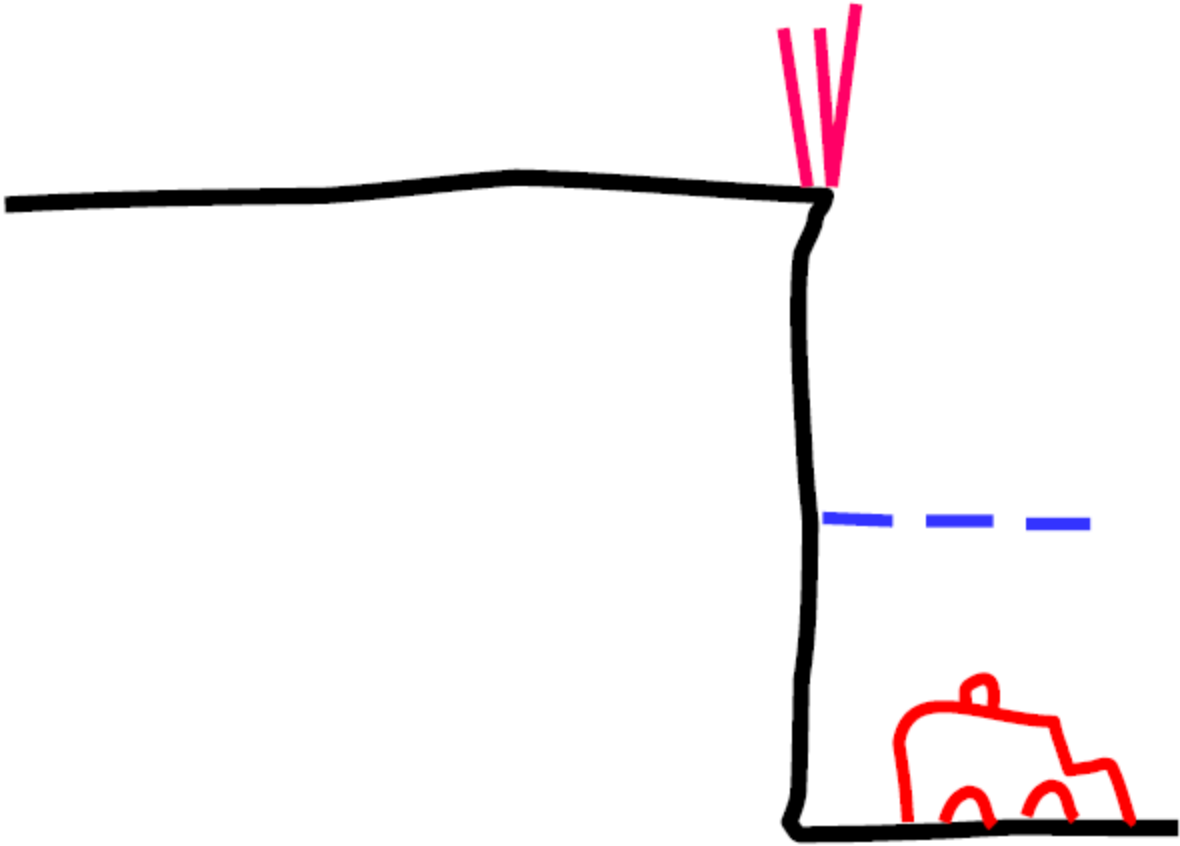


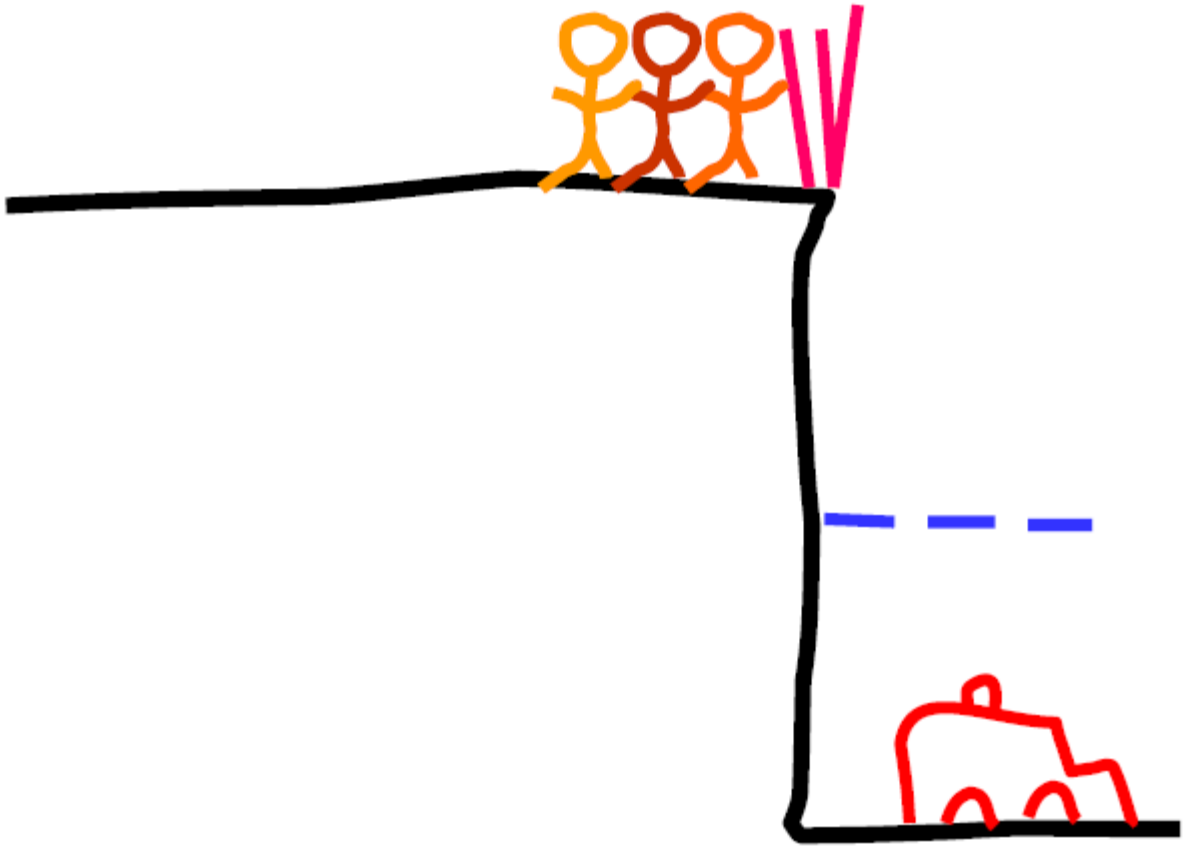


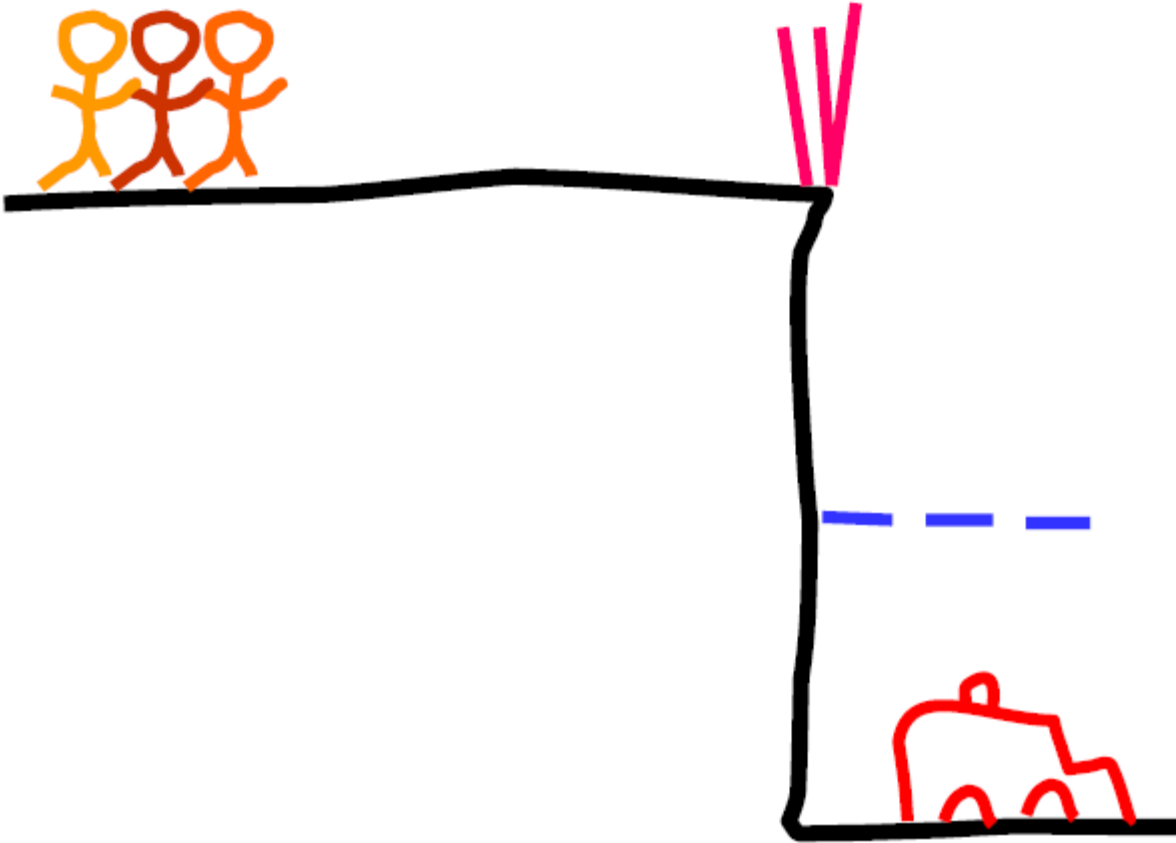
Levels of Intervention

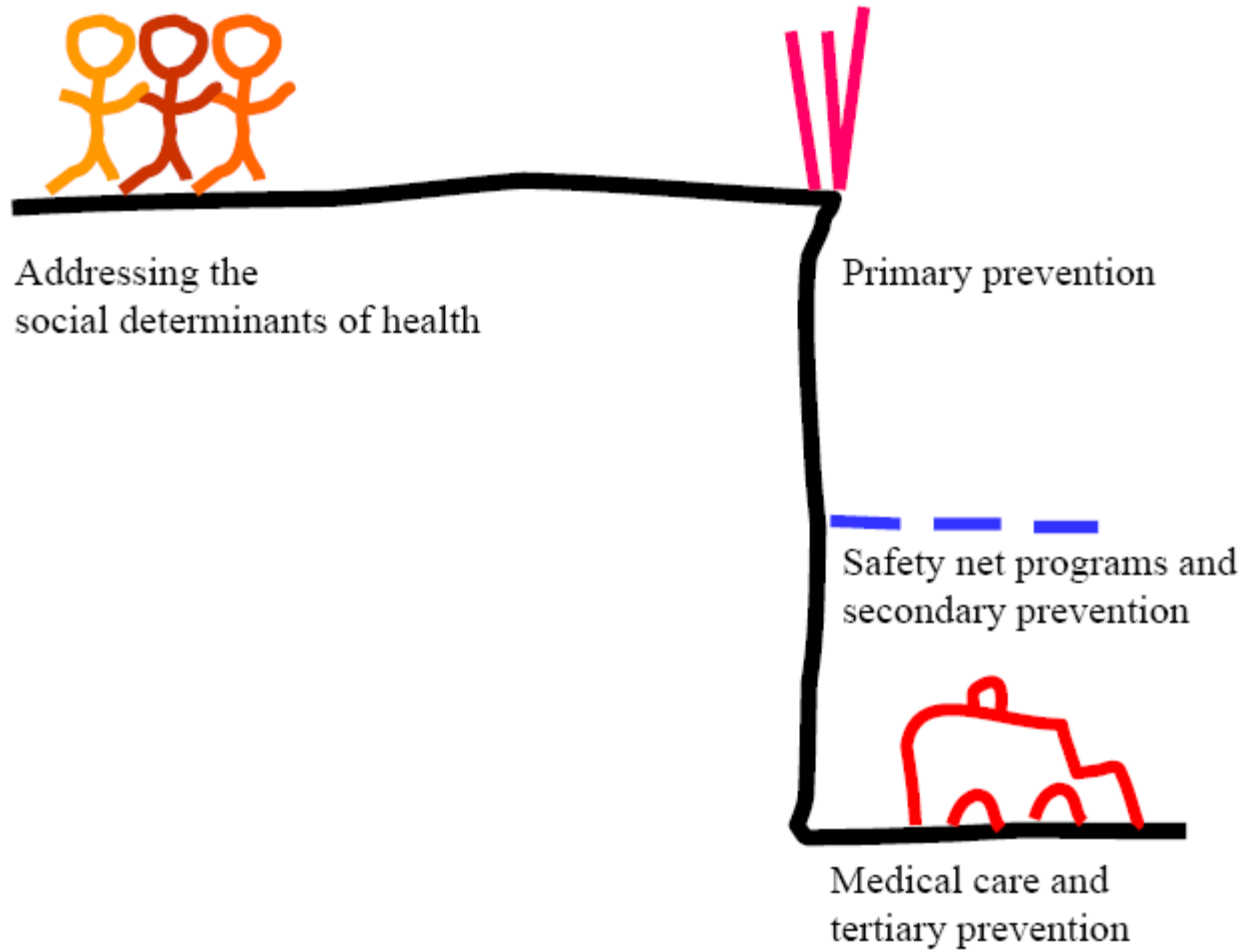


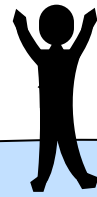
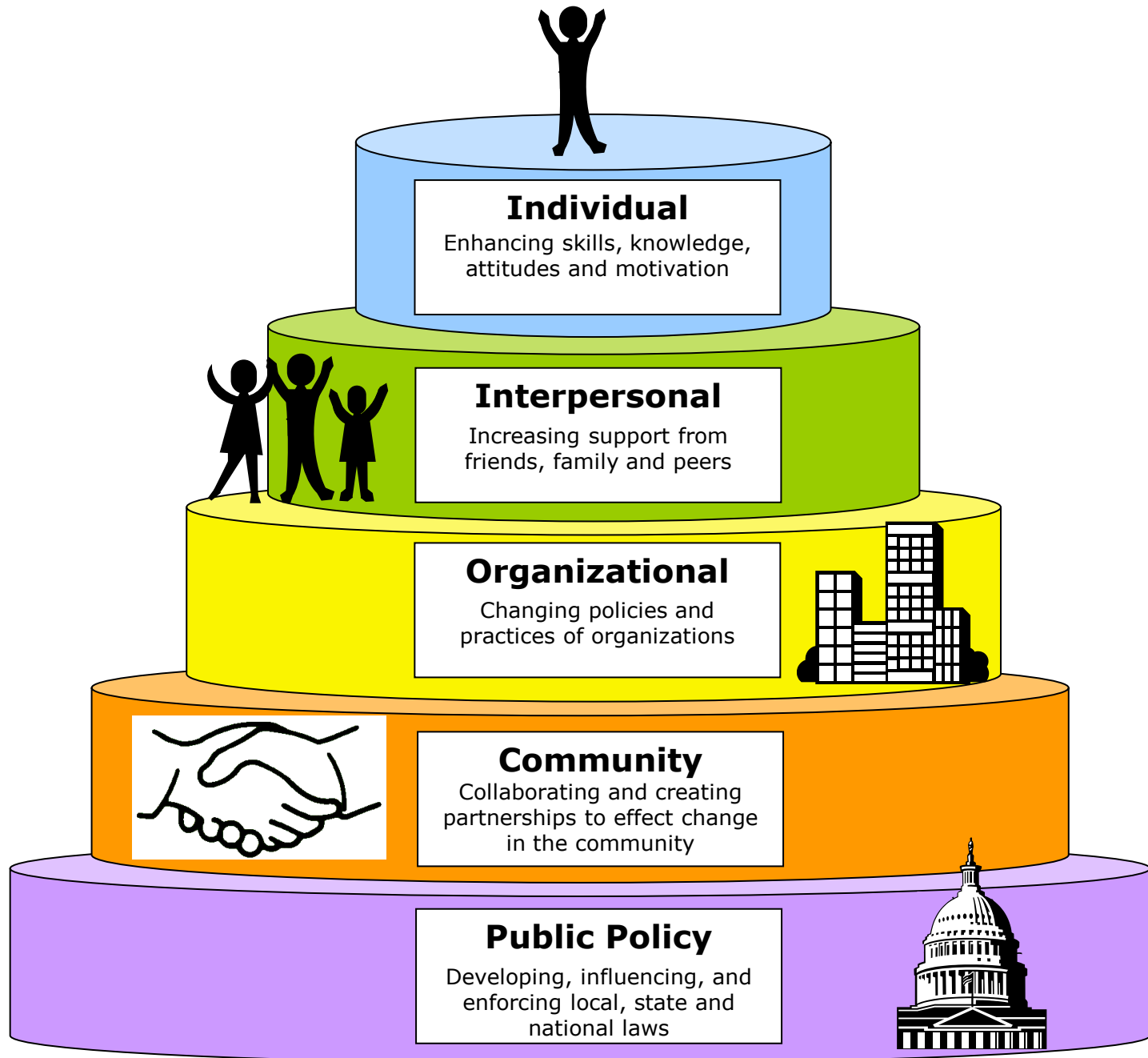












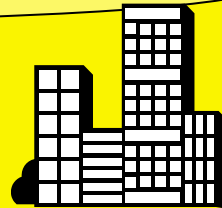
Individual

Enhancing skills, knowledge, attitudes and motivation



Interpersonal

Increasing support from friends, family and peers



Organizational

Changing policies and practices of organizations



Community

Collaborating and creating partnerships to effect change in the community



Public Policy

Developing, influencing, and enforcing local, state and national laws

Socio-ecological Model – Tobacco Prevention

Public Policy

Enforcing the Smoking in Public Places (SIPP) RCW, tobacco retailer compliance checks

Community

Clark County PREVENT! Coalition, Speak Out! Coalition, partnering with other organizations around smoke-free housing, Alternative to Ticketing program,

Organizational

Smoke-free workplaces, smoke-free multi-unit housing and condos

Interpersonal

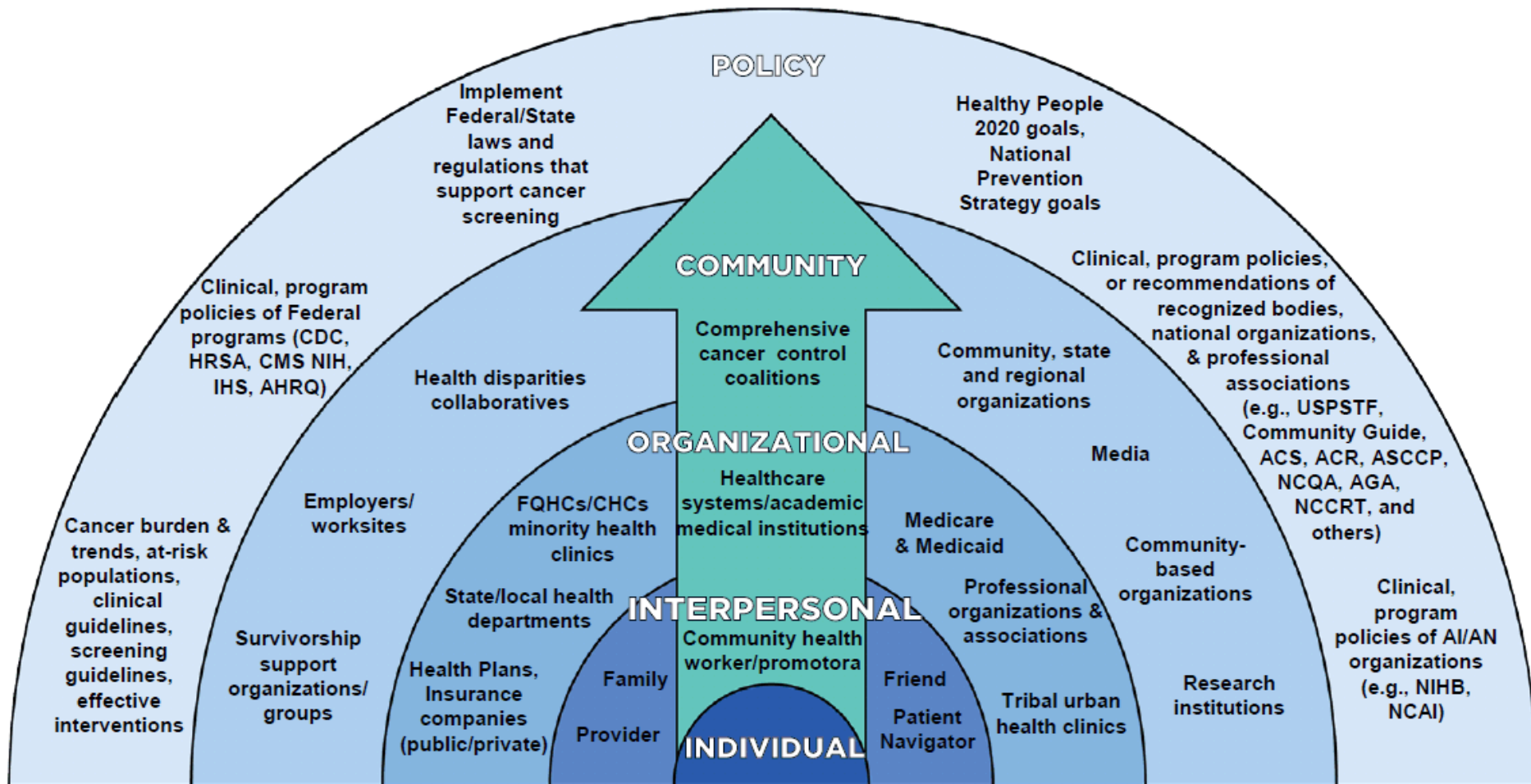
Teens Against Tobacco Use (TATU), tobacco intervention classes with youth and retailers, Speak Out! coalition



Individual

Quit line, tobacco intervention classes with youth and retailers, healthy choices class for drug offenders, renter education classes at YWCA, business/employer education

Colorectal Cancer



*Some groups may fit within multiple levels of this model.

Disparities

- Health outcomes seen to a greater or lesser extent between populations.
- Race, ethnicity, sex, sexual orientation, age, disability, socioeconomic status and geographic location all contribute to an individual's ability to achieve good health.

Source: Healthy People 2020

<https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities>

How do Disparities Arise?

- Differential access to care, including preventive and curative services
- Differential quality of care received through the healthcare system
- Differences in life opportunities, exposures and stresses that affect health status

Institutionalized Disparities

- Differential access to goods, services and opportunities of society due to “race” and other individual characteristics
- Examples:
 - Housing, education, employment, income
 - Medical care
 - Environment
 - Information, resources, voice
- Explains the association between SES and race/ethnicity

Personally-mediated Disparities

- Differential assumptions about the abilities, motives and intents of others by “race,” ethnicity and other personal characteristics
- Prejudice and discrimination
- Examples:
 - Interpersonal violence
 - Physician disrespect
 - Shopkeeper vigilance
 - Waiter indifference
 - Teacher devaluation

