

# Working Upstream in Mental Health

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Behavioral Health: Embracing Health and Wellness

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# Outline

- Metaphor
- Disease continuum and the leading causes of death
- Prevention strategies

# Part 1. Metaphor

- A small city in Wisconsin was located next to a river
- Although the river looked safe, people drowned nearly every day
- So the people decided to do something about it





- One day, a man came by and was asked to help out
- But instead, he went upstream to see why the people were falling in the river

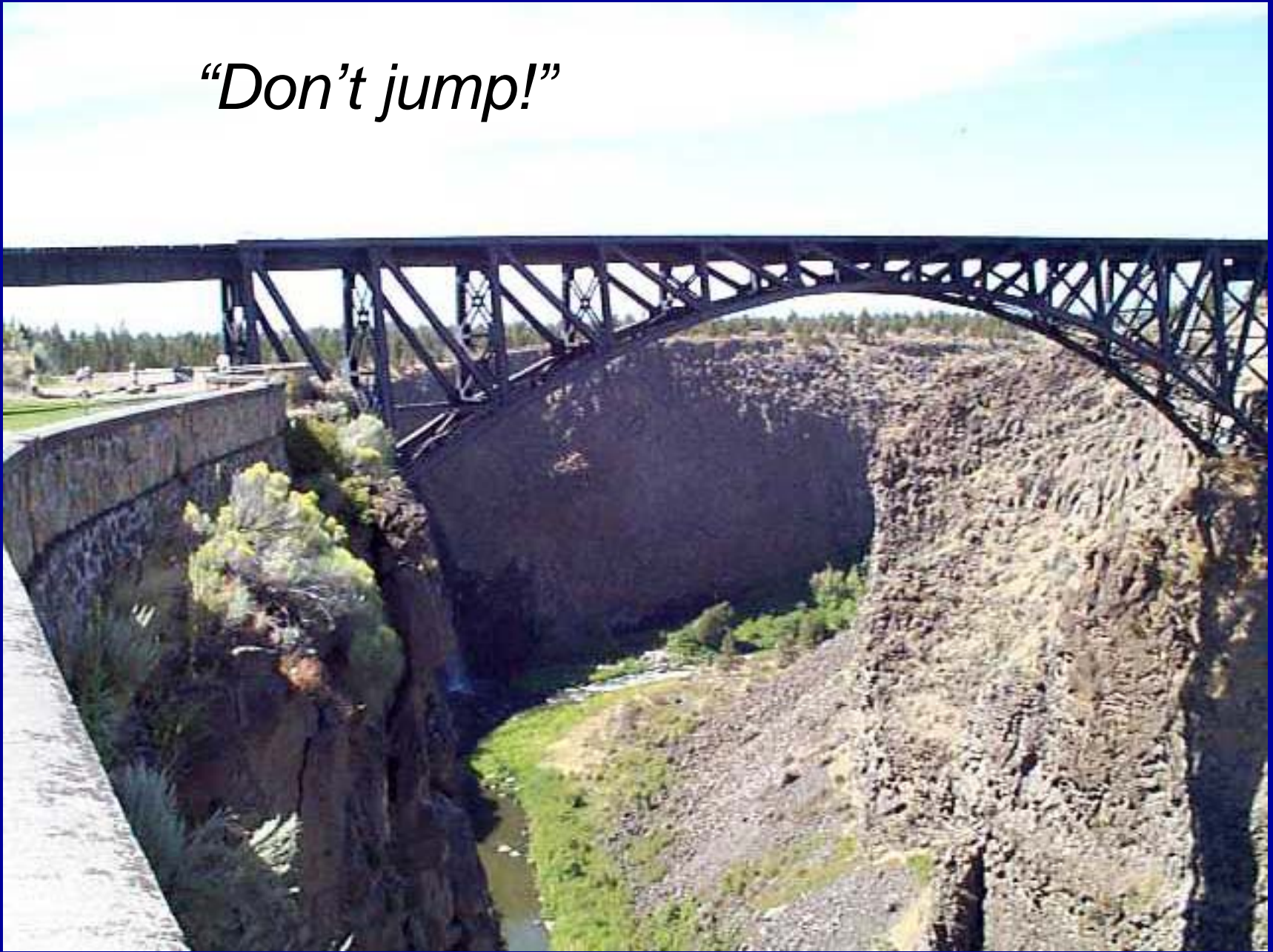


- So he spent hours observing the bridges and river banks, learning why people ended up in the river
- He returned to the city, to tell all that he had learned and they called him an 'epidemiologist'
- But this didn't keep people from falling in the river



- Then one day, a woman went with the man upstream from the city
- She wanted to see if she could prevent people from falling (or jumping) in the river

*“Don’t jump!”*







- She returned to the city, to tell about all of the things that she had done
- They noticed that fewer people were drowning in the river
- They called her a 'public health practitioner'

# Metaphor Summary

Health Care: “*Working downstream*”

Care provided to prevent, detect, and cure disease

Epidemiology: “*Looking upstream*”

The study of health and diseases

Public Health: “*Working upstream*”

Preventing disease through organized community effort

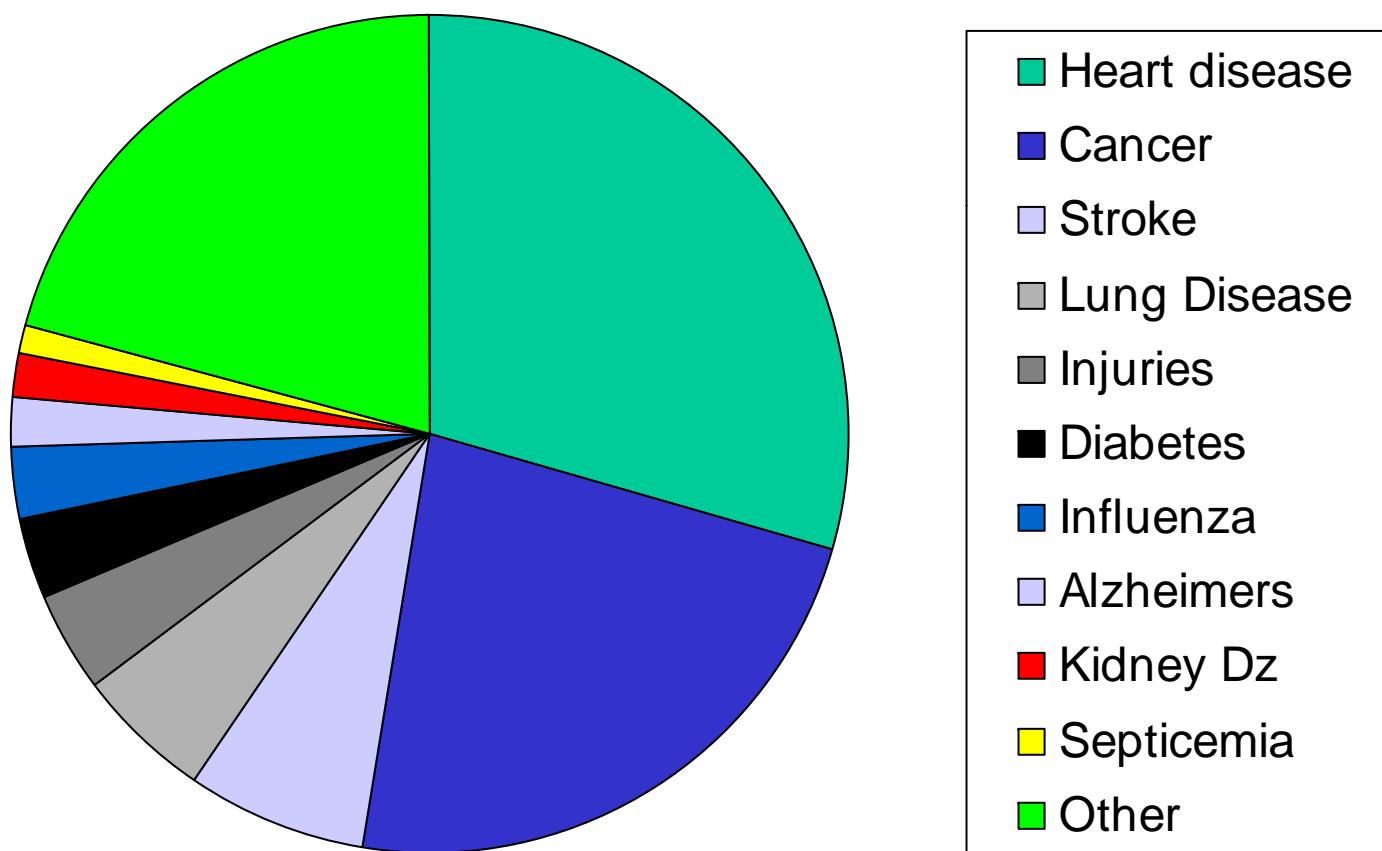
## Part 2. Leading Causes of Death

- What is the leading cause death in the United States?
- What does it mean to be a “cause” of death?

What is the leading cause of death  
in the United States?

- a. Heart disease
- b. Injuries
- c. AIDS
- d. Cancer
- e. None of the above

# Causes of Death, 2000



Source: Mokdad 2004



What is the leading cause of death  
in the United States?

- a. Heart disease
- b. Injuries
- c. AIDS
- d. Cancer
- e. None of the above

What is the leading cause of death  
in the United States?

e. None of the above

# Why?

- What does it mean to be the ‘cause?’
- The underlying cause is defined by the World Health Organization (WHO) as “the disease or injury that initiated the train of events leading directly to death, or the circumstances of the accident or violence, which produced the fatal injury”

# Disease Continuum

- Disease can be thought of as developing along a continuum, that ranges from health, to risk factors, to disease, and finally to death.

# Disease Continuum

*Health*



*Risk Factors*



**Disease**



**Death**

# Disease Continuum

- Progression along continuum can be rapid
  - Drinking and driving
- Progression can take lifetime
  - Poor diet and heart disease
  - Smoking and lung cancer

# Preventable Causes of Death

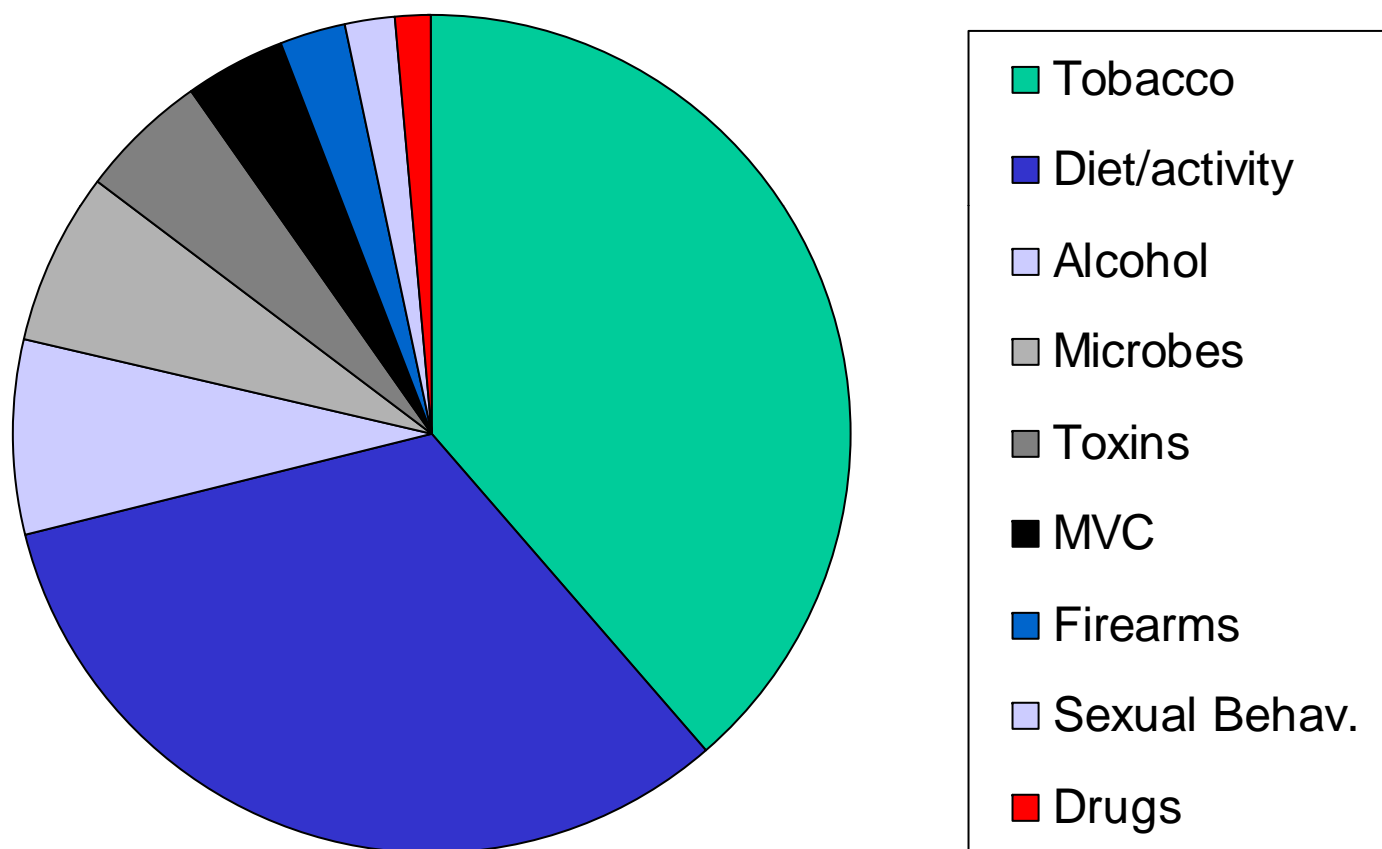
	Cancer	Heart disease	Chronic lung disease	Diabetes	Cirrhosis	TOTAL
Tobacco use	X	X	X			
Alcohol use	X	X			X	
High cholesterol		X				
Hypertension		X				
Diet	X	X		X		
Physical inactivity	X	X		X		
Obesity	X	X		X		
<b>TOTAL</b>	▼	▼	▼	▼	▼	

# Preventable Causes of Death

	Cancer	Heart disease	Chronic lung disease	Diabetes	Cirrhosis	TOTAL
Tobacco use	X	X	X			→
Alcohol use	X	X			X	→
High cholesterol		X				→
Hypertension		X				→
Diet	X	X		X		→
Physical inactivity	X	X		X		→
Obesity	X	X		X		→
<b>TOTAL</b>						



# Preventable Causes of Death



*Estimated for 2000 (see Mokdad et al, with correction)*

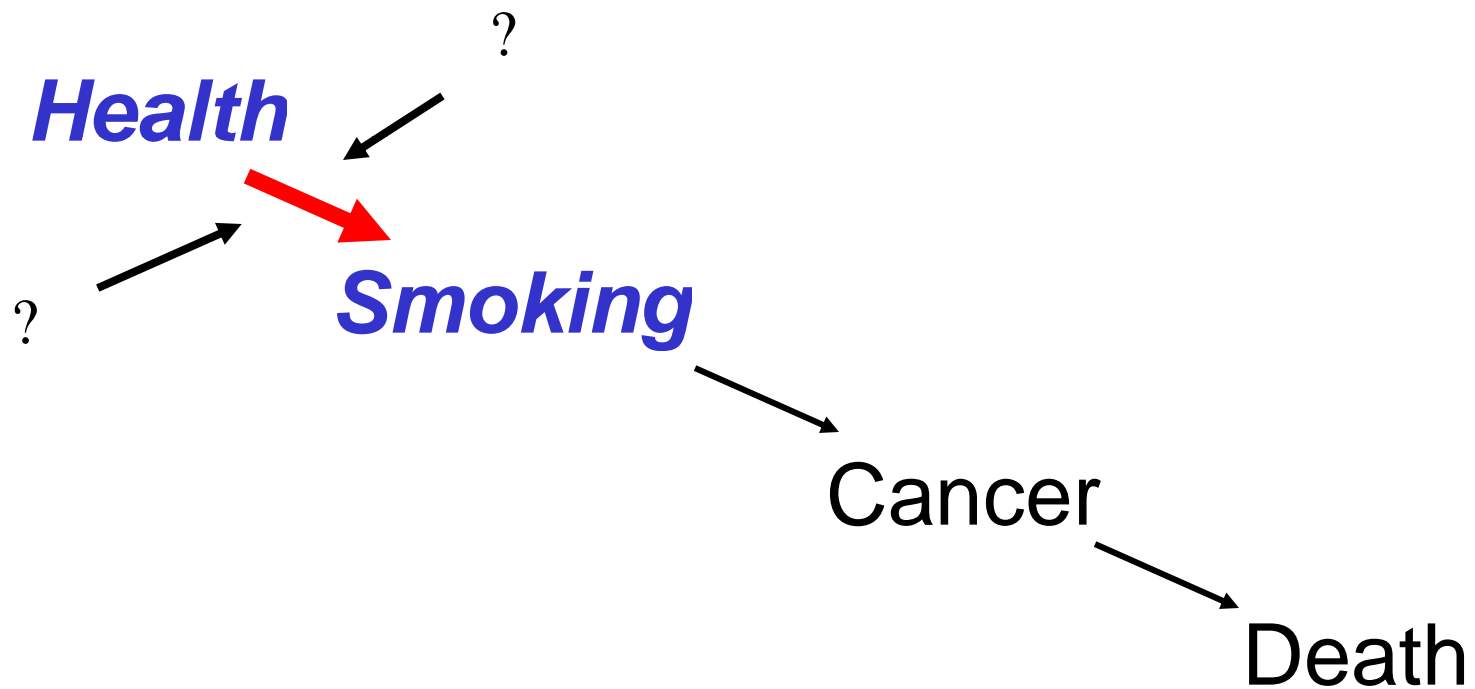
What is the leading cause of death  
in the United States?

e. None of the above (e.g.,  
smoking???)

The End?

But what causes cigarette  
smoking?

# Cancer Prevention Continuum



# 40 Developmental Assets

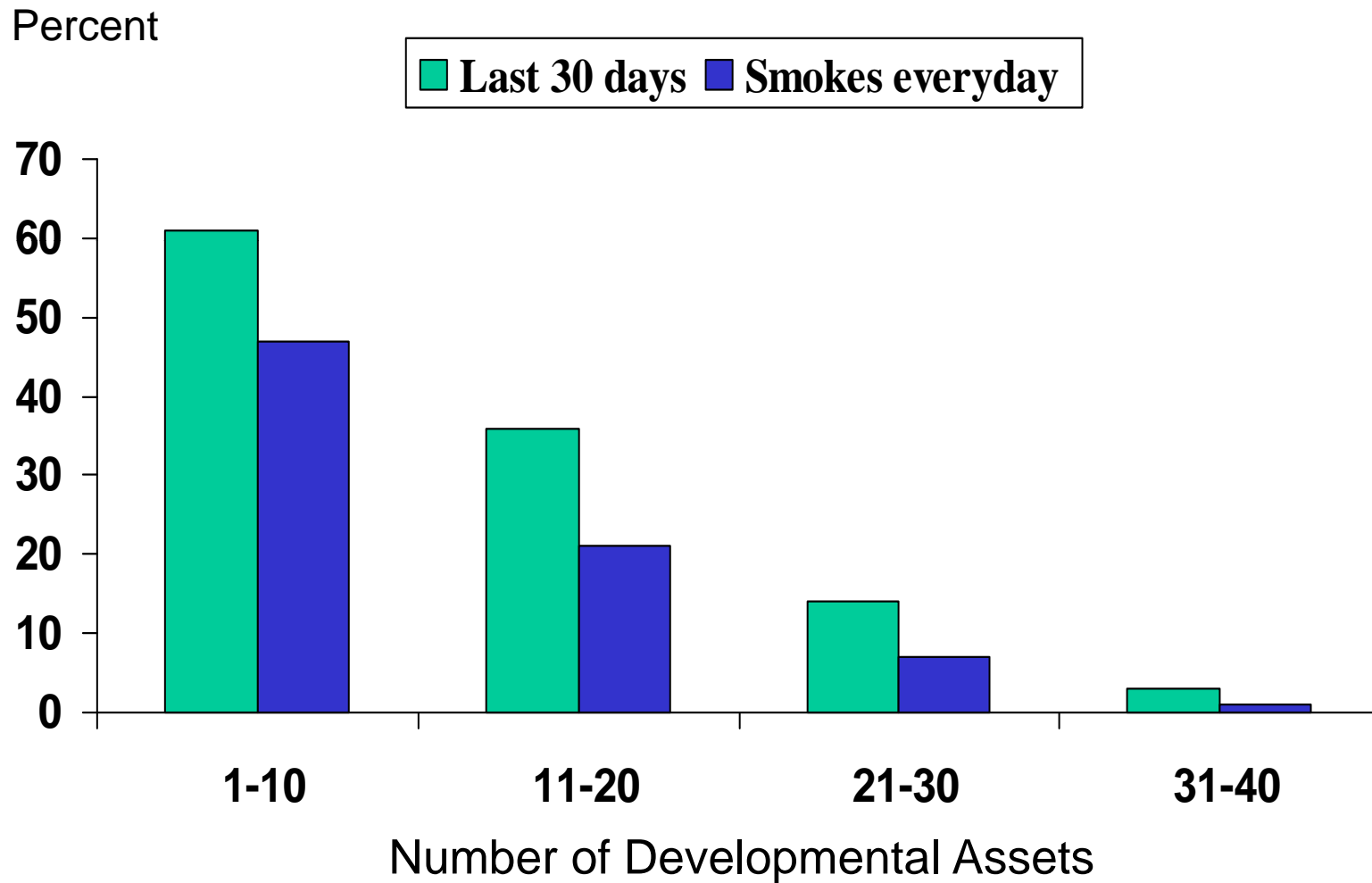
## **INTERNAL ASSETS**

- Commitment to learning (e.g., homework)
- Positive values (e.g. integrity)
- Social competencies (e.g., resistance skills)
- Positive identity (e.g., self-esteem)

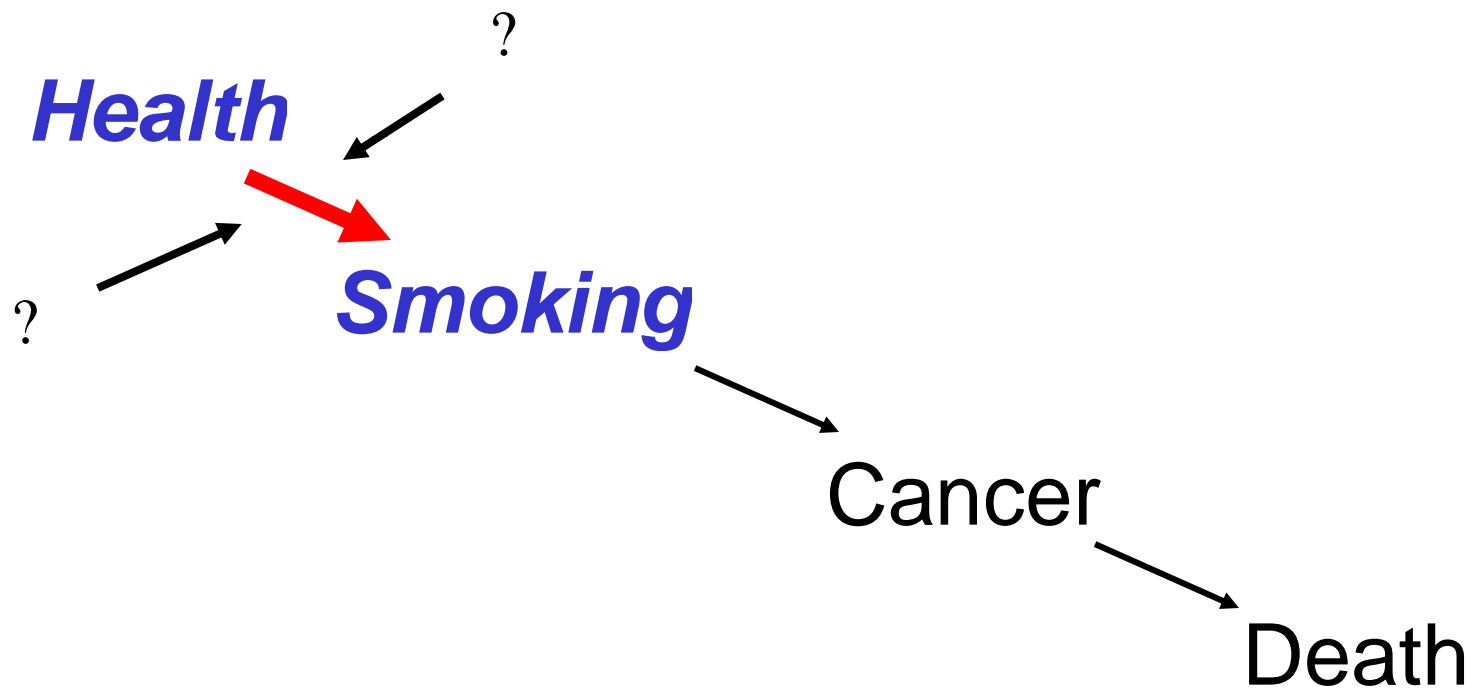
## **EXTERNAL ASSETS**

- Support (e.g., family support)
- Empowerment (e.g., service to others)
- Boundaries/expectations (e.g., high expectations)
- Constructive use of time (e.g., youth programs)

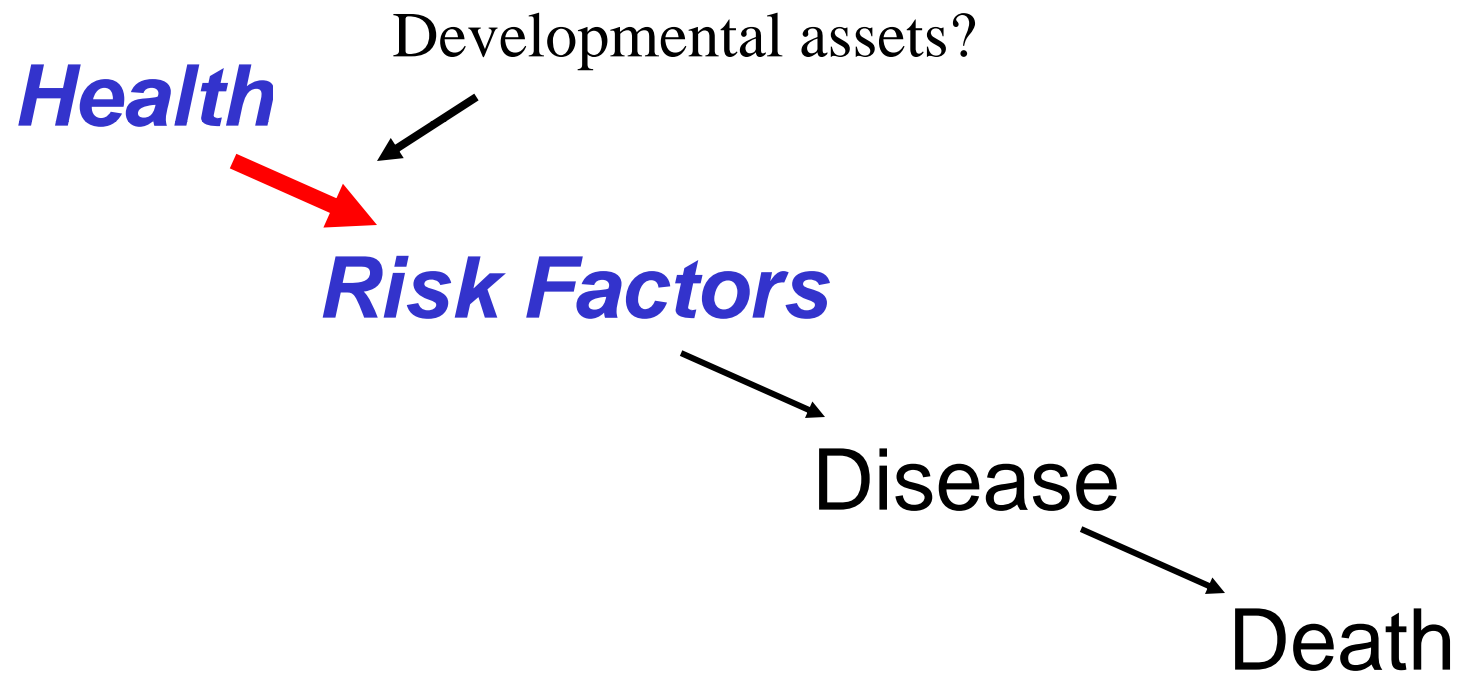
# Percent cigarette smokers



# Cancer Prevention Continuum

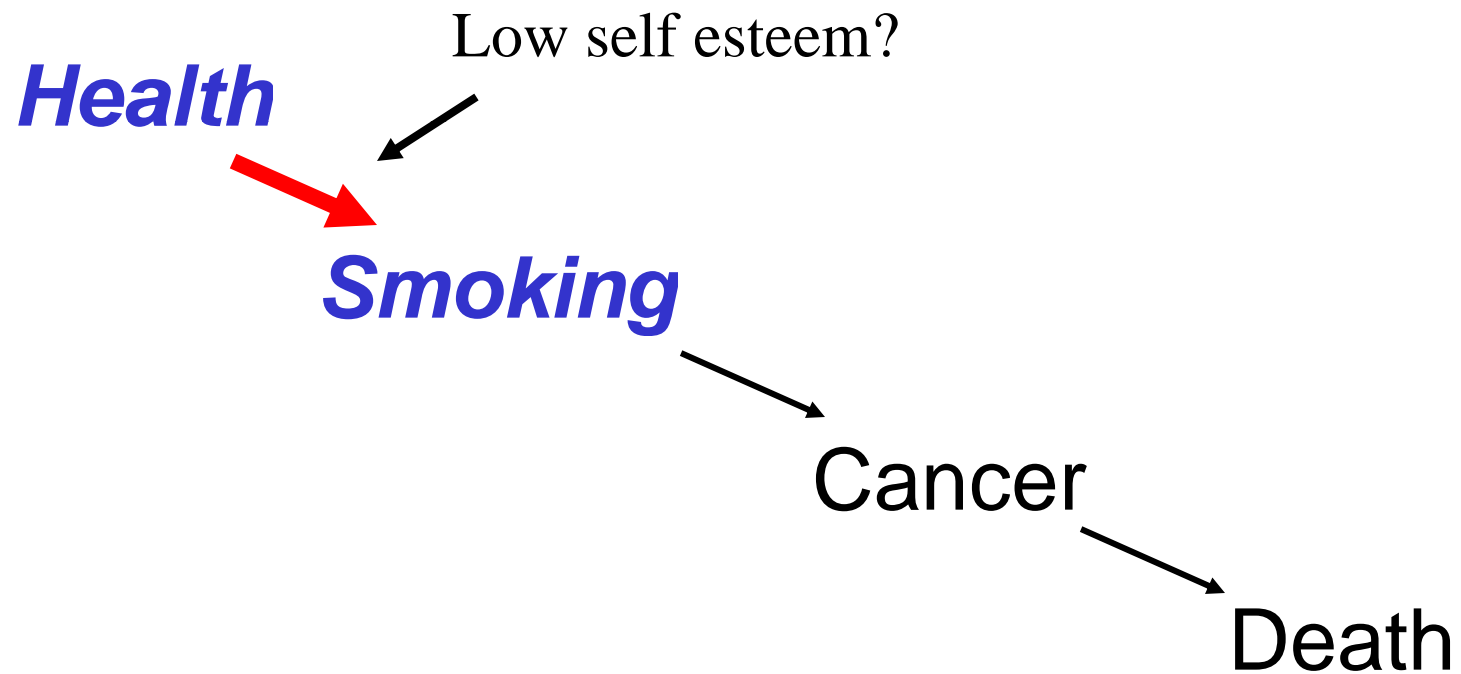


# Cancer Prevention Continuum

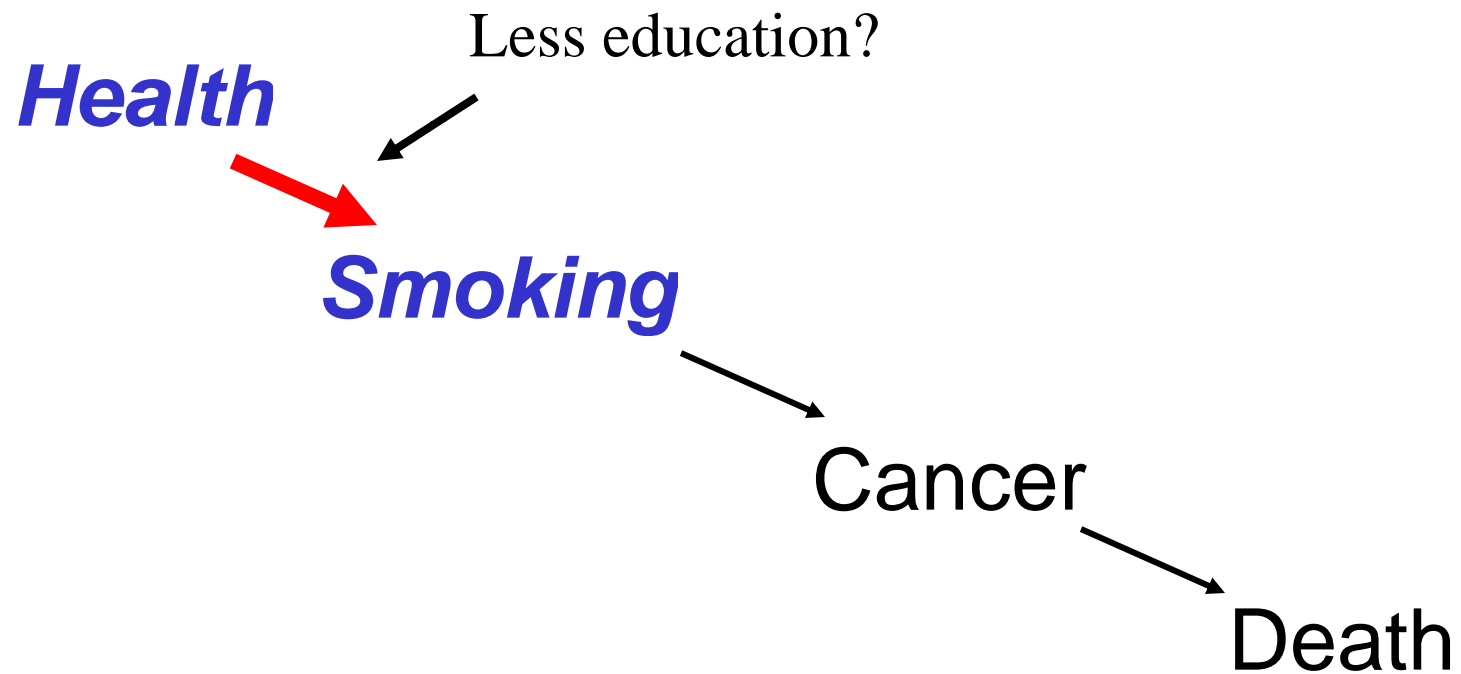




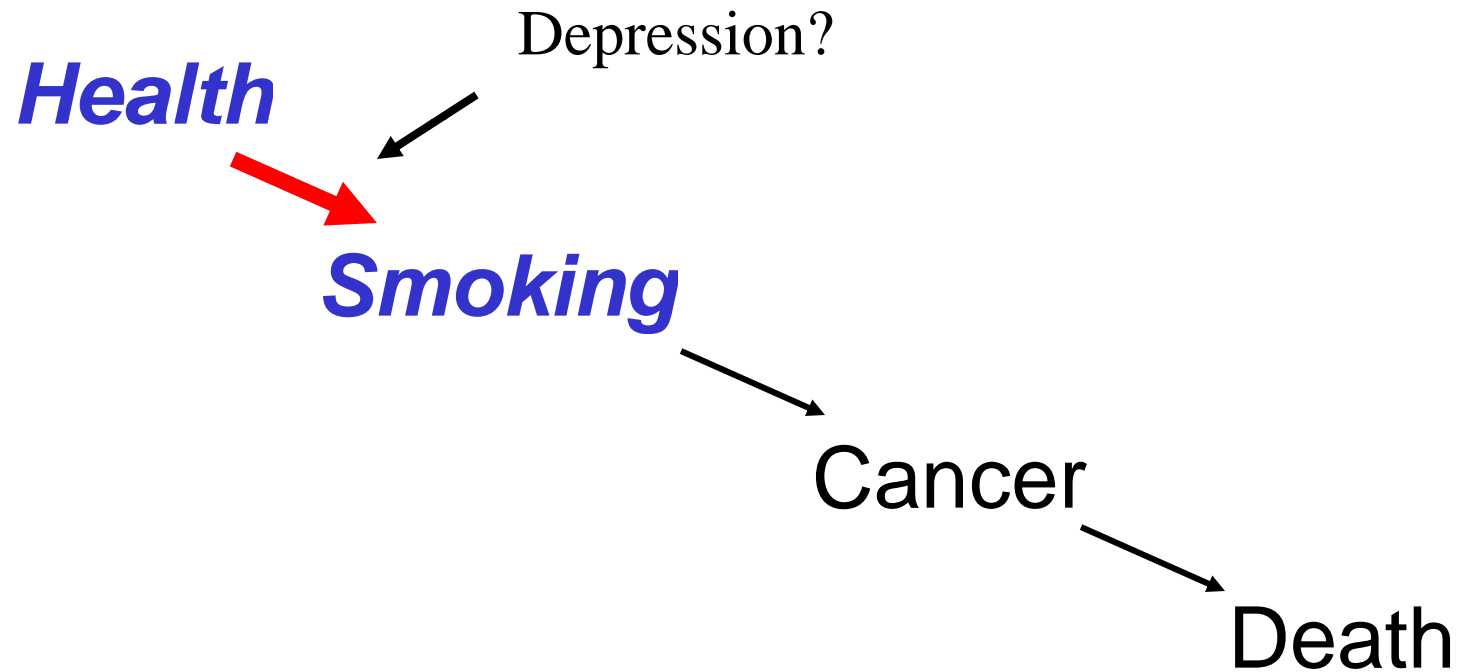
# Cancer Prevention Continuum



# Cancer Prevention Continuum



# Cancer Prevention Continuum



# U.S. STANDARD CERTIFICATE OF DEATH

CAL FILE NO.

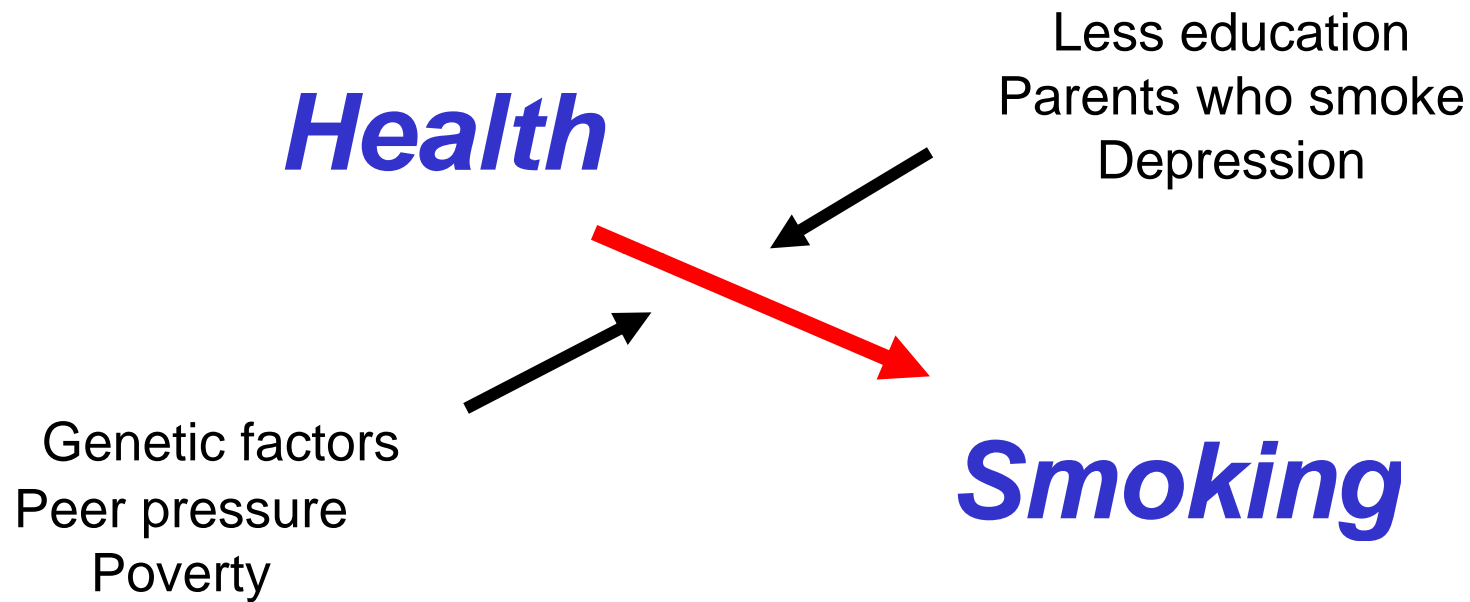
STATE FILE NO.

1. DECEDENT'S LEGAL NAME (Include AKA's if any) (First, Middle, Last)		2. SEX	3. SOCIAL SECURITY NUMBER
<b>ITEMS 24-28 MUST BE COMPLETED BY PERSON WHO PRONOUNCES OR CERTIFIES DEATH</b>		24. DATE PRONOUNCED DEAD (Mo/Day/Yr)	25. TIME PRONOUNCED DEAD
26. SIGNATURE OF PERSON PRONOUNCING DEATH (Only when applicable)		27. LICENSE NUMBER	28. DATE SIGNED (Mo/Day/Yr)
29. ACTUAL OR PRESUMED DATE OF DEATH (Mo/Day/Yr) (Spell Month)		30. ACTUAL OR PRESUMED TIME OF DEATH	31. WAS MEDICAL EXAMINER OR CORONER CONTACTED? • Yes • No
<b>CAUSE OF DEATH (See instructions and examples)</b>			Approximate interval: Onset to death
<p>32. <b>PART I.</b> Enter the <u>chain of events</u>--diseases, injuries, or complications--that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.</p> <p>IMMEDIATE CAUSE (Final disease or condition -----&gt; resulting in death)</p> <p style="margin-left: 40px;">a. <span style="color: red; font-size: 1.2em;">Lung cancer</span> _____ Due to (or as a consequence of): _____</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the <b>UNDERLYING CAUSE</b> (disease or injury that initiated the events resulting in death) <b>LAST</b></p> <p style="margin-left: 40px;">b. _____ Due to (or as a consequence of): _____</p> <p style="margin-left: 40px;">c. _____ Due to (or as a consequence of): _____</p> <p style="margin-left: 40px;">d. _____</p>			
<p><b>PART II.</b> Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.</p>			
33. WAS AN AUTOPSY PERFORMED? • Yes • No			
34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? • Yes • No			
35. DID TOBACCO USE CONTRIBUTE TO DEATH?  • Yes • Probably • No • Unknown	36. IF FEMALE: • Not pregnant within past year • Pregnant at time of death • Not pregnant, but pregnant within 42 days of death • Not pregnant, but pregnant 43 days to 1 year before death • Unknown if pregnant within the past year	37. MANNER OF DEATH  • Natural • Homicide • Accident • Pending Investigation • Suicide • Could not be determined	
38. DATE OF INJURY (Mo/Day/Yr) (Spell Month)	39. TIME OF INJURY	40. PLACE OF INJURY (e.g., Decedent's home; construction site; restaurant; wooded area)	41. INJURY AT WORK?  • Yes • No
42. LOCATION OF INJURY: State: _____ City or Town: _____ Street & Number: _____ Apartment No.: _____ Zip Code: _____			

What is the “cause” of this death?

The answer depends on your perspective (or how far upstream you are willing to go...)

# Public Health Diagnosis:



# U.S. STANDARD CERTIFICATE OF DEATH

CAL FILE NO.

STATE FILE NO.

1. DECEDENT'S LEGAL NAME (Include AKA's if any) (First, Middle, Last)

2. SEX

3. SOCIAL SECURITY NUMBER

## CAUSE OF DEATH (See instructions and examples)

32. **PART I.** Enter the chain of events--diseases, injuries, or complications--that directly caused the death. DO NOT enter respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause necessary.

IMMEDIATE CAUSE (Final disease or condition -----> resulting in death)

Sequentially list conditions, if any, leading to the cause listed on line a. Enter the **UNDERLYING CAUSE** (disease or injury that initiated the events resulting in death) **LAST**

a. Lung cancer

Due to (or as a consequence of):

b. Cigarette smoking

Due to (or as a consequence of):

c. Poor grades/low self esteem

Due to (or as a consequence of):

d. Depression

**PART II.** Enter other significant conditions contributing to death but not resulting in the underlying cause given in PART I.

35. DID TOBACCO USE CONTRIBUTE TO DEATH?

- Yes
- Probably
- No
- Unknown

36. IF FEMALE:

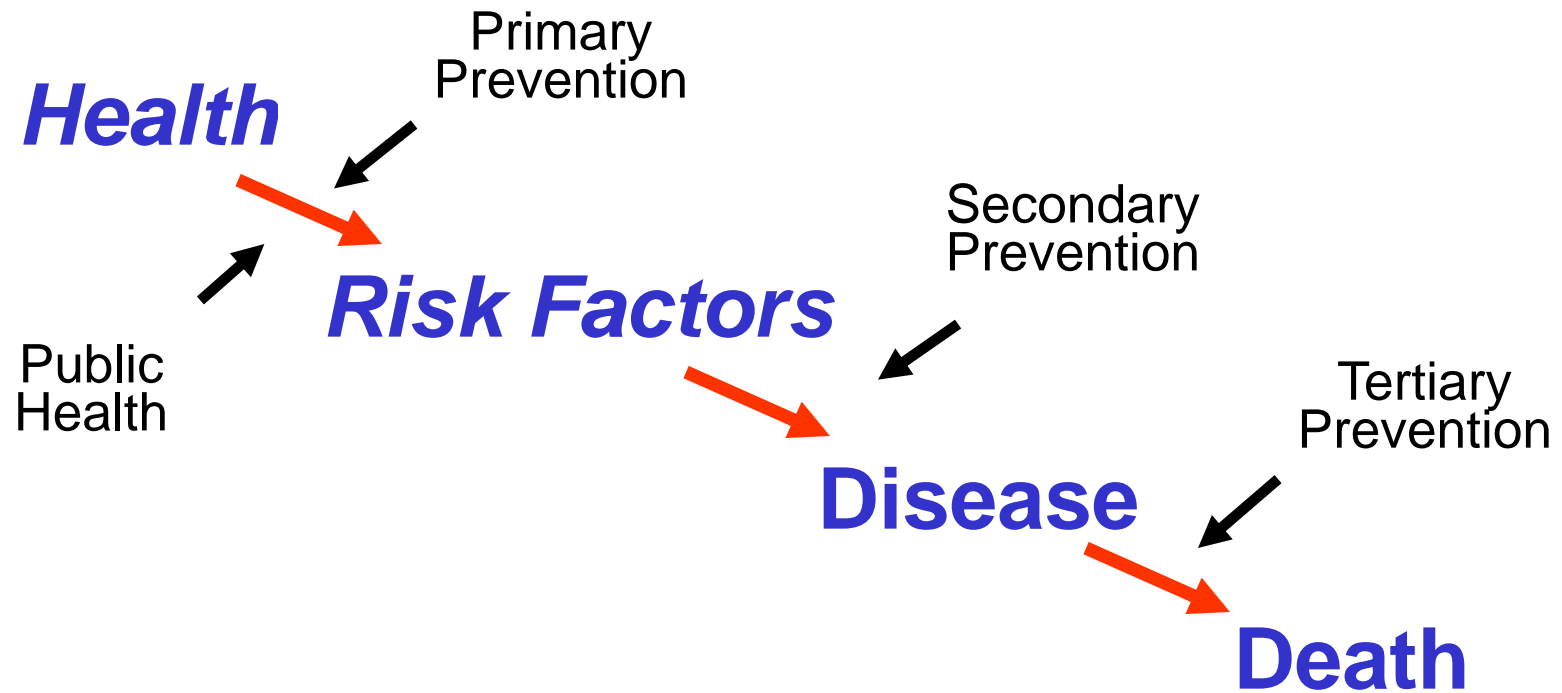
- Not pregnant within past year
- Pregnant at time of death
- Not pregnant, but pregnant within 42 days of death
- Not pregnant, but pregnant 43 days to 1 year before death
- Unknown if pregnant within the past year

# 3. Disease Prevention

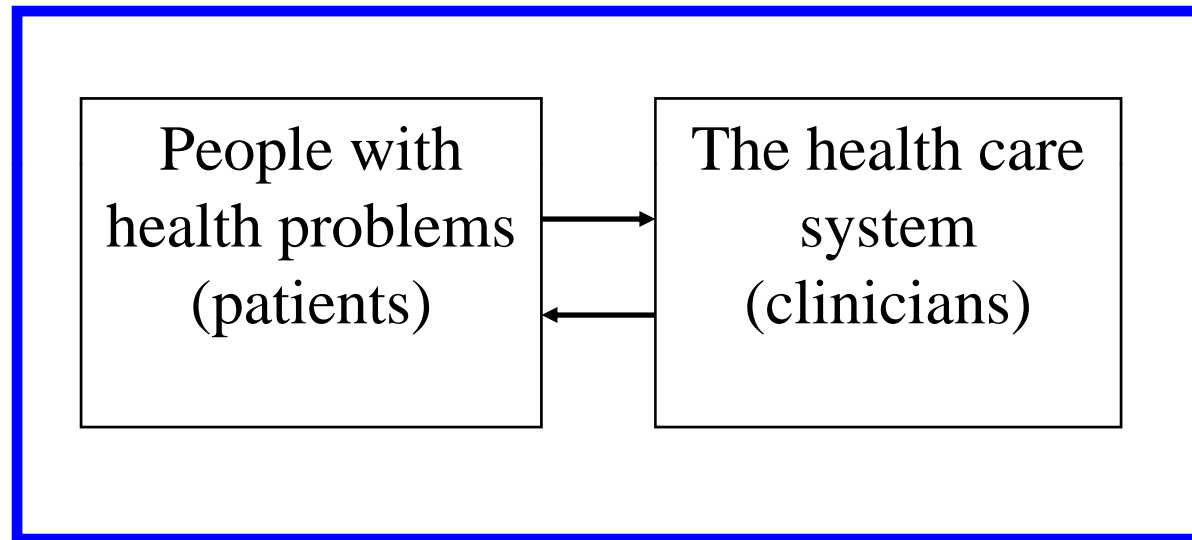
- We can use the information about the causes of disease to develop prevention strategies
- These can be implemented along the disease continuum



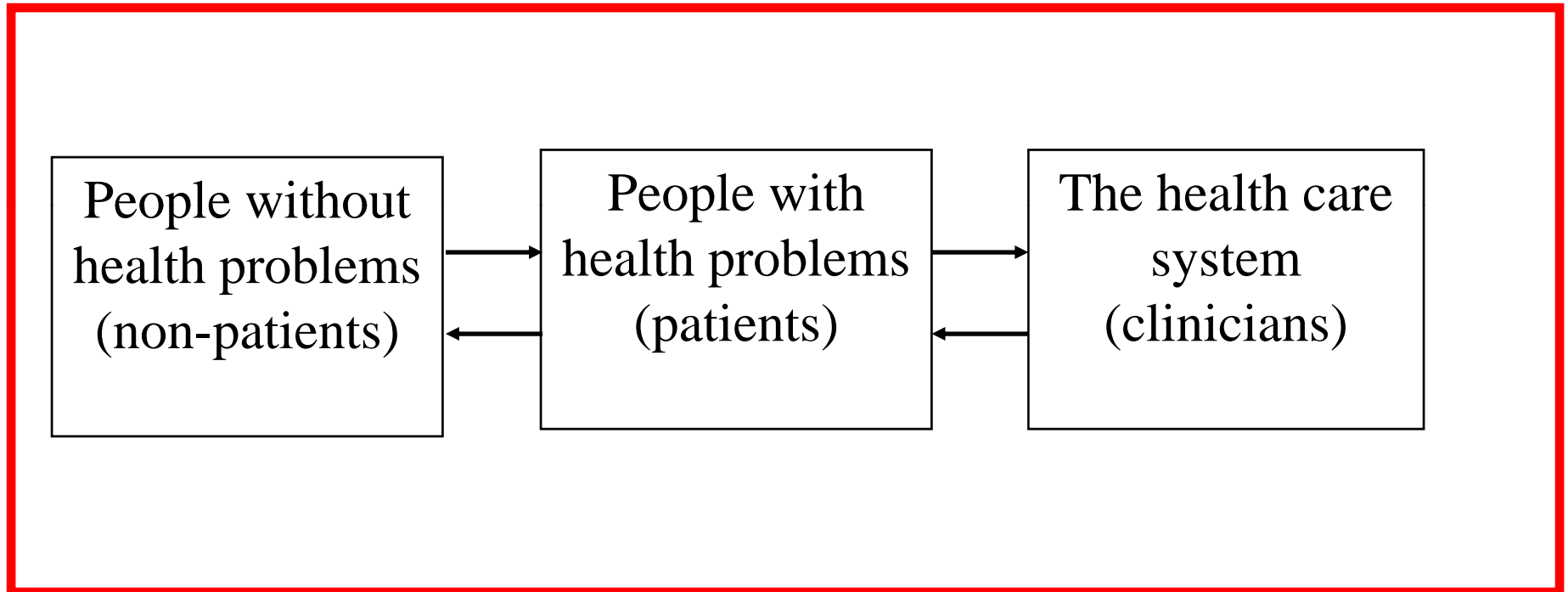
# Disease Continuum



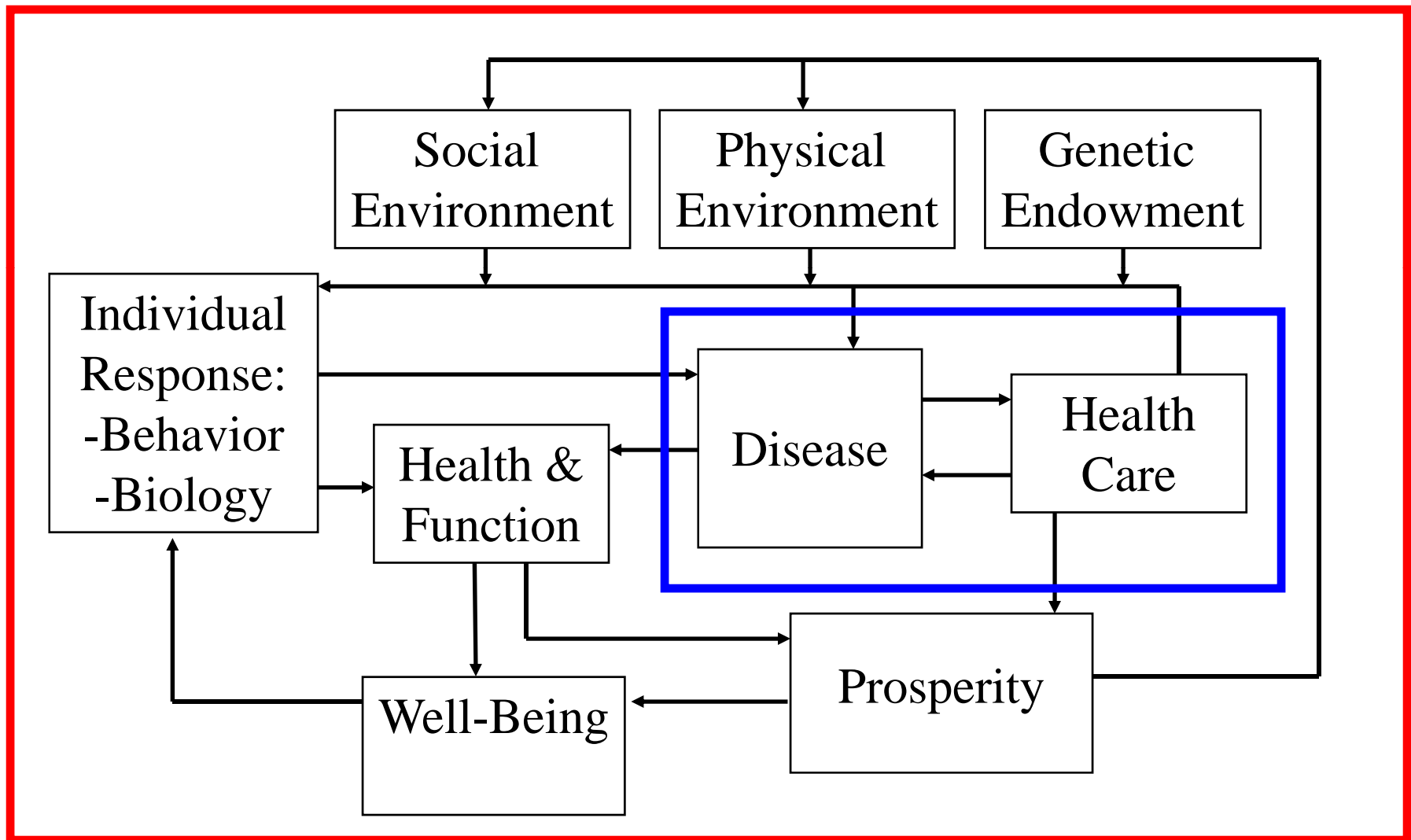
# The Clinical Box



# The Population Health Box



# Determinants of Population Health



(Evans, 1994)

# Conclusions

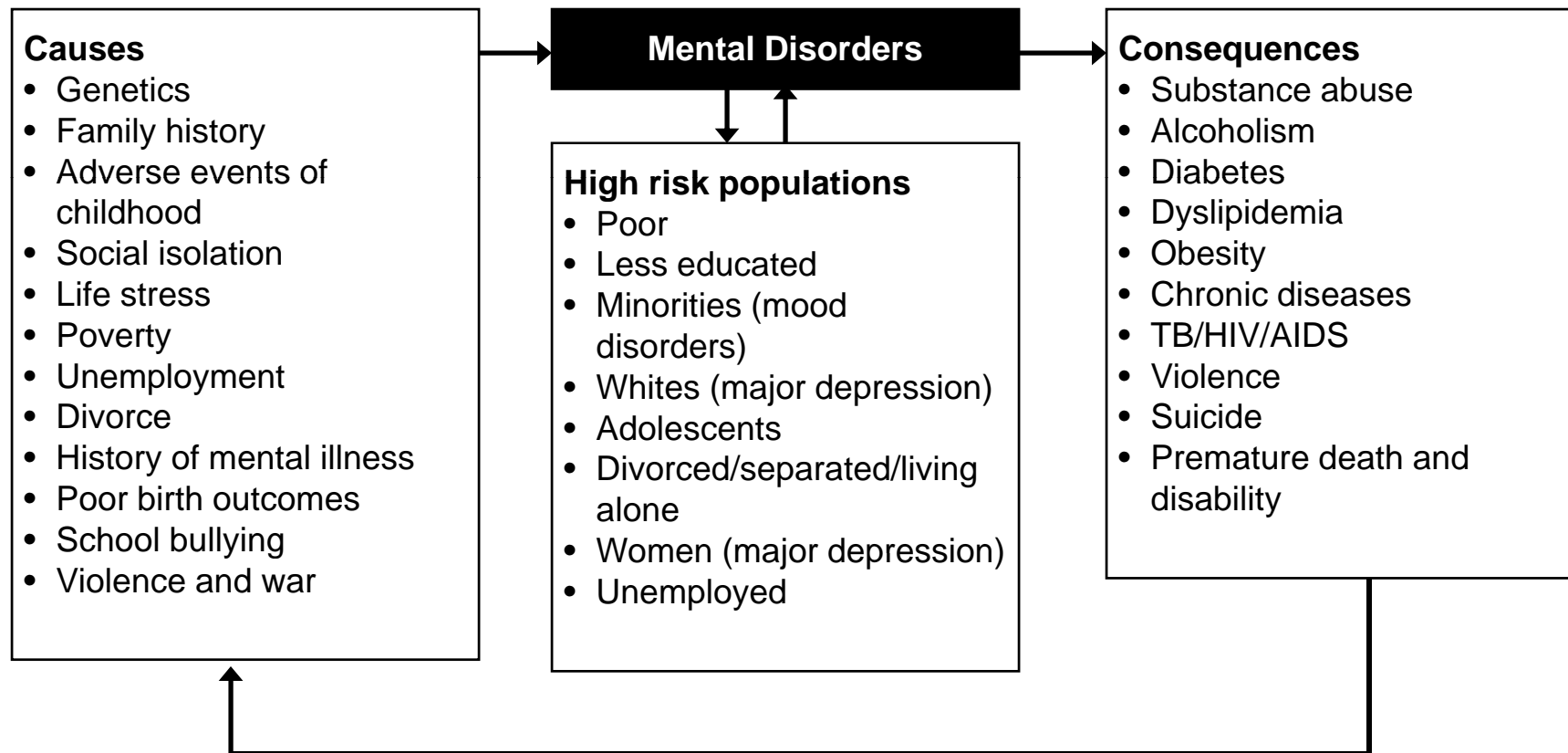
Health Care: “*Working downstream*”

Services provided to those with mental illness

Epidemiology: “*Looking upstream*”

The study of the causes of mental illness

# Mental Disorders: Causes, Consequences, and High Risk Groups



# Conclusions

Public Health: “*Working upstream*”

Reducing the risk of mental illness in the population through organized community efforts