

## CONCEPT: DETERMINANTS OF HEALTH

### Individual Behavior

- ◆ Individual behavior is an important determinant of health, and it can:
  - Help an individual to get healthy and to maintain good health.
  - \_\_\_ the overall health of an individual.
- ◆ Individual behavior is a **Modifiable Determinant**.
  - Most chronic diseases are caused by only \_\_\_ modifiable determinants. [1]



**Modifiable Determinant**  
A behavior that is in an individual's power to change.

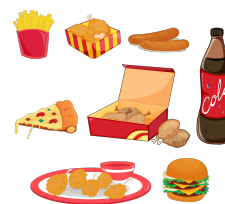
### Modifiable Determinants of Health

#### 1 Lack of Physical Activity



- ◆ Contributes to \_\_\_\_\_ deaths annually in the US.
- ◆ Physical activity of \_\_\_\_\_ min/week reduces risk of death by 33%.

#### 2 Poor Diet/Nutrition



- ◆ Eating less fruits/vegetables increases risk of all-cause mortality.

#### 3 Excessive Alcohol Use



- ◆ Responsible for \_\_\_\_\_ deaths annually in the US.
- ◆ Causes heart/liver diseases, cancer, accidents, and violence.

#### 4 Tobacco Smoking



- ◆ Responsible for \_\_\_\_\_ deaths annually in the US.
- ◆ Including 41,000 deaths from \_\_\_\_\_ -hand smoke.

- ◆ Maintaining healthy lifestyle behaviors significantly reduces the risk of cardiovascular disease in later years of life. [2]

### EXAMPLE

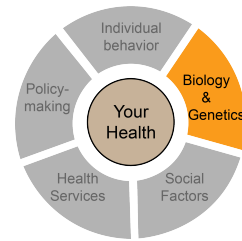
Which of the following is not an example of a modifiable determinant of health?

- a) A person has digestion issues because their lifestyle is sedentary.
- b) A person is overweight because they eat junk food almost every day.
- c) A dad gets flu from his son, who picked up that flu from his daycare.
- d) A college student decides to quit smoking and drinking.

## CONCEPT: DETERMINANTS OF HEALTH

### Biology and Genetics

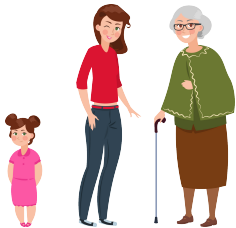
- ◆ Biology and genetics are frequently referred to as **Nonmodifiable Determinants**.
- ◆ These determinants can:
  - Cause an individual to \_\_\_\_\_ a disease/disorder.
  - Put them at increased \_\_\_\_\_ for certain diseases.
- ◆ Some \_\_\_\_\_ characteristics that affect an individual's health are:



**Nonmodifiable Determinant.**  
Traits or innate characteristics that an individual cannot change.

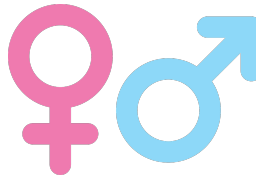
### Nonmodifiable Determinants of Health

#### 1 Age



- ◆ Older people are at a \_\_\_\_\_ risk of:
  - Cardiovascular diseases
  - Diabetes
  - Cancer
  - Neurodegenerative Disorders

#### 2 Sex at Birth



- ◆ Body biology can be a risk factor
  - \_\_\_\_\_:
    - Cardiovascular Diseases
  - \_\_\_\_\_:
    - Autoimmune diseases, UTIs

#### 3 Race/Ethnicity



- ◆ Race/Ethnicity can also be a risk factor.
  - Native Americans: \_\_\_\_\_.
  - African Americans: Hypertension.

#### 4 Health History



- ◆ Can \_\_\_\_\_ disease risks:
  - Previous infection: Chicken pox
  - COVID-19: Autoimmune diseases [3]

### EXAMPLE

Which of the following is not an example of a nonmodifiable determinant of health?

- a) Jennifer comes from a family with a high prevalence of diabetes.
- b) Being born a male, William has a higher chance than his sister to get a cardiovascular disease in old age.
- c) Logan has a high chance of getting shingles because he's 60 and has previously had chicken pox.
- d) Charlotte has a poor attention span in class because she uses her phone a lot and doesn't sleep well.

## CONCEPT: DETERMINANTS OF HEALTH





### Social Factors

◆ **Social Determinants of Health:** \_\_\_medical factors that affect the health of an individual or population.

- These are the conditions in which individuals are born, grow, work, live, and age.



◆ Studies suggest that social determinants can be \_\_\_\_\_ important than individual behavior and biological factors [4].

Social Determinants of Health	
<b>1 Economic Stability</b> 	<ul style="list-style-type: none"><li>◆ People with a steady income are more likely to:<ul style="list-style-type: none"><li>▸ _____ for healthy food, healthcare, and other essential needs.</li><li>▸ _____ in a safer and less polluted neighborhood.</li></ul></li></ul>
<b>2 Education</b> 	<ul style="list-style-type: none"><li>◆ Good education _____ an individual for good work opportunities.</li><li>◆ Education enables people to thrive, live fulfilling lives, and contribute more to society.</li></ul>
<b>3 Built Environment</b> 	<ul style="list-style-type: none"><li>◆ Human-made things such as buildings, roads, and recreation areas.<ul style="list-style-type: none"><li>▸ Contributors to good health: Parks, pedestrian paths, bike lanes, etc.</li></ul></li><li>◆ <b>Food Deserts:</b> Urban areas with the nearest grocery store at least ____ away for most residents.<ul style="list-style-type: none"><li>▸ Limited access to fresh fruits and vegetables increases the risk of all-cause mortality.</li></ul></li></ul>
<b>4 Community</b> 	<ul style="list-style-type: none"><li>◆ _____ relationships with the community improve health and well-being.</li><li>◆ Unsafe neighborhoods, discrimination, and bullying reduce health and well-being.</li></ul>

### EXAMPLE

Which one of the following is an example of both a modifiable and social determinant of health?

- a) Jamie grew in poverty and was not able to afford college education.
- b) To remain close to friends, Oliver lives in an unsafe neighborhood, although he is able to afford living elsewhere.
- c) Emily lives with her grandmother who smokes and gets frequent exposure to cigarette smoke.
- d) Lyra has a family history of asthma and lives in a polluted neighborhood.

## CONCEPT: DETERMINANTS OF HEALTH

### Health Services

- ◆ Access to quality health services improves health and \_\_\_\_\_ life.
- ◆ Some essential services required for good health are:



Doctor visits/check-ups



Vaccinations



\_\_\_\_\_ screenings



- ◆ Un/underinsured individuals are at risk because of either no or \_\_\_\_\_ health care.

### Policymaking

- ◆ Government policies can improve public health and save lives.
- ◆ Policies and interventions include:



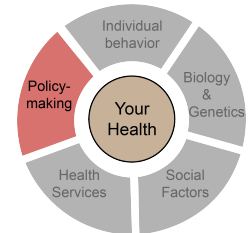
\_\_\_\_\_ for not wearing seatbelts while driving.



Bans on \_\_\_\_\_ in public places.



Access to affordable and equitable health care for everyone.



## EXAMPLE

Which of the following is not an example of a policy that affects public health?

- a) All high-income countries (except the US) have universal healthcare in their legislations.
- b) Many countries enact carbon pricing policies to reduce greenhouse emissions.
- c) The blood alcohol concentration limit (BAL) in California is 0.01% for drivers under the age of 21.
- d) Article 1, Section 9, Clause 5 of US Constitution prohibits laying taxes and duties on export from any state.

## **CONCEPT: DETERMINANTS OF HEALTH**

### **PRACTICE**

A 70-year old woman went to a clinic with the complaints of severe headache, trouble speaking and seeing, and numbness on the right side of her body. Her medical history showed that she had never smoked tobacco and was diagnosed with diabetes in her early 30s. She did sufficient physical activity despite her osteoarthritis, but she did not consume enough fresh fruits and vegetables. Based on this information, how many negative modifiable and nonmodifiable determinants of health are present?

- a) Modifiable 0, Nonmodifiable 4
- b) Modifiable 0, Nonmodifiable 3
- c) Modifiable 2, Nonmodifiable 3
- d) Modifiable 1, Nonmodifiable 3
- e) Modifiable 1, Nonmodifiable 4

### **PRACTICE**

Identify the determinant of health in each of the following statements as modifiable determinant (MD), nonmodifiable determinant (ND), social determinant (SD), healthcare (HC), or policymaking (PM).

- a) \_\_\_\_\_ President Obama signed the Affordable Care Act (ACT) into law on 23rd March 2010.
- b) \_\_\_\_\_ Most malaria cases worldwide are seen in sub-Saharan Africa, Central and South America, and SE Asia.
- c) \_\_\_\_\_ Back pain is more common among individuals who are obese and have a sedentary lifestyle.
- d) \_\_\_\_\_ A person visits their family doctor every year for a comprehensive health screening.
- e) \_\_\_\_\_ Alzheimer's is most commonly seen in individuals who are 65 or older.

### **PRACTICE**

Match the determinant(s) of health that could be most closely associated with the given diseases/conditions. A condition may match with more than one determinant.

- |   |                               |
|---|-------------------------------|
| a) Obesity _____                        | 1. Policies                   |
| b) Respiratory irritation _____         | 2. Personal behaviors         |
| c) Diabetes _____                       | 3. Social factors             |
| d) Disability due to car accident _____ | 4. Nonmodifiable determinants |
| e) Hypertension _____                   | 5. Access to healthcare       |