

ENVIRCME

INSTITUTE





THE HUMAN GENOME PROJECT

GENES AND ENVIRONMENT

Phenotypes arise from interactions between the genome and the environment





HUMAN EXIST IN LARGE SOCIAL NETWORKS
FASHIONED BY THEIR UNIQUE HISTORY AND
CULTURE

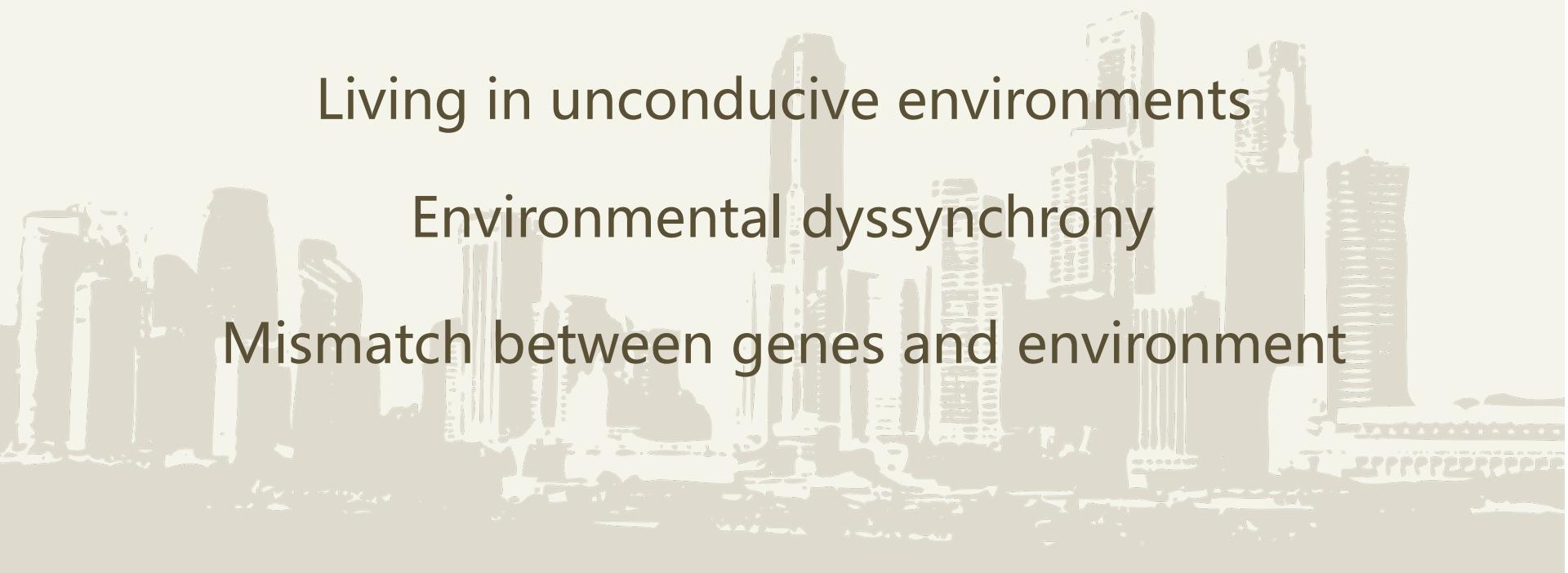
NEARLY 60 – 80%
OF HEART DISEASE AND
DIABETES ENVIRONMENTAL IN
ORIGIN



LESS THAN 3% CANCERS CAN
BE ATTRIBUTED TO GENETIC
CAUSES



CHRONIC DISEASES ORIGINATES FROM...



Living in uncondusive environments

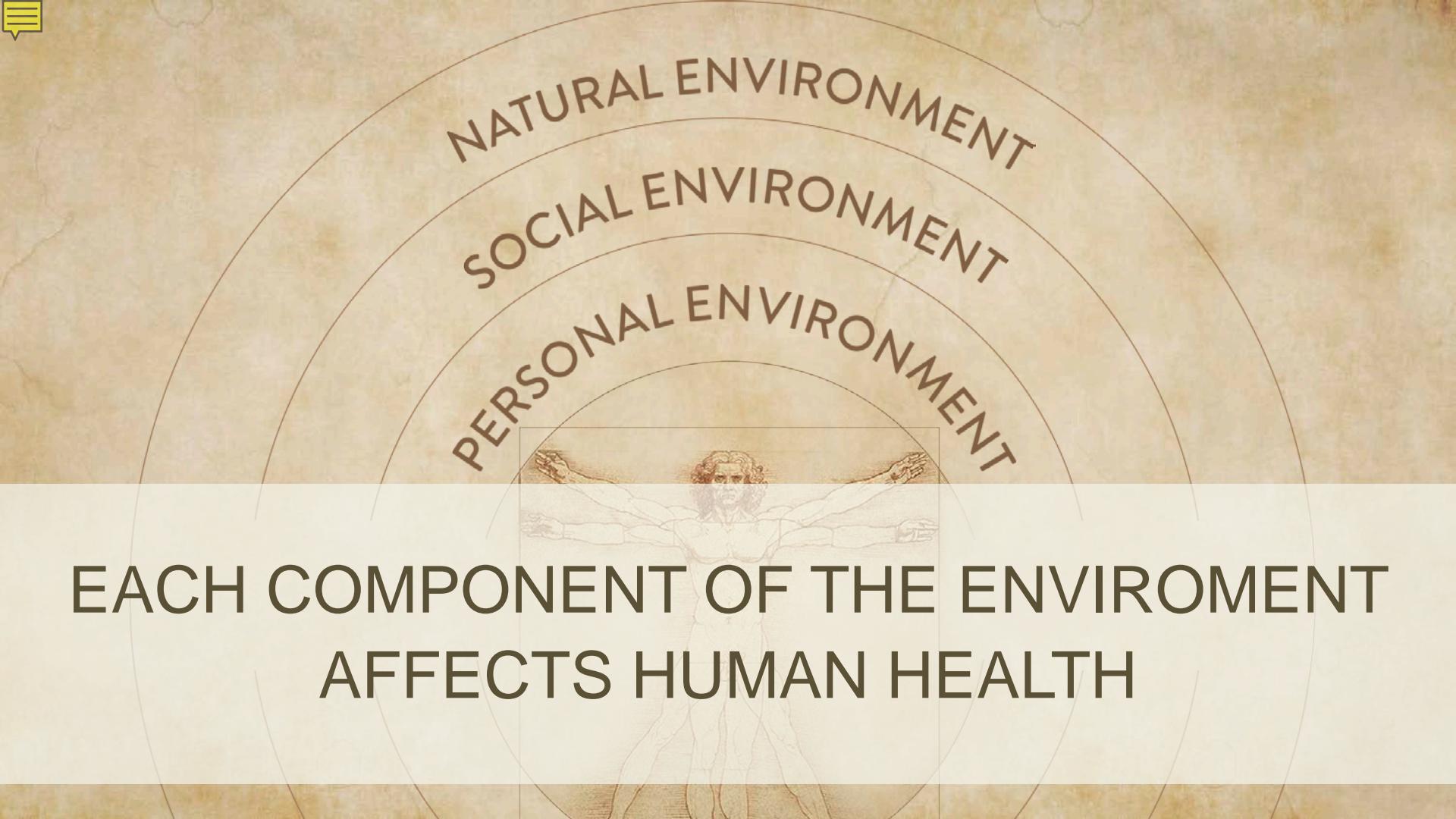
Environmental dyssynchrony

Mismatch between genes and environment

ENVIROME

The totality of environmental conditions
that affect human development, health,
disease risk, and lifespan





NATURAL ENVIRONMENT

SOCIAL ENVIRONMENT

PERSONAL ENVIRONMENT

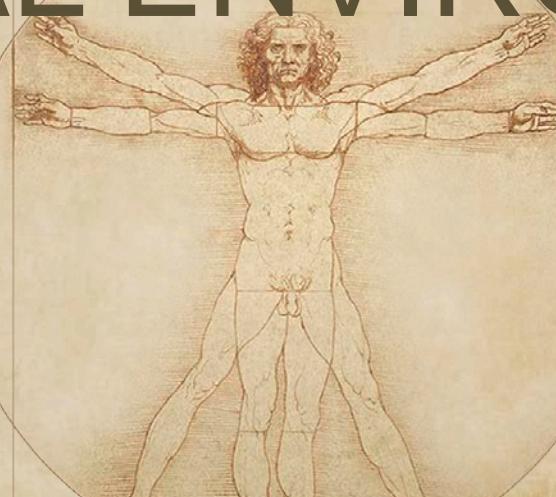
EACH COMPONENT OF THE ENVIRONMENT
AFFECTS HUMAN HEALTH

NATURAL ENVIRONMENT

NATURAL ENVIRONMENT

SOCIAL ENVIRONMENT

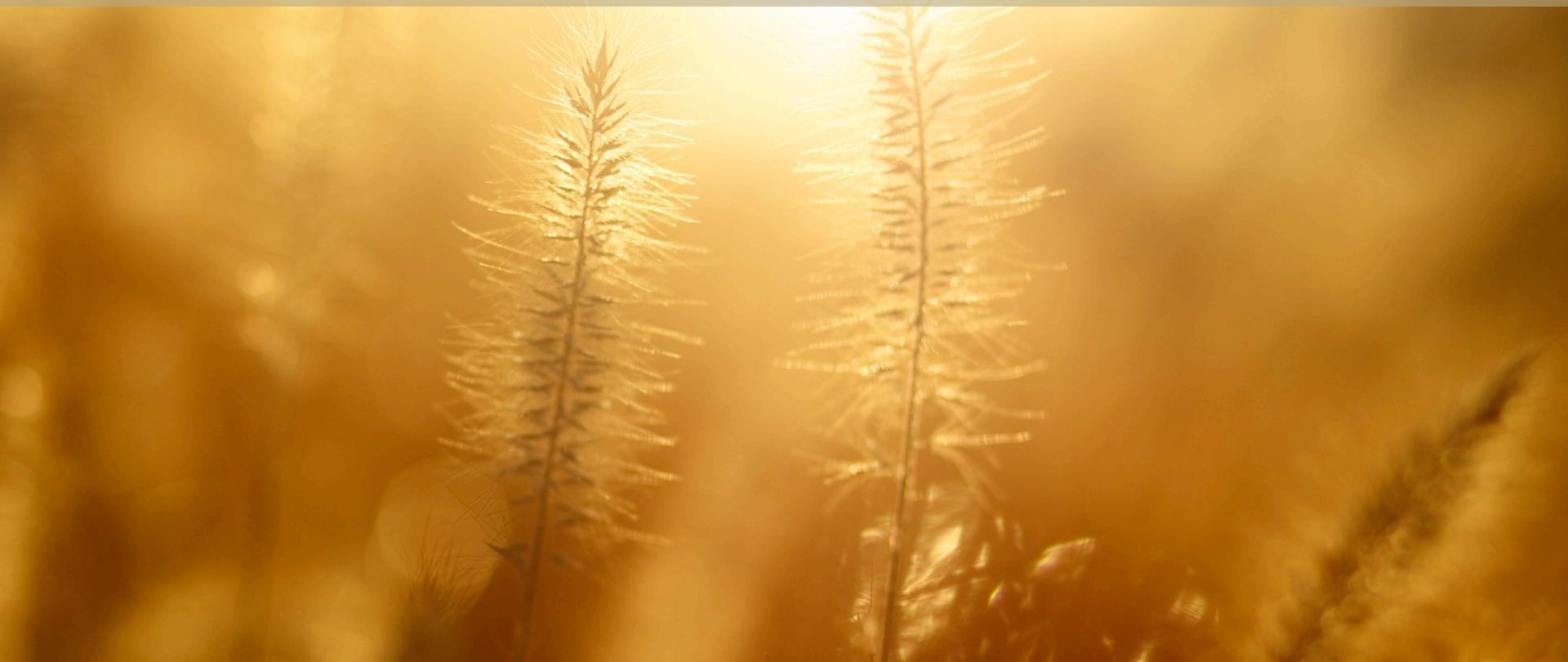
PERSONAL ENVIRONMENT





SUNLIGHT

Vitamin D levels vary with skin color and sunlight exposure





LATITUDE

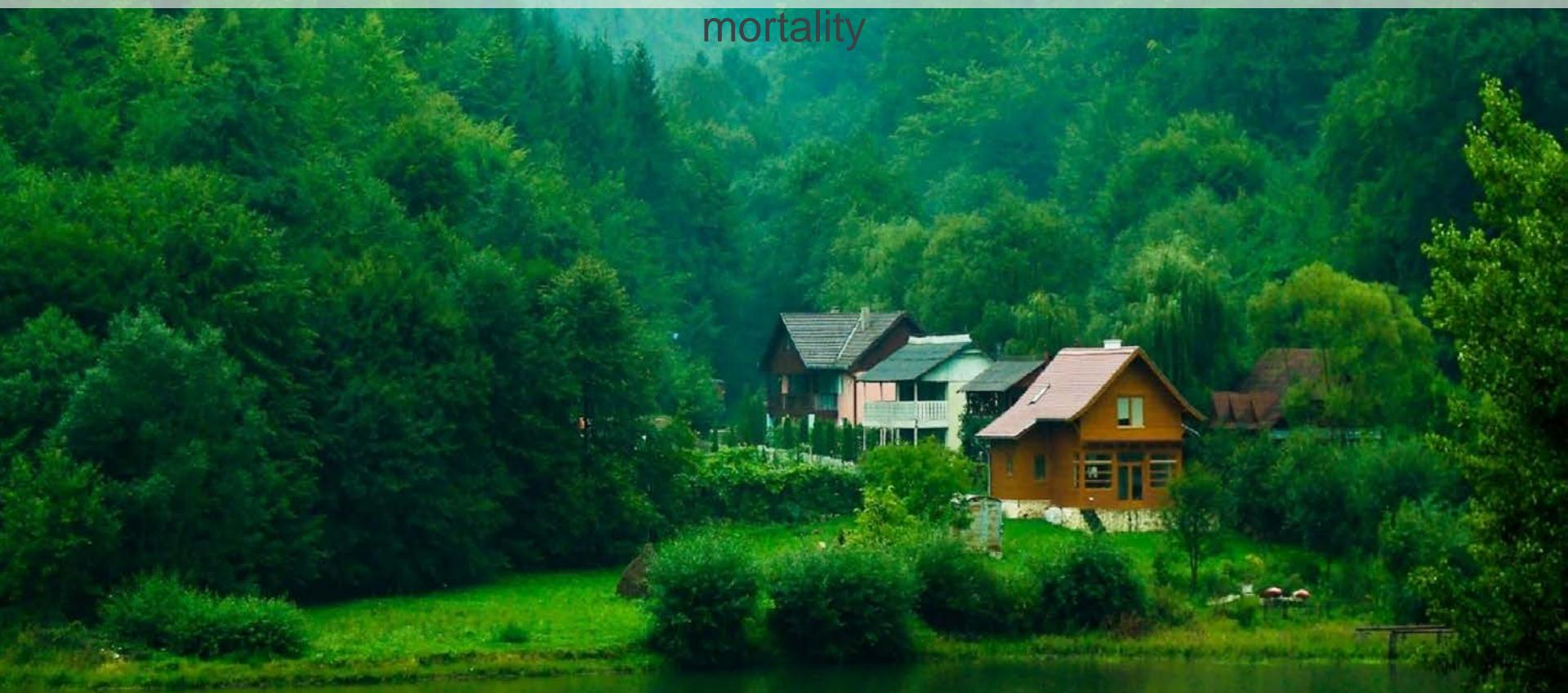
Blood pressure increases with distance from the equator





GREEN SPACES

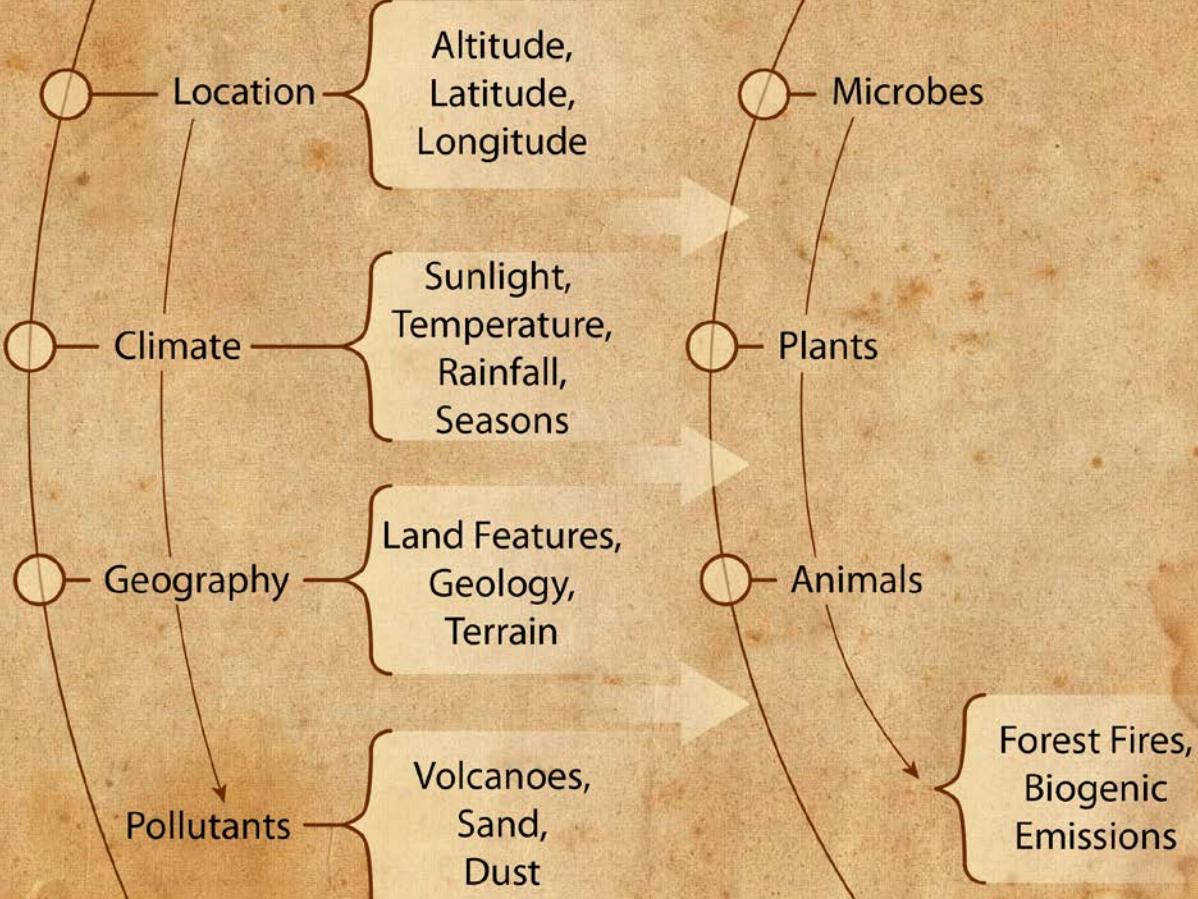
Proximity to green spaces is associated with a decrease in cardiovascular mortality



NATURAL ENVIRONMENT

Geosphere

Biosphere

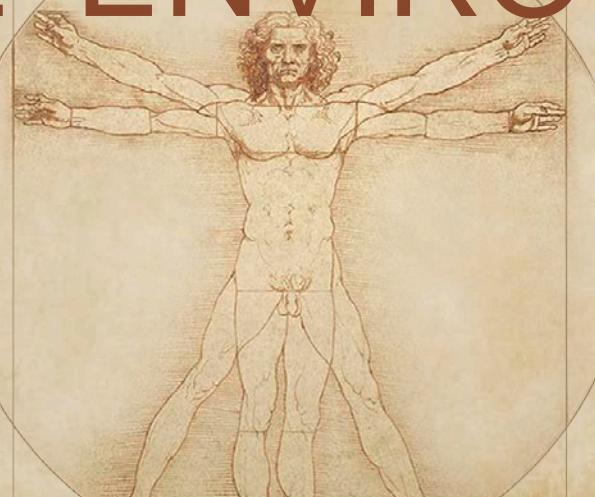


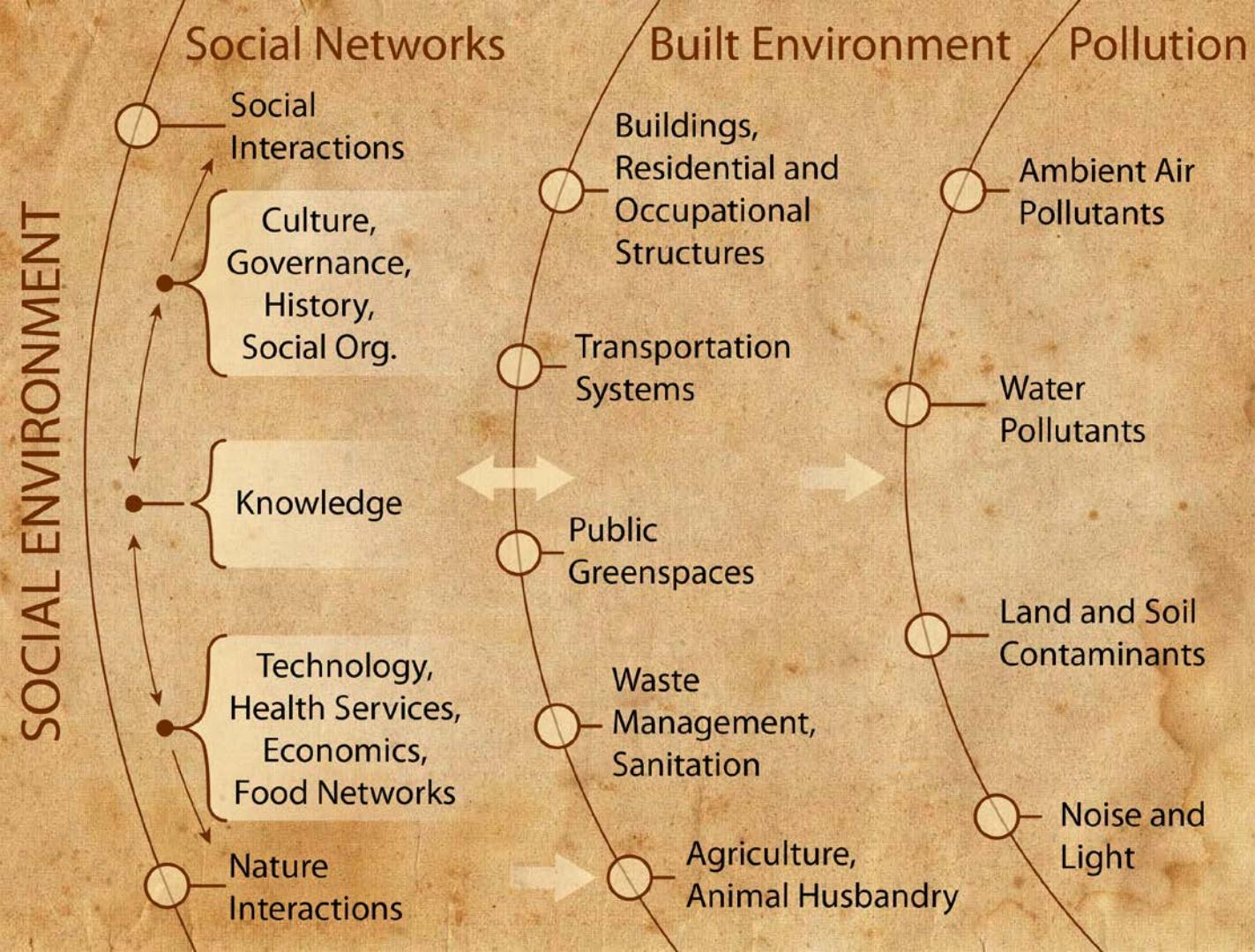
SOCIAL ENVIRONMENT

NATURAL ENVIRONMENT

SOCIAL ENVIRONMENT

PERSONAL ENVIRONMENT

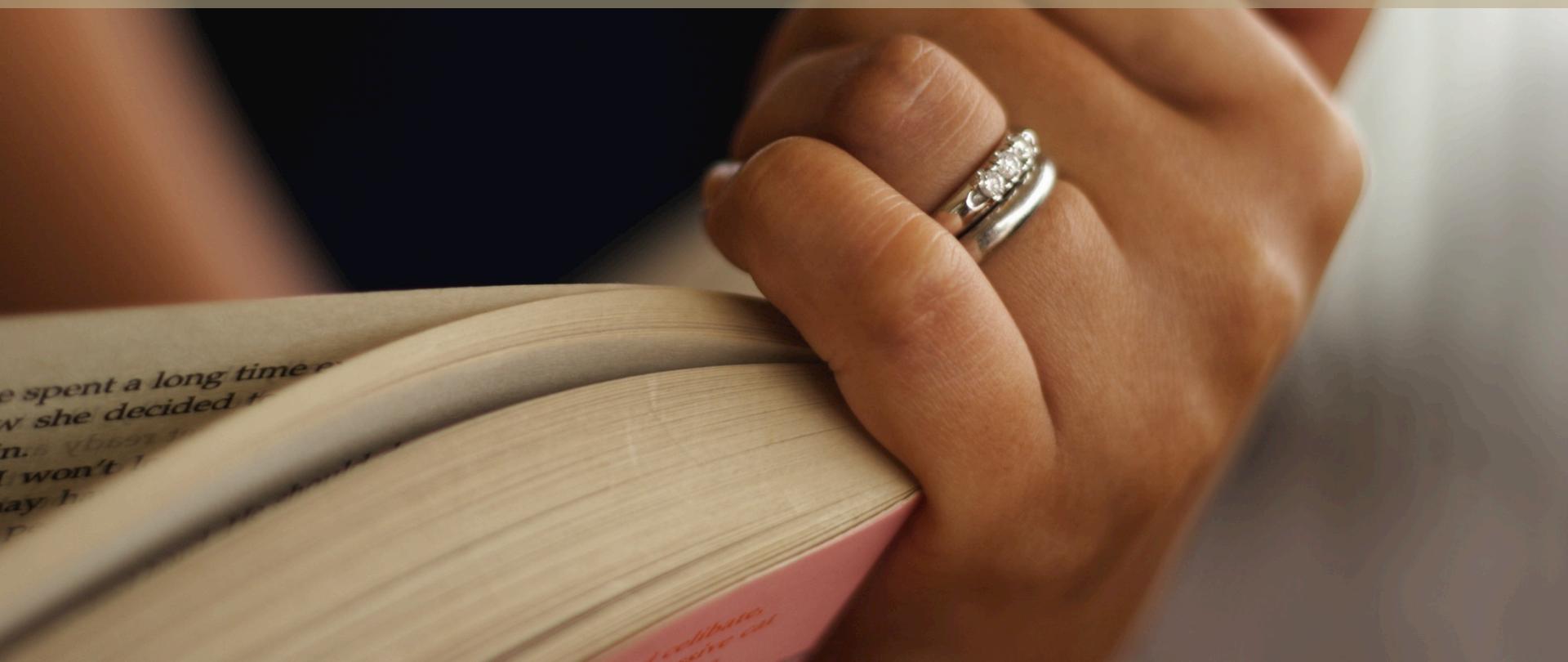






SOCIOECONOMIC STATUS

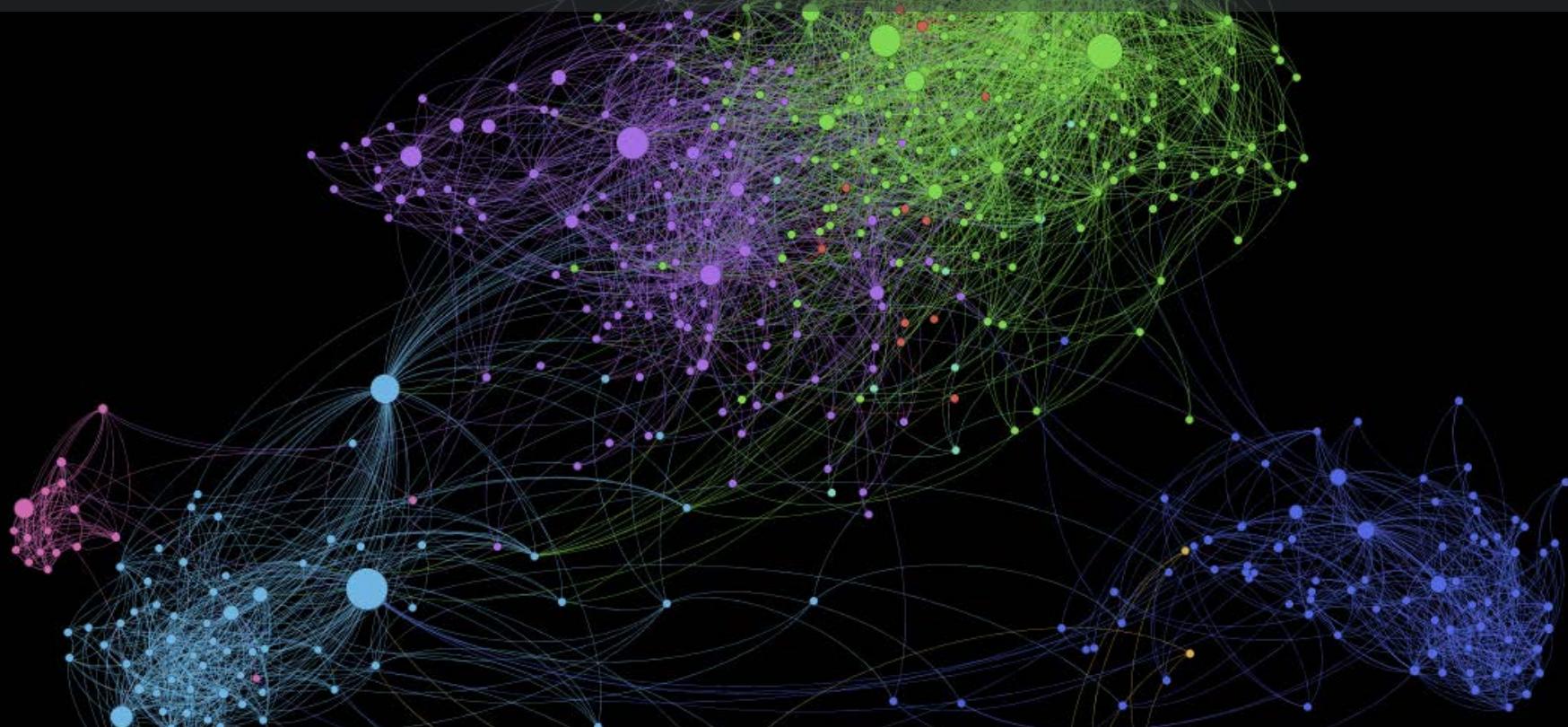
A valued life is essential for good health





SOCIAL NETWORKS

Individuals are influenced by the rhythms of their social networks



The background of the slide is a high-angle aerial photograph of a residential area. It shows several streets lined with houses, mostly two-story townhouses and single-family homes with red roofs. The streets are paved, and there are green lawns in front of the houses. The lighting suggests it's either early morning or late afternoon, casting long shadows of the houses onto the ground.

BUILT ENVIRONMENT

Cities, roadways, traffic and noise affect health

NEW ORLEANS, LOUISIANA

WARD

61

MID CITY

66
YEARS*

GERT TOWN

71
YEARS*

TULANE
GRAVIER

55
YEARS*

IBERVILLE

B.W.
COOPER

FRENCH
QUARTER

NEW ORLEANS

90

BROADMOOR

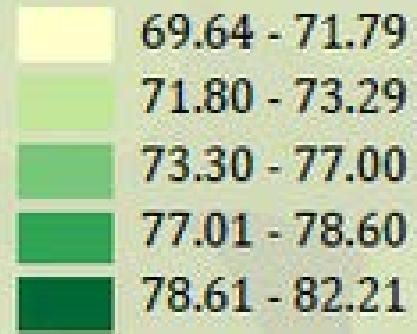
90

CENTRAL
CITY

75
YEARS*

MARIGNY

Life Expectancy, in years





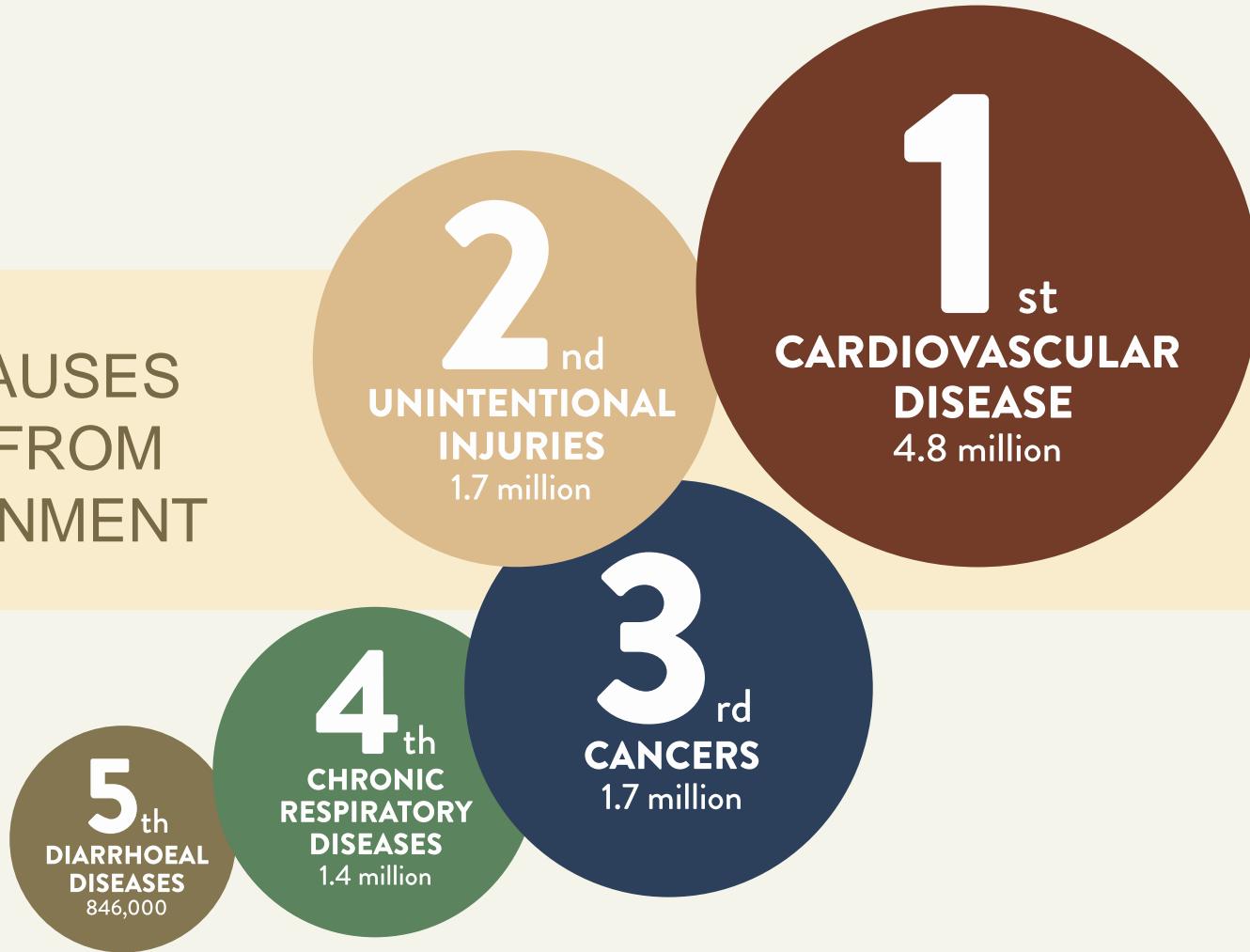
POLLUTION

Nearly 150,000 cardiovascular deaths in the US





LEADING CAUSES OF DEATH FROM THE ENVIRONMENT

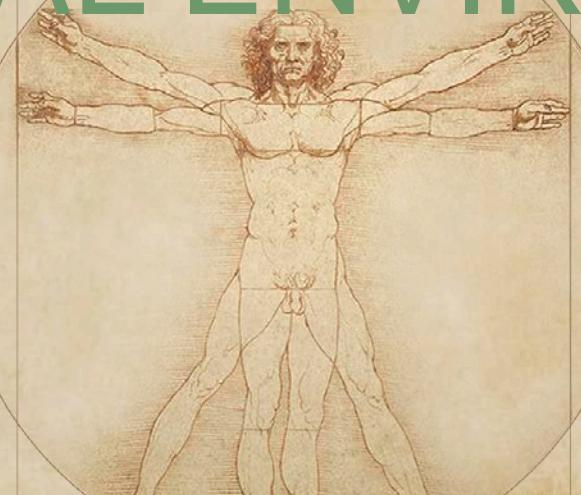


PERSONAL ENVIRONMENT

NATURAL ENVIRONMENT

SOCIAL ENVIRONMENT

PERSONAL ENVIRONMENT



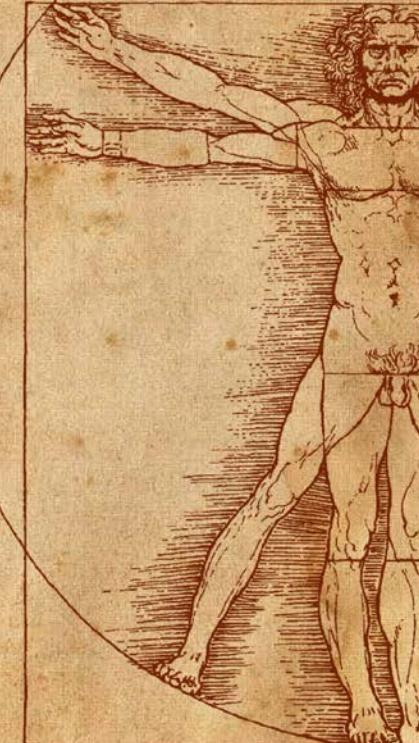
PERSONAL ENVIRONMENT

- Income
- Wealth
- Education
- Occupation
- Physical Activity
- Sleep
- Housing
- Family Structure/
Acquaintances
- Nutrition
- Chemical Uses

Hierarchy,
Power Structure,
Occupational Exposure

Type, Location, Quality,
Indoor Pollutants,
Gardens, Indoor Plants,
Pets, Domestic Animals

Tobacco, Alcohol,
Recreational Drugs,
Pharmaceuticals





NUTRITION

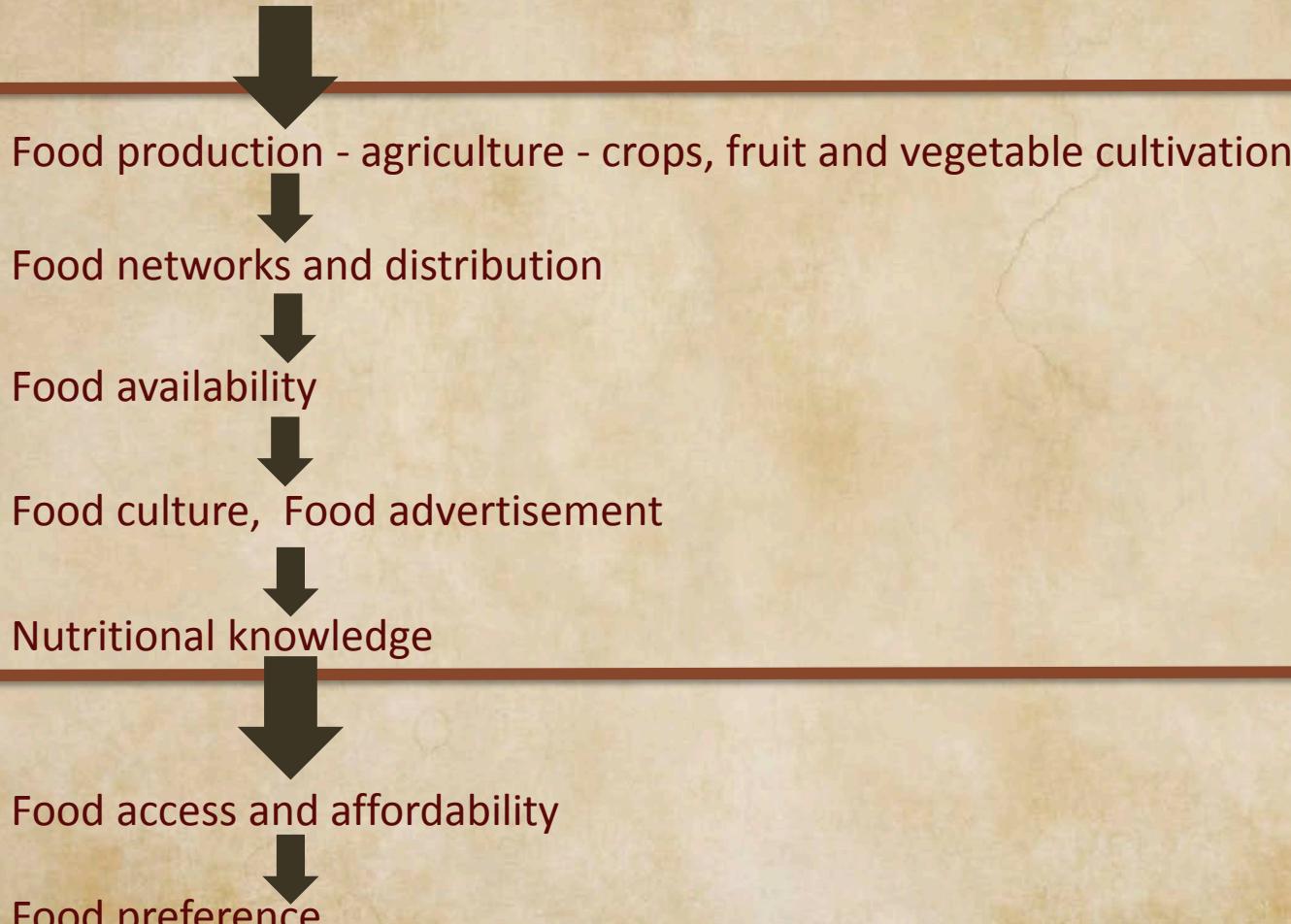
Food is medicine



Thomas Ziegler
Emory University



Geographic conditions – plant and animal life



Natural Environment

Social Environment

Personal Environment



PHYSICAL ACTIVITY

Increases lifespan by 3-5 years





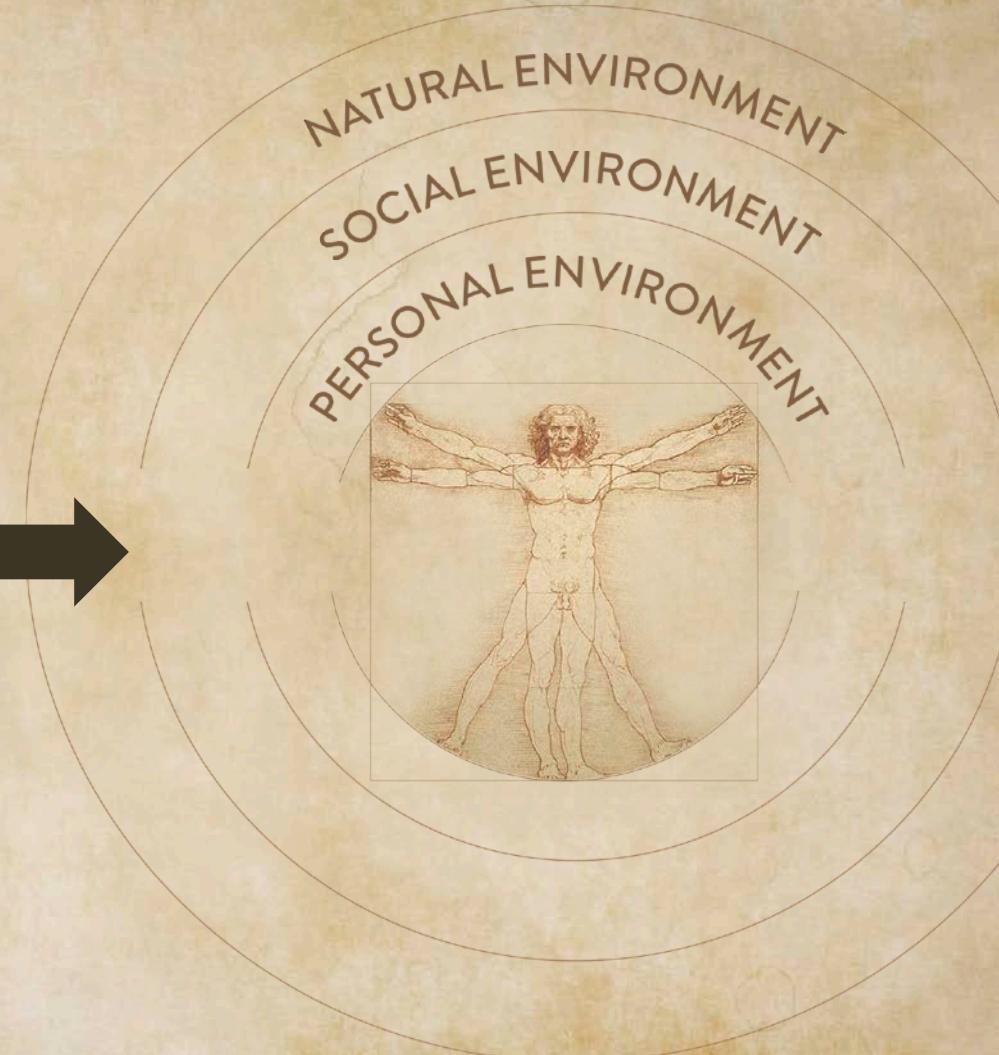
SMOKING

Major preventable cause of mortality





WHERE IS THE DISEASE?





THE ENVIROME INSTITUTE



A New Vision of Health in all its Forms



The Institute brings together scholars, educators, researchers and leaders in all forms of health from departments and schools across campus