
The President's Commission on Bioethics

— Eliana Bentley, Byron Martinez, Abby
Ridgeway, Misael Contreras, Austin Cesson,
Julian Dela Rosa-Billings, & Priscilla Ortiz —

Guiding Questions

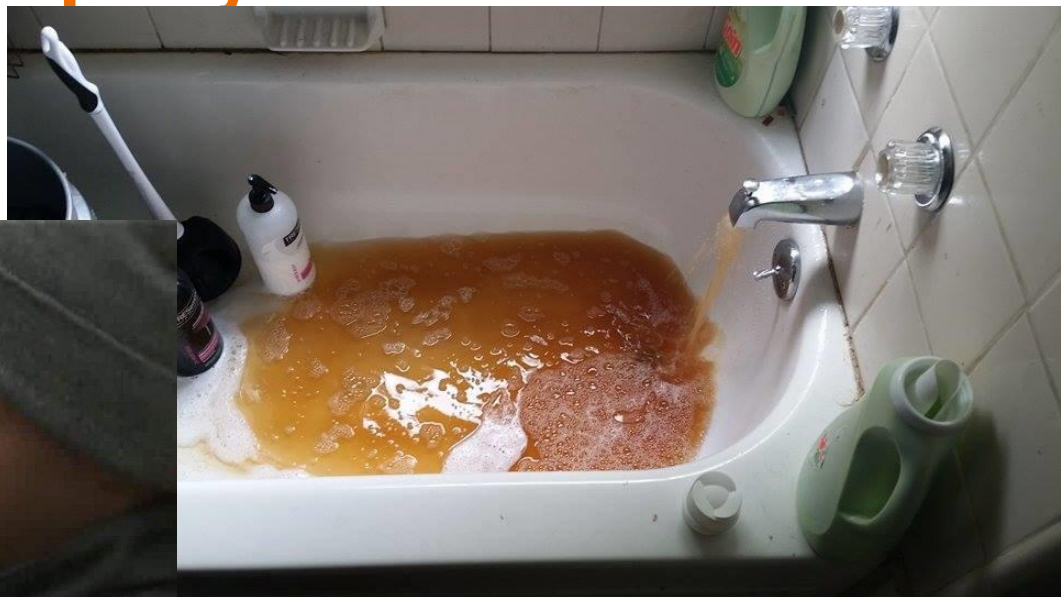
- What makes a person healthy?
- What philosophical approach best promotes health?

Case Study & Science - Flint Water Crisis

— Byron Martinez - Abby Ridgeway —

Tap Water Quality in Jeopardy in Flint

CNN.com



Snopes.com

Privatization of Government Services



Water Quality & Our Health

- Water is a vector that can expose us to pollutants
- Lead Poisoning
 - Lead leaks into the water supply from prolonged exposure to pipes
 - Body absorbs lead
 - Poisoning may be acute or chronic



nrdc.org



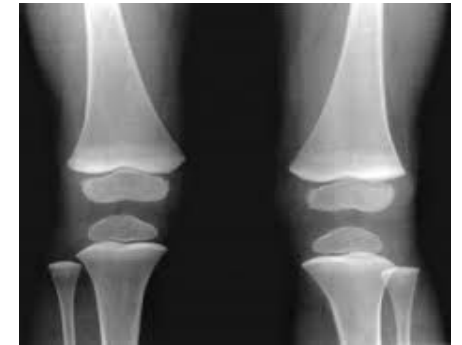
cdn.thefiscaltimes.com

Effects of Lead Poisoning

- Contaminated water can lead to severe health problems
- The body perceives lead as calcium and absorbs it
- Lead accumulates in our body because we cannot process it

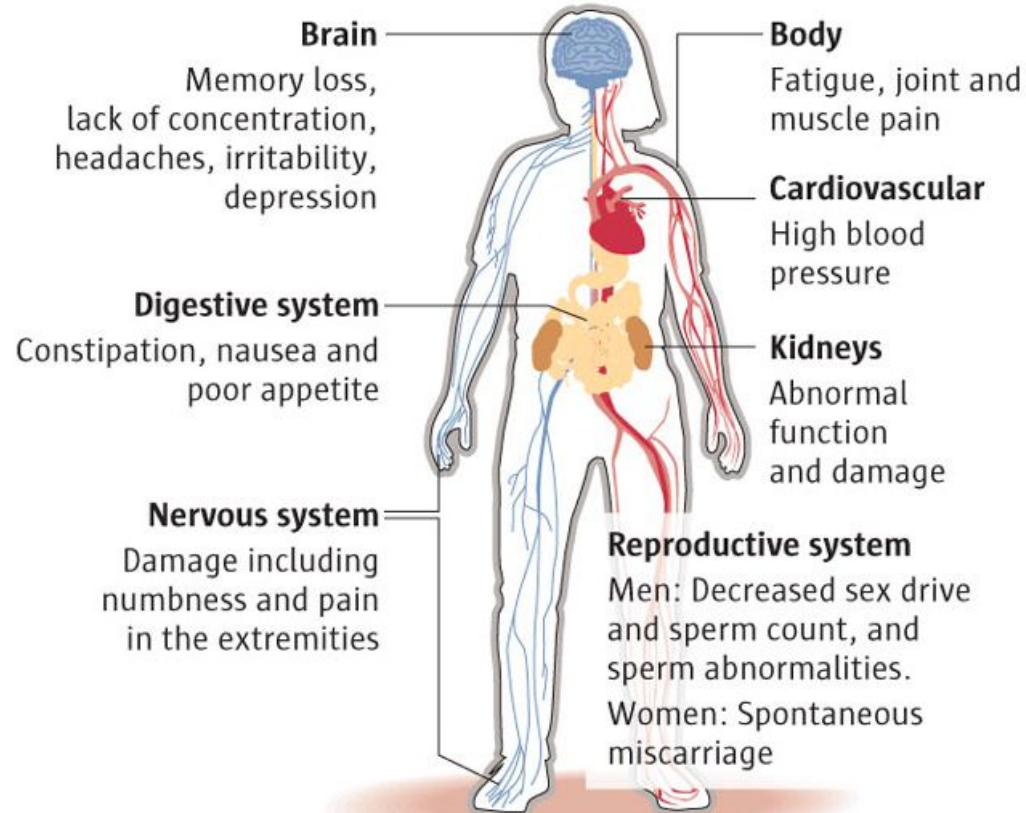


Healthy Knee Bones

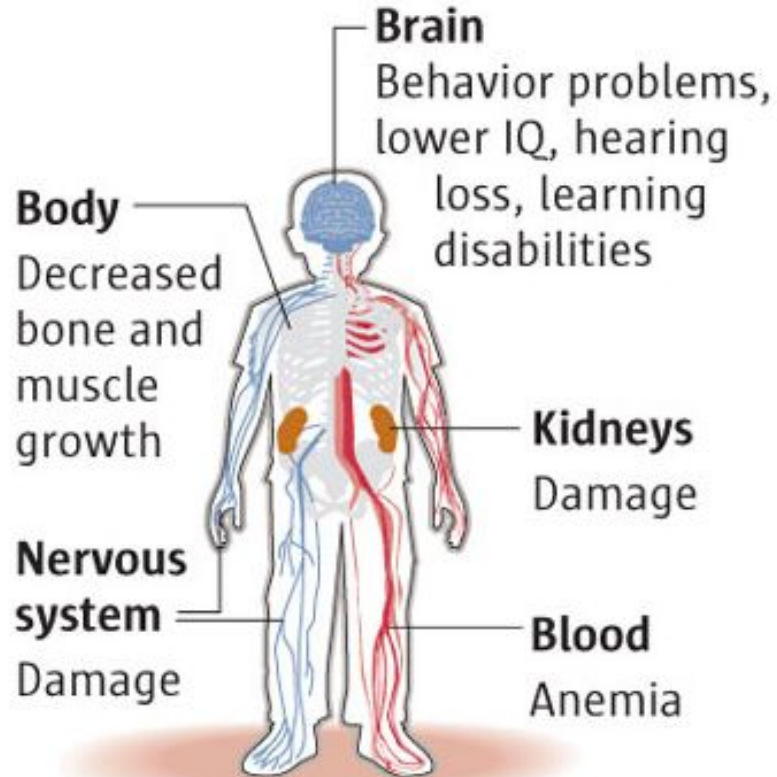


Lead in Knee Bones

ADULTS



CHILDREN



Who is impacted the most?



scienceabc.com

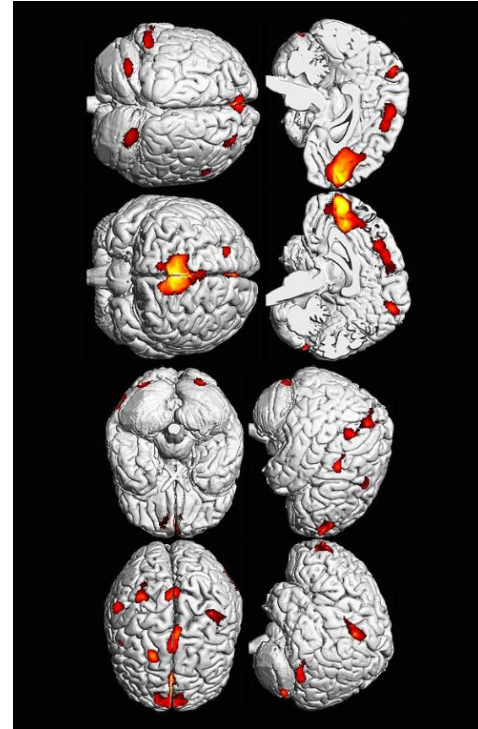
- Children 6 & under
 - Their bodies are still developing
- Elderly
 - They can have higher blood and bone lead levels because they might have had more exposure to the lead

Short Term Effects

- Loss of appetite
- Metallic taste in mouth
- Anxiety
- Stomach cramps
- Pale skin
- Tiredness
- Headache
- Nervous irritability
- Muscle and joint pain
- Tremors
- Numbness
- Dizziness
- Seizures
- Coma

Long Term Effects

- Coma
- Anemia
- Nervous system damage
- Symptoms of kidney disease
- Reproductive impairment
- Miscarriage or stillbirth



images.fatherly.com

Case Study & Science - San Diego Air Pollution

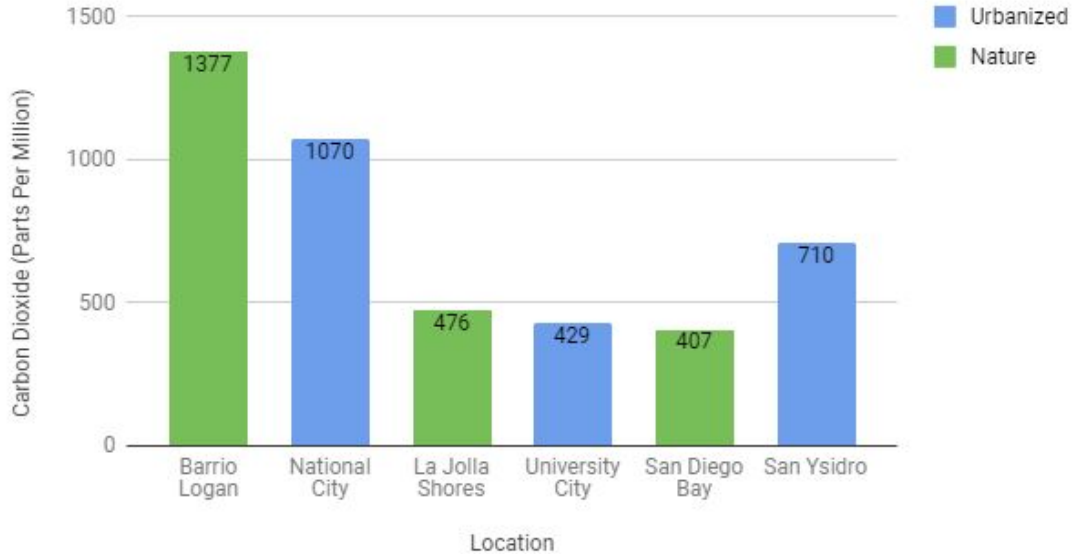
— Eliana Bentley & Misael Contreras —

Sunny San Diego Saturated with Smog



Most Impacted

Amount of Carbon Dioxide in Locations Around San Diego County

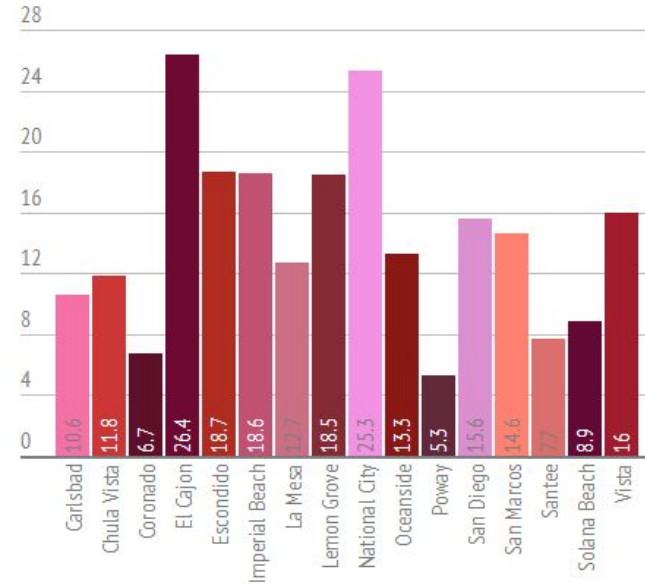


Source - HTH student research

Low Income Communities

- Properties by beaches are more expensive than industrialized areas.
- National City and El Cajon have higher poverty rates according to this graph.

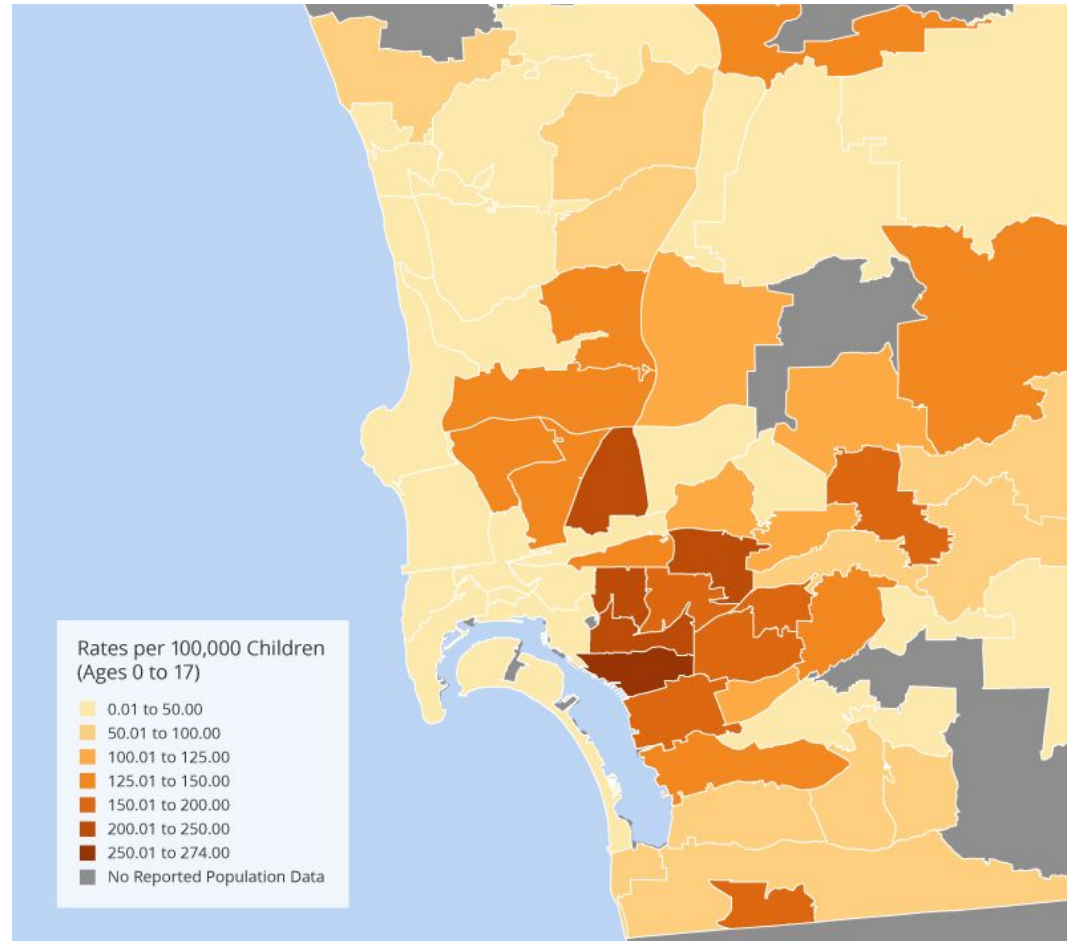
Persons in poverty (percent)



Source- Voice of San Diego

Impacted Neighborhoods

1. Barrio Logan
2. National City
3. Sherman Heights



Source - Equinox Project

Air Pollution

Chemicals or compounds in the air that put health at risk

- Visible and Invisible
 - Burning Fossil Fuels
 - Exhaust from Factories
 - Agricultural Pollution
 - Mining



Impacts to Human Organs

Skin: is the largest organ and is our first barrier of defense

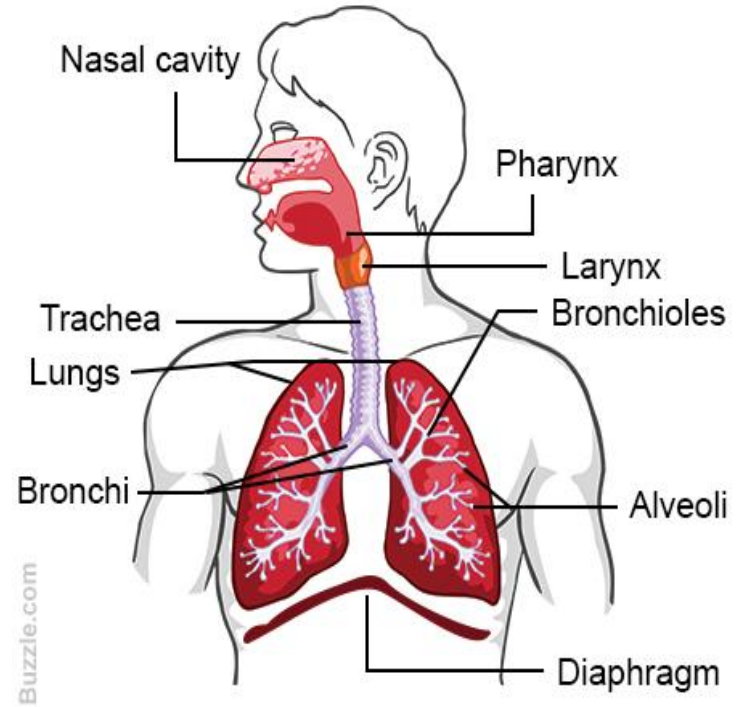
- Robs oxygen from our cells
- Weakens skin tissue, more vulnerable
- Causing skin to look dull and sagging

Brain: High levels of Carbon Dioxide increase acidity



Respiratory System Impacts

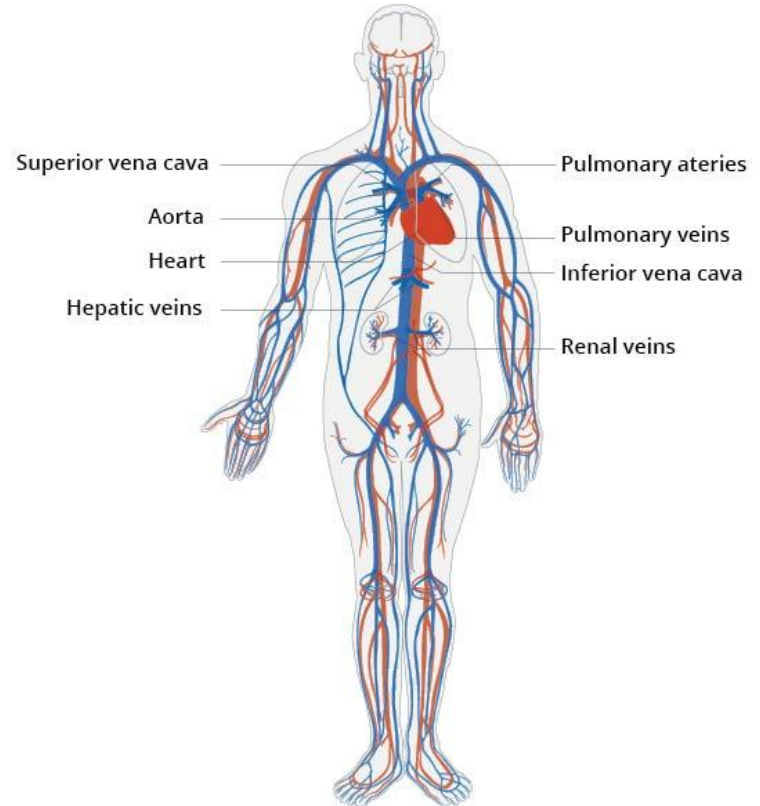
- Coughs
- Asthma
- Pulmonary Disease
- Lung Cancer
- Effects on Children
 - Harms Lung Development, Higher Risk for Lung Cancer



Cardiovascular System Impacts

Increased risk factors for heart disease

- Chronic Cardiovascular problems
- Inflammation of Arteries
- Plaque buildup in Arteries
- Causing heart attacks/stroke



Philosophers

— Austin Cesson & Julian Dela
Rosa-Billings —

Introducing the Debate: Private vs. Public

A Matter of Perspective: Primary Political Alignments

Libertarianism

- Humans are fundamentally self owning individuals
- Advocates of the Free Market

**PRIVATE
SECTOR**

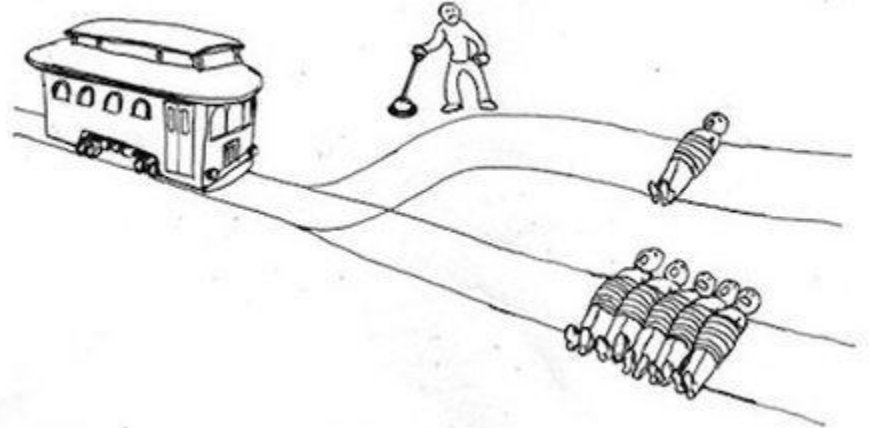
Egalitarianism

- Humans are fundamentally social beings
- Advocates of regulation and social services



Utilitarianism

- Humans are governed by feelings of happiness
- Maximize happiness or the greater good
- Utilitarianism is very flexible (a matter of individual discretion)



Privately Managed vs. Government Managed Resources

Flint Water Crisis

- Egalitarianism: An argument against privatization
 - Profit motive may overtake the public good
- Libertarianism: An argument for privatization
 - Profit motive IS the public



www.npr.org

The Extent of Regulation

San Diego Air Quality

- Egalitarianism: An argument for regulation
 - Regulative means work to the public good
- Libertarianism: An argument against regulation
 - Regulative means are inefficient, nothing a private company couldn't do



www.cbsnews.com

Questions & References