

Cleaning up Carbon Protects Public Health

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How does carbon pollution threaten health?

Carbon Pollution

- Traps heat

Climate changes

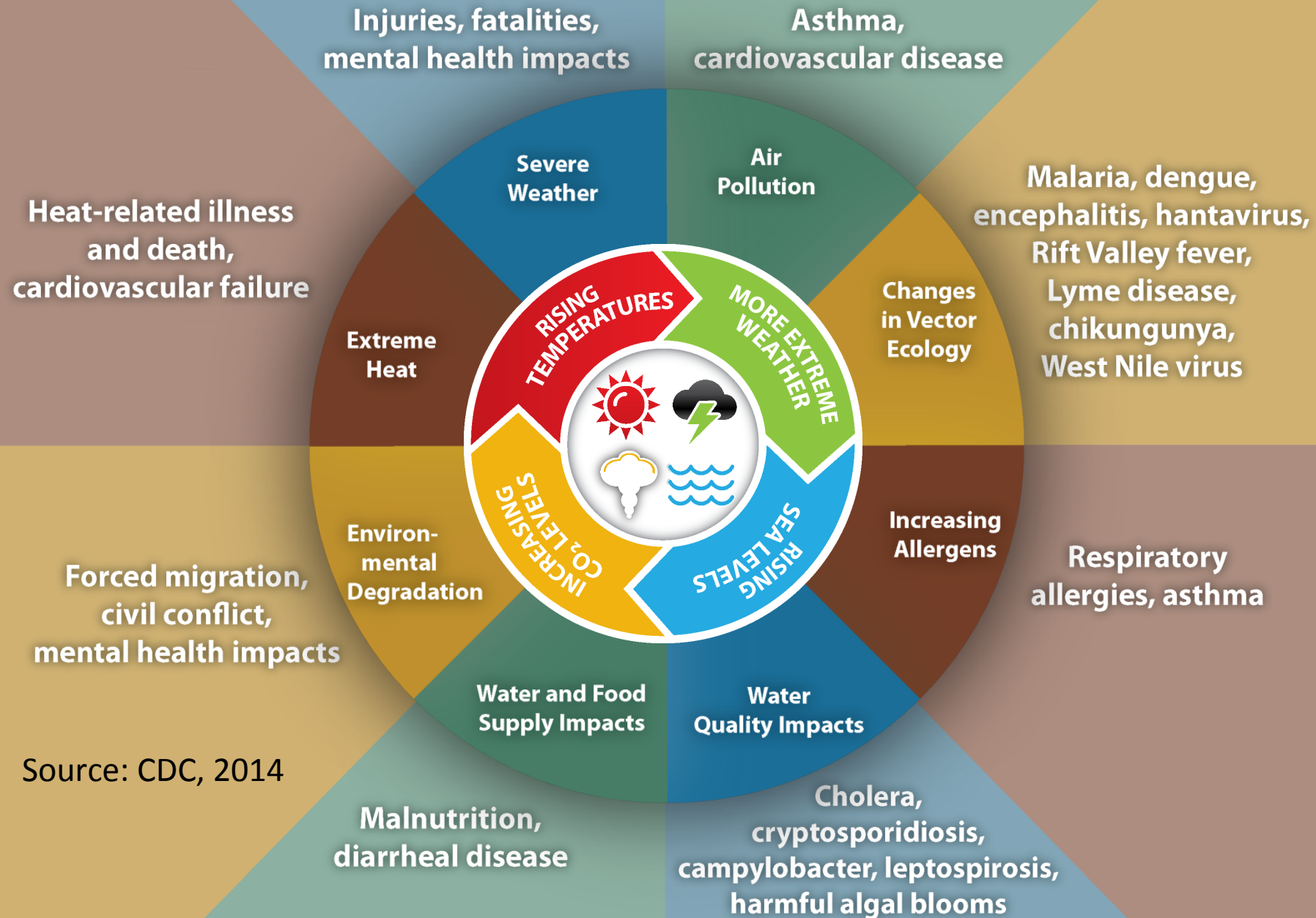
- Temperature rises
- Weather, precipitation changes

Health Threats

- Heat, Drought
- Ozone, PM
- Extreme Weather



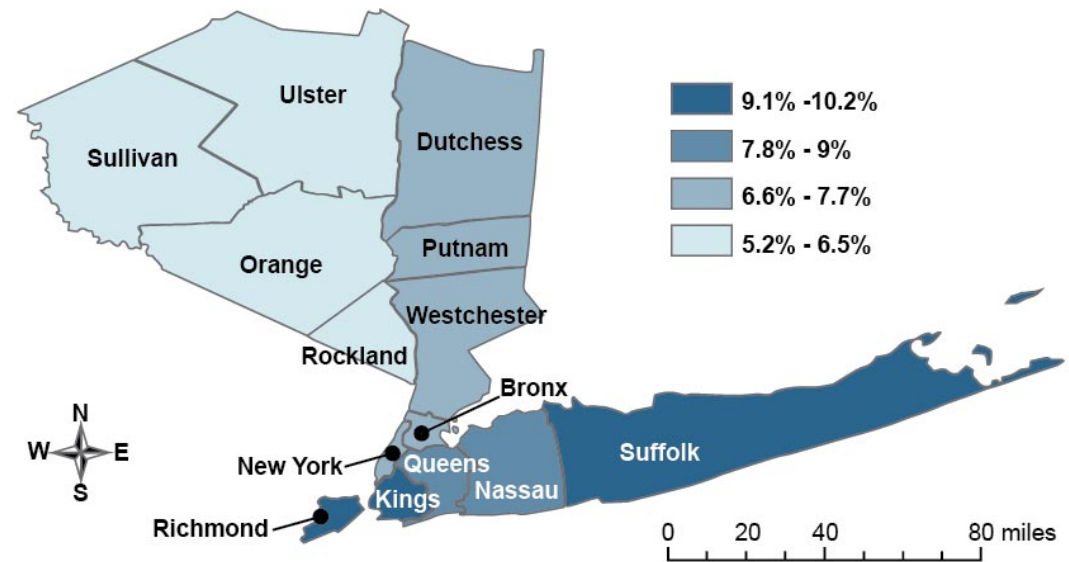
Impact of Climate Change on Human Health



Source: CDC, 2014

Higher ozone from climate change threatens children with asthma

Estimated increase in ER visits for children with asthma in NY in 2020s compared to 1990s from ozone due to climate change



Sheffield, Carr, Kinney, et al. American Journal of Preventive Medicine, 2011;41:251-257.

Increased risk from wildfires

Smoke from wildfires in Quebec, Canada in 2002 led to 30-fold increase in PM levels in Baltimore, MD

Sources:

Sapkota et al, Environmental Science and Technology, 2005; 39:24-32

Johnston et al. Environmental Health Perspectives, 2012;120:695-701.



Risks from Breathing Ozone and PM

- Premature death
- Coughing and wheezing
- Asthma attacks
- Worsening of lung & cardiovascular diseases
- Particulate matter (PM) causes lung cancer, heart attacks, strokes
- Both may increase risk of low birth weight
- PM may increase risk of infant mortality

– US EPA, *ISA for Ozone*, 2013; *ISA for Particulate Matter*, 2009

Climate change poses other health threats



- Extreme heat
- Heavy rainfall, flooding and droughts
- Increased risk of diseases spread by fleas, ticks, mosquitos
- Increased allergens
- Risk of waterborne diseases
- Risk of mental health and stress-related disorders
- Food security issues

Co-benefits of cleaning up carbon are immediate



- Cleaning up carbon pollution from power plants also cleans up other pollutants, including:
 - sulfur dioxide
 - nitrogen oxides
 - particulate matter

Health Benefits Research on Carbon Standards

- Syracuse University/ Harvard University Analysis - Phase 1
 - A strong carbon standard would reduce other emissions that are harmful to people and the environment. Lower emissions means all states would see some benefits.
 - Weak standard that only drives plant retrofits would bring little to no added air quality benefits – and could make things worse.
- Results suggest that stronger standards (in terms of both stringency and flexibility) result in greater and more widespread added benefits for people and the environment.

EPA Analysis: Clean Power Plan has Immediate Health benefits in 2020



- Prevent up to 2,100 heart attacks
- Prevent up to 100,000 pediatric asthma attacks
- Prevent up to 4,100 premature deaths

EPA Analysis: Clean Power Plan Health Benefits Grow in 2030



- Prevent up to 6,600 premature deaths
- Prevent up to 150,000 pediatric asthma attacks
- \$7 in health and economic benefits for every \$1 in costs

Clean Power Plan: Should be Strengthened

- Shorter timeframe
- Stronger targets
- Improved enforceability and oversight
- Exclude biomass combustion from list of acceptable forms of alternative energy



Fighting for:

all the things that make air worth breathing.

The American Lung Association is fighting for a day when we can all breathe easier. When every child's lungs are healthy and strong, and the air they breathe is safer. Until that day, we are fighting for air. Join the fight at FightingForAir.org.

AMERICAN LUNG ASSOCIATION.
Fighting for Air

Thank you!

We will breathe easier when the air in every American community is clean and healthy.

We will breathe easier when people are free from the addictive grip of tobacco and the debilitating effects of lung disease.

We will breathe easier when the air in our public spaces and workplaces is clear of secondhand smoke.

We will breathe easier when children no longer battle airborne poisons or fear an asthma attack.

Until then, we are fighting for air.