Messaging on Climate Health Impacts and Solutions
Climate Nexus/George Mason

Problem:

Burning dirty fossil fuels is polluting our air and our water, and dangerously destabilizing our climate.

Air pollution, water pollution and climate change are harming our health now – through asthma, lung and heart disease, heat waves, violent storms, droughts, wildfires, and infectious diseases. It will worsen if we don't take effective steps to protect ourselves.

So what?

Anyone and everyone's health can be harmed by climate change. But the people whose health is likely to be hurt first, and worst, are our nation's infants and children, older adults, people who already have a chronic health condition, people who work outdoors, and the poorest Americans.

Issue:

More than 97% of climate scientists have concluded that human-caused climate change is happening, and research has proven that it is already harming the health of many of us. As a health professional, I have a duty to protect people from further harm by taking steps to address climate change.

Benefits?

The sooner we take steps to protect ourselves, the sooner every U.S. family, community and business will benefit from cleaner air & water, better health, lower health care costs, and stronger communities.

A useful way to think about it: What's good for our climate is good for our health, and what's good for our health is good for our climate

Solutions?

The two most important steps we can take are to stop needlessly wasting energy, and to replace dirty fuels – especially coal – with clean renewable fuels like solar, wind and geothermal. Every American family, community, business, and state can take these steps – or at least support them.

Protecting ourselves from the health effects of climate change is the right thing to do – and the smart thing to do.

IMPACTS:

- Evidence: In a landmark survey from the National Medical Association (NMA) found that 88% of NMA physicians think climate change is relevant to direct patient care, and almost two-thirds of doctors said their own patients' health has been affected by climate change.

- **Heat-Related Illness:** Heat is already the leading cause of direct weather-related deaths in the United States, and the average number of heat-related fatalities will continue to rise, especially among vulnerable populations like the poor and elderly.

- **Heart Disease**: Climate change is strongly linked to heart-related diseases, which have been found to rise in tandem with extreme heat, increasing levels of ground-level ozone, particulate matter from coal burning power plants, and stress and anxiety brought on by extreme weather events.
- **Asthma:** High levels of ground-level ozone, are strongly linked to a rise in asthma attacks.
- **Allergies**: Allergies, which affect 10 to 30% of people worldwide, are also getting worse as the climate continues changing and emissions continue to rise. Last month, a study found that air

pollution makes pollen [more potent](); studies also show that warming is contributing to an [earlier and longer pollen season]() and rising carbon dioxide in the atmosphere results in [more pollen per plant]().

- **Aggression**: A [recent meta-analysis]() found that the results of 56 separate studies link climate change to a rise in violence and aggression, with an expected 20% rise in conflict in Africa for every increase of 1˚C. A study [linked the civil war in Syria]() to an extreme drought driven by human-caused climate change.
- **Suicide**: A 2012 study that looked at suicide over 37 years in Australia found that an increase in suicide among rural men was [strongly correlated]() to a rising drought index–findings that were echoed earlier this year in [skyrocketing suicide rates]() in drought-stricken states in India.
- **Post-Traumatic Stress Disorder (PTSD)**: Communities affected by [wildfires](), [tsunamis](), [hurricanes](), or other disasters experience high rates of PTSD and other psychopathologies, case studies show, especially in those more directly exposed to the threat.

Infectious Diseases
- **Lyme Disease:** The number of reported cases of Lyme disease in the United States has [doubled since 1991](), partly because warming temperatures facilitate the spread of the ticks that carry the disease. Deer ticks [prefer conditions]() with temperatures above 45˚F and humidity over 85%, and many parts of the U.S. are expected to get warmer (and some wetter) as climate change continues.
- **Mosquito-Borne Diseases:** [Malaria]() and [dengue fever]() are two examples of diseases transmitted by mosquitoes that are on the rise as temperatures warm. Floods can also [increase the incidence]() of mosquito-borne illnesses, as mosquitoes depend on standing water for breeding.
- **Waterborne Parasitic Diseases**: [Cholera](), giardia, and other diarrheal illnesses are expected to [pose a greater threat]() to humans as temperatures warm. Both increased drought and rain can challenge the capabilities of water filtration plants and create more standing water, which both expose people to higher levels of disease.

Extreme Weather
- Extreme weather events can contribute to global war, conflict, and migration. For example, a persistent and extreme drought that has been linked to human-caused climate change destabilized Syria and contributed to the ongoing civil conflict and humanitarian disaster. ([Source: PNAS]())
- Sea level rise and flooding are affecting millions of people around the world. In the Sundarbans, a group of islands off the coast of Bangladesh, sea level rise and saltwater intrusion are threatening the livelihood and health of [over ten million people]().
- Climate-related disasters include storms, floods, extreme temperatures, drought and wildfires. From 1994 to 2013, the US was affected by more climate-related disasters than any other country, and in 2014, 87% of all disasters worldwide were related to climatological processes. In total, the frequency of global climate-related disasters has [doubled since the 1980s]().
- Between 1994 and 2013, floods accounted for 43% of all recorded disasters and affected [nearly 2.5 billion people](). In 2014, hydrological disasters like floods and landslides were responsible for 71% of disaster-related deaths worldwide.
- More than [one billion people]() were affected by droughts over the past twenty years. Droughts contribute to malnutrition, disease, and displacement, so direct deaths from drought are harder to quantify.

Global instability
- Extreme weather events can contribute to global war, conflict, and migration. For example, a persistent and extreme drought that has been linked to human-caused climate change destabilized Syria and [contributed to the ongoing civil conflict](#) and resulting humanitarian disaster. Sea level rise and flooding are affecting millions of people around the world. In the Sundarbans, a group of islands off the coast of Bangladesh, sea level rise and saltwater intrusion are threatening the livelihood and health of [over ten million people](#).

Solutions: The two most important steps we can take are to stop needlessly wasting energy, and to replace dirty fuels – especially coal – with clean renewable fuels like solar, wind and geothermal. Every American family, community, business, and state can take these steps – or at least support them. Protecting ourselves from the health effects of climate change is the right thing to do – and the smart thing to do.

Our state should be jumping at the opportunity to protect our citizens' health by replacing dirty fossil fuels with clean renewable energy and energy efficiency.

Benefits
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- A useful way to think about it: What's good for our climate is good for our health, and what's good for our health is good for our climate