Warming Threatens Public Health, Groups Warn

By Emily P. Walker, Washington Correspondent, MedPage Today
Reviewed by
February 24, 2011

Review

Medical and public health groups are banding together to explain how global warming has taken a toll on human health and will continue to cause food-borne illnesses, respiratory problems, and deaths unless policy changes are enacted.

In a Thursday conference call with reporters, the heads of the American Medical Association (AMA) and the American Public Health Association (APHA) joined with a pediatrician and a scientist to lay out what they say is a major public health issue: climate change caused by global warming.

The "evidence has only grown stronger" that climate change is responsible for an increasing number of health ills, including asthma, diarrheal disease, and even deaths from extreme weather such as heat waves, said Georges Benjamin, MD, executive director of the APHA.

For one, rising temperatures can mean more smog, which makes children with asthma sicker, explained pediatrician Perry Sheffield, MD, MPH, assistant professor in the Department of Pediatrics and the Department of Preventive Medicine at the Mount Sinai School of Medicine, in New York.

There is also evidence that pollen season is also getting longer, she said, which could lead to an increase in the number of people with asthma.

Climate change also is thought to lead to increased concentrations of ozone, a pollutant formed on clear, cloudless days. Ozone is a lung irritant which can affect asthmatics, those with chronic obstructive pulmonary disease, and those with heart disease, said Kristie Ebi, PhD, MPH, MS, who is part of the Intergovernmental Panel on Climate Change.

More ozone can mean more health problems and more hospital visits, she said.

Aside from air-related ailments and illnesses, extreme weather can have a devastating effect on health, Sheffield said.

"As a result of global warming, extreme storms including hurricanes, heavy rainfall, and even snowstorms are expected to increase," Sheffield said. "And these events pose risk of injury and disruption of special medical services, which are particularly important to children with special medical needs."

Extreme heat waves and droughts are responsible for more deaths than any other weather-related event, Sheffield said.

The 2006 heat wave that spread through most of the U.S. and Canada saw temperatures that topped 100 degrees. In all, 450 people died, 16,000 visited the emergency room, and 1,000 were hospitalized, said Cecil Wilson, MD, president of the AMA.

Climate change has already caused temperatures to rise and precipitation to increase, which, in turn, can cause diseases carried by tics, mosquitoes, and other animals to spread past their normal geographical range, explained Ebi.

For instance, Lyme disease is increasing in some areas, she said, including in Canada, where scientists are tracking the spread of Lyme disease north. Ebi also recounted the 2004 outbreak of the leading seafood-related cause of gastroenteritis, *Vibrio parahaemolyticus*, from Alaskan seafood, which was attributed to increased ocean temperatures causing infected sea creatures to travel 600 miles north.

Salmonella outbreaks also increase when temperatures are very warm, Sheffield said.

A 2008 study also projected that global warming will lead to a possible increase in the prevalence of kidney stones due to increased dehydration, although the link hasn't been proven.

Wilson said the AMA wants to make doctors aware of the projected rise in climate-related illnesses. To combat climate change, Wilson says physicians and public health groups can advocate for policies that improve public health, and should also serve as role models by adopting environmentally-friendly policies such as eliminating paper waste and using energy-efficient lighting in their practices.

"Climate instability threatens our health and life-supporting system, and the risk to our health and well-being will continue to mount unless we all do our part to stabilize the climate and protect the nation's health," said Wilson.

Benjamin added that doctors should pay attention to the Air Quality Index. For instance, if there's a "Code Red" day, which indicates the air is unhealthy, physicians should advise patients (particularly those with cardiac or respiratory conditions) that it's not the day to try and mow the grass.

"ER docs are quite aware of Code Red days because we know that when those occur, we're going to see lots of patients in the emergency room," Benjamin said.

Thursday's conference call came as Congress is considering what role the Environmental Protection Agency (EPA) should have in updating its safeguards against carbon dioxide and other pollutants. While the EPA has the authority to regulate levels of CO_2, a budget bill passed by the House of Representatives over the weekend prohibited the EPA from exercising that authority. Meanwhile, other bills are pending in Congress that would significantly delay the agency's ability to regulate air pollutants.

AMA has a number of policies on the books regarding climate change, including a resolution supporting the EPA's authority to regulate the control of greenhouse gases, and a statement endorsing findings from the most recent Intergovernmental Panel on Climate Change report that concludes the Earth is undergoing adverse climate changes, and that humans are a significant contributor to the changing weather.

In that statement, the AMA said it supports educating the medical community about climate change and its health implications through medical education on topics such as "population displacement, heat waves and drought, flooding, infectious and vector-borne diseases, and potable water supplies."

The statement also said the AMA supports physician involvement in policymaking to "search for novel, comprehensive, and economically sensitive approaches to mitigating climate change to protect the health of the public."
