Climate Change, Health and Health Equity

American Academy of Family Physicians
Health Equity Toolkit

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Climate Change 101

Figure A5.15: This map shows the observed changes in temperature for the 1986 to 2015 period relative to the 1901–1960 average. Shades of red indicate warming, while shades of blue indicate cooling. There are insufficient data in the Arctic Ocean and Antarctica for computing long-term changes. There are substantial regional variations in trends across the planet, though the overall trend is warming. Source: Vose et al. 2012.
The Greenhouse Effect

Some solar radiation is reflected by the Earth and the atmosphere. Some of the infrared radiation passes through the atmosphere. Some is absorbed and re-emitted in all directions by greenhouse gas molecules. The effect of this is to warm the Earth’s surface and the lower atmosphere.

About half of the incoming solar radiation is absorbed by the Earth’s surface and warms it.

Infrared radiation is emitted by the Earth’s surface.
Climate Change 101

- **Rising Temperatures**
  - U.S. average temperature has increased by 1.3°F to 1.9°F since record keeping began in 1895. Warming has been the greatest in North and West while some parts of the Southeast have experienced little change.

- **Wildfires**
  - Wildfires in the West start earlier in the spring, last later into the fall, and burn more acreage.

- **Heat Waves**
  - Heat waves have become more frequent and intense, especially in the West.

- **Drought**
  - Drought has increased in the West. Over the last decade, the Southwest has experienced the most persistent droughts on record.

- **Cold Waves and Winter Storms**
  - Cold waves have become less frequent and intense across the Nation. Winter storms have increased in frequency and intensity since the 1950s and their tracks have shifted northward.

- **Extreme Precipitation**
  - Heavy downpours are increasing nationally, especially over the last three to five decades. The largest increases are in the Midwest and Northeast.

- **Floods**
  - Floods have been increasing in parts of the Midwest and Northeast.

- **Hurricanes**
  - The intensity, frequency, and duration of North Atlantic hurricanes, as well as the frequency of the strongest (category 4 and 5) hurricanes, have all increased since the early 1980s.

- **Sea Level**
  - Sea levels along the Mid-Atlantic and parts of the Gulf Coast have risen by about 8 inches over the last half century.
Climate Change and Vector-borne Diseases

Figure A5.32: Reported cases of Lyme disease in 2001, 2014, and 2015 are shown by county for the contiguous United State. Both the distribution and total number of cases have increased from 2001 to 2014 and 2015, particularly in the Midwest and Northeast. Sources: CDC and ERT, Inc.
Climate Change and Health Equity: The Climate Gap

Figure Credit: Fourth National Climate Assessment
Climate Change and Health Equity: The Climate Gap
Co-benefit solutions: healthy people, healthy places, healthy planet
Health Provider Role in Climate Change, Health and Equity

- Eat less meat, especially red meat
- Walk, bike, use transit
- Clean energy, energy efficiency

- Patient education
- Care plans and protocols
- Home assessments

- Community presentations
- Local zoning and development

- Green your clinic or hospital
- Grand rounds presentation
- Policy statement or resolution

- Write an Op-ed or Letter to the Editor
- TV and radio interviews

- Legislative visits
- Policy testimony
Health provider voice is critical

From US Climate and Health Alliance

A Physician’s Guide to Climate Change, Health and Equity

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From NPR “Has Your Doctor Talked to You about Climate Change?”
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References


