

Staying Cool in a Changing Climate

Climate Change, Health, & Home

Project Partners:

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- Philadelphia Resources for Home & Health
- NNCC NMHC's in Philadelphia
- CDC Heat Brochure
- Step-by-Step Energy Cooling Guide
- FEMA Emergency Supply Checklist
- Philadelphia OEM Emergency Contact Form
- Natural, Asthma-Safe Cleaning Products Recipes

Pre-Workshop Survey

What is your zip code? _____

1. What are two ways climate change will impact Philadelphia?

a)

b)

2. What are two ways climate change will impact the health of people in your community?

a)

b)

3. What are two actions you can take to reduce the impacts of climate change in your home?

a)

b)

4. What do you do to keep cool on a hot day?

5. Do you know of city resources that can help you when there is an extreme heat event?

6. Do you know where there is a cooling center in your neighborhood? Tell us where.

7. Have you ever used a cooling center before? Circle: Yes No

8. What are two things you do to save energy in your home?

a) _____

b) _____

9. Where have you learned about climate change?

10. What would you like to learn about in this workshop?

About the Project:

This workshop is part of an 4-year long education and research project led by six partner organizations:

- **Clean Air Council** provides expertise on climate science and local impacts
- **National Nurse-Led Care Consortium** addresses the health impacts of climate change and discuss strategies for mitigating effects on the home environment
- **Energy Coordinating Agency** provides expertise on the dynamics of energy and climate change, as well as tips and resources for keeping homes and neighborhoods cool
- **Liberty Lutheran** provides expertise on needs of elderly populations as well as disaster preparedness for seniors
- **Philadelphia Department of Public Health** provides information about extreme heat impacts and city resources
- **Drexel University's** role is to provide support for the above organizations in facilitating and evaluating the workshops

This project teaches community members about climate change and its impacts on community health in four areas:

1. Science-based information about climate change and how Philadelphia will be impacted
2. An overview of the human health impacts of climate change
3. Strategies to address climate change in your home environments
4. Local resources available to you during extreme weather events, such as heat waves

Our goals:

We hope to prepare and inform you about the risks and solutions associated with extreme heat and intense weather events so that you may be equipped with the information and tools necessary to reduce the potential effects on your health, home, and community. We will provide you with strategies on how to make your families safe at home during these extreme weather events, and what public resources are available to you in the city of Philadelphia.

Climate Change Glossary

Weather: Atmospheric condition at any given time or place. It is measured in terms of such things as wind, temperature, humidity, atmospheric pressure, cloudiness, and precipitation. Climate in a narrow sense is usually defined as the "average weather", or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. A simple way of remembering the difference is that climate is what you expect (e.g. cold winters) and 'weather' is what you get (e.g. a blizzard).

Climate: Climate in a narrow sense is usually defined as the "average weather," or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands of years.

Climate change: Refers to any significant change in the measures of climate lasting for an extended period of time. In other words, climate change includes major changes in temperature, precipitation, or wind patterns, among others, that occur over several decades or longer.

Global Warming: The recent and ongoing global average increase in temperature near the Earth's surface.

Heat Waves: A prolonged period of excessive heat, often combined with excessive humidity.

Greenhouse Effect: Trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. Some of the heat flowing back toward space from the Earth's surface is absorbed by water vapor, carbon dioxide, ozone, and several other gases in the atmosphere and then reradiated back toward the Earth's surface. If the atmospheric concentrations of these greenhouse gases rise, the average temperature of the lower atmosphere will gradually increase.

Greenhouse Gas (GHG): Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include: carbon dioxide, methane, nitrous oxide, ozone, etc.

Carbon Dioxide: A naturally occurring gas, and also a byproduct of burning fossil fuels and biomass, as well as land-use changes and other industrial processes. It is the principal human caused greenhouse gas that affects the Earth's radiative balance.

Methane (CH₄): A hydrocarbon that is a greenhouse gas with a global warming potential most recently estimated at 25 times that of carbon dioxide (CO₂). Methane is produced through decomposition of waste in landfills, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Ozone: In the troposphere, it is created by photochemical reactions involving gases resulting both from natural sources and from human activities (photochemical smog). In high concentrations, tropospheric ozone can be harmful to a wide range of living organisms. Tropospheric ozone acts as a greenhouse gas. Stratospheric ozone plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric ozone, due to chemical reactions that may be enhanced by climate change.

Energy Efficiency: Using less energy to provide the same service.

Renewable Energy: Energy resources that are naturally replenishing such as biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.

Vulnerability: The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed; its sensitivity; and its adaptive capacity.

(Definitions from: "Glossary of Climate Change Terms", *Environmental Protection Agency*)

Additional Climate Change Resources

Helpful Links to Stay Informed!



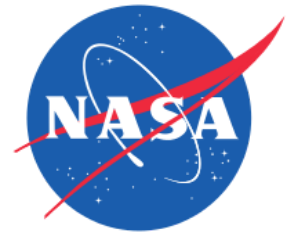
AIR QUALITY INDEX

Air Quality Index (AQI) Values	Levels of Health Concern
0 to 50	Good
51-100	Moderate
101-150	Unhealthy for Sensitive Groups
151-200	Unhealthy
201-300	Very Unhealthy
301 to 500	Hazardous

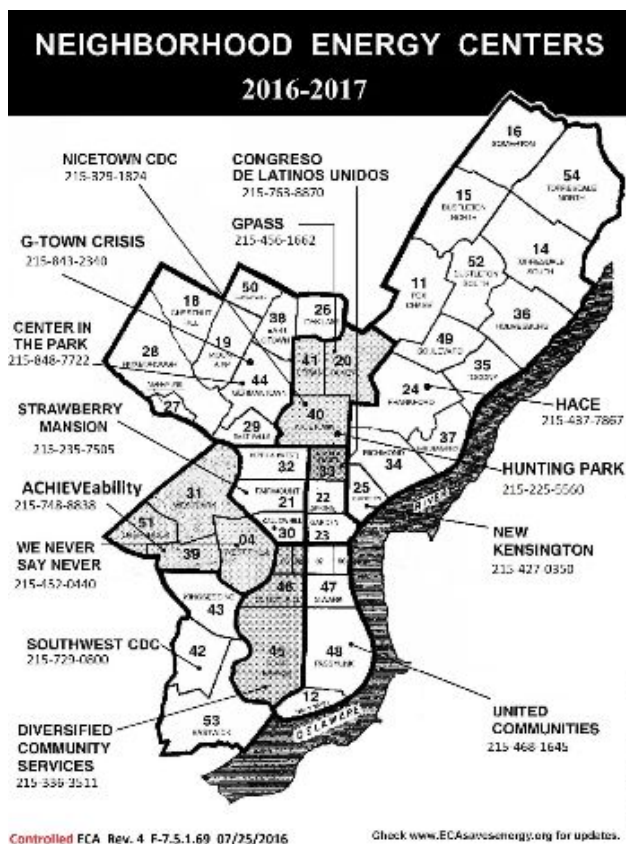
Stay up to date on your **Air Quality Index (AQI)** forecast. Just type in this link and enter your zip code: www.airnow.gov

Environmental Protection Agency in Pennsylvania: www.epa.gov/pa

NASA's global climate change website for more scientific information:
www.climate.nasa.gov



Philadelphia Department of Public Health: www.phila.gov/health



For heat safety tips during very hot weather, contact the **Philadelphia Corporation for Aging's (PCA)** hotline:



(Energy Conservation Agency)

Post-Workshop Survey

1. What are two ways climate change will impact Philadelphia?

a)

b)

2. What are two ways climate change will impact the health of Philadelphians?

a)

b)

3. What are two actions you can take in your home to stay cool on a hot day?

a)

b)

4. Do you know of city resources that can help you when there is an extreme heat event?

5. Do you know where there is a cooling center in your neighborhood? Tell us where.

6. What are two steps that you can take to prepare for an emergency?

a)

b)

7. What are two things you could do to save energy in the home?

a)

b)

8. Has your view on the impacts of climate change changed because of this workshop? In what way?

9. How could this workshop be improved?

10. Are there other climate change topics you would like to learn about?

Notes

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