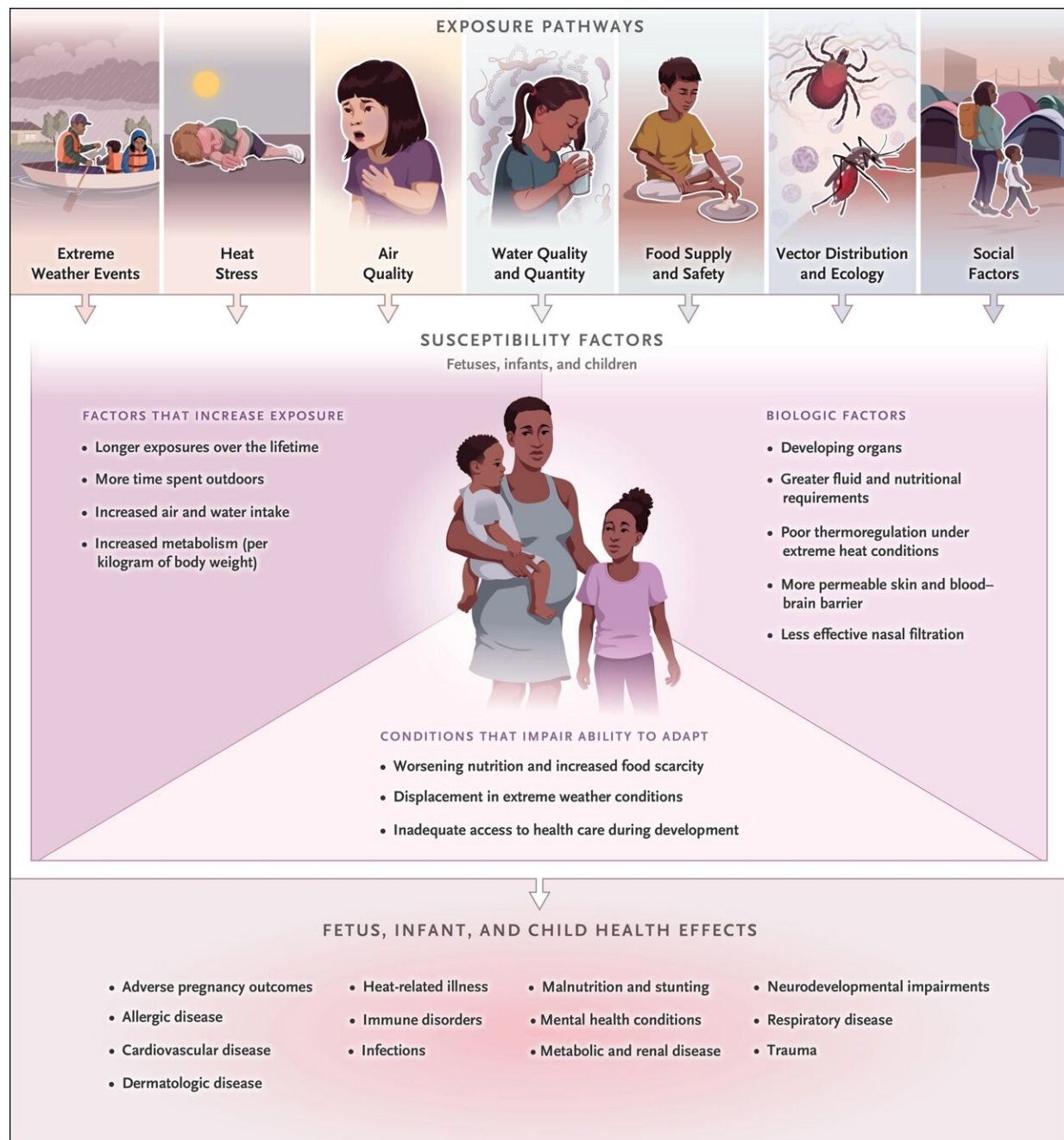


# **Review of research shows climate change starts harming children before they are even born**

June 20 2022, by Bob Yirka

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Susceptibilities in Fetuses, Infants, and Children Associated with Climate Change and Exposures. Adapted from Haines and Ebi.<sup>12</sup> Shown are examples of potential exposure pathways, susceptibilities, and potential health outcomes linking climate change with children's health. PTSD denotes post-traumatic stress disorder. Credit: *New England Journal of Medicine* (2022). DOI: 10.1056/NEJMra2117706

A pair of researchers from Columbia University and Stanford University, respectively, has found that children around the world are at increased risk of health problems due to air pollution and climate change. In their paper published in the *New England Journal of Medicine*, Frederica Perera and Dr. Kari Nadeau outline the increased risks of pollution and climate change to children from before birth until adulthood.

Climate change impacts everyone. But unfortunately, it impacts some more than others. Rising oceans, for example, are flooding island nations. And those with limited incomes are finding it harder to survive [extreme weather events](#), including heat waves. In this new study, the researchers found evidence that [climate change](#) and the pollution behind it harm children more than adults. They note that because their bodies are smaller and still growing, as are their minds, they are more susceptible to environmental conditions, particularly pollutants and heat.

To better understand how pollution and climate change are impacting children, the researchers studied research papers from a host of sources that described the impacts that pollution and climate change can have on them. They found what they describe as direct harm, such as damaged lungs and reduction in intellectual abilities. And they note that today's children will also have to face changes to the climate that have not yet occurred.

In their paper, the researchers note that mothers breathing polluted air during pregnancy impacts children before they are even born. Prior studies have shown it can lead to low birth weights, early births and also stillbirths. Some research has also shown a link to inflammation later on in life. And sadly, some research has shown that chemicals in the air and other types of pollution can cause birth defects, including problems with brain development.

The researchers also found that climate change is resulting in the production of less [nutritious food](#), and less food in general for people in some parts of the world. They also found climate change is making the world a more dangerous place for children to grow up in—more hurricanes, typhoons, tornadoes, [heat waves](#) and floods make it more difficult for children to survive to adulthood. Climate change is also expected to lead to more wars and other types of trauma, such as abuse from adults as tensions at home rise, and increases in the incidence of diseases. They suggest that some entities, such as those caring for children, may need to alter their practices to more adequately address the health problems of [children](#) now and in the future.

**More information:** Frederica Perera et al, Climate Change, Fossil-Fuel Pollution, and Children's Health, *New England Journal of Medicine* (2022). [DOI: 10.1056/NEJMr2117706](https://doi.org/10.1056/NEJMr2117706)

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