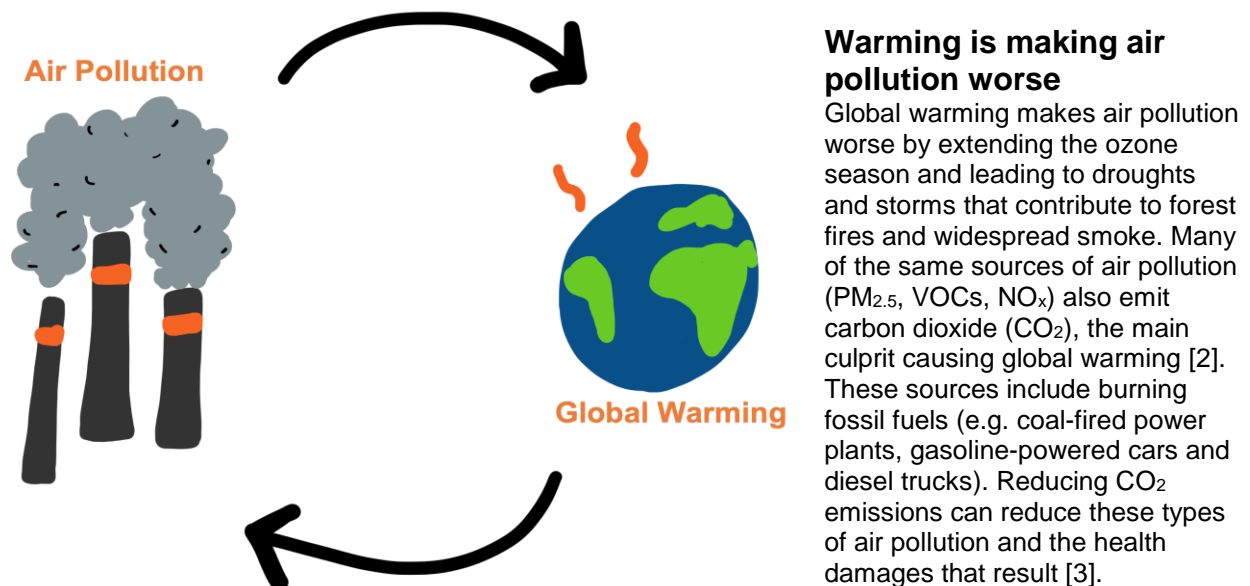


How Does Climate Change and Air Pollution Affect Pregnancy and Human Development?

Climate change puts pregnant women and children at risk

The impacts of climate change are already taking place: more frequent natural disasters, extreme weather and temperatures, rising sea levels, and displacement. Mainly because of combustion of fossil fuels, CO₂ is causing warming, and these changes affect food and housing security, vector-borne illness, and access to clean air and water, all of which influence human health, especially that of pregnant women and children. Research shows evidence linking climate change with poor pregnancy outcomes that can have lasting effects on children and the health of subsequent generations [1].



Air pollution increases risks to reproductive health and human development

Physiological changes during pregnancy, such as a 40% increase in the amount of air pregnant women breathe per minute as well as a 50% increase in how hard their hearts work make pregnant women particularly vulnerable to pollutants [4,5,6,7].

Research shows that prenatal exposure to air pollutants PM_{2.5} and ozone contribute to adverse pregnancy outcomes including preterm birth [8,9,10,11] and low birthweight [9,10,11]. Meta-analyses have found that over 3% of preterm birth in the United States and 18% of preterm birth globally could be attributed to PM_{2.5} exposure [12,13].

Heat and the risk to reproductive health and human development

Global warming increases extreme heat which is associated with preterm birth, low birthweight, and stillbirth in studies across the world [14-23]. Increasing temperatures and number of hot days are associated with low birth weight [23,24].

What can we do?

Advocating for public policies that promote clean air and prevent climate change is essential. When counseling patients on mitigating risk of exposure to air pollution and heat, consider the following:

1. Avoid outdoor activities on high pollution days and monitor the Air Quality Index in your area.
2. Close your windows on high pollution days.
3. When exercising, avoid being within 300 meters of high-traffic areas.
4. During extreme heat, limit outdoor activities to morning or evening.
5. Increase fluid intake on hot days as doing so has been associated with lower risk for heatstroke.
6. Avoid being in sun for long periods and seek shade, take breaks and drink water regularly.
7. Access air conditioning if possible to reduce risk for heatstroke or heat-related mortality. [25-29]

We can all do our part to reduce air pollution and prevent the climate crisis. This includes walking, biking, carpooling and using public transportation when possible. Conserve energy by supporting renewable energy (solar, wind) and shutting off lights when not in use at home and at work and buy energy efficient appliances where available. Don't use aerosol sprays; instead, use cleaning products and paints that are environmentally safe.

Protective public policies are essential for health

Health care providers are a trusted voice for primary prevention at the policy level. Health care providers are especially effective at advocating for public policies that protect patients and communities by reducing pollutants and global warming and building resilience in the health care sector [30,31,32].

Policy interventions that reduce prenatal exposure to particulate matter, global reduction in CO₂ emissions, and divestment from fossil fuels can help to ensure the health of everyone, especially pregnant people and children.

PREGNANCY and CLIMATE CHANGE

The PROBLEM

Climate change worsens air pollution and extreme weather which can have severe impacts on health during and after pregnancy including:

- PRETERM BIRTH
- LOW BIRTHWEIGHT
- STILL BIRTH
- EFFECTS ON BRAIN DEVELOPMENT

What WE CAN DO

Advocate for public policies that lead to:

- GLOBAL REDUCTION IN AIR POLLUTION EMISSIONS
- STEADY DIVESTMENT FROM FOSSIL FUELS
- REDUCING TOXIC EXPOSURES

"The health impacts of our global climate crisis on maternal and child health can no longer be ignored."
International Federation of Gynecology and Obstetrics (FIGO)

FIGO International Federation of Gynecology and Obstetrics
HEAL HEALTH AND ENVIRONMENT ALLIANCE
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