Renewable Energy and Health

Renewable energy is one of the most promising sources of clean, safe energy in the United States. Renewable energy sources like wind, solar and geothermal emit virtually no greenhouse gases or other dangerous air and toxic pollutants. Plus, it is available nationwide and increasingly affordable.

Increasing the use of renewable energy, and support for renewable energy programs, decreases our reliance on dangerous fossil fuels. By reducing the amount of coal, natural gas, and other fossil fuels we burn to generate energy renewables programs protect our health, limiting the number of harmful pollutants in our air and lessening the burden of climate change.

Health Burden of Fossil Fuels

Climate Change

Climate change is the number one public health crisis facing communities and reliance on fossil fuels is one of the leading causes of climate change. The climate catastrophe is already harming our health and safety, and without committed action to reduce greenhouse gases the health crisis caused by fossil fuel use will only worsen.

Left unchecked or insufficiently addressed, the climate crisis causes:
- Severe heat waves leading to heat cramps, heat exhaustion, and heat stroke
- Spread of vector-borne diseases such as malaria, dengue fever, and Lyme disease
- Reduced crop yields and crop failure leading to malnutrition & starvation
- Increased severe climate-related events leading to injury, death, & displacement
- Psychological trauma leading to mental health problems

Air and Toxic Fuels

Burning, refining, and transportation of fossil fuels produce air pollution and numerous air toxics, such as particulate matter, nitrous oxide, mercury and volatile organic compounds (VOCs), which are harmful to human health in a variety of ways, including:
- The development and exacerbation of asthma
- Increased burden of chronic obstructive pulmonary disorder
- Increased infant mortality
- Increased heart disease, heart attacks, and congestive heart failure
- Increase in ischemic strokes
- Higher incidence of lung cancer
- Developmental delays in fetuses, infants, and children

Lung cancer, chronic lower respiratory diseases, heart disease, and stroke all rank among the most lethal conditions in the U.S. Air pollution from the use of fossil fuels contributes significantly to the burden of these conditions. In the U.S. altogether, transitioning to clean renewable energy could:
- Prevent 52,000 premature deaths annually
- Save $167 billion in health costs over 35 years[1]

While the climate crisis puts the health of all individuals at risk, the effects of global heating and air pollution are felt most by specific vulnerable populations. Groups such as children, the elderly, people with preexisting conditions, communities of color, and low-income communities are already and will continue to feel the worst effects of climate change.

- Children have a greater sensitivity to certain exposures and are at higher risk of injury, illness, or death from extreme weather events such as hurricanes and floods.
- The elderly are at particularly high risk of adverse health effects from extreme heat and have, on average, lower mobility, which exacerbates displacement.
- Low-income communities already suffer from poor health and inadequate health infrastructure, both of which put them at higher risk due to climate change.

It is essential that when pursuing renewable energy solutions, we ensure that progress respects environmental justice and protects these vulnerable populations. This means investing in clean, safe renewable energy alternatives, especially in communities of color that are disproportionately located by pollutant-emitting energy sources.

Clean Renewable Energy

While transitioning away from nonrenewable energy sources such as fossil fuels is essential to protect health, we must note that not all energy sources labeled as “renewable” are clean and safe.

Clean renewable energy includes sources like wind, solar, geothermal and tidal energy, which emit almost no greenhouse gases or air and toxic pollution.

Other sources sometimes deemed as renewable such as biomass and municipal solid waste can emit greenhouse gases as well as dangerous levels of air and toxic pollution that harm human health.

Economic Growth and a Just Transition

Transitioning to a carbon-free economy centered around renewable energy provides the opportunity for a wealth of equitable economic growth. Installation, operations, and maintenance of renewable energy like solar and wind power are fast-growing sources of quality new jobs that cannot be easily shipped offshore.

Low socioeconomic status and poverty are closely linked with poor health outcomes but can be addressed through investment in renewable energy and renewable energy jobs. However, we must ensure that there is a just transition to 100% renewable energy that provides economic benefits to affected and displaced communities.

Conclusion

Transitioning to 100% clean, safe renewable energy is both feasible and essential to prevent widespread disease, injury, and social disruption associated with climate change. Our efforts to protect our environment and mitigate climate change by promoting renewable sources is key to creating healthier communities as well as aiding the interests of vulnerable and disadvantaged populations. In short, clean, safe renewable energy is a positive force for our climate, health, and society.