Impact of Outdoor Air Pollution on Child Health and Well-Being

Health and Policy Context

_____, including outdoor _____, can be important contributors to health. Exposure to poor outdoor air quality (i.e., air pollution) poses a substantial _____ to children and families. Outdoor _____ includes particle pollution (i.e., smoke or particulate matter) and ground-level ozone (i.e., smog).[1]

Children are at a _____ of negative _____ caused by outdoor air pollution since their organs are still developing, and they have higher _____. Negative _____ caused by exposure to air pollution can include, but are not limited to, adverse _____, _____, and other behavioral and _____. Exposure to air pollution in childhood can also impact the risk of _____ _____

In Utero Exposure to Outdoor Air Pollution

Studies demonstrate an association between exposure to air pollutants during pregnancy and adverse birth outcomes, including _____, _____, which can _____ rates of _____, and cardio-respiratory abnormalities, such as chronic lung disease of prematurity. Preterm birth and low birth weight are also associated with _____ and mortality and increased morbidity in adulthood. Moreover, exposure to air pollution during the prenatal period can impair _____ and organ development and is associated with childhood _____ and other childhood respiratory symptoms. Exposure to air pollution during pregnancy can also increase risk of _____.

Asthma and Allergic Diseases

Studies have demonstrated an association between air pollution and _____, including:

- **Asthma.** Exposure to air pollution can increase the risk of _____ _____ and worsen _____. Specifically, exposure to air pollution can _____ the risk of asthma-related hospitalization, length of hospital stays, and rates of medication use, which can result in children missing _____ and parents/caretakers missing work.
- **Seasonal Allergies.** Seasonal _____, triggered by environmental allergens like pollen, may be worsened by _____, as air pollution can make pollen more _____ (i.e., higher capacity to trigger allergies).

Marginalized Communities Are More Likely to Be Exposed to Outdoor Air Pollution and Other Cumulative Environmental Stressors

Various studies conclude that _____, ___-_____ _____, and _____ _____, who are more likely to live _____ to tra□c or facilities that produce pollutants (e.g., factories), are disproportionately exposed to outdoor air pollution. Moreover, some marginalized _____ may be disproportionately exposed to _____ and/or _____ social and environmental stressors (e.g., substandard housing conditions and extreme heat, limited safe greenspace access; and air pollution) over their lifetime, which compound to negatively impact health and well-being and exacerbate health disparities.[4]

Other Respiratory Issues

_____ and _____ exposure to outdoor air pollution is associated with an increased risk for childhood respiratory issues, including:

- **Impaired Lung Growth and Function.** Prenatal exposure to air pollutants can impact _____ in children, which can in turn contribute to poor respiratory outcomes into adulthood. Furthermore, another _____ shows that exposure to air pollution during pregnancy and early life is associated with reduced lung function in mid-childhood.
- **Respiratory Infections.** Exposure to air pollution during childhood can also increase risk for _____ _____, including bronchitis and _____, _____, and others.

Behavior and Development

_____ suggests exposure to outdoor air pollution in utero or during _____ can impact brain development and _____. Specifically, one _____ demonstrates the relationship between exposure to air pollution and neurological development, including an increased risk of developmental disorders like attention-deficit/hyperactivity disorders or autism spectrum disorders. Another _____ shows children ages 2 to 4 who were exposed to air pollution were at a higher risk of worse behavioral function and cognitive performance.