

CLIMATE CHANGE AND RESPIRATORY HEALTH: CURRENT KNOWLEDGE AND BREAKS

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Abstract:

Climate alteration is a key driver of hastening environmental change affecting populations universal. Many of these changes and our responses to them can affect respiratory health. This is an expert opinion review of recent peer-reviewed literature, focusing on recent medical journals and climate-health-relevant modeling results from non-biomedical journals on climate-air pollution interactions. Global health impacts in low-resource countries and migration accelerated by environmental change are addressed. The main findings relate to respiratory health effects related to heat, air pollution, spreading of infectious diseases and allergens, flooding, water, food security and migration. The review concludes with gaps in knowledge and the need for research to support the evidence base needed to address future challenges. The impact of climate change has been significant enough to threaten human health directly and indirectly through heat stress, low air quality, rising sea levels, food and water security, extreme weather events (e.g., hurricanes, etc.), vulnerable shelters, and population migration. Deterioration in environmental conditions can facilitate the transmission of diarrhoea, vector-borne and infectious diseases, cardiovascular and respiratory diseases, malnutrition, etc. Indirect impacts of climate change such as mental health problems caused by stress, loss of homes, economic instability and forced migration are also undeniably important. Children, the elderly and communities living in poverty are among the most vulnerable to the harmful effects of climate change. In this article, we reviewed the scientific evidence on the impact of climate change on human health and analyzed various diseases in relation to changes in the atmospheric environment and climatic conditions. Winters around the world are getting warmer. But this warming may not mean the end of traditional winter weather in many places – at least not yet. Extreme precipitation events – including major winter snowstorms and lake snow events – are becoming more common due to climate change.

Keywords: Climate Change; respiratory Health; Current Knowledge

Weather and Climate

Let's get this straight out of the way: Winter weather is just that – weather. Weather describes what is happening at a particular time and place. Weather can change minute by minute, hour by hour, day by day. Climate, on the other hand, is the average weather over time, usually 30 years or more, and space.

The climate is also relatively stable, or at least it was for most of human history - until relatively recently for some strange reason. This relative stability is why we have a pretty good idea of what will basically happen with temperatures each season – because we saw it last year at this time. And the year before that. And the year before that.

But the climate crisis is flipping the script and throwing our natural systems out of balance. And it affects our .

winters as surely as it does our summers, even if those effects are increasingly difficult to see among the gently falling snowflakes

Respiratory infections in school aged children

Respiratory tract infections were common in 10-year-old children. There was substantial comorbidity between upper and lower respiratory tract infections. Environmental and constitutional factors were identified that were positively associated with infections. Both viral and bacterial agents are believed to play an important role in the development of childhood respiratory tract infections.¹ Changes in local and innate immunity of the pharyngeal space also affect upper respiratory tract infections.² In recent years, it has been considered a disease of the upper respiratory tract. significant role in the etiology of middle ear disease; the same report generalized that the entire respiratory tract should be considered a unit susceptible to similar natural changes.

Management of respiratory tract infections in children

Respiratory tract infections (RTIs) in children are one of the most common reasons why parents consult health professionals. Most RTIs are self-limiting viral illnesses that resolve with time and supportive treatment. However, it is important for a health professional to identify any RTI that may have more serious consequences for the child and require medical intervention. Diagnosis can usually be made based on the history and symptoms such as cough, wheezing, tachypnea, fever, or stridor. Excluding "red flag" symptoms will allow health professionals to appropriately reassure parents and recommend symptomatic treatment with antipyretics and adequate fluid administration. With the expanding role of nurses in outpatient settings, many children now encounter health professionals other than physicians (e.g., advanced practice nurses), some of whom are trained in pediatrics, while others have limited knowledge of caring for sick children. It is therefore vital that these professionals remain aware of all risk factors and are able to quickly recognize "red flags" in a sick child and escalate further treatment appropriately. Some children will require hospital admission for breathing support and other therapies such as intravenous antibiotics and fluids. With the advancement of the "non-medical prescriber" within the nursing profession, awareness of when to give or not to give antibiotic therapy needs to be carefully considered, especially in light of the problems that can arise from antibiotic overuse. Nurses have a vital role not only in administering medication and supporting other medical interventions, but also in supporting the child and family during illness. In some cases, attention should be given to educating parents and the child about prevention and avoidance to reduce the risk of any other RTIs, including vaccinations and smoking cessation.

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