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Urgency of Climate Change through the lens of COVID-19 Pandemic: the case of heat-related mortality

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The COVID-19 pandemic and climate change are both urgent global health concerns. However, their impact on human lives has not been compared on the same scale. In this study, we compared mortality due to heat with COVID-19 in 38 cities worldwide, considering different levels of global warming (+1°C, +1.5°C, +2°C, and +3°C). Our findings reveal that even at a global warming level of +1.0°C, 6 cities are already at a point where heat-related deaths could equal COVID-19

deaths within 15 years. Regardless of high or low COVID-19 mortality in the cities, the number of years to reach the level of COVID-19 mortality decreases with higher global warming levels. In 18.4% to 47.4% of the cities, heat-related mortality is projected to equal COVID-19 mortality within 15 years, ranging from +1.0°C to +3.0°C of global warming. The vulnerability to climate change varies among regions, with European, Mediterranean, and North American cities experiencing a significant rise in heat-related mortality with higher global warming levels. It is important to note that the given number of years represents the time required to reach COVID-19 mortality. However, unlike the peak and decline of COVID-19, climate change-driven heat-related deaths will persistently worsen unless substantial adaptation measures are taken. This emphasizes the crucial need to integrate climate change into public health discourse and policy.

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