



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

the concept of population-health-oriented management: traditional meteorological warnings are based on the strength of high-temperature signals and fail to consider the potential health risks due to heat exposure. Second, incomplete coverage of heat-health risk-management patterns: meteorological warnings are issued only for extreme heat, which ignores the severe health damage caused by low and moderate heat in summer. Third, failure to involve the health sector: warnings are issued from the meteorological service department and the health sectors fail to respond to these meteorological emergencies.

The future is likely to see heatwaves increasing in frequency and intensity. We call for the immediate establishment of smart heat-health warning systems in both high-income and low-to-middle-income countries. The following four aspects should be strengthened to reduce the growing heat-related risk to health. First, by developing a smart population-health-oriented early warning system with full coverage of heat-health risk management, which allows identification of automatic warning signals on the basis of the characteristics of the health concerns due to heat, and implementation of targeted and proactive actions based on the early warning information of heat-related health risks throughout the summer. Second, by establishing a refined early warning system with detailed suggestions for the health protection of vulnerable populations, such as older people, children, pregnant women, and patients with chronic diseases. Third, by planning a compound heat and ozone health-risk warning system in advance; heatwaves will increase ozone pollution, and the synergistic effect will further aggravate the public health hazard. Fourth, by forming a joint multisectoral plan of action for the early heat-health risk warning management, led by the health sector, to manage heat-related health risks effectively.

We declare no competing interests.

**Tiantian Li, Chen Chen, Wenjia Cai*
litiantian@nieh.chinacdc.cn

China CDC Key Laboratory of Environment and Population Health, National Institute of Environmental Health, Chinese Center for Disease Control and Prevention, Beijing 100021, China (TL, CC); Department of Earth System Science, Institute for Global Change Studies, Ministry of Education Ecological Field Station for East Asian Migratory Birds, Tsinghua University, Beijing, China (WC)

- 1 National Aeronautics and Space Administration. Heatwaves and Fires Scorch Europe, Africa, and Asia. July 13, 2022. <https://earthobservatory.nasa.gov/images/150083/heatwaves-and-fires-scorch-europe-africa-and-asia> (accessed Aug 21, 2022).
- 2 The Lancet. 2022 heatwaves: a failure to proactively manage the risks. *Lancet* 2022; **400**: 407.
- 3 Field CB, Barros VR, Dokken DJ, et al. Climate change 2014: impacts, adaptation, and vulnerability. Part A: global and sectoral aspects. Working group II to the fifth assessment report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press, 2014.
- 4 Toloo G, FitzGerald G, Aitken P, Verrall K, Tong S. Evaluating the effectiveness of heat warning systems: systematic review of epidemiological evidence. *Int J Public Health* 2013; **58**: 667–81.
- 5 Kotharkar R, Ghosh A. Progress in extreme heat management and warning systems: a systematic review of heat-health action plans (1995–2020). *Sustain Cities Soc* 2022; **76**: 7.

The chaud must go on

This summer's wildfires have indeed devastated the landscape surrounding my city of Bordeaux, France.¹ They have harmed biodiversity and released large amounts of CO₂ into the atmosphere. Fire engines and water bombers have struggled relentlessly against the flames, releasing their quota of CO₂ in turn.

It is revolting to note that many cities in France have maintained their traditional fireworks to celebrate Bastille Day or many other festive events this summer. French people and relevant stakeholders cannot ignore the health and ecological impact of such events. According to a French environmental association, a 30-min firework show releases about 1.5 tonnes of CO₂ into the atmosphere.² Furthermore, it contributes to microplastic pollution of ecosystems² and to fine particulate

matter air pollution.³ We mourn our burning forests, yet we are happy to light the sky with fire!

Considering how severe the climate crisis is, fireworks should have been banned long ago. The grandiosity of the show is equal to our collective ecological denial. As with so many other issues, the government must act but will not, and citizens will expect the government to act knowing full well that it will not. Next summer will probably be even hotter and fireworks will still be bursting in the French sky.

I do not know if the Himyarite Kingdom could have adapted to the climatic events that caused its demise,¹ but our civilisation must act immediately by adopting a coherent and sober lifestyle and increasing its efforts to adapt.

I am a member of the Alliance Santé Planétaire.

Nicolas Faure
faurenicolas@live.fr

Le Bouscat 33110, France

- 1 Horton R. Offline: The slow death of human civilisations. *Lancet* 2022; **400**: 718.
- 2 Robin des bois. Dinard s'apprête à bombarder la mer d'émeraude. July 21, 2022. <https://robindesbois.org/dinard-sapprete-a-bombarder-la-mer-demeraude/> (accessed Sept 7, 2022).
- 3 Seidel DJ, Birnbaum AN. Effects of Independence Day fireworks on atmospheric concentrations of fine particulate matter in the United States. *Atmos Environ* 2015; **115**: 192–98.

Department of Error

WHO Solidarity Trial Consortium. Remdesivir and three other drugs for hospitalised patients with COVID-19: final results of the WHO Solidarity randomised trial and updated meta-analyses. *Lancet* 2022; **399**: 1941–53—In this Article, the names of three Consortium members, Najada Como, Kari AO Tikkinen, and Marco T Medina, have been corrected, as has the appendix. These corrections have been made to the online version as of Oct 14, 2022.