Global Learning
Extreme Heat Risk during the COVID19 Pandemic

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2015–2019

- Warmest five-year period
- 0.2 °C higher than 2011–2015
2020 WAS ANTICIPATED TO BE HOT

- Heat season starts earlier and lasts longer.
- Heatwaves are hotter, last longer, more frequent.
- 2020: Global January to April temperatures were record-breaking.
- 2020: Eastern Mediterranean saw earliest heatwave in over 150 years.

Conclusion: WMO Report 2020 likely to be one of the three warmest years on record globally.
ANTICIPATED COMBINED RISKS COVID19 AND EXTREME HEAT

ANTICIPATED CONCERNS

• Vulnerability
• Interventions
• Capacity
• Governance
Communities at risk to hot weather, became even more vulnerable

• Overlapping vulnerable populations

• Social isolation

• Socio-economic impacts of COVID-19

• Concentrated at-risk locations: Urban heat islands, informal settlements

• Risk perceptions reduce health seeking behavior

Populations vulnerable to both heat stress and COVID-19

• Older people (>65 years and especially >85 years).
• People with underlying health conditions:
  • Cardiovascular disease
  • Pulmonary disease
  • Kidney disease
  • Diabetes / obesity
• Mental health issues (psychiatric disorders, depression)
• Essential workers who work outdoors during the hottest times of the day or who work in places that are not temperature controlled.
• Health workers and auxiliaries wearing personal protective equipment
• Pregnant women
• People living in nursing homes or long-term care facilities, especially without adequate cooling and ventilation.
• People who are marginalized and isolated (experiencing homelessness, migrants with language barriers, old people living alone) and those with low income or inadequate housing, including informal settlements.
• People on medication: some medication for the diseases listed above impair thermoregulation. The impact of treatment for COVID-19 is currently unknown but should be monitored to assess any additional vulnerability.
• People who are currently managing COVID-19 at home (i.e. febrile), or who have been recently discharged from hospital for treatment with COVID-19, which can be associated with acute kidney injury.
Public health prevention, advice and interventions for heat risks became:
- more difficult to implement
- potentially more expensive
- potentially less effective

- Indoor and outdoor cooling spaces
- Public uptake heat advisories
- Social outreach / door to door
- Fans and Cooling
Hot weather brings new challenges to frontline and health workers. Resilience of health systems is limited.

- PPEs increase heat stress
- Financial and human resources focused on COVID (and limited)
- Volunteer pool reduced
- Ambulatory service capacity limited
Decisions on how to manage COVID-19 and extreme heat made locally

- Many localities do not have coordinated heat plans or disaster management platforms
- Different jurisdictions decisions and actions may conflict
- Limited guidance on good practice
- Uncoordinated and ad-hoc decision-making can confuse the public on what is safe and what action to take
Did amplified risks, result in increased deaths? European Snapshot: Heat + COVID-19

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**Highest observed** Total cumulative all-cause excess mortality in summer 2020 (+2556 deaths) since start of Heatwave Plan for England.

Comparable to impacts of the 2003 heatwave (n= 2,234)

Severity and intensity of heatwave alone does not fully explain the magnitude of the impacts observed.

Since 2003, the highest health figures during heat waves have been observed in 2020 (+1,924 deaths)

- Mortality from Covid-19 alone cannot explain the 1,924 excess deaths observed during heat waves.
- 2020 temperatures were sufficiently exceptional to explain a substantial excess mortality, especially since they affected regions sometimes not used to the heat.


WHAT MAY HAVE HAPPENED?

- **Decreased health seeking behavior**: for part of the population and thus increased their vulnerability to heat.

- **Reduced perception of heatwave risk**: Simultaneous and high visibility of Covid-19 prevention measures may have reduced the perception heat wave risk, which is already low.

- **Less noticeable prevention** compared to infection control

- **Manifestation of social inequalities** in health for certain vulnerable populations

- **Timing and characteristics of heat waves** may have influenced the consequences of summer heat.

Evaluations and studies recommended
The Network is an independent, voluntary, member-driven forum of scientists, practitioners, and policymakers focused on enhancing existing efforts to address heat health risk.
Extreme Heat and COVID-19 Information Series

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10 weeks / 100 pages of guidance and evidence

www.ghhin.org/heat-and-covid-19
Extreme Heat and COVID-19 Information Series

Technical Briefing document, 15 Q&As, and checklists

- General Considerations and Evidence on Heat and COVID-19
- Issues for health workers and facilities
- Issues for city authorities and heat action planners
- Checklist for Heat Action Planners
- Examples of good practice

Help local authorities and health professionals
1. consider ideas/scenarios situations that might be faced
2. answer questions – with evidence and existing guidance
3. find examples
Q&A Series: Issues for city authorities and heat action planners

• Air conditioning and ventilation
• Low-tech cooling options
• Communications and outreach
• Outdoor cool spaces
• Informal settlements
• Social services
• Cooling centres

Strategies to prevent COVID-19 transmission in cooling centres include:
• opening only select locations in highly vulnerable areas
• maximizing the use of outdoor cool spaces
• increasing at-home cooling via energy utility assistance.

(updated 22 May 2020)
Thank you

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