

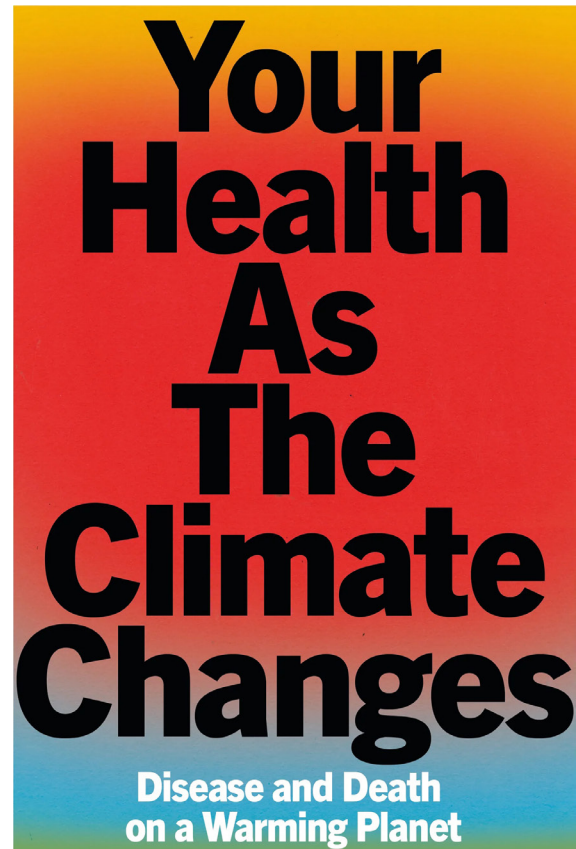
BOOK REVIEW

Your health as the climate changes: death and disease on a warming planet

Dr Scott G. Fraser, Eyewear Publishing 2025, ISBN 978-1915406781

Various thoughts were provoked while reading an urgent and timely new book by Dr Scott Fraser, a consultant ophthalmologist in the National Health Service (NHS), titled *Your Health as the Climate Changes: Death and Disease on a Warming Planet*. I thought back to reading about the UN's Intergovernmental Panel on Climate Change (IPCC). They had published a report showing that global warming was approaching critical thresholds for agriculture and health, which the UN Secretary-General dubbed 'code red for humanity'. That was in 2021. As the French philosopher André Gide remarked, 'Toutes choses sont dites déjà, mais comme personne n'écoute, il faut toujours recommencer' ('Everything has been said before, but since nobody listens, one must always start again'). The facts about fossil fuel burning, greenhouse gas emissions, and sea level rise have been well rehearsed. There is still a dire need today to confront the tragedy of climate change. For many, perhaps, there is a sense of despair, a sense that scientists are sounding the alarm from the sidelines of a global arena, a distant and unreachable space where decisions are made. It often seems that politicians become puppets of big corporations, and that the imperatives of science and public health are dissolved in the solvents of commerce, the *status quo*, and other competing interests. For many others, progress is possible because of climate litigation and renewable technology.

Though cogently written, Fraser's book made for difficult reading. The reader peers into the abyss of an unfathomable future, or as the author puts it, 'we are stepping into a world we have never inhabited before'. Climate change is a crisis because it brings an accumulation of risks – both in terms of probability and severity. And these risks affect all areas of human health – both in terms of morbidity and mortality. Fraser's book is therefore bound to be wide-ranging, but this is not a weakness. Given the variety and depth of the phenomena (summarised in the annual *Lancet Countdown* report), Fraser's research is as impressive as his ability to condense and present it over the chapters. This book is both concise and comprehensive, giving the reader an overview of how various body systems – respiratory, cardiovascular, mental health, skin, liver, kidney, fertility, and even bone density and dental health – are affected by the climate crisis.



Dr Scott G Fraser MD

Fraser unravels a repository of emerging research on the impacts of pollution, heatwaves, and flooding; air pollution and fuel poverty are also included as causes of health inequalities.

Fraser draws a compelling analogy between taking care of the planet and of ourselves. He certainly makes clear the costs of failing to do so. Carbon dioxide diffuses into the world's seas and increases their acidity, just as CO₂ retention can cause acidosis in the blood. The increase in the atmosphere of CO₂ – from a natural baseline of around 280 parts per million to now over 400 parts per million – has decreased the pH of the oceans by an average of 0.02 units per decade, or 0.1 pH units since before the era of carbon-intensive industrialisation. Greenhouse gas emissions threaten fragile marine ecosystems, food chains,

and coastal communities that depend on fish-based diets or sustainable fishing. Fraser explains the threat posed by increases in wet bulb temperatures, reducing the ability of our skin to lose heat during the hottest days and nights.

Just as our body systems are interconnected, the ecosystems of the atmosphere and biosphere are interdependent and vulnerable to external interference. The further into the long-term future we peer, the wider the margin of prediction becomes. We can, however, gain an indication by measuring prior damage up until the present. While carbon chemistry forms the basis of life on Earth, carbon emissions threaten it. This is because of the ‘butterfly effect’, which Fraser summarises as, ‘even small changes in complex systems can have unpredictable results’. A branch of chaos theory, the butterfly effect shows how small changes in initial conditions (whether in nonlinear equations or in Earth’s atmosphere) can have significant effects.

Beneath the statistics, there are many stories of illness, acute and chronic, and even of relocation and narrow survival, that testify to the harms of environmental damage. This raises the question of what healthcare professionals and policymakers can do to mitigate these effects. The four pillars of medical ethics – beneficence, non-maleficence, autonomy, and justice – provide both a practical compass for clinical work and a normative moral ideal when improving public health. Books like Fraser’s should encourage us, as healthcare professionals, to advocate to policymakers on behalf of the patients we care for. Evidence of lived experience is powerful. For example, a recent article from the UK’s Race Equality Foundation shows how patients with sickle cell disease are more vulnerable to heatwaves and toxic air pollution.

A theme that runs through the book is the role of cognitive biases in making the climate crisis difficult to accept or address. Fraser opens by stating key definitions and addressing the epistemology of climate change. We can be confident that facts are true because of the process of observation and measurement, open review and

publication. He later acknowledges the ‘cognitive dissonance’ that may sometimes make the climate crisis appear distant, both geographically and temporally. While an extensive discussion of solutions is beyond the remit of the book, Fraser nevertheless notes that solutions require sacrifices. It is worth clarifying these sacrifices by clearly distinguishing short-term profits from long-term human well-being. Climate action may sacrifice the former but maximises the latter. As the 2025 report of the *Lancet Countdown* put it, ‘climate change action... can simultaneously deliver major and immediate health and economic benefits’. The most enduring and sustainable solutions to the climate crisis will enhance, rather than reduce, human quality and quantity of life. In recent years, thought leaders have highlighted the strong rationale for climate solutions that focus on both mitigation and adaptation. Solutions require not only consumer behaviour reform, but also industrial reform. Implementing these will minimise the costs of climate disruption and yield benefits in the areas of global and public health.

It would have been interesting to read more about the personal journey that sparked Fraser’s interest in planetary health; however, he is more concerned with laying out the objective facts. Overall, this is a book that is replete with both data and reflection. Fraser’s conclusion encourages us to transform fear into something that is constructive and impactful. He illustrates that the word ‘hope’ is, or should be, an active verb rather than a theoretical noun. ‘The problem with using the word “hope” is that it is too easily subverted’, he writes. Fraser reminds us of the concept of the ‘butterfly effect’ and leaves us with an enduring metaphor from a folktale of the Quechua people in the Andes: the humble yet determined hummingbird transporting water to abate a forest fire, doing what it can.

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