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THE GLOBAL CLIMATE CRISIS: A PUBLIC HEALTH EMERGENCY

By: Rachel Stancliffe

Summary: The climate crisis, the collapse of biodiversity and the widespread pollution of air, water and soil are no longer merely environmental health concerns. They are the biggest public health threats humankind has ever faced. Public health understanding and solutions, not technological fixes, are needed to guide us. Public Health has the skills and tools in research, practice and policy to help the public and government to understand the urgency of the situation and the options for dealing with it. We must now rapidly take that responsibility and work to ensure transformative change is taken to avoid climate catastrophe.

Keywords: *Climate, Environment, Emergency, Sustainability, Carbon*

Introduction

Climate breakdown now poses an immediate threat to human health and survival. This is a public health priority. This disruption is not available in a healthy dose. This disruption is an emergency happening with what will be a lethal dose for vast numbers of people. We need transformative change to avoid climate catastrophe. If we do not achieve rapid transformation, we will see increasing death tolls within our lifetimes. However, if we do, we could witness the emergence of much healthier and happier societies.

Is society at last waking up? The last year or so has seen increased awareness of the impact of humans on the ecosystem upon which they depend for survival. Over 60% of vertebrates have been lost from our

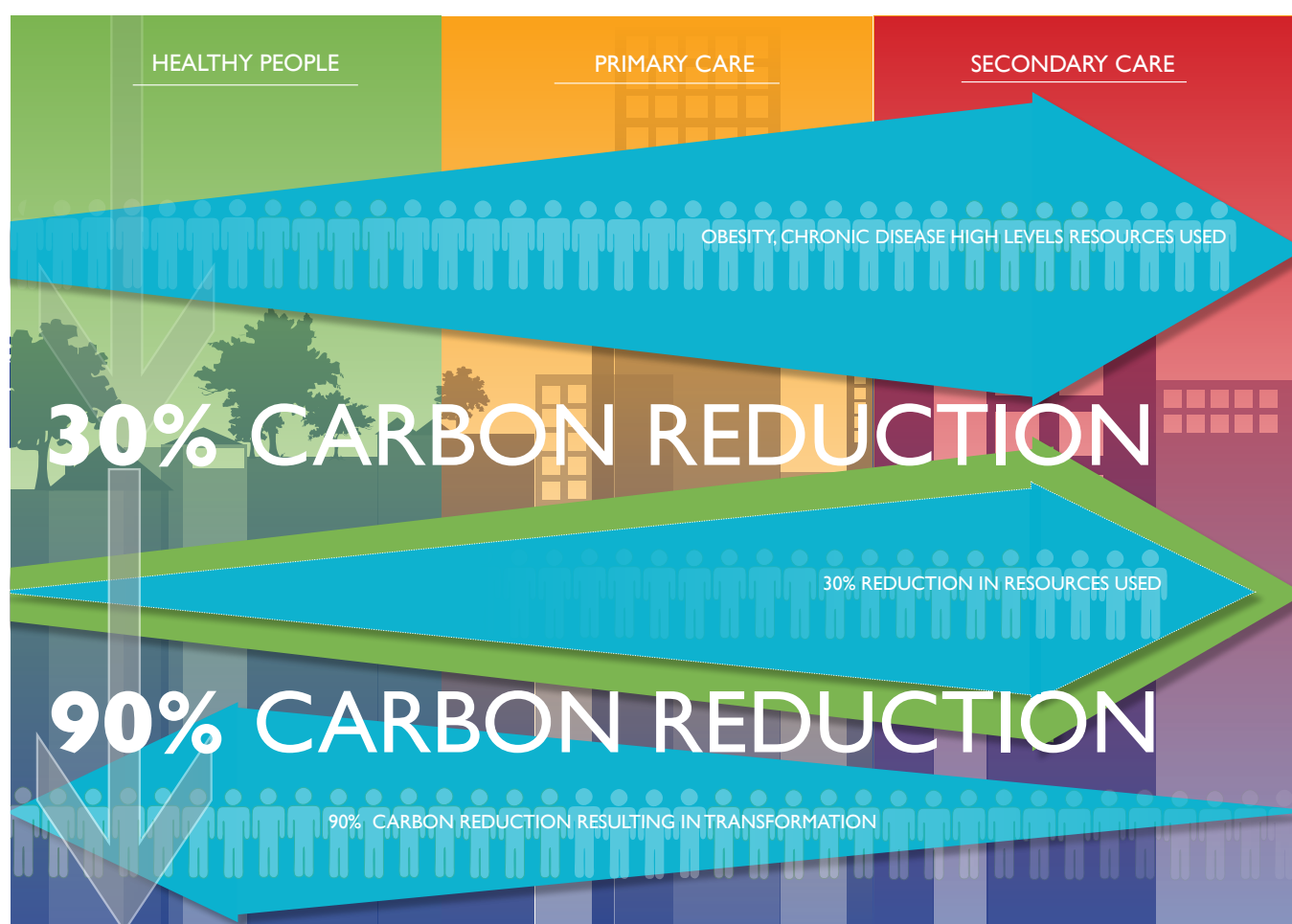
planet in less than 50 years, and humans have accelerated extinction rates up to 1000-fold. The prevalence and impacts of plastic pollution have hit the headlines.

Extinction Rebellion, Greta Thunberg and others have successfully reminded us of the climate crisis, and the lack of action to address it: despite the political ‘hot air’, global greenhouse gas emissions have more than doubled in less than 40 years, and have been rising at an accelerating rate in the last three years.¹⁵ They remind us that we face a public health emergency: just as for outbreaks of communicable disease, the epidemic has already taken hold, and we must work together to limit further spread and find cures. They remind our leaders that they have a duty of care to us all.

> #EHFG2019 – Closing plenary:

The global climate crisis:
a public health emergency

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Figure 1: Moving towards transformationSource: ⁹

It was, at least partly, the success of public health interventions which helped to facilitate the rapid increase in the global population and longevity, which, together with consumerism, support conditions for the current climate crisis. It is public health that will suffer the most if we do not transform urgently. Yet it is also the principles and experience of public health that are best placed to help us to understand how to re-focus health and health care to prioritise how we use our precious resources for maximum health.

Is there a climate emergency?

Over the last 100 years our consumption of our planet's resources has grown exponentially and the rate at which we are impacting our natural environment continues to accelerate. Despite over 40 years of warnings, CO₂ levels in the atmosphere have continued to rise, passing 415ppm for the first time in 2019.¹

“we have
no time left for
inaction

Earlier models suggested that global heating up to two degrees above pre-industrial times might be manageable. However, the 2018 report of the Intergovernmental Panel on Climate Change (IPCC) spells out the stark impacts of even a 1.5 degrees increase.² Historic emissions alone will drive a 1–1.2 degree ‘fever’ for our planet and heating beyond 1.5°C will cause drought, crop failure, mass starvation and the collapse of many urban civilisations. Beyond this we are likely to move through a series of tipping points which break down the stability of the climate as we know it. At the current trajectory, the planet is due

to pass the 1.5°C mark in 2030. We have just 11 years to avert ecological, social and public health disaster.

The IPCC reports that avoiding catastrophic climate change requires “rapid, far-reaching and unprecedented changes in all aspects of society”: transition to 100% renewable energy, upgrading housing stock, investment in sustainable transport infrastructure and a largely vegetarian diet. These changes, designed to protect human health in the future, will also bring substantial public health benefits now.

These changes are still – just – achievable, but only with a huge mobilisation of political will.

Dr Hugh Montgomery offers a summary of the situation in his presentation available on YouTube. He jokes that

‘homo sapiens’ is a disease that is making the earth sick, but the disease of ‘homo sapiens’ is self-limiting.

Why is the climate emergency also a public health emergency?

Humans are exploiting resources at a rate which cannot be sustained: we have drained fossil aquifers and ground water, and will soon have destroyed all the topsoil on which we can grow crops.⁵ We are destroying the ecosystems upon which the very survival of our species depends.⁶ Climate change acts as a force multiplier on such impacts and their health consequences, whilst increasing bacterial growth rates, vector borne diseases, oceanic algal blooms and ground level ozone concentrations. It drives rising sea levels and more (and more extreme) weather events: heatwaves, wildfires and flooding. Such consequences drive direct (e.g. water and air pollution) and indirect (such as famine, conflict and migration) health impacts. These are not impacts which are amenable to ‘simple fixes’.

The World Bank predicts that by 2030 the changing climate will already have reversed global public health gains of the past 50 years, throwing 100 million people back into poverty and causing at least an additional 250,000 deaths annually.⁷ These may be a very significant underestimation of the scale of mortality, given that we do not understand climate tipping points, nor the social and political factors entwined with these. The scale of the 2019 fires in the Amazon, an increase on 2018 by 84%,⁸ very clearly illustrates this. Increases in heatwaves, flooding, infectious diseases, air pollution and declining food and water security may be manageable now, but as they increase dramatically over the next decade, the social, political and financial ability to deal with them – even in rich countries – will decline.

The Lancet has supported excellent work to analyse, interpret, and publicise the connections between health and climate change, as reported in The Lancet Countdown 2018 Report.

What can public health do?

The core principle of public health—organising and using resources for the best health for all people—should guide us now. What resources are available in this crucial decade to come, and how must they be deployed? How does this relate to every domain—transport, agriculture, energy generation and more? How can policymakers support the most vulnerable, who have contributed least to the problem? How can carbon taxes on fossil fuels (such as those introduced by French President Emmanuel Macron) be made equitable and palatable to the voting populace?

How must the health service transform? Will we need to prioritise prevention over cure, at least in the short term.

And what is the role for the public health community in tracking climate change impacts (e.g. disease surveillance) and in adapting to such impacts? We may not yet know the answers to these questions. But we have no time left for inaction. We must do our best, and now.

Identifying emissions hotspots and improving surveillance of related diseases will help to detect and prevent some of the burden of disease. However, public health practitioners have a much bigger role to play. Our skills in systems thinking, bio-social relationships, equity and management must be deployed to help policymakers in every country design equitable transformations to a post-carbon world.

What can all health professionals do?

Health professionals dedicate their working lives to serve individuals and populations. Despite the efforts during the last decade of organisations including the Global Climate and Health Alliance (climateandhealthalliance.org), Medact (www.medact.org), Healthcare Without Harm (<https://noharm.org>) and my own organisation, The Centre for Sustainable Healthcare (www.sustainablehealthcare.org.uk), the commitment of health professionals to this issue has been far too timid. Health professionals, policymakers and their organisations must support and learn from the recent schoolchildren’s strikes, finding more effective ways to

help people and politicians understand the scale of the crisis. They must also transform their systems to be fit for the future.

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1. Speak out

Health professionals are widely respected in our society. Use your voice to call for political and institutional action on climate breakdown. Consider supporting the work of climate change organisations and movements such as Extinction Rebellion (<https://rebellion.earth>) and the calls for declarations of climate emergency (<https://climateemergencydeclaration.org/>).

2. Develop environmentally sustainable health care systems

Sustainable health care provides health care for patients today without compromising health and care provision in the future. That seems obvious and simple. Yet we know that our lifestyles are making us ill, and our health care practices are using up natural resources far too rapidly, leaving more pollution and waste than planetary systems can handle, without consideration for the health care needs of tomorrow’s patients.

So, how do we know what is sustainable? The environmental and social sustainability of health care delivery is as important as the financial viability of services. These three elements together are often referred to as the ‘triple bottom line’. Analysing in detail the full resource use, or triple bottom line, of all that we are doing is essential in understanding what we should prioritise – we could think of it as: what gives us the most health for our triple bottom buck?

The Centre for Sustainable Healthcare's four principles of sustainable clinical practice⁸ are:

- prevention
- patient empowerment and self-care
- lean systems
- low carbon alternatives

These principles help us to prioritise resource use within health care, and direct us toward upstream spending, including preventative care and low carbon interventions.

Sustainable health requires more than a lower carbon version of today's health care. It requires transformative investment of resources to keep people healthy, rather than addressing their illnesses once they are sick (see Figure 1).

3. Connect with others

It is important to develop contacts with like-minded individuals to support you and to share ideas with. The Centre for Sustainable Healthcare (CSH) offers a range of free networks⁹ that you are welcome to join as do many of our partner organisations. Become active on social media.

4. Support the fossil fuel divestment campaign

Whether as organisations, or as individuals, how we spend our money and where we keep our money is important. Switching to renewables starts with our own energy suppliers and then we must look at where our bank and our pension funds are invested. Medact have been instrumental in driving a campaign to persuade health care organisations such as the United Kingdom Royal Colleges to divest from fossil fuels.¹⁰

Don't panic ...

Above all, let us not be paralysed simply because we do not have all the answers. Policymakers must work collaboratively with researchers and practitioners to study the evidence for the best models worldwide on options for optimising use of resources for public health. We must put aside competition – there is really no

time for that – and focus all our efforts on working together to save the future of our species.

Read more, speak to everyone you know, be humble but brave and generous; begin to act.

Greta Thunberg, the Swedish student who is raising global awareness about the risks posed by climate change, speaks bluntly: “Why should I be studying for a future that soon will be no more, when no one is doing anything to save that future? ... We must change almost everything in our current societies ... Adults keep saying: ‘We owe it to the young people to give them hope.’ But I don’t want your hope. I don’t want you to be hopeful. I want you to panic ... If you have a child that is standing in the middle of the road, and cars are coming at full speed, you don’t look away because it is too hard to see, you run out and get that child away from there.”¹¹

The disruption is certainly there. We certainly need transformative change, of our health systems and of our whole societies, and more quickly than many of us can comprehend.

OK, now PANIC!

The climate crisis, the collapse of biodiversity and the widespread pollution of air, water and soil are no longer merely environmental health concerns. They are the biggest known public health threats humankind has ever faced. As professionals who understand the evidence and its implications, we owe it to our children to panic.

The time for Public Health to shine

Public health interventions have supported the population increase and rises in life expectancy over the past 150 years. Public health understanding and solutions, not technological fixes, are now needed to help respond to the climate emergency. Public Health has the skills and tools in research, practice and policy to help the public and government understand the urgency of the situation and the options for dealing with it. We must now rapidly take that responsibility and work hard by all means

available to ensure that transformative change is achieved to avoid a climate, and public health catastrophe.

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