Covid-19 and Climate Change: How to Apply the Lessons of the Pandemic to the Climate Emergency

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Introduction

It has been 16 months since the first reports of a new respiratory illness emerged from Wuhan. In that time, there have been more than 131 million confirmed cases and more than 2.85 million deaths globally. Economies and societies across the world have experienced the most drastic changes outside of wartime in decades – perhaps even centuries. And the varying responses of different governments, societies and supranational actors have provided real-time evidence of the effectiveness of different responses to pandemic risks.

The threat of a pandemic has long been near the top of national risk registers. Alongside it is the escalating risk posed by the climate emergency.

The challenges posed by coronavirus and climate change are, of course, different in nature. Covid-19 is health-related rather than environmental; Covid-19 is potentially acute and relatively short-term, while climate change is chronic and long-term.

But there are also significant areas of commonality. Both are challenges with local, national and global implications, requiring local, national and global solutions. Both require urgency of action because of the scale and pace of the problem. And both are susceptible to exponential escalation – demonstrated by the similar curves below of coronavirus cases in the UK in Figure 1a, and northern hemisphere temperature changes in Figure 1b.

Figure 1a – Daily confirmed cases of Covid-19 in the UK
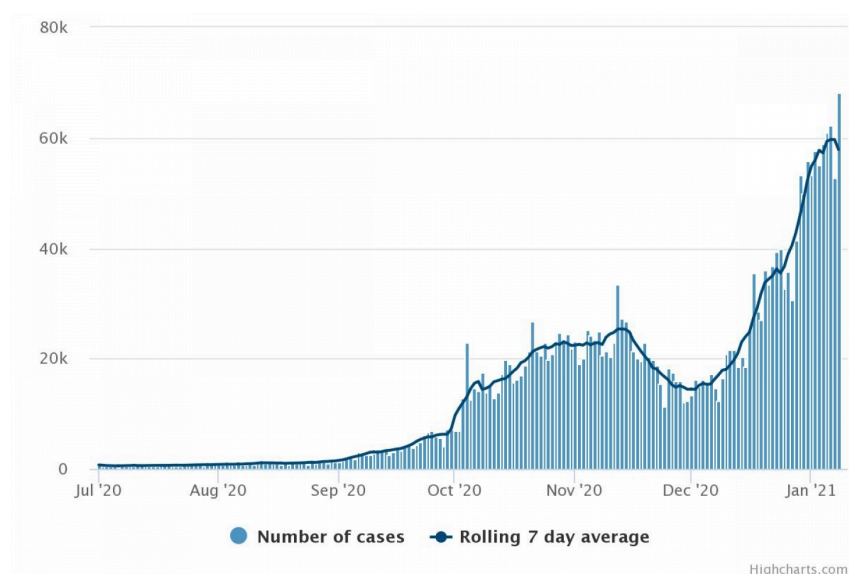
Source: Department of Health & Social Care. Figures are for confirmed cases identified through PHE, NHS and commercial testing

Figure 1b – Temperature changes in the northern hemisphere over the past 1,000 years

Source: https://www.researchgate.net/figure/Graph-depicting-Northern-Hemisphere-Temperature-changes-over-the-last-millennia-based-on_fig5_264397551 *Visualisation is approximate
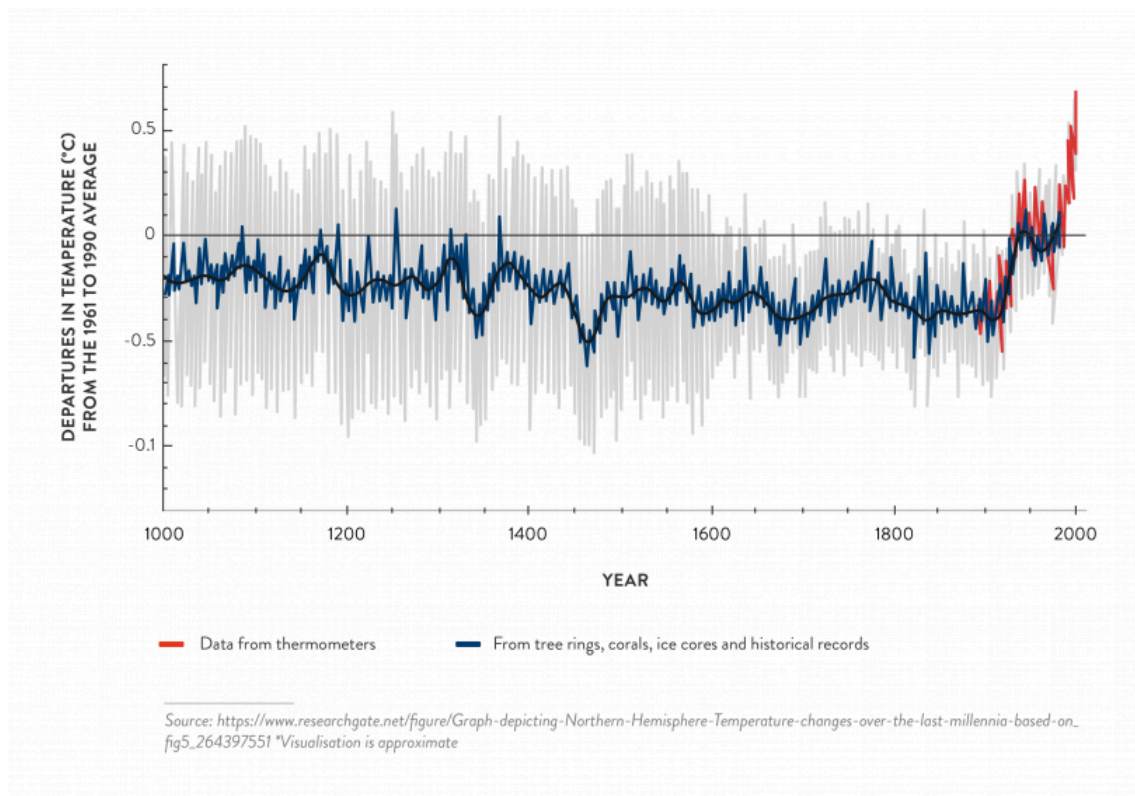
This paper sets out the key lessons from the Covid-19 pandemic – and how we can apply them to tackling climate change:

1. Act quickly.

2. Tackle the problem – or face new and more difficult challenges.

3. Economic success depends on positive health and environmental outcomes.

4. Failure anywhere is failure everywhere.

5. Build a strategy with sustained political leadership and commitment.

6. Mitigate and adapt at the same time.

7. Gather and use the right data.

8. Markets and technology will provide solutions if government sets the right framework.

9. Success depends on the right skills and supply chains.

10. Build and retain public trust and understanding.

View and download these ten key lessons for climate action as a one-page infographic

Lesson 1: Act quickly

The first and most important lesson from the pandemic is how countries – individually and collectively – manage and respond to systemic risks.
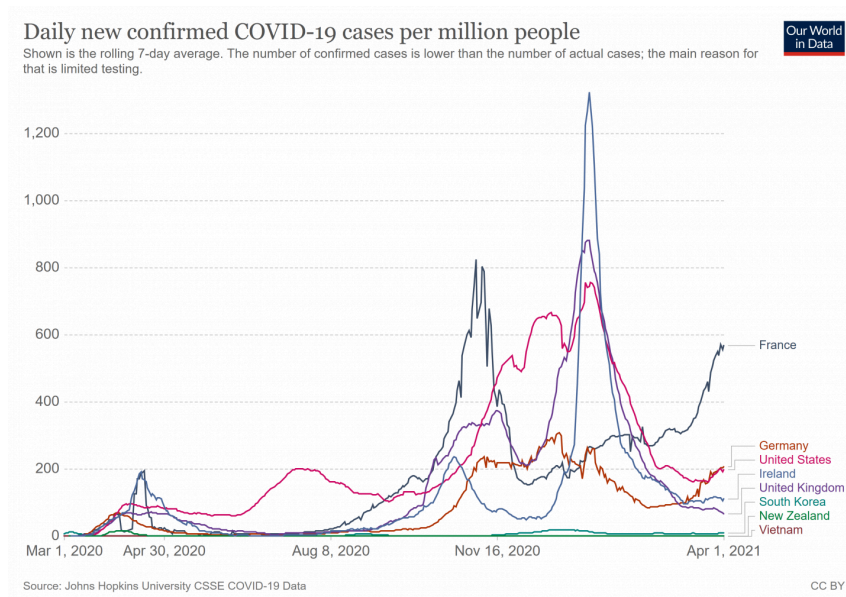
In March 2020, Dr Michael J Ryan of the World Health Organisation (WHO) set out his view on how to respond to Covid-19: "Be fast, have no regrets … If you need to be right before you move, you will never win … Speed trumps perfection".

While there have been as many coronavirus responses as there are countries in the world, the key divide is between those who followed this advice and those who did not.

For those who moved fast, strategies focused on bearing down hard on the virus at an early stage before opening up cautiously. Key measures included preemptive lockdowns of non-essential businesses and travel; closing educational settings; closing borders or requiring strict quarantine measures; and putting in place highly effective (and in some cases draconian) test, trace and isolate regimes. But the key was that these measures were taken *before* the virus had taken hold.

Countries that followed this strategy – such as New Zealand, Vietnam and South Korea – have experienced significantly more positive health and economic outcomes. Those who did not – such as some EU countries, the UK and the US – have not. Those who switched course – such as Ireland, which had a strict lockdown in March 2020 but a relaxation of the rules over Christmas – saw case rates shoot up when adopting a less precautionary approach.

Figure 2

Daily new confirmed COVID-19 cases per million people
Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

Source: Johns Hopkins University CSSE COVID-19 Data   CC BY

To make this point is not to argue that pandemic response was or is easy. While a global pandemic was widely predicted, there are explanations for the inadequacy of global preparedness. The timing and nature of the risk crystallising was highly uncertain. It could have happened in 2020, or 50 years later. The nature of the disease, and therefore appropriate responses, was unknown and therefore challenging to prepare for – with the UK's plans focused on influenza rather than a novel coronavirus. And the relatively successful management of previous novel diseases, such as SARS, may have led to complacency.

What It Means for Climate Change

No such excuses apply to climate change. The science is highly predictable – not least as climate change is happening, now. There is increased prevalence of wildfires and extreme heat; polar melting is happening in line with well-developed, internationally recognised models. Those models set out, with a high degree of confidence, what will happen if fossil fuel emissions are not rapidly abated. So governments can plan on the basis that this is a certainty – not a maybe.

A truly precautionary approach to climate change would have been to act in the late 1980s and early 1990s, when the science was increasingly clear and lasting damage could have been avoided.

This was not politically credible at that point – but it is hard to argue that the transition would have been more costly than seeking to deliver the same outcome from a starting point of emissions that are now approaching double what they were in 1990, and with once-avoidable climate impacts now baked in.

But that does not mean the lesson of "act fast, have no regrets" is not relevant now – quite the opposite. While highly proactive strategies may not have been politically credible in all countries at an early stage, countries can act on the evidence once it mounts and mobilise their societies to respond. And the already accelerating process of global heating means it is more urgent than ever. To tackle climate change, speed is of the essence.

Lesson 2: Tackle the problem – or face new and more difficult challenges

The positive news in November 2020 that a successful vaccine had been created was quickly followed by sobering news – emerging virus variants were spreading quickly, in particular in the UK and subsequently Brazil. Since then, more variants have emerged, and it is clear that future coronavirus strategy will have to be nimble in anticipating and responding to an evolving foe.

Viral mutations are unavoidable – but their rapid spread is not a given. Failure to suppress the virus has given such mutations the opportunity to spread more quickly, and more widely, than in a more precautionary approach.

And such mutations can create new problems. Higher transmissibility increases cases, creates pressure for stronger measures to suppress the spread and intensifies the strain on already struggling health-care systems. Even more concerningly, they create the risk that vaccines that protect against the original strain are no longer as effective. This risks creating a perfect storm for policymakers, as the proliferation of challenges means that strategy falls by the wayside, and we are left with constant tactical response to emerging threats.

What It Means for Climate Change

The need to address climate change comes with similar risks. Rapid global heating produces predictable outcomes of desertification, reductions in crop yields and habitable land, and extreme weather events. But it also risks creating feedback loops that accelerate the problem exponentially. Already we are seeing potentially catastrophic feedback loops emerging: in particular, release of methane emissions from thawing tundra in the Arctic, and reduced sea ice limiting the amount of solar radiation reflected back into space.

In addition, there is a more direct relationship between Covid-19 and climate change. The failure to cut emissions increases the risk of future zoonotic diseases – both as humans and the natural world interact in new and dangerous ways, and as diseases such as malaria and Zika, which are currently confined to some parts of the world for climatic reasons, gain a foothold elsewhere. Again, by failing to act to address climate change, we create new and potentially disastrous risks.

The lesson here is simple: Anticipate and prepare for new and more challenging issues to emerge.

Lesson 3: Economic success depends on positive health and environmental outcomes

Crisis response, like all public policy, is hard for one key reason: It requires trade-offs between different priorities.

In the case of a pandemic, there are many trade-offs to manage – physical versus mental health, retaining civil liberties versus virus suppression, supporting industries with viable futures versus blanket support across the economy.

But the principal trade-off – both explicit and implied – has been framed as health outcomes versus economic outcomes. Proponents of this framing have essentially argued: "The more we do to suppress the virus, the worse the economic impact. So do as little as you can get away with."
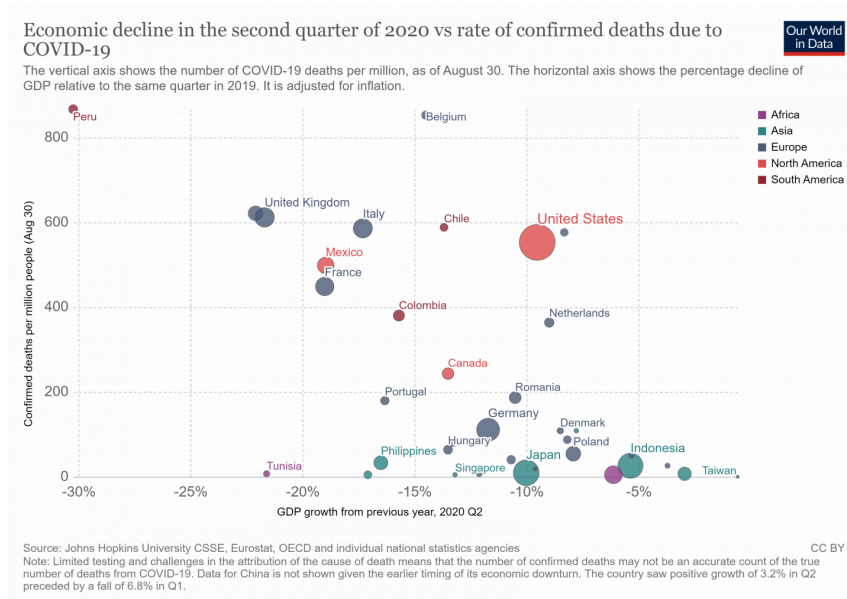
The evidence demonstrates this is a false trade-off for two key reasons.

First, implicit in this argument is the false counterfactual that, in the absence of lockdown measures, the economy would have continued to function largely as normal. But that ignores the likely reality of such an approach: tens or hundreds of thousands of additional, avoidable deaths as a result of unconstrained virus transmission and overwhelmed health services; chaotic political and economic impacts as individuals made their own judgements about the efficacy of the strategy, and the safety of workplaces and public or educational settings.

Evidence provided by the Tony Blair Institute for Global Change demonstrates that "if a relaxation of restrictions led to a high level of Covid-19 infections, much of the reduction in mobility that restrictions would have brought about would occur in any event", and that consumer spending among over-70s was *more* affected by coronavirus in Sweden than in Denmark, despite the relatively lower levels of restrictions in Sweden. The IMF has estimated that around half of the total decline in economic activity associated with the pandemic has been as a result of *voluntary* social distancing.

Second, countries that moved quickly – applying a more precautionary approach – have had better health outcomes *and* better economic outcomes. By taking action early and suppressing the virus, they have been able to maintain high levels of economic activity. Their declines in output have been smaller, and their return to higher levels of activity more rapid. In the UK context, the Office for Budget Responsibility has said that "the primary reason that the UK has suffered a greater economic hit from the pandemic is simply that the UK has experienced higher rates of infection, hospitalisations, and deaths from the virus than other countries".

Figure 3

Economic decline in the second quarter of 2020 vs rate of confirmed deaths due to COVID-19

Our World in Data

The vertical axis shows the number of COVID-19 deaths per million, as of August 30. The horizontal axis shows the percentage decline of GDP relative to the same quarter in 2019. It is adjusted for inflation.

Source: Johns Hopkins University CSSE, Eurostat, OECD and individual national statistics agencies   CC BY
Note: Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19. Data for China is not shown given the earlier timing of its economic downturn. The country saw positive growth of 3.2% in Q2 preceded by a fall of 6.8% in Q1.

So the trade-off is a false one. Counterintuitively, more robust and decisive action to suppress the virus results in better economic outcomes, even if it imposes short-term costs.

What It Means for Climate Change

On climate, the equivalent trade-off argument goes: "Action on climate change is costly. Therefore, acting to reduce emissions will reduce economic growth."

The assertion that tackling climate change will involve significant costs is true – at least in part. The Climate Change Committee estimates that delivering net zero in the UK will require hundreds of billions of pounds in investment over the next 30 years. In some areas it will (if we exclude environmental externalities) impose additional costs on an ongoing basis; in industrial production, for example, it will always be cheaper for a company simply to burn fossil fuels and emit CO_2 than it is to burn them, then capture and store the CO_2 produced. Therefore, the argument goes, action to cut emissions will harm the economy.

But the two core arguments of the lockdown sceptics – that economic growth and firm action conflict with one another, and that the economy will continue to grow in the absence of such action – are as untrue for climate change as they are for Covid-19.

First, there is no plausible counterfactual to sustain it. Just as the counterfactual for action on Covid-19 is not the absence of a pandemic, similarly the counterfactual on climate is not the absence of climate change. So the only plausible logic is either:

- The UK does not act, and others do not either: In this scenario, we have to bear the costs of high impacts of climate change – infrastructure risk, asset risk, migration, supply-chain disruption. The economic dislocation that would result would be catastrophic.

- The UK does not act, and others do: In this scenario, the global economy pivots rapidly to low-carbon technologies and services – and if the UK does not act, it will be left behind.

Second, many countries have demonstrated that it is possible to reduce emissions while growing the economy. The UK has cut emissions by almost half while growing the economy by 75 per cent since 1990 – and there is no evidence that our rapid decarbonisation has imposed any material drag on our economic performance. That doesn't mean we can be certain that action on climate change delivers growth, but it does demonstrate it is possible to continue to grow the economy while cutting emissions.

There is a crucial lesson here for climate change: Action to reduce emissions would impose minimal economic costs even if all else was equal, and it represents a net benefit relative to any plausible counterfactual.

This doesn't mean that *any* action on climate must be taken now. We must aim to reach net zero in a way that minimises costs, maximises economic opportunity and protects those at risk of losing out. But there is no plausible argument for inaction.

Lesson 4: Failure anywhere is failure everywhere

At the beginning of the coronavirus pandemic, the world was slow to react – driven in part by a perception that this was a problem for China, or Asia, rather than a global issue. In fact, pandemic response requires action at all levels and in all countries.

As responses have rolled out, there have been major inequalities both within and between countries. Within countries, impacts have varied significantly depending on socioeconomic or ethnic background. Internationally, countries have focused on protecting their own populations, and the early stages of the vaccine rollout had two key characteristics:

1. Nationalism and protectionism, with countries heavily focused on securing their own supplies and production capability – perhaps best exemplified by the UK-EU spat over supplies of the AstraZeneca vaccine.

2. Failure to support low-income countries – of the first 40 million vaccines administered, just 25 – or around 0.00006 per cent – were in low-income countries.

This is, of course, a moral problem. But it is also a deeply practical one. Low levels of immunity are likely to lead to increased spread, more mutations and an endemic and long-term problem with major impacts on global economies and societies. And stronger international collaboration could have shaved months off the pandemic. Only by tackling coronavirus in an equitable way both within and between countries will a long-term solution be found. Disease anywhere is disease everywhere.

What It Means for Climate Change

The climate emergency is also a global problem – and its global nature has three key components with parallels to the coronavirus pandemic.

First, it is only through global action that emissions will be reduced to a level that avoids catastrophic climate change. The value in action from high-income countries is reduced if emissions continue to grow elsewhere. That will only slow down the flow of emissions into the atmosphere, when we need to turn it off.

Second, the impacts of climate change will be felt everywhere – including in high-income countries like the UK. Those will be both direct impacts resulting from increased flooding, extreme weather events, and

the need for expensive climate-resilient infrastructure; and indirect, as a result of increased migration, and higher costs in global supply chains.

Third, the impacts will be felt most acutely in low-income countries, which are least able to make a rapid transition to net zero and which have least responsibility for emissions. To take an example: Madagascar is one of the countries at most risk from climate change. It has, in its history, produced around 85 million tonnes of CO_2 emissions and now produces about 0.15 tonnes per person per year. By comparison, the UK has produced a total of 77 billion tonnes – 900 times more than Madagascar – and now produces 6 tonnes per person per year – 40 times more.

The lesson for climate change: Just as disease anywhere means disease everywhere, so a failure to act on climate anywhere results in failure everywhere. All countries need to act – which means high-income countries leading the way with ambitious targets, backed by decisive action, and support for low-income countries to make a rapid transition through direct financial support, market frameworks and technology transfer.

Lesson 5: Build a strategy with sustained political leadership and commitment

The UK's approach to tackling coronavirus throughout the pandemic has been vulnerable to criticism that it is unstrategic, and that it has followed events rather than leading them. That has led to rapid about-turns on policy direction, explored in more detail below. Beyond the obvious effects of high prevalence and resultant high death rates, the failure to develop and implement a clear strategy has had two key consequences:

1. It has fuelled the development of two extreme positions that have fed a culture war – particularly online – between those who favour stringent action to suppress the virus and those who favour minimal interventions.

2. It has created uncertainty about what the future looks like, and reduced individuals' and businesses' abilities to make sensible decisions. For individuals, this has limited their ability to plan their daily lives, from childcare to holidays. For businesses, this uncertainty has been challenging – for example, leading to massive investment of resource in enabling safe working followed by a return to "stay at home" advice.

There is a strong argument that a more strategic approach would have helped to tackle both those problems. First, because developing and communicating a clear strategy that takes a transparent and proportionate approach to risk, backed by data, would have reduced the likelihood of strongly oppositional approaches emerging. And second, understanding the data that would be used to inform decisions and what that data would mean in terms of practical action, would have better enabled both businesses and individuals to plan more effectively – reducing wasted effort and psychological and economic costs.

There is also a more fundamental point about political leadership here. "Following the science" is not a strategy. For Covid-19, as for climate, the science will only take you so far. Where we have seen successes in coronavirus response, there has been clear and sustained political leadership in the pursuit of strategic goals.

What It Means for Climate Change

The lessons for climate are threefold.

First, having a clear strategy can help to prevent polarisation of views. Broadly speaking, efforts to tackle climate change are at risk from divisions between those who argue we must do everything possible now

and those who claim that the lifestyle changes and costs required (for example, the argument that renewables and electric vehicles are too expensive, or that everyone must become vegan or stop flying) are too costly, and therefore we should not act. In practice, in many areas the costs of low-carbon technologies have fallen to the point that the low-carbon solution is also the low-cost solution. And we can reach net zero while still eating meat and travelling internationally. This does not mean that there are not challenging trade-offs, or that public consent is not vital – but by setting out a strategy for how we get there, we can have a more mature national conversation about what the transition really means.

Second, giving people and businesses foresight about the changes that are going to be needed allows for (a) a public debate based around a clear plan; and (b) investment decisions that can be made in a timely way. For example, the UK government's commitment to phase out the sale of petrol and diesel vehicles means that manufacturers can invest in new supply chains; energy network providers know they will need to provide charging infrastructure; and individuals can start considering their vehicle purchasing plans in good time. Taking such decisions in a short-term and unstrategic way will undermine that certainty and risk undermining both public consent and business investment.

Third, leadership matters. A clear and sustained strategy, which focuses on the important and internalises the strategic goal across all policymaking, is the route to success.

Lesson 6: Mitigate and adapt at the same time

Public debate, and public policy, have been centred around the challenge of suppressing and eradicating the virus through use of treatment, non-pharmaceutical interventions and vaccines.

This is crucial work – but it has also been clear for some time that complete eradication is highly unlikely. We need to both suppress the virus and prepare to live with it for years or decades to come. And we need to mitigate and adapt at the same time – not focus on one at the expense of the other.

For Covid-19, this means further development of effective treatments; high-performing test, trace and isolate systems; continuous rapid and agile vaccine development; creation of digital health passports; and the development of a social and political consensus around possible long-term interventions to suppress the virus while allowing social and economic activity to continue.

What It Means for Climate Change

The climate crisis has a direct analogy with coronavirus strategy: Suppression of the virus is equivalent to climate mitigation, for example, reducing emissions; learning to live with it is equivalent to climate resilience meaning adapting to the consequences of unavoidable climate change.

In the fight against Covid-19, the approach to date in the UK and globally has focused heavily on mitigation at the expense of resilience and adaptation to the unavoidable impacts.

We know what the requirements are here: For mitigation, we must reduce the flow of emissions into the atmosphere and invest in approaches and technologies that can remove emissions from the atmosphere. For resilience, we must develop infrastructure that is resilient to high temperatures and extreme weather, improve flood defences and ensure land-use strategy reflects the changes that are coming. But adaptation has long been treated as a low priority, in the UK and elsewhere – the Climate Change Committee said in 2019: "The priority given to adaptation, including through the institutional and support framework in England, has been eroded over the past ten years,"

The lesson for climate change is clear: Mitigate and adapt at the same time.

Lesson 7: Gather and use the right data

The past year has involved the mainstreaming of a range of data concepts – it's fair to say that the importance of log versus absolute scales has been higher profile in 2020 than ever before.

More broadly, Covid-19 has demonstrated three key lessons on the development and use of data:

First, the immense value of high-quality and transparent data, produced quickly. Early in the crisis, the focus was on case numbers as a way of measuring progress. As the pandemic has unfolded, we have used data in more sophisticated ways. We have massively expanded our testing infrastructure; used not just case numbers but positivity rates; broken cases down by age, ethnicity and location to understand pandemic spread; used different surveying techniques to build a picture of the progress of the virus; and, perhaps most important of all, recognised the value of speed and transparency in the publication of data, and use of open source models to allow it to be interrogated.

Second, that the misuse, misrepresentation or misunderstanding of data (or in some cases all three) enables false narratives to develop that undermine the delivery of public-policy outcomes – for example, by using hospital occupancy data or anecdotal evidence to argue that pressures on health systems are lower than they are, or by ignoring the impact of increasing capacity for Covid-19 patients on the treatment of non-Covid conditions.

Third, that the absence of perfect data has been used as a rationale for inaction. On face masks, the uncertainty on efficacy in different settings early in the crisis allowed a public debate to develop on whether they should be worn – where a pragmatic response would have been to use the available data and assume that, if they have some effect and the downsides are minimal, the policy should be pursued. On borders, the early argument that closing borders or requiring quarantine was unnecessary has been undermined by the evidence from countries which did so, and the rapid global transfer of new variants that could have long-term impact on management of the disease. On the other hand, with vaccine rollout, the UK implemented a single-dose strategy (meaning maximising the number of people receiving one dose by delaying second doses) early in the process on the basis of limited evidence – rather than waiting for perfect data to take action – and has had its approach vindicated in the speed and success of the vaccination campaign.

What It Means for Climate Change

Each of these lessons can be applied to our response to the climate emergency.

First, that clear, transparent, agreed data sets matter. Take the example of the UK's buildings. We have no detailed, agreed data set on the energy performance of our buildings, or the measures required to decarbonise them; we have limited data on how energy is used in buildings, and the impacts of different measures to reduce them; and our principal tool for measuring building energy use (the EPC certificate) is inadequate to the challenge. This data problem needs to be addressed urgently – not just for buildings, but across the climate space. Doing so will enable us to understand both the impacts of climate change and the successes (and failures) of our interventions to address it.

Second, those who have worked on climate change for any period of time will have observed the use of incomplete or misleading data with a weary and familiar sigh. Climate has for decades been a test case of misrepresentation of data – with data being manipulated to argue that the climate is not warming, or has been warming for some time, or that its warming will be beneficial overall. False and misleading use of data needs to be called out wherever it occurs – and better, complete data sets must be available to counter misinformation.

Third, the absence of complete data is not a reason not to act. We cannot know the precise impacts of climate change on the UK. But we know that it will be highly significant, and bad. In many areas, such as low-carbon vehicles, the low-cost technologies have emerged and are ready to be deployed at scale. In others, there is less certainty – and it is possible that we will look back in 2050 and conclude that, in some areas, there were alternative means of getting to the net zero target that would have been cheaper than the path we chose. But we do not have the time to wait for perfect data. Where data is good enough to make an informed decision, we should act. Where it is not, we should use pilots and innovation to develop it as fast as we possibly can.

Lesson 8: Markets and technology will provide solutions if government sets the right framework

The Covid-19 crisis has seen innovation occur at an unprecedented pace and scale. This is, of course, particularly the case in health care and pharmaceuticals. In treating the disease, learning and innovation have helped to reduce death rates and improve outcomes. In the development of vaccines, processes that usually take up to a decade have taken less than a year and – with rapid rollout – now offer us a route out of the pandemic.

Indeed, the UK's successful approach to vaccines has been enabled by several key steps crucial to innovation: backing a number of technologies in the absence of perfect data and foresight; providing assurance around market size; taking direct action to remove barriers; ensuring that supply chains are in place to enable delivery; and – crucially – setting the outcome but not specifying the precise technology.

Innovation as a result of the pandemic has also impacted the economy more broadly – for example, in rapid changes to workplace practices as new online tools have been developed and embedded, and in retail as sellers have pivoted away from face-to-face and towards home-delivery models.

But while the pandemic provides lessons on how to do innovation well, it also provides cautionary tales on how to do it badly. In some areas, time and effort have been wasted. The UK's "ventilator challenge", launched in March 2020 to rapidly increase the number of ventilators available to the NHS, provides such an example. In this case, the government approach was characterised by poorly thought through reaction to events rather than by rapid yet considered decision-making. The state was not an enabler of innovation but a barrier to it. The government focused on eye-catching ideas over practical delivery by launching a "challenge" rather than focusing on the limited number of technologies and companies who could move with sufficient speed; set excessively prescriptive technology outcomes by focusing on ventilator provision at the expense of broader strategy; and bought solutions to the wrong problem.

In addition, the pandemic has highlighted the vital importance of the state's capacity to deliver – without that, tools such as innovation and technology will be less effective. Again, the UK has shown strengths here: In particular, the successful vaccination programme has demonstrated the value of a centralised state with strong local delivery through the NHS. But it has also exposed real weaknesses, in particular in local public-health infrastructure. Without state expertise, capacity and effective governance at all levels, with clearly defined powers and accountabilities, risk management and crisis response will be all the more challenging.

What It Means for Climate Change

Without innovation, there is no route out of the problem – for both climate change and Covid-19. In many cases, the necessary technologies to reduce emissions exist and need to be deployed at scale; in others, the technology exists but needs support to come down the cost curve.

Covid-19 provides crucial lessons on how to innovate our way out of the climate crisis, and on the state's role in supporting effective response:

- **Set outcomes, not overly prescriptive technology solutions:** Governments should set the framework for innovation – but not prescribe what the right answer is. Vaccines provide a great example of government doing its job well and ventilators of doing it badly.

- **Link research and science capability with economic capacity:** The link between Oxford University and AstraZeneca provides a great example of joining up academic and industrial capability, and of the government playing a brokering role to do so.

- **Provide the right support at the right time:** For some technologies, it is right to provide innovation funding. For others, to address regulatory barriers. For others still, to provide scale-up and deployment support. And for some, to simply get out of the way. Governments need to work with research institutions and the private sector to identify the right approach and execute it quickly.

- **Clearly define the roles for state actors, with sufficient capacity to deliver:** On climate, as for much else, the UK's governance is complex and unclear, and the capacity of the state to deliver its role is varied. As part of its net zero strategy, the government should clarify the roles, accountabilities and powers of different actors, and how they will be integrated to deliver effectively.

Lesson 9: Success depends on the right skills and supply chains

The Covid-19 pandemic has shone a spotlight on the vital importance of skills and supply chains. Governments often think that by decreeing something should happen, it will, but in practice, policy success is hugely dependent on the ability of the economy and workforce to deliver it.

Early in the pandemic, we saw acute supply-chain problems. PPE was in desperately short supply globally, resulting in the UK and others being forced to pay over the odds as they realised their stocks were insufficient or unfit for requirement. Supermarkets faced challenges in keeping pace with demand for products from pasta to toilet roll. More recently, we've seen diplomatic incidents arise as vaccine supply struggles to keep up with demand. And we've seen persistent problems in health services as a result of capacity limitations. The UK's pre-pandemic model of lower redundancy (or surge capacity) in health services has dramatically impacted our ability to deal with non-Covid cases and resulted in reduced ability to use the Nightingale hospitals because of a lack of staff.

What It Means for Climate Change

Addressing the climate crisis also requires creating and sustaining new supply chains, and it carries the risk of either excessive cost or failure to deliver if we do not do so.

The UK has positive experience to draw from here. In offshore wind, the UK has put in place a strong, cross-party commitment to deployment, supported by a stable support regime to drive investment, and a strong pipeline of future projects. That has provided the supply chain with the confidence to invest – and we've seen prices plummet as a result.

But in other areas, supply-chain problems have been acute – or are at risk of being so in the future. Delivering net zero will require hundreds of billions of pounds of investment across multiple sectors. But in many areas the supply chains capable of absorbing that investment simply don't exist. And in others, there is a need for radical reskilling of existing workforces.

This growth in supply chains and skills is essential for two reasons. First, without it, we will simply fail to hit net zero – we won't have the products, services and skills we need. Second, without planning ahead, we will fail to maximise economic benefit in the UK – which is required to secure and maintain social and political consent.

Lesson 10: Build and retain public trust and understanding

At the heart of the coronavirus pandemic has been perhaps the most important message of all: Informing and engaging the public is critical to success.

The Covid-19 response has required leaders across the world to instruct people – often by legal means – to do things they would have previously considered unimaginable: stay locked in their homes; homeschool their children; cancel all domestic and international travel; and stop seeing their friends and extended families.

Few politicians have relished this requirement – but the nature of the virus has meant that it has been critical to successful delivery of public-policy outcomes. And that success has depended on two things: understanding and compliance.

But public messaging has not been a universal success story, and there is some evidence that willingness to comply with guidance has ebbed over time. Transport data, for instance, show that the "Stay at Home" message was far more effective in the first lockdown (March to June 2020) than the third (January to April 2021).

There are doubtless many reasons for this – but four are particularly pertinent to the climate crisis:

First, messaging has often been unclear. For example, we know a lot about Covid-19 and how it is transmitted. It is an airborne disease, almost always transmitted by close human contact in indoor settings.

But for most of the pandemic, you would have done well to understand if you were using government communications or media headlines as your guide. These have often focused on tangential issues: How many times to sing "Happy Birthday" while washing your hands (and indeed the excessive focus on handwashing rather than minimising indoor interactions); "gotcha" stories on momentary removals of face masks; and the subtleties of ministers' views on whether a scotch egg constitutes a substantial meal.

Perhaps most damagingly, much of the media debate on the efficacy of lockdown regulations has emphasised compliance when in outdoor settings – from manufactured controversy on whether the prime minister should cycle seven miles away from his residence, to whether an outdoor coffee on a park bench constitutes a criminal offence.

These have been damaging because they distract attention from the important: minimising close-proximity interaction with others in enclosed spaces.

Second, messaging has been inconsistent. There are innumerable examples of how messaging has changed, often from one day to the next. On 3 March 2020, Boris Johnson boasted that he "shook hands with everybody" at a hospital treating coronavirus patients. Two weeks later, the UK entered a full national lockdown. On 27 August, unnamed ministers exhorted people to return to their offices or risk losing their jobs. On 22 September, they instructed people to work from home where possible. Perhaps most egregiously, on 3 January the prime minister stated that schools were "safe", and on 4 January instructed them to move to remote learning. The public could be forgiven for being confused.

Third, misinformation has been rife. As noted above, data has been used in misleading ways – resulting in a proliferation of misinformation and conspiracy theories, ranging from incorrect assumptions about the effectiveness of mask-wearing to the supposed risks of 5G mobile networks.

Finally, people in leadership positions have not always appeared to follow the guidance themselves. The most high-profile example is, of course, Dominic Cummings' trip to the North East at the height of the first lockdown. But there have been innumerable other examples of people in positions of authority failing to comply with the rules the wider public are expected to follow.

What It Means for Climate Change

Each of these has lessons for climate change.

The good news on climate is that the behaviour changes required are far less significant than those that have been required to fight Covid-19. In many cases these changes will deliver benefits, from cash savings to improved health, and they can take place over a longer timescale.

But on climate, as for Covid, it is unreasonable to expect people to act if they don't understand what they need to do, why they need to do it and what will happen if they don't.

Clarity and consistency of messaging: We know the major sources of emissions: cars and planes; heating our homes; fossil-fuel energy generation; deforestation; and so on.

But communications – both media and government – often focus on the trivial rather than the important. To take one example, there was high-profile reporting of emissions from emails in 2020 – but emails are an insignificant source of emissions. More recently, a story about government taking a more holistic approach to carbon pricing and taxation was headlined as being about taxes on heat and meat – and only hours later resulted in Number 10 denying any intention to "tax the British banger" (a strategy which no one was recommending). In 2008–09, the last major government communications campaign on climate exhorted people to unplug their phone chargers – which might save 0.01 per cent, or one ten-thousandth, of the average individual's carbon footprint. [1]

These small acts are good things – but they will not solve the problem, and focusing on them creates political risk for no decent return. In the words of former government Chief Scientific Advisor on climate David Mackay: "If everyone does a little, we'll only achieve a little".

So clarity and consistency are not yet there – and time is against us. We need to act urgently to provide clear, consistent information, focused on what matters.

Dealing with misinformation: Poor information on what individuals and businesses can do has resulted in widespread misinformation on the impacts of different actions – for example, the long-debunked trope that electric vehicles produce more emissions than their petrol and diesel equivalents. Government should consider how best to rapidly rebut misinformation to ensure it doesn't take hold in the public consciousness.

Leadership: Finally, leadership matters. Leaders themselves – in both the private and public spheres – need to demonstrably walk the walk and talk the talk. And the public sector can act as an exemplar more broadly by demonstrating the effectiveness of low-carbon technologies, from solar panels to heat pumps.

Next Steps

Coronavirus and climate change have direct parallels and links – from temporary cuts to emissions in 2020, to the potential for increased transfer of disease from the biosphere to humans.

But the most important link is in applying our experience on Covid-19 to the climate crisis. Politicians and policymakers have had a rare insight into how to deal with rapidly emerging threats.

The next phase of climate response should take the ten lessons outlined in this paper and apply them directly to our response to climate change. The urgency of the climate crisis means we must learn from history, not repeat it.

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Footnotes

1. ^ Assumes 1.5KWh usage from charger plugged in per year; 2.5 chargers per person; grid intensity 181g/KWh; average carbon emissions 5.3 tonnes

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