
Law, Ethics and Lockdowns: Impacts on Life, Liberty and the Economy

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ABSTRACT: Many people worldwide, particularly those with disabilities and the elderly, suffered greatly not only as a result of the Covid-19 pandemic but also as a result of the lockdowns. In this article we set out widely-accepted ethical criteria for assessing when coercive public health measures are justified. We then review the empirical evidence, not least concerning the benefits and costs of the lockdowns, and conclude that lockdowns as instituted in the UK (and, presumptively, in many other jurisdictions) appeared to breach those criteria. We conclude that any future proposal to lockdown should be subjected to the strictest ethical scrutiny, and that a lockdown should not be contemplated unless it could be convincingly demonstrated that the benefits would substantially outweigh the harms; that it would be proportionate, and that legal coercion would be strictly necessary.

Keywords: Covid-19; lockdowns; ethics; public health; law; economy

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Introduction

A major policy response to the Covid-19 pandemic across the globe was the “lockdown.” One definition is: “a temporary condition imposed by governmental authorities (as during the outbreak of an epidemic disease) in which most people are required to refrain from or limit activities outside the home involving public contact (such as dining out or attending large gatherings).”¹

Although lockdowns admit of varying types and degrees, and may be imposed on a national, regional or local basis, they typically involve the suspension, by law, of basic human rights and freedoms such as freedom of association and the right to work or to run a business. For example, in March 2020 Ferguson et al. recommended a policy of suppressing Covid-19 by way of working from home; social distancing of the entire population; the home isolation of infected people and household quarantine of their family members, and the possible closure of businesses, schools and universities.² The imposition of such measures by law comfortably meets the definition of a lockdown.

In this article, we examine the role ethics should play in imposing and evaluating lockdowns for viruses like Covid-19. Typical of the policy approach taken in many western countries were the lockdowns imposed in England in 2020-2021. These involved what Lord Sumption, the former Justice of the UK Supreme Court, described as “the most significant interference with personal freedom in the history of our country.”³ The justification for the lockdowns was to prevent the National Health Service (NHS) being overwhelmed by patients with Covid-19 and to prevent the scores or even hundreds of thousands of deaths that it was feared would otherwise occur, especially among some of the most vulnerable members of the community such as the elderly and people with disabilities.⁴ Proponents could also point to the fact that lockdowns were the policy response favoured by governments and their public health

¹ “Lockdown” in the MERRIAM WEBSTER DICTIONARY. <https://www.merriam-webster.com/dictionary/lockdown>.

² Neil Ferguson et al., *Impact of Non-Pharmaceutical Interventions (NPIs) to Reduce COVID-19 Mortality and Healthcare Demand*. Imperial College London (2020). <https://doi.org/10.25561/77482>.

³ Jonathan Sumption, *This is How Freedom Dies: the Folly of Britain’s Coercive Covid Strategy*, THE SPECTATOR (28 October 2020).

⁴ Ironically, these were among the groups who suffered disproportionately from the lockdowns. See William F. Sullivan et al., *Ethics Framework and Recommendations to Support Capabilities of People with Intellectual and Developmental Disabilities during Pandemics*, 19 JOURNAL OF POLICY AND PRACTICE IN INTELLECTUAL DISABILITIES 1 (2022); Kevin de Sabbata et al., *Covid -19 Policies and their Unequal Impact on the Rights and Dignity of Disabled People*, UK Pandemic Ethics Accelerator (2022). <https://ukpandemicethics.org/wpcontent/uploads/2022/07/Disability-project-ethics.pdf>

advisors across the globe, starting with China and followed by the UK, the US and Australasia.

Despite the profound and unprecedented interference by lockdowns with people's basic rights and freedoms, and their hugely costly social and economic effects, there has hitherto been relatively little analysis from an ethical perspective of the question whether they were justified. This lack is particularly noticeable in relation to business, though an exception is the work of Jain, Jain and Li⁵ who used survey data to examine contrasting attitudes amongst US residents towards measures focusing on reducing infections compared to those focused on protecting the economy. (In particular, we are aware of little research addressing the specific question of what ethical principles should underpin government restrictions on private businesses, despite the dramatic impact of such interventions on business performance; on employment; on employee and employer wellbeing and, due to the associated financial support including furlough payments, on public finances.⁶)

In this article, we seek to help fill this gap by addressing the ethical criteria for determining when lockdowns might be justified and applying them to the restrictions imposed in England by the UK Government.⁷ England expe-

⁵ Shalini S. Jain et al., *Sustaining Livelihoods or Saving Lives? Economic System Justification in the Time of COVID19*, 183 JOURNAL OF BUSINESS ETHICS 71 (2023). <https://doi.org/10.1007/s10551-022-05091-4>.

⁶ A number of papers have examined how managers should ethically respond to the pandemic in terms of protecting employees and other business practices: see Tim Manuel and Terri L. Heron, *An Ethical Perspective of Business CSR and the COVID-19 Pandemic*, 15(3) SOCIETY AND BUSINESS REVIEW 235 (2020); Herman Aguinis et al., *Understanding Employee Responses to COVID-19: a Behavioral Corporate Social Responsibility Perspective*, 18(4) MANAGEMENT RESEARCH 421 (2020); Dejun T. Kong and Liuba Y. Belkin (2021), *You Don't Care for Me, so What's the Point for Me to Care for Your Business? Negative Implications of Felt Neglect by the Employer for Employee Work Meaning and Citizenship Behaviors amid the COVID-19 Pandemic*, 181 JOURNAL OF BUSINESS ETHICS 645 (2022). <https://doi.org/10.1007/s10551-021-04950-w>. Danny Miller et al., *Are Socially Responsible Firms Associated with Socially Responsible Citizens? A Study of Social Distancing during the Covid-19 Pandemic*, 179 JOURNAL OF BUSINESS ETHICS 387 (2021). <https://doi.org/10.1007/s10551-021-04858-5>.

A further stream of literature analyses corporate philanthropic responses to Covid-19. See, for example, Hanwen Chen et al., (2021) *Adversity Tries Friends: a Multilevel Analysis of Corporate Philanthropic Response to the Local Spread of COVID-19 in China*, 177 JOURNAL OF BUSINESS ETHICS 585 (2021). <https://doi.org/10.1007/s10551-021-04745-z>, and Iana Shaheen et al., *Resource Scarcity and Humanitarian Social Innovation: Observations from Hunger Relief in the Context of the COVID-19 Pandemic*. 182 JOURNAL OF BUSINESS ETHICS 597 (2023). <https://doi.org/10.1007/s10551-021-05014-9>. Finally, Ehsan Poursoleyman et al., *Did Corporate Social Responsibility Vaccinate Corporations Against COVID-19?*, JOURNAL OF BUSINESS ETHICS (2023) <https://doi.org/10.1007/s10551-023-05331-1> consider whether prior investment in corporate social responsibility was able to protect companies against some of the consequences of the pandemic.

⁷ Covid policy in the UK was a devolved matter for Wales, Scotland and Northern Ireland, so decisions over lockdowns were the responsibility of their respective administrations. As

rienced a significant level of Covid infections and on a number of occasions during 2020 and 2021 the UK Government implemented a panoply of restrictions including home working, business and school closures, capacity limits and social distancing. As such, England provides a valuable case-study. Given ongoing discussion of possible re-imposition of lockdowns in response to future pandemics, the issues considered here continue to be both globally relevant and timely. We seek to answer two key research questions. First, were lockdown policies adopted by the UK government ethically justified?⁸ Second, how might sound ethical analysis improve policy responses in future pandemics?

We will conclude that the English lockdowns failed to meet the standard ethical criteria for coercive public health interventions such as those endorsed by Childress and colleagues and by the Nuffield Council on Bioethics. In particular, we question whether, in the UK at least, any serious inquiry was conducted into whether they would prove effective in achieving their goal (a goal which, moreover, seemed regularly to shift); whether, even if they were to prove effective, any benefits would outweigh the obvious costs, and whether less restrictive measures would have sufficed. We will note that the UK Government not only failed to implement its own ethical framework for responding to pandemic influenza published in 2007 but also deliberately sidelined bodies that existed to provide expert ethical input.

In the next section, we provide a timeline of the restrictions and lockdowns in England. In section 3, we outline the ethical criteria relevant to evaluating lockdowns. In section 4, we examine evidence on the costs and benefits of the lockdowns. Section 5 assesses the extent to which the restrictions met the ethical criteria. Finally, we summarize our conclusions.

The Lockdowns in England: A Timeline

On 23 March 2020 the then Prime Minister, Boris Johnson, issued a “stay at home” order.⁹ A gradual easing of restrictions began on 1 June with the phased re-opening of schools and the re-opening of “non-essential” shops on 15 June and parts of the hospitality sector on 4 July. Many businesses (e.g. casinos, nightclubs and live attendance at sporting events) remained shut and further national restrictions were gradually introduced including compulsory face coverings in July, followed by a ban on meetings of more than six people (the “rule of six”) and a 10pm curfew on the hospitality sector in September. A

England does not have a devolved Government, policy decisions were the responsibility of the UK Government in Westminster.

⁸ The devolved administrations in Scotland, Wales and Northern Ireland imposed lockdowns that were, if anything, more severe in nature and duration than in England.

⁹ Despite the fact that the law imposing the lockdown did not come into force until three days later.

three-tier system of restrictions came into effect on 14 October, which involved a range of regional-specific business closures and other restrictions. A second lockdown was imposed on 5 November and was replaced on 2 December with another three-tier regime of restrictions, raised to four tiers for certain areas on 21 December. England entered a third lockdown on 5 January 2021.

A four-step “roadmap” of relaxation started in March with the re-opening of schools; permission for two people to engage in recreation in outdoor public spaces and the expiration of the “stay at home” order. On 12 April non-essential retail businesses and public buildings re-opened. On 17 May indoor venues such as pubs and cinemas re-opened. On 14 June the Prime Minister announced that step four would be delayed to allow acceleration of the vaccination programme. 19 July saw the end of most limits on social contact and the re-opening of the final sectors of the economy such as nightclubs. On 10 December 2021, under the government’s “Plan B”, face masks were made compulsory once again in most public indoor venues and an NHS “Covid Pass” was required to enter certain places like nightclubs. These restrictions were removed starting in January 2022 and by 24 February virtually all domestic restrictions and limits on businesses had been ended.¹⁰ In many parts of the UK, all restaurants and bars were completely closed for indoor service for 5 months from November 2020 to 2021. Some businesses (e.g. nightclub venues and casinos) were shut continuously for 16 months from March 2020.

The lockdown restrictions were, then, extensive both in nature and duration. Were they ethically justified?

Ethical Criteria for Coercive Public Health Measures

James Childress and colleagues mapped the terrain of public health ethics in 2002.¹¹ The terrain included a set of general moral considerations. They

¹⁰ Institute for Government, *Timeline of UK Government Coronavirus Lockdowns and Measures, March 2020 to December 2021* (2022). [timeline-coronavirus-lockdown-december-2021_0.png](https://www.instituteforgovernment.org.uk/images/stories/publications/timeline-coronavirus-lockdown-december-2021_0.png) (30001505) (instituteforgovernment.org.uk). Although the third lockdown lacked legal force until 6 January, the government nevertheless announced it would come into effect on 5 January. See <https://www.gov.uk/government/news/prime-minister-announces-national-lockdown>

¹¹ James F. Childress et al., *Public Health Ethics: Mapping the Terrain*, 30 JOURNAL OF LAW, MEDICINE AND ETHICS 170 (2002). Another ethical framework was later provided by the Nuffield Council on Bioethics. See: Nuffield Council on Bioethics, *Public Health: Ethical Issues* (2007). <https://www.nuffieldbioethics.org/publications/public-health>. See also Nuffield Council on Bioethics, *Rapid Policy Briefing. Ethical Considerations in Responding to the COVID-19 Pandemic* (2020) <https://www.nuffieldbioethics.org/publications/ethical-considerations-in-responding-to-the-covid-19-pandemic> and *Ethical Tools for Decision-makers. Responding to Public Health Threats* (2022). <https://www.nuffieldbioethics.org/publications/ethics-tools-for-decision-makers-responding-to-public-health-threats>. A third framework is the Siracusa Principles, published by the American Association for the International Commission of Jurists in 1984 to determine when it is justifiable to limit or derogate from the International Covenant on Civil and Political Rights in the case of public emergencies: *Siracusa Principles on the*

listed nine: producing benefits; avoiding, preventing and removing harms; producing the maximal balance of benefits over harms and other costs (often called utility); distributing benefits and burdens fairly (distributive justice) and ensuring public participation, including the participation of affected parties (procedural justice); respecting autonomous choices and actions, including liberty of action; protecting privacy and confidentiality; keeping promises and commitments; disclosing information as well as speaking honestly and truthfully (often grouped under transparency); and building and maintaining trust.

Whichever particular moral theory one adopted, they added, these general moral considerations broadly captured the moral content of public health ethics. Although it was not possible to develop an algorithm to resolve conflicts among the moral considerations, Childress et al proposed a list of five conditions to determine when it was justifiable to promote public health, even when so doing conflicted with other moral commitments such as individual liberty, namely: effectiveness; proportionality; necessity; least infringement and public justification. The conditions were similar to the “strict scrutiny” test applied in US constitutional law: a state must show a “compelling interest” for infringing a fundamental liberty; that its methods are “strictly necessary” to achieve that interest, and that it has adopted the “least restrictive alternative.”

The five conditions rightly set a very high bar. First: effectiveness. It was essential to demonstrate effectiveness, that infringing one or more moral considerations would probably protect public health. It was, second, also essential to establish proportionality, that the probable public health benefits outweighed the infringed moral considerations. The positive features had to be weighed against the negative. Third, was the policy necessary to secure the public health goal? The fact that a policy would infringe a general moral consideration pro-

Limitation and Derogation Provisions in the International Covenant on Civil and Political Rights (1985). [Siracusa-principles-ICCPR-legal-submission-1985-eng.pdf](https://www.icj.org/siracusa-principles-iccpr-legal-submission-1985-eng.pdf) (icj.org). The Siracusa Principles were recently supplemented, in light of the human rights violations by the public health response to the pandemic, by the *Human Rights Principles in Public Health Emergencies* (2023): www.ohchr.org/sites/default/files/documents/new-york/events/hr75-future-generations/PGs-on-Human-Rights-and-Public-Health-Emergencies-26-June-2023.pdf.

For other ethical reflections see the following papers on selective lockdowns of the elderly: Julian Savulescu and James Cameron, *Why Lockdown of the Elderly is Not Ageist and Why Levelling Down Equality is Wrong*, 46 *JOURNAL OF MEDICAL ETHICS* 717 (2020); on the alternative of mandatory contact tracing: Lucie White and Philippe van Basshuysen, *How to Overcome Lockdown: Selective Isolation Versus Contact Tracing*, 46 *JOURNAL OF MEDICAL ETHICS* 724 (2020); on the nature of freedom in the trade-off between freedom and health: Alberto Giubilini, *Freedom, Diseases and Public Health Restrictions*, 37 *BIOETHICS* 1 (2023); on “dominating risk impositions”: Kritika Maheshwari and Sven Nyholm, *Dominating Risk Impositions*, 26 *JOURNAL OF ETHICS* 613 (2022); and on fairness in restricting liberty in the interests of security: Garrett Cullity, *Liberty, Security and Fairness*, 25 *JOURNAL OF ETHICS* 141 (2021).

vided a strong moral reason to seek an alternative policy. Proponents of coercive over voluntary policies must have an honest belief, for which they could give supportable reasons, that coercion was necessary. Fourth, even when a policy met the above three conditions, public health agents should minimise its deleterious impact. For example, when a policy infringed autonomy, public health agents should seek the least restrictive alternative. The fifth condition, public justification, required public health agents to provide a public explanation of and justification for their infringing policy. Citizens should be treated as equals.

Transparency was essential to creating and maintaining public trust and to establishing accountability. This condition required soliciting input from the public and the government in the formulation of policy and then justifying that policy, and this was especially important when a general moral consideration was infringed, "as with coercive protective measures to prevent epidemics." At a minimum, public accountability involved transparency in openly seeking information from those affected and in honestly disclosing relevant information to the public.

Public health accountability addressed the duty of public health experts to work with the public and scientists to identify, define and understand the threats to public health and the risks and benefits of ways to address them. Sometimes individual interests must yield to collective needs, but the requirement of public accountability ensured that such trade-offs would be made openly and that reasons, grounded in ethics, would be provided to those affected. It was not, moreover, sufficient to show that an individual's actions had some adverse effects on others: it was necessary to show that those adverse effects were significant enough to warrant overriding individual liberty.

Finally, in many situations the most defensible public health approach was one that *expressed* community rather than one that *imposed* it through coercion. Expressing community had, all things being equal, priority over imposing community.¹² We take that to mean that encouraging people to act for the common good was preferable to compelling them to do so.

¹² Similarly, the ethical framework proposed by the Nuffield Council (*supra* note 11) required restrictive measures such as lockdowns to be effective, proportionate and necessary, and to be justified publicly and transparently. The *Siracusa Principles (Id.)* state (para. 51): "The severity, duration, and geographic scope of any derogation measure shall be such only as are strictly necessary to deal with the threat to the life of the nation and are proportionate to its nature and extent." And the recent *Principles and Guidance (Id.)* provide (para.16.1) that public health responses that limit human rights must be temporary, for a legitimate and specific public health purpose and have strict regard to the principles of legality, necessity, proportionality and non-discrimination. They add (para. 19.3) that police powers may only be used as a last resort, when strictly necessary and when less restrictive measures would be ineffective.

Relevantly, in 2007 the UK Department of Health published a brief, six-page ethical framework for responding to an influenza pandemic.¹³ Its fundamental principle was equal concern and respect: everyone mattered, and everyone mattered equally. The harm that might be suffered by every person mattered, and so minimizing harm was a central concern. The fundamental principle subsumed seven individual principles: respect; minimizing harm; fairness; working together; reciprocity; keeping things in proportion; flexibility, and good decision-making. Good decision-making required openness as to what decisions were being taken and why; inclusiveness; accountability; and reasonableness: decisions should be rational, based on appropriate evidence and the result of an appropriate process.

In our analysis in section 5 of whether the lockdowns were ethically justified we will seek to arrive at a sound prudential judgment informed by the ethical criteria advanced by Childress et al (and the other ethical frameworks we cited.) We shall also mention the guidance on mitigating the risks of pandemic influenza that was published by the World Health Organisation in 2019.¹⁴ We will, first, consider in section 4 a question central to the ethical analysis of lockdowns: what were their benefits and their costs and did the benefits outweigh the costs? This is not to adopt a crudely utilitarian moral calculus. Our ethical assessment is compatible with the broad understanding of benefits and costs inherent in the ethical framework we have outlined, which attaches ethical significance not only to saving lives and preventing ill-health, but to basic human rights and freedoms including the freedom to associate with family and friends and the right to work. Nor do we purport to commensurate radically different types of goods, such as life, work and education, to calculate the “right” answer. This is not, however, to suggest that those adopting a wholly or largely utilitarian approach will disagree with our analysis or conclusions.¹⁵ Nor do we expect that those who adopt a virtue ethics approach will disagree. It might be argued that the restrictions expressed social solidarity, especially with the most vulnerable. However, compliance is scarcely virtuous if it is mandated, and one is hardly promoting solidarity by supporting measures that

¹³ Department of Health UK, *Responding to Pandemic Influenza. The Ethical Framework for Policy and Planning* (2007). https://webarchive.nationalarchives.gov.uk/ukgwa/20130104202555/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_080751

¹⁴ World Health Organization, *Non-Pharmaceutical Public Health Measures for Mitigating the Risk and Impact of Epidemic and Pandemic Influenza* (2019). <https://www.who.int/publications/i/item/non-pharmaceutical-public-health-measures-for-mitigating-the-risk-and-impact-of-epidemic-and-pandemic-influenza>

¹⁵ Julian Savulescu et al., *Utilitarianism and the Pandemic* 34 *BIOETHICS* 620 (2020).

are either futile or harmful, especially to the most vulnerable. Virtue ethics is not virtue-signalling.

A Review of the Benefits and Costs of Lockdowns

As in most countries, the original basis for instituting lockdowns in the UK was that, otherwise, Covid-19 cases would continue to increase to levels at which health services would be overwhelmed, resulting in hundreds of thousands of deaths. This assessment relied on modelling conducted by Neil Ferguson's team at Imperial College, London.¹⁶

It is now clear, however, that the *growth* of infections had started to slow some time before the formal lockdown was announced in England on 23 March 2020. The Chief Medical Officer, Chris Whitty, acknowledged this fact in an interview in July of that year.¹⁷ Indeed, using data on Covid-related deaths, Wood has demonstrated that not only was the rate of *growth* of infections decreasing before each of the three English lockdowns (March 2020, November 2020 and January 2021), but also that most likely the actual *rate* of new infections was already decreasing.¹⁸ The implication of this finding is that the modelling predictions that infections would otherwise have risen to unsustainable levels were invalid.¹⁹ In other words, even in the absence of lockdowns, the UK would not have experienced the hundreds of thousands of deaths suggested by Ferguson et al. This conclusion is supported by the experience of Sweden, which never instituted a formal lockdown and had only limited mandatory business closures. Although Sweden differs from the UK in many respects, it experienced a very similar growth of infections in early 2020. Further, in March 2020, modellers predicted that in the absence of lockdown, Sweden would experience a similar per capita death rate from Covid to

¹⁶ *Supra* note 2.

¹⁷ See <https://www.thetimes.co.uk/article/chris-whitty-blames-poor-planning-for-lockdown-in-bad-tempered-health-committee-d5kb3fmw2#:text=The%20coronavirus%20pandemic%20was%20probably,of%20lack%20of%20testing%20capacity%E2%80%9D>. (22 July 2020).

¹⁸ Simon Wood, *Inferring UK COVID-19 Fatal Infection Trajectories from Daily Mortality Data: Were Infections Already in Decline Before the UK Lockdowns?* 78 *BIOMETRICS* 1127 (2022). For the first lockdown, deaths data provide the main way of inferring earlier infection trends, though Wood's conclusions are supported by data from the NHS Covid-19 Triage system. For later lockdowns, we have more direct evidence from the Office for National Statistics (ONS) estimates of infection prevalence. These corroborate Wood's finding that infections were decreasing before the January 2021 lockdown.

¹⁹ Knowledge that infections were decreasing pre-lockdown was only ascertainable post-hoc. However, based on published hospital deaths data, it was clear from as early as mid-April that the infection peak had been reached. Despite this, the lockdown continued unabated for several months.

that forecast for the UK. For example, Walker et al. suggested²⁰ that without a lockdown Sweden would experience between 66,400 and 90,200 Covid-related deaths by the end of July 2020.²¹ The actual number proved to be 5,721.²²

Although it is clear now that the huge number of deaths projected by the Imperial College modelling in the absence of suppression strategies was unrealistic, this does not necessarily mean that lockdowns had no impact on mortality. It is still possible, for example, that the UK lockdowns accelerated the decline in infections that would have happened anyway and that, in the short run at least, averted some deaths.

As with any other significant policy intervention, a rational approach involves evaluating both the marginal costs and marginal benefits. A stream of research over the past two years has provided significant evidence on both sides of the equation. Identifying causal policy impacts, however, is not without difficulties. One reason for this is that policy decisions can be endogenous. For example, governments face pressure to put in place business closures and lockdowns when infections and deaths are increasing. As a result, we may observe a spurious correlation between a restriction and an increase in infections. Alternatively, if restrictions are imposed as an infection wave comes to a peak, we may falsely attribute a reduction in infections that would have occurred anyway as being caused by a particular intervention.

Despite the difficulties in disentangling causality, a number of empirical studies have taken account of policy endogeneity in different ways. The best studies examine trends in relevant metrics (cases, hospitalisations or deaths) before and after policy changes (allowing for appropriate time lags) relative to changes in areas in which policies were not implemented. Further, to establish a suitable counter-factual and to avoid spurious correlation, studies need to control for trends in the run up to the policy intervention and must also be careful to ensure to control for other relevant differences between those areas subject and not subject to the policy.

Allen's survey of the empirical studies of the impact of lockdowns on Covid-related outcomes has concluded: "There is almost no consistent evidence that strong levels of lockdown have a beneficial effect, and given the large levels of statistical noise in most studies, a zero (or even negative) effect

²⁰ Patrick G.T. Walker et al., *The Global Impact of COVID-19 and Strategies for Mitigation and Suppression*. Imperial College London, (2020). <https://doi.org/10.25561/77735>.

²¹ The mortality estimates for individual countries are contained in an online appendix to the paper here: <https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.imperial.ac.uk%2Fmedia%2Fimperial-college%2Fmedicine%2Fmrc-gida%2FImperial-College-COVID19-Global-unmitigated-mitigated-suppression-scenarios.xlsx&wOrigin=BROWSELINK>

²² As reported by the Public Health Agency of Sweden: www.folkhalsomyndigheten.se/smittskydd-beredskap/utbrott/aktuella-utbrott/covid-19/statistik-och-analyser/bekraftade-fall-i-sverige/

cannot be ruled out.”²³ Allen estimates that a reasonable range for the impact of lockdowns on Covid-related mortality is a reduction of between zero and 20%.²⁴

The limited number of systematic reviews on the evidence are consistent with this conclusion. Lezadi et al.,²⁵ Talic et al.²⁶ and Herby et al.²⁷ all find some evidence that lockdowns reduced Covid mortality but with generally modest effects. For example the meta-analysis conducted by Herby et al. estimates the impact of lockdowns finding an average effect of around 3%.²⁸

Some individual papers have reported somewhat higher estimates of the impact of lockdowns on mortality. For example, Arnon et al.²⁹ estimated that lockdowns in the US reduced mortality by as much as 25% in the first few months of the pandemic. Notably, the authors concluded that enforced business closures were much less effective than mandates restricting individual movement.

More recently, Mader and Rüttenaur³⁰ use the Generalised Synthetic Control Method (GSCM) on data from 169 countries to identify causal effects on mortality and Covid infections from a range of non-pharmaceutical interventions (NPIs) including business closures and stay-at-home measures. GSCM involves creating a synthetic set of control countries that are statistically similar (including in terms of pre-intervention trends) to countries subject to the particular intervention. The authors are unable to find a consistent, significant impact on either mortality or infections from any NPI.

Given the statistical uncertainty and difficulties in identifying a true causal effect, we cannot rule out that lockdowns have some marginal impact

²³ Douglas Allen, *Covid Lockdown Cost/Benefits: a Critical Assessment of the Literature* 29 INTERNATIONAL JOURNAL OF THE ECONOMICS OF BUSINESS 1 at 15 (2022).

²⁴ *Id.* Note that his review covers empirical estimates of lockdown impacts based on real data and excludes studies based on models which are constructed on the assumption that lockdowns avert deaths.

²⁵ Shabnam Lezadi et al., *Effectiveness of Non-Pharmaceutical Public Health Interventions Against COVID-19: A Systematic Review and Meta-Analysis* 16 PLoS ONE: e0260371 (2021).

²⁶ Stella Talic et al., *Effectiveness of Public Health Measures in Reducing the Incidence of Covid-19, SARS-CoV-2 Transmission, and Covid-19 Mortality: Systematic Review and Meta-Analysis* BRITISH MEDICAL JOURNAL 375: e068302 (2021).

²⁷ Jonas Herby et al., *A Literature Review and Meta-Analysis of the Effects of Lockdowns on Covid-19 Mortality*, 200 STUDIES IN APPLIED ECONOMICS (2022).

²⁸ *Id.* The 3% figure relates to studies of “shelter-in-place” orders which are close to the lockdown definition used in this paper. See Nicolas Banholzer et al., *Comment on “A Literature Review and Meta-Analysis of the Effects of Lockdowns on COVID-19 Mortality”* SSRN Working Paper (2022) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4032477 for a critique of attempts to apply the meta-analysis approach to Covid-19 outcomes.

²⁹ Alexander Arnon et al., *Epidemiological and Economic Effects of Lockdown*, 20 BROOKINGS PAPERS ON ECONOMIC ACTIVITY (Fall, 2020).

³⁰ Sebastian Mader and Tobias Rüttenauer, *The Effects of Non-Pharmaceutical Interventions on COVID-19 Mortality: a Generalized Synthetic Control Approach across 169 Countries*, FRONTIERS OF PUBLIC HEALTH (April, 2022) <https://doi.org/10.3389/fpubh.2022.820642>.

on Covid-related mortality. However, even the upper end of the estimates of benefit appear to be an order of magnitude lower than the *projected* numbers of deaths averted on which lockdown decisions were originally taken. For example, during the first UK lockdown (and allowing for the lag between infections and likely date of death), there were about 30,000 Covid-related deaths. Using Allen's range of between 0 and 20% mortality reduction, that implies that the first UK lockdown may have averted between zero and (at best) around 7,000 Covid-related deaths. This stands in stark contrast to the modelled estimates by Ferguson et al. on which the UK lockdown decision was based, that lockdown would avert several hundred thousand deaths.

Evaluating the costs of lockdowns is also fraught with difficulty. A reduction in business activity which occurs after restrictions are imposed could well be caused by those restrictions, but it might also be the case that the reduction would have happened even in the absence of restrictions due to behavioural responses to trends in infections. Further, although there are economic costs from compulsory business closures, the broader welfare costs of restrictions are much harder to calculate, though clearly very significant.

The published data on government expenditure directly aimed at supporting lockdown restrictions provides some idea of the orders of magnitude involved. The National Audit Office Cost Tracker reports that total UK Government has incurred expenditure totalling £376 billion (around \$450 billion) as a result of the pandemic. Much of this expenditure is the result of policy choices. For example, £84 billion has been spent supporting businesses affected by lockdowns and other restrictions³¹ and a further £70 billion on the furlough scheme supporting employees temporarily laid off due to restrictions.³² Total spending in those two areas exceeded the total annual budget for the NHS in 2021 of £136 billion. But these figures are likely to represent only a small part of the full welfare cost of lockdowns and other restrictions experienced by consumers and businesses.

There have been a number of attempts to subject lockdowns to cost-benefit analysis. The four key studies (Allen,³³ Miles et al.,³⁴ Rowthorn and Maciejowski,³⁵ and Lally³⁶) each adopt contrasting approaches to estimating lockdown

³¹ Philip Brien and Matthew Keep, *Public Spending During the Covid-19 Pandemic*, House of Commons Library (September 2023).

³² Andy Powell et al., *Coronavirus Job Retention Scheme: Statistics*, House of Commons Library (December 2021).

³³ *Supra* note 23.

³⁴ David Miles et al., *Living with COVID-19: Balancing Costs against Benefits in the Face of the Virus*, 253 NATIONAL INSTITUTE ECONOMIC REVIEW R60-R76 (July, 2020).

³⁵ Robert Rowthorn and Jan Maciejowski, *A Cost-Benefit Analysis of the COVID-19 Disease*, 36 OXFORD REVIEW OF ECONOMIC POLICY (S1) S38 (2020).

³⁶ Martin Lally, *A Cost-Benefit Analysis of COVID19 Lockdowns in Australia*, 40 MONASH BIOETHICS REVIEW 62 (2022).

costs and examine data from different countries and time periods. However, all conclude that on any conventional basis for evaluating the benefit of mortality avoided, the costs of lockdowns were far in excess of any possible benefit. For example, Miles et al calculate that even if the first UK lockdown averted as many as 20,000 deaths (a figure far in excess of the upper end of plausible estimates), and using the lowest plausible estimate of lockdown costs, lockdown would have caused a net loss of nearly £200 billion.³⁷ Similarly, Allen concludes that using the upper bound estimate of a 20% mortality reduction from lockdowns in Canada, the lowest estimate of lockdown costs would exceed the benefits by a factor of 35.³⁸

An important further consideration is that the preceding analysis focused only on Covid-19 related mortality. Even if lockdowns averted Covid-19 related mortality, they may also have *caused* other deaths. This might be due to several reasons. Most obviously, strong public health messaging encouraging people to stay at home may have contributed to patients delaying presenting with symptoms and, hence, being referred for investigation. Related to this, lockdowns may also have contributed to delays in diagnosis and treatment following referral. For example, most general practitioners and most NHS hospital outpatient clinics ran services that were significantly reduced and, more often than not, conducted by telephone or over the internet. There are few data on the adverse impact of these changes on the quality of healthcare, though it is well known that cancer survival is negatively affected by delays. One recent systematic review and meta-analysis disclosed that a delay of only one month in cancer treatment can increase the risk of death by around 10%.³⁹ Lockdowns may also increase deaths from causes such as suicide, alcohol or, in the long run, obesity due to enforced loneliness, isolation or lack of exercise. On the other hand, lockdowns may also have positive impacts on mortality such as fewer road accidents due to reduced commuting.

Given all this, an alternative approach to estimating mortality effects is to focus on the impact of lockdown on excess mortality. This approach also has the benefit of avoiding measurement issues such as misdiagnoses or miscategorization of Covid-related deaths. To the best of our knowledge, just two empirical studies to date have assessed the impact of lockdowns on excess mortality. Williams et al. used UK excess mortality data from the first wave and concluded that “the first national lockdown in England and Wales had a net mortality increasing effect.”⁴⁰ Agrawal et al. used an event study framework on data from

³⁷ *Supra* note 34.

³⁸ *Supra* note 23, at 19.

³⁹ Timothy P. Hanna et al., *Mortality due to Cancer Treatment Delay: Systematic Review and Meta-analysis*, 371 *BRITISH MEDICAL JOURNAL* m4087 (2020).

⁴⁰ Sam Williams et al., *COVID-19 Mortalities in England and Wales and the Peltzman Offsetting Effect*, 53(60) *APPLIED ECONOMICS* 6995 (2021).

43 countries and all US states. They found that, following the introduction of “shelter-in-place” policies (lockdowns), excess mortality increased on average. Further, they found no evidence that areas implementing lockdowns earlier or longer had lower excess deaths than those implementing later lockdowns.⁴¹ The limited literature warrants caution before coming to firm conclusions. But the current state of evidence indicates that *lockdowns probably had little or no net effect in reducing overall mortality*. On this basis, the cost-benefit calculations discussed above are, to put it mildly, even less favourable to lockdowns.

The finding in the literature to date that lockdowns had only a limited impact even on Covid-related mortality may seem something of a puzzle. Part of the explanation lies in unintended behavioural effects of some aspects of lockdowns and which may have had the perverse effect of increasing infections. For example, the Night Time Industry Association reported that the announcement of a second English lockdown led to a significant rise in illegal music events.⁴²

Equally significant is the role of voluntary behaviour change. There is considerable evidence that people change their behaviour and reduce risk in response to rising Covid-19 infections irrespective of formal restrictions. Goolsbee and Syverson found that that legal restrictions explained just 7% of reductions in consumer traffic in the US, with the vast majority of reductions attributable to voluntary behaviour change.⁴³ Further, voluntary reductions in movement and social mixing will be strongest amongst the most vulnerable, meaning that changes induced by legal restriction change are likely to have only limited impact on hospital admissions and mortality. Herby similarly concluded that behaviour change caused by mandatory measures such as business closures and lockdowns accounts for just 9% of changes to infection growth, with the remaining 91% being due to voluntary behaviour changes.⁴⁴

The role of voluntary behaviour change is important in any ethical assessment of lockdowns. As discussed previously, if similar outcomes can be

⁴¹ Virat Agrawal et al., *The Impact of COVID-19 Shelter-in-place Policy Responses on Excess Mortality*, HEALTH ECONOMICS 32 (11, Nov) 2499-2515 (2023)

⁴² <https://www.nme.com/news/music/second-lockdown-sparks-unprecedented-increase-in-illegal-raves-across-england-2807238>

⁴³ Austan Goolsbee and Chad Syverson, *Fear, Lockdown, and Diversion: Comparing Drivers of Pandemic Economic Decline 2020*, 193 JOURNAL OF PUBLIC ECONOMICS 104311 (2021).

⁴⁴ Jonas Herby, *A First Literature Review: Lockdowns only had a Small Effect on COVID-19*, SSRN (January 2021). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3764553.

Kamerlin and Kasson similarly found that voluntary measures achieved significant behaviour alterations (and little discernible increased population covid mortality) in Sweden. Shina C.L. Kamerlin and Peter M. Kasson, *Managing Coronavirus Disease 2019 Spread with Voluntary Public Health Measures: Sweden as a Case Study for Pandemic Control*, 71(12) CLINICAL INFECTIOUS DISEASE 3174 (December, 2020).

achieved by voluntary means including non-statutory government advice and guidance, the case for lockdowns backed by legal force is much harder to make.

A reasonable challenge to this conclusion is whether the case for lockdowns at the time they were first instituted might have been reasonable given the evidence available at that time. This point was addressed directly in the independent report by Dr. Ashley Croft, commissioned by the Scottish Covid Inquiry.⁴⁵ Dr. Croft's assessment of the evidence base for lockdowns in early 2020 was as follows: "there was either insufficient evidence in 2020 to support their use – or alternatively, no evidence; the evidence base has not changed materially in the intervening three years."⁴⁶

An Ethical Evaluation of the Lockdowns

In the light of the ethical framework we sketched in section 3 and the evidence we reviewed in section 4, were lockdowns ethically justified? We must be careful about criticising the lockdown policy with the benefit of hindsight. We must also be careful to make full allowance for the seriousness of the pandemic, the speed with which it developed, and the not unreasonable fear (that could only have been heightened by seriously inadequate pandemic preparation, illustrated by the inadequate supplies of personal protective equipment) that it would, in the absence of radical measures, overwhelm the health service. Nevertheless, it was doubtful even at the time the lockdowns were initially imposed, let alone in the wake of the obvious and enormous harms that they would and did inflict, that they met the ethical criteria we outlined.⁴⁷

It seems clear that the lockdowns fell well short of the "strict scrutiny" standard laid down by Childress et al. The UK government, which seems to have been *far* from alone in this respect, failed to demonstrate (i) that the lockdowns would produce substantial benefits (ii) that those benefits would outweigh their obvious, enormous and long-lasting costs or (iii) that the hoped-for benefits could not have been achieved by voluntary behavioural changes encouraged and informed by public health education as opposed to highly restrictive measures enforced by the criminal law.⁴⁸ (And in England,

⁴⁵ Ashley Croft, *Report for the Scottish COVID-19 Inquiry* (July, 2023). www.covid19inquiry.scot/sites/default/files/2023-07/Dr-Croft-epidemiology-report.pdf

⁴⁶ *Id.* at 74.

⁴⁷ As early as 17 March 2020, public health experts such as Ioannidis pointed out the paucity of evidence for interventions such as lockdowns and shutting schools as well as the possibility that such interventions might cause unintended behavioural consequences that could feasibly worsen the situation, John P.A. Ioannidis, *A Fiasco in the Making? As the Coronavirus Pandemic Takes Hold, We are Making Decisions Without Reliable Data*, STAT (2020) www.statnews.com/2020/03/17/a-fiasco-in-the-making-as-the-coronavirus-pandemic-takes-hold-we-are-making-decisions-without-reliable-data/

⁴⁸ Steven Kraaijeveld, *COVID-19: Against a Lockdown Approach*, 13(2) ASIAN BIOETHICS REVIEW

enforcement by the police was generally rigorous and sometimes draconian.) Remarkably, it remains doubtful whether the UK Government (and possibly any government) conducted a serious cost-benefit analysis before locking down. Moreover, Pykett et al.⁴⁹ role) Wilson et al.⁵⁰ provide evidence that the government deliberately sidelined bodies that existed to provide expert ethical input.

In August 2022, a revealing interview with the then Chancellor of the Exchequer (or Treasury Secretary) Rishi Sunak MP (who would later become Prime Minister) provided a disturbing insight into the decision-making process.⁵¹ He disclosed that the decision to lockdown was largely a response to the modelling by Neil Ferguson and colleagues at Imperial College, London, discussed above. Ferguson and colleagues did not explore the wider social and economic costs of lockdown, (which they acknowledged would be enormous and which was not part of their model) but neither, admitted Sunak, did the UK Government. Indeed, he claimed he had not even been allowed to talk about the trade-offs within Cabinet and the official line had been not even to acknowledge them.⁵²

Sunak further reported that the then Prime Minister had wanted to present the lockdown policy as “following the science” rather than a policy decision, and the lockdown policy was effectively determined by SAGE (the Scientific Advisory Group for Emergencies). Not even members of the Cabinet knew how this committee arrived at its recommendations. Typically, Sunak said, ministers would be shown SAGE analysis pointing to horrific “scenarios” if lockdown was not imposed or extended, but not even he could find out their assumptions and rationales. It was only in December 2021, when he and others had access to alternative modelling from J.P. Morgan, questioning SAGE’s prediction that without a fourth lockdown deaths could reach 6,000 per day, that a further lockdown was averted.

195 (2020).

⁴⁹ Jessica Pykett et al., *Ethical Moments and Institutional Expertise in UK Government COVID-19 Pandemic Policy Responses: Where, When and How is Ethical Advice Sought?*, 19(2) EVIDENCE & POLICY 236 (2023).

⁵⁰ James Wilson et al., *Providing Ethics Advice in a Pandemic, in Theory and in Practice: a Taxonomy of Ethics Advice*, BIOETHICS 1 (2023). <https://onlinelibrary.wiley.com/doi/10.1111/bioe.13208>

⁵¹ Fraser Nelson, *The Lockdown Files: Rishi Sunak on What We Weren’t Told*, THE SPECTATOR (27 August 2022).

⁵² The recent emergence of ministerial communications on social media (<https://www.telegraph.co.uk/news/lockdown-files/>) seems to confirm the dysfunctional decision-making process at the heart of government. As does evidence being submitted to the ongoing official inquiry into the pandemic: <https://www.telegraph.co.uk/news/2023/10/30/covid-inquiry-uk-news-latest-boris-johnson-dominic-cummings/>

Moreover, Sunak added, the public had been subject to systematic efforts to raise the perceived threat level from the virus while being kept in the dark about the likely effects of lockdown. He said: “We helped shape that: with the fear-messaging, empowering the scientists and not talking about the trade-offs.”⁵³ He did not argue that lockdown had been a mistake, but his frank admissions are consistent with the view that the process leading to their imposition failed to meet the ethical criteria for imposing such an extreme and coercive policy.

Lord Sumption observed⁵⁴ that the Sunak interview demonstrated three important points: (i) that the scientific advice was more superficial and inconsistent than the government let on (ii) that the government stoked fear, resorting to manipulative advertising and extravagant graphics⁵⁵ and (iii) that the government not only ignored the catastrophic collateral damage done by the lockdown but actively discouraged discussion of it.

This revealing window onto the flawed decision-making process within the UK Government may help to explain why most governments failed to follow the guidance on dealing with pandemic influenza that had been published by the WHO only the year before.⁵⁶ That guidance was careful to set out the evidence base for the various measures it considered, not least the quarantining of exposed individuals. Significantly, it did not recommend quarantine, even of those who had been exposed to the virus, let alone those who had not, in any circumstances. It read: “Home quarantine of exposed individuals to reduce transmission is not recommended because there is no obvious rationale for this measure, and there would be considerable difficulties in implementing it.”⁵⁷ Commenting on the ethical aspects of quarantine, the guidance observed that the main ethical concern was freedom of movement, a concern which was greater than in relation to the isolation of infected individuals because evidence on the effectiveness of quarantine varied and because quarantine restricted the movement of asymptomatic and mostly uninfected individuals. Moreover, mandatory quarantine increased such ethical concern considerably. Further, household quarantine could increase the risk of household members becoming infected.⁵⁸

⁵³ *Supra* note 51.

⁵⁴ Jonathan Sumption, *Little by Little the Truth of Lockdown is Being Admitted: It was a Disaster*, THE TIMES (29 August 2022).

⁵⁵ See LAURA DODSWORTH, *A STATE OF FEAR: HOW THE UK GOVERNMENT WEAPONISED FEAR DURING THE COVID-19 PANDEMIC* (London: Pinter and Martin, London, 2021).

⁵⁶ *Supra* note 14.

⁵⁷ *Id.* at 47.

⁵⁸ *Id.* at 46. Although the ethical literature on lockdowns is surprisingly limited, it is noteworthy that our concerns about whether the lockdowns were justified are being echoed in relation to countries including the US and Australia: see Eric Winsberg et al., *How Government Leaders Violated Their Epistemic Duties During the SARS-CoV-2 Crisis*, 30(2) KENNEDY INSTITUTE OF ETH-

Conclusions

It is possible to imagine extreme scenarios in which a temporary lockdown might in principle be justified on public health grounds. However, because lockdowns involve grave and legally-enforced restrictions of basic rights and liberties, they must be rigorously and transparently justified.

The UK Government failed to demonstrate that the lockdowns were either a necessary or a proportionate response to the virus, evidently omitting even to conduct a cost-benefit analysis. A flawed decision-making process led to a flawed public policy. It claimed that its lockdown policy was “following the science” but some of “the science” was questionable and, in any event, a decision to close down society is a matter of prudential moral judgment, not scientific judgment. A decision to lock society down is no more a matter for scientists than a decision to go to war is a matter for the military. Moreover, although the conduct of each government would have to be considered on its merits, it is fair to say that the UK Government appears to have been far from alone in breaching the standard ethical criteria for resorting to such an extreme measure.

A key question is why governments resorted to coercive measures when the evidence suggests that voluntary behavioural changes tended to have more significant effects? Even the modelling by Ferguson et al. which was so influential in persuading politicians to impose the lockdown pointed out: “it is highly likely that there would be significant spontaneous changes in population behaviour even in the absence of government-mandated interventions.”⁵⁹ While it is proper for Government to “follow the science” (after subjecting it to proper scrutiny⁶⁰) it is even more important for it to “follow the ethics.” In the case of the UK at least, the government failed even to follow its own ethical policy for responding to pandemics, formulated back in 2007, or to seek ethical input from expert bodies which were well-placed to provide it.

The policy approach taken by the UK (and it would appear many other governments) seems to have focussed too narrowly on the suppression of the virus. Although this approach was motivated by a good end (seeking to protect life and health), the means it involved infringed a range of other important human goods including family, friendship, faith, education, and work. Life is

ICS JOURNAL 215 (2020); Eric Winsberg et al., *This Paper Attacks a Strawman but the Strawman Wins: A reply to van Basshuysen and White*, 31(4) KENNEDY INSTITUTE OF ETHICS JOURNAL 429 (2021); Katharina Ó Cathaoir, Human Rights in Times of Pandemics: Necessity and Proportionality in Morten Kjaerum et al. (eds), *COVID-19 AND HUMAN RIGHTS* (London: Routledge, 2021); Euzebiusz Jamrozik, *Public Health Ethics: Critiques of the “New Normal”*, 40 MONASH BIOETHICS REVIEW 1 (2022), and Samuel Director and Christopher Freiman *Civil Liberties in a Lockdown: The Case of COVID-19*, JOURNAL OF MEDICINE AND PHILOSOPHY 1 (2023). doi/10.1093/jmp/jhad037/7259830

⁵⁹ *Supra* note 2, at 3.

⁶⁰ Griffin Trotter, *COVID-19 and the Authority of Science*, 35 HEC FORUM 111 (2023).

not a supreme moral good. To seek to prolong it by closing schools and colleges and depriving children (who were at particularly low risk from the virus) of the good of knowledge and education; by denying people freedom to exercise religion by closing places of worship; by denying friends and family the opportunity to share precious (including final) moments together; by depriving employers and employees of the good of work and in many cases their very livelihoods, and by undermining the economy, both local and global, is tantamount to “vitalism”, a tunnel-visioned focus on prolonging life at all costs. Even adopting a blinkered focus on the preservation of life, there appears to have been inadequate consideration given to the very low risk the virus presented to the vast majority of people⁶¹ and to the number of lives that would be lost through lockdown policies themselves.

Lockdowns also aggravated social inequalities by imposing measures that hit the poor and disadvantaged hardest, such as people with disabilities,⁶² the elderly and manual workers who could not work remotely. Further, the UK Government clearly failed in its duty to be open and transparent with the public about the questionable evidential basis on which they were resorting to restrictions and about the enormous and ongoing costs lockdowns and business closures would involve to society.⁶³

Assessing lockdowns against the five criteria comprising the “strict scrutiny” framework advocated by Childress et al., a good case can be made that the UK Government failed to meet any, apart perhaps from considering, however inadequately, the number of lives it thought lockdowns would save or prolong.

The contrast with Sweden is instructive. Its Corona Commission, which was set up in June 2020 and reported in February 2022,⁶⁴ concluded that while the Swedish response to the virus was in some respects flawed, its policy of

⁶¹ Estimates of the infection fatality rate (IFR) continue to vary, but it is generally agreed that the IFR was extremely low for younger groups and those not suffering from other health issues. For example, the analysis in the *Lancet* by the Covid-19 Forecasting Team indicates a pre-vaccine IFR of 0.0023% for 7-year olds, rising to 1% for 60-year olds. Covid-19 Forecasting Team, *Variation in the COVID-19 Infection-Fatality Ratio by Age, Time, and Geography During the Pre-Vaccine Era: a Systematic Analysis*, 399 *THE LANCET* 1469 (2022). Pezzullo et al. estimate an overall IFR of 0.035% for people under 60. Angelo M. Pezzullo et al., *Age-Stratified Infection Fatality Rate of COVID-19 in the Non-Elderly Informed from Pre-Vaccination National Seroprevalence Studies*, 216 *ENVIRONMENTAL RESEARCH* 114655 (2023).

⁶² See the sources cited *supra* note 4.

⁶³ Stephen Thomson and Eric C. Ip, *COVID-19 Emergency Measures and the Impending Authoritarian Pandemic*, 7 *JOURNAL OF THE LAW AND BIOSCIENCES* 1 (2020).

⁶⁴ Corona Commission, *Final Report: Summary in English* (2022) https://coronakommissionen.com/wp-content/uploads/2022/02/summary_20220225.pdf. By contrast, the terms of reference of the British inquiry were not even published until June 2022; it did not begin hearing evidence until June 2023 and it may cost upwards of £200 million. <https://www.institute.forgovernment.org.uk/explainer/covid-19-inquiry>. The link to the inquiry’s website is: <https://covid19.public-inquiry.uk/>

not locking down and of relying instead on advice, recommendations and voluntary compliance was “fundamentally correct.” The Commission added that lockdowns are not necessary to deal with a new, serious epidemic. They infringed people’s freedom in a way that was defensible only in the face of very extreme threats; there were serious questions about their long-term sustainability, and many countries that had imposed them had significantly worse outcomes than Sweden.⁶⁵

In this paper, we have restricted our analysis to lockdowns. However, the principles we outline here could easily be applied to other Covid-19 policies such as mask and vaccine mandates. For example, Girma and Paton⁶⁶ have found that vaccine mandates for care home workers in England had no observable impact on mortality amongst elderly residents but led to a significant and potentially damaging reduction in staffing. Had such policies been subject to a more rigorous ethical analysis when being proposed, it is likely that at least some of the adverse consequences of the restrictive Covid-19 policy might have been avoided.

Looking to the future, we believe the experience of the past few years vividly demonstrates the importance of putting a clear, coherent and transparent set of ethical values and principles at the heart of the decision-making process.⁶⁷ The very heavy ethical burden of justifying such extreme policies as lockdowns lies firmly on those who would seek to impose them. Indeed, in the light of the experience of, and the evidence generated by, the Covid pandemic, we find it difficult to envisage any circumstances in which a lockdown of society in response to a future public health crisis would meet the ethical criteria we have set out.

⁶⁵ *Supra* note 64, at 3:9.

⁶⁶ Sourafel Girma and David Paton, *Covid-19 Vaccines as a Condition of Employment: Impact on Uptake, Staffing and Mortality in Elderly Care Homes*, *MANAGEMENT SCIENCE* (2023) doi.org/10.1287/mnsc.2023.4832

⁶⁷ Degeling et al. have questioned the value of ethical frameworks in responding to pandemics. Chris Degeling et al., *Why Ethical Frameworks Fail to Deliver in a Pandemic: Are Proposed Alternatives an Improvement?* 37 *BIOETHICS* 806 (2023). In our view, the key problem with the response to the Covid-19 pandemic was not that the ethical frameworks were not useful but that they were ignored. Indeed, while we acknowledge the importance of prudential judgment in responding to the particular circumstances that emerge, we cannot see how governments can feasibly respond in an ethical manner to a pandemic in the absence of reasonably clear prior guidance as to what would, and would not, qualify as ethical courses of action. We may add that, to help inform government decision-making, we see merit in the proposal of a “red team” of experts to evaluate input, scientific and ethical, that governments receive from their own advisors: see Carl Heneghan, *We Need a Covid Inquiry – But This Isn’t It*, *THE SPECTATOR* (4 November 2023).