Mandatory Vaccination for Healthcare Professionals: Preparation for Future Pandemics

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MANDATORY VACCINATION FOR HEALTHCARE PROFESSIONALS: PREPARATION FOR FUTURE PANDEMICS

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ABSTRACT

The government's reactionary response to Covid-19 has highlighted the overall inadequacy of UK pandemic preparedness planning. The circumstances required rapid decision-making, often at the expense of sufficient time and resources to recognise their potential social, ethical, and legal ramifications - one such example is the now retracted 'Vaccination as a Condition of Deployment' for healthcare professionals.

Vaccination mandates can be legally and ethically justified; however, their justification is contingent upon a number of conditions and considerations, including the contexts within which they are implemented. This thesis establishes a duty incumbent on doctors to treat in a pandemic and structures this duty as a duty to treat safely. The duty to be vaccinated is thus grounded in this duty and reinforced by the need to ensure continuity of healthcare services during a pandemic. It is argued that if voluntary vaccination is insufficient to mitigate the impacts of the virus, vaccine mandates must be considered. Using the principle of the least restrictive alternative, a four-step test is proposed to determine when and in what form a mandate should be introduced. Thus, it is argued that when vaccine mandates are justified on the basis of these criteria, they are not unfairly discriminatory and the level of coercion they involve is ethically acceptable. Ultimately, the aim of this thesis is to identify, articulate, and explain the salient ethical and legal considerations so that policymakers may proactively engage with them in advance of future pandemics.

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Clara McNeill

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1 INTRODUCTION

1.1 BACKGROUND

Pandemics are not novel, and society's endeavours to combat them are not new. Resonating throughout history Thucydides' recording the plague of Athens and its effects on Athenians in 430BC has remained one of the most famous ancient narratives of virulent disease.[1] Other prominent examples include the Black Death, which killed approximately a third of the European population between 1347 and 1350; and the 1918 Spanish Influenza Pandemic during which UK deaths exceeded births for the first time in recorded history. Notwithstanding great leaps forward in public health measures, including improved sanitation, robust healthcare systems, disease surveillance and relief programmes, pandemics still occur. On the 11th of March 2020, the World Health Organisation ("WHO") declared the outbreak of a new coronavirus, SARS-Cov-2 ("Covid-19"), the effects of which have seismically shifted global society as we know/knew it.

Constituting a risk to more than individual health, these diseases have the ability to disrupt the fundamental bases of our society and warp the threads upon which our social, economic, and political foundations rest. Every year, the Bulletin of the Atomic Scientists adjusts its iconic clock graphic, showing how close its experts think we are to midnight – 'doomsday' – due to nuclear war, pandemics, climate change, cyber war, and other threats. In 2022, that clock stayed still, its hands stuck in the same position they were placed in the year prior to the pandemic: 100 seconds to midnight, as close to the end of humanity as the clock has ever been.[2]

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[1] D Fidler, *International Law and Infectious Diseases* (Clarendon Press Oxford, 1999) 1. Thucydides describes this as a 'kind of sickness which far surmounted all expression of words [which] exceeded human nature in the cruelty wherewith it handled each one'.

[2] J Mecklin, *At Doom's Doorstep: it is 100 Seconds to Midnight. 2022 Doomsday Clock Statement* (Bulletin of the Atomic Scientists, 2022)

Scientists and public health experts identify emerging and re-emerging infectious diseases as one of the greatest public health threats facing humanity.[3] The National Risk Register of Civil Emergencies recognises the prominent threat infectious diseases pose to global and national security, and notes there is a 'high probability' of another flu pandemic occurring, and a residual risk of another outbreak of infectious disease other than Covid-19.[4] Although they are unable to predict the exact timing or severity of future pandemics many agree that another one of a similar scale to Covid-19 is likely to occur this century,[5] and as Professor Dame Sarah Gilbert warned, 'the next one could be worse. It could be more contagious, or more lethal, or both'.[6] Moreover, over two years after the announcement of the Covid-19 pandemic, this pandemic does not appear to be over: as long as there is global inequity, and some countries cannot deal with the virus there is a risk of new variants and continued transmission - this is likely to be milder as time goes on, but there are no guarantees.

The warning that a pandemic has been 'waiting in the wings' has been relayed by countless journalists, academics, and scientists. With a booming global population, there are too many people putting too much pressure on too few resources to get the food, jobs and living space they require to thrive. This means pushing into the wilderness (that harbours new infection) and intensifying food production (in new ways which harbours disease): such as the case of HIV.[7] HIV entered the human population from primates somewhere near Kinshasa, the now capital of the

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[3] J Brownlie and Others, *Foresight. Infectious Diseases: Preparing for the Future. Future Threats* (Office of Science and Innovation, London, 2006)

[4] HM Government, 'National Risk Register 2020 Edition' (HM Government, 2020) 46 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/952959/6.6920_CO_CCS_s_National_Risk_Register_2020_11-1-21-FINAL.pdf> accessed 6 July 2021

[5] M Penn, 'Pandemics Are More Likely Than We Thought' (*Duke Global Health*, 23 August) <https://globalhealth.duke.edu/news/statistics-say-large-pandemics-are-more-likely-we-thought> accessed 21 February 2022

[6] S Gilbert, 'Vaccine vs the Virus: This Race, and the Next One' (44th Dimbleby Lecture, 6 December 2021)

[7] I Sample, 'HIV Pandemic Originated in Kinshasa in the 1920s, Say Scientists' (The Guardian, 2014) <https://www.theguardian.com/science/2014/oct/02/hiv-aids-pandemic-kinshasa-africa> accessed 21 November 2022

Democratic Republic of Congo, around the early 1900s. Yet, it was not identified in humans until the late 1980s having spread through transport links. It was the developing areas of infrastructure that pushed the virus along dusty dirt roads, and then to the harbours, the airports, and eventually across the globe.[8] Other viruses have emerged from humans disturbing the environment: such as the bat borne Nipah virus, which causes encephalitis and has been traced to intensive agricultural practices and climate change. In total, it's estimated that three quarters of all novel emergent viral diseases over the past 20 years are zoonotic in origin, transmitted mainly from bats, rodents and birds.[9] Research also suggests that as many species become extinct, those that thrive are more likely to be the ones known to host pathogens dangerous to humans.[10] Furthermore, the impact of newly unearthed pathogens is magnified by our ever-increasing global connectedness; as populations crowd into cities to trade and travel in an ever-denser global network of contact, disease propagates and persists.

Notwithstanding these warnings, the chaos caused by Covid-19 and the grim certainty of future pandemics has emphasised the necessity of revisiting and revising preparedness policies, which include surveillance and modelling; reducing transmission; lessening pressure on public health services; vaccination; and surge plans all to minimise serious illness and death. One strand of this multi-faceted response concerns the significant strain the pandemic will place on the healthcare system; as not only will there be high numbers of persons requiring medical treatment, but there will also be fewer healthcare professionals available to take care of them as they are at significantly higher risk of infection, illness and death than the general populous. Healthcare professionals are the vanguard of the public health response to pandemic disease.[11] Success stories such as the containment of lethal infections like

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[8] Ibid

[9] K Jones, N Patel, and M Levy, 'Global Trends in Emerging Infectious Diseases' (2008) 451 *Nature* 990, 994

[10] F Keesing and R Ostfield, 'Impacts of Biodiversity and Biodiversity Loss on Zoonotic Diseases' (2021) 118(17) *National Academy of Sciences* 1

[11] Throughout the Covid-19 pandemic, the role of essential workers who have ensured the continuation of services including education, childcare, transportation as well as other key sectors have emerged as vital to managing society and the outbreak. The toll it has taken on these workers has

Ebola in Western Africa were underpinned by meticulous epidemiological understanding, community education, adequate staffing and provision of equipment. The mortality rates of healthcare professionals decreased from 25% to 3.9% following the application of their knowledge and expertise to managing outbreaks.[12] Thus, it follows that a primary concern of pandemic planning must be to ensure that structures are put in place to protect healthcare professionals in order to safeguard continued access to healthcare services.

Amongst the many challenges that the healthcare system will face during a pandemic, one of the greatest will be ensuring an adequate supply of healthcare professionals, especially as the health service is already experiencing staff shortages. The role of a healthcare professional within a pandemic will be complicated by resource limitation and the risk of falling ill. However this need not be the limiting factor, as it is the general consensus that the introduction of vaccines against infectious diseases has been one of the most important contributions to public health of the last century.[13] A vaccine, when developed, would not only save lives, but it brings with it the opportunity to 'change the course of the pandemic: it would protect those who were vaccinated from getting sick, and by reducing the number of susceptible people, it would prevent the virus from spreading, thus also protecting the unvaccinated'.[14] It would safeguard those treating from contagion, as well as those being treated from nosocomial infection.

Novel platform technologies have facilitated rapid and safe vaccine development, for example by 22nd of April 2022 – 101 days after the genetic code of novel coronavirus was made publicly available online, Covid-19 vaccinations were already available for

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been significant, in terms of both infections and mortality. The Lancet, 'The Plight of Essential Workers During the COVID-19 Pandemic' (2020) 395(10237) *The Lancet* 1587

[12] CDC, 'Ebola (Ebola Virus Disease)' (*Centre for Disease Control and Prevention*, 2018) <https://www.cdc.gov/vhf/ebola/history/summaries.html> accessed 21 February 2022

[13] B Greenwood, 'The Contribution of Vaccination to Global Health: Past, Present and Future' (2014) *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 369(1645) 1

[14] The Economist, 'Briefing: Creating immunity to Covid-19' *The Economist* (London, 18 April 2020) 13

clinical human trials.[15] When approved for public use, vaccines will initially be limited, and thus a regular feature of pandemic planning is prioritisation. The UK's Pandemic Policy has identified frontline healthcare professionals as the highest priority group to receive a vaccine when available as a reflection of their key worker status.[16] This would mean that not only would that healthcare professional be protected against the disease, but this would also go some way to limit the exposure of those who have not yet been vaccinated by virtue of health, age, or other status. If the pandemic was highly infectious and lethal, it is likely that everyone who has been offered a dose will gladly accept the protection it offers, however if this virus is not likely to cause death or serious injury in healthy adults, it is likely that healthcare professionals may not accept it so willingly.

As with any medical intervention, preventative or otherwise, the competent refusal of medical treatment – even where fatal – must be honoured. The exercise of choice by competent adults is the cornerstone of medical law. An important characteristic of vaccines which sets them somewhat apart from medical treatment, is that they provide both individual and community protection. Most healthcare professionals work in settings with clinically vulnerable persons and have a duty to those persons, by virtue of their profession, not to cause harm. If the uptake of the novel vaccination is insufficient to counter the threat to public health posed by a particular disease, then it is proposed that a revision of the voluntary nature of vaccination may justifiably be included within the remit of public health policy as the harm posed by such refusals may warrant necessary and proportionate restrictions on choice.

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[15] S Gilbert (n 6)

[16] Department of Health, UK Influenza Pandemic Preparedness Strategy (Department of Health, 2011) 42; Joint Committee on Vaccination and Immunisation, 'Advice on Priority Groups for COVID-19 Vaccination' (Department of Health and Social Care, 30 December 2020) <https://www.gov.uk/government/publications/priority-groups-for-coronavirus-covid-19-vaccination-advice-from-the-jcvi-30-december-2020/joint-committee-on-vaccination-and-immunisation-advice-on-priority-groups-for-covid-19-vaccination-30-december-2020> accessed 21 November 2022

1.2 RESEARCH QUESTION

Many challenging legal and ethical questions have been raised in relation to pandemic pressure and a healthcare professional's role within the response, however this thesis will discuss only one topic, albeit a narrow one, with the aim of shedding light and providing guidance on the complexities of public health interventions implemented to curb and control outbreaks of infectious disease. It asks: in the face of a pandemic, and in response to a novel highly communicable infectious disease, under what circumstances, if any, can healthcare professionals be compelled to accept vaccination?

This question is pertinent for the simple reason that a pandemic, by its very status as a global health emergency, demands the answer to such questions at the epicentre of the crisis. This inherent urgency poses a two-fold risk: firstly, if decisions are not taken on whether prospective treatments can be mandated, the disease is allowed to spread, and secondly, if questions of compulsion and/ or enforcement are not given sufficient thought, human rights and civil liberties may be (inadvertently) compromised. Cave highlights that future pandemics are inevitable and without due consideration, the 'potential for emergency responses to exceed the boundaries of proportionality is clear'.[17] How can we prepare so that these questions are properly considered and debated before the emergency arises? Thus, this thesis will explore the question now, in anticipation of future iterations of pandemics.

1.3 DEFINITIONS

To enhance clarity and define focus, this thesis will review the role of healthcare professionals with particular focus on the National Health Service ("the NHS") and will use the pandemic response in England as an example from which we can learn globally. Further, it will use a definition of a healthcare professional to include only medical doctors, and will only review guidance from their regulatory body; the General Medical Council. It goes without saying that patients could not be treated, and hospitals could not function without the great efforts of additional clinical staff,

[17] E Cave, 'Voluntary Vaccination: The Pandemic Effect' (2017) 37(2) *Legal Studies* 279, 294

porters, cleaning, laundry, catering, and management staff, and these nonclinical workers are also at risk of harm. The concerns of other healthcare professionals tend to correspond with those of medical doctors, and the focus on doctors in no way suggests that they are the only group of healthcare professionals with an important stake in pandemic policies. Greater clarity regarding the duties and responsibilities of doctors during a pandemic will help inform discussion about the interests of other healthcare professionals and hospital staff. The NHS employs thousands of people, many of whom will be affected by the creation of legal frameworks which enforce or compel those in clinical settings to accept vaccination. Further research is required into the role of clinical, non-clinical, and non-specialised staff in a pandemic response; however, it is beyond the remit of this thesis.

Furthermore, the evaluation of the duties and responsibilities of healthcare professionals to patients will be confined to the context of the direct relationship between a doctor and an already established patient, and encompasses the care provided to patients within a clinical environment. Additional ethical and legal considerations arise in situations where a healthcare professional is providing emergency assistance to members of the public, for example at a road traffic accident. In many common law jurisdictions, including the UK, Good Samaritan legislation protects healthcare professionals from liability to encourage those with specialised skills to offer assistance in an emergency,[18] however this generally does not impose any positive legal obligation on them. [19] Accordingly, in order to evaluate the legal and ethical obligations owed by healthcare professionals to their patients, this thesis will examine established doctor-patient relationships through which doctors have accepted an undertaking to advise and treat their patients with reasonable skill and care.

In order to define the parameters of the pandemic context, this thesis will incorporate the WHO's classification of a Public Health Emergency of International Concern which can be understood as occurring when a situation arises that is 'serious, sudden,

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[18] K Williams, 'Doctors as Good Samaritans: Some Empirical Evidence Concerning Emergency Treatment in Britain' (2003) 30(2) *Journal of Law and Society* 258

[19] Social Action, Responsibility and Heroism Act 2015

unusual, or unexpected', and which 'carries implications for public health beyond the affected state's national border' and 'may require immediate international action'.[20] The thesis is therefore looking beyond the ordinarily established doctor-patient relationship, to one in the circumstance of an outbreak of a pandemic which poses significantly higher occupational risk to the treating healthcare professional.

Finally, the review that follows hinges on the scientific viewpoint and assumption that vaccinations are safe and effective, as well as that there are institutional and legal safeguards in place to guarantee this safety and efficacy. The vaccinations considered for a mandate are only novel vaccines developed in response to a pandemic threat rather than the routine vaccinations already recommended for healthcare professionals in the Green Book.[21]

1.4 STRUCTURE

Five substantive chapters shall address the central question of under what circumstances, if any, can a doctor be compelled to accept vaccination. The analysis will begin by establishing a duty incumbent on doctors to treat in a pandemic, notwithstanding the risks to self. This shall develop into a duty to treat safely, and it will then be argued that an important aspect of safety is to protect patients from vaccine preventable disease. The duty to be vaccinated is partially predicated on the duty to treat (safely) and is strengthened by the need to protect the workforce to ensure the continuation of medical treatment and protect lives. It will follow that if voluntary uptake of a vaccination proves to be insufficient to mitigate the impacts of the virus it is pertinent to look to vaccine mandates. All of this shall lead to a discussion of the importance of ensuring necessity and proportionality of any forms of vaccine mandate. It is evident that no single ethical theory accounts for the various factors in a pandemic, the thesis will rely on utilitarianism to protect the workforce, a deontological analysis to review healthcare professional's autonomy, and apply virtue ethics to the patient's best interests – a pluralist account is needed to take all these factors into consideration.

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[20] World Health Organisation, 'Strengthening Health Security by Implementing the International Health Regulations (2005)' (*World Health Organisation*, 2005) <https://www.who.int/ihr/procedures/pheic/en/> accessed 3 February 2021

[21] UK Health Security Agency, *The Green Book* (UK Gov, 2022) 85

There is a considerable amount of social and historical analysis throughout this work to frame the primary issues as in order to ground any potential legal response to vaccine hesitancy, there must be an embedded knowledge of the social landscape upon which the mandate sits.

Chapter I shall firstly establish the extent of a doctor's duty to treat during a pandemic, as there is no need to consider a mandate if there is no one there to issue one on. The duty of a healthcare professional to treat is never so relevant than in the pandemic context, and the moral imperative to place patient welfare above personal wellbeing has been challenged by the risk of infection, serious illness or death. Conflicts within existing academic commentary indicate the duty to treat is not a strictly defined and absolute duty, and there is little consensus as to how explicitly and stringently the requirement for the duty to treat should be stated. Thus, this chapter will explore its remit by evaluating the significance of several supporting elements of the duty including consent, professional codes and obligations, special training, reciprocity and the function of public health ethics in further bolstering a duty to treat in a pandemic. The tension between beneficence, the prioritisation of the patients' best interests, and the healthcare professional's autonomy in the face of significant personal danger is analysed. The chapter will conclude that the duty to treat is not absolute however is strengthened with the introduction of protective measures like vaccination.

Next, Chapter II shall develop this conceptualisation of a duty to treat in order to map a healthcare professional's duty to treat safely. It will explore the ethical principles of beneficence and non-maleficence which form the basis of the duty to treat safely and proposes that vaccination is reasonably included within this as a proactive measure to reduce nosocomial transmission and ensure the continuation of essential healthcare services during pandemics. Following this conclusion, there are clear circumstances within which accepting vaccination is incorporated in a healthcare professional's duty to treat safely, which begs the question as to why voluntary uptake generally does not reach the threshold to mitigate against infection and transmission. This chapter shall evaluate why acceptance rates are low, through a review of vaccine hesitancy, and then explore the strength of existing professional guidance in compelling healthcare professionals to accept vaccinations. Consequently, in the context of continuing pathogenic risk and the existence of continued scepticism among some, this chapter

will argue that a vaccination programme which relies wholly upon voluntary action may not be sufficiently robust to protect against the risk of infection.

Chapter III will then explore a healthcare professional's moral obligation to accept vaccination. It recognises that traditionally the case for mandating vaccination has largely been made on consequentialist principles, suggesting that vaccination is morally demanded by principles of fairness and the maximisation of utility, and that mandating uptake is therefore justified. Whilst the aim of this thesis is to look to how vaccine mandates can be justified, it proposes that the consequentialist analysis is not watertight as its understanding of what is easy (and fair) takes no account of differing individual perspectives. Therefore, the chapter will employ a deontological analysis to suggest that, in the context of the pandemic, a healthcare professional's duty to treat safely extends to unfavourable choices, supporting a moral obligation to choose vaccination even where they would prefer not to

Chapter IV shall consequently explore how vaccine mandates can be justified as a necessary public health intervention through an examination of the recent caselaw on compulsory vaccinations, and evaluation of a parity argument for compulsory medical treatment under the Mental Health Act. It shall be demonstrated through domestic and international jurisprudence that vaccine mandates can be necessary and proportionate with regard to the pandemic context, and as such due consideration must be given to the implementation of any such policy.

Finally, the last substantive chapter, Chapter V, shall explore the framework through which vaccine mandates could be implemented within the public health agenda of collective protection and social justice. An original framework for the appropriate implementation of vaccine mandates in future pandemics shall be proposed. The relevant criteria are the degree of harm caused by the pandemic disease, the safety and efficacy of the vaccine, the existence of less restrictive alternatives that can achieve comparable benefits, and the level of coercion. This chapter will propose that when vaccine mandates are introduced after satisfying these criteria, they are not unfairly discriminatory and the level of coercion they involve is legally and ethically defensible as a reflection of the importance of sustaining the provision of healthcare services during the pandemic.

The time has come to exculpate the discourse on mandatory vaccination and this thesis will explain that in certain conditions, provided the principle of proportionality is observed, mandatory vaccination of healthcare professionals constitutes a justifiable public health response to a pandemic and a valuable method of ensuring healthcare professionals can safely continue to treat throughout the crisis.

We live in a world of globalised health, where an infectious disease outbreak has the potential to spread panic, death, and disruption, in less time than it once took to deliver a letter. Given this, and the recognised scope of pandemic diseases to wreck unassailable havoc, the possibility, indeed, the probable necessity, arises for a state response to the jurisdiction and capacity of vaccination policy. On the back of the Covid-19 pandemic, this thesis calls for a continuation of the dialogue on vaccination mandates to ensure robust policies are explored and implemented now, before they must be made in haste, in the absence of sufficient time or resources for proper consideration of the ethical and legal quagmires contained within.

2 CHAPTER I: THE DUTY TO TREAT DURING A PANDEMIC

By virtue of their professional expertise healthcare professionals are at the forefront of an effective public health response to pandemics, and they will have central roles in diagnosis, containment and treatment.[1] In general practice, healthcare professionals understand they have a duty to treat patients and they perform this duty in accordance with recognised codes of medical practice, standards of care, and personal motivation to pursue their vocation. However, in the extraordinary situation of a pandemic involving a highly infectious novel disease, the moral imperative to place the welfare of the patient above all else is somewhat shifted.

It is, in principle, expected that healthcare professionals would continue to provide care during a pandemic in order to prevent healthcare systems becoming entirely overwhelmed and ensuring clinically necessary treatment can carry on. However, to do so will oblige healthcare professionals to accept higher risks of infection, serious illness, and death.[2] The increased exposure has serious ramifications for patient care, with a significant proportion of staff being infected and unable to work as a consequence of being unwell or shielding; this risk is exacerbated where protective equipment and effective treatments are lacking.[3] Furthermore, working under the sustained pressure of a pandemic has serious implications for a healthcare professional's mental health and can lead to burnout.[4]

This chapter will examine the origin of a healthcare professional's duty to treat, with an exploration of the contractual doctor-patient relationship, and the relevant legal and ethical duties arising from it. The commentary will build on the tension between

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[1] K Iserson, 'Healthcare Ethics During a Pandemic' (2020) 21(3) *Western Journal of Emergency Medicine* 477, 477

[2] During the SARS pandemic, 30% of known cases were of healthcare professionals qv World Health Organisation, *Consensus Document on the Epidemiology of Severe Acute Respiratory Syndrome (SARS)* (Washington, World Health Organisation, 2003) 13

[3] A Remuzzi, 'COVID-19 and Italy: What Next?' (2020) 395(10231) *The Lancet* 1225, 1225

[4] M Deakin, 'NHS Workforce Shortages and Staff Burnout are Taking a Toll' (2022) 377(945) *British Medical Journal* 1 <https://www.bmj.com/content/bmj/377/bmj.o945.full.pdf> accessed 15 June 2022

beneficence, the obligation to act in the patient's best interests, and a healthcare professional's autonomy and well-being within the pandemic context.

This chapter will ultimately show that the *prima facie* duty to treat, however attractive initially, is insufficient to sustain a robust duty to treat during a pandemic. This reflects the assumed risk of personal harm,[5] in balance with a healthcare professional's competing duties to future patients, their families, and colleagues.[6] On the basis that a central focus of the pandemic response is to ensure enough healthcare professionals are available to treat the sick, this chapter seeks to clarify the limits of a healthcare professional's duty to do so. By understanding the ruffled edges of this duty to treat, it shall set the stage for discussion of vaccine mandates as a method of ensuring the workforce is well protected and able to continue to provide care to wider society.

2.1 THE DOCTOR-PATIENT RELATIONSHIP

The relationship between doctors and their patients has received philosophical, sociological, and literary attention since Hippocrates, and a sound understanding of this relationship can guide decision making in healthcare plans. The doctor-patient relationship (the "DPR") plays a critical role in healthcare, and it is closely associated with treatment adherence, patient satisfaction, and treatment outcome.[7] Spece and Shimm proffer a 'good citizen' model of this relationship, theirs' is a complementary, over-arching ethical construct of direct patient interaction.[8] The good citizen model allows circumscribed consideration of societal and third-party interests. Invoking various ethical theories and concepts they surmise: 'As a *citizen* that physician must

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[5] D Sokol, 'Virulent Epidemics and the Scope of Healthcare Workers' Duty of Care' (2006) 12 *Emerging Infectious Diseases* 1238, 1238

[6] A Simonds and D Sokol, 'Lives on the Line? Ethics and Practicalities of Duty of Care in Pandemics and Disasters' (2009) 34(2) *European Respiratory Journal* <http://dx.doi.org/10.1183/09031936.00041609> accessed 23 February 2021

[7] Y Zhou and Others, 'Doctor-Patient Relationship Improved During COVID-19 Pandemic, But Weakness Remains' (2021) 22(225) *BMC Family Practice*

[8] R Spece and D Shimm, 'Discovering the Ethical Requirement of Physicians' Role in the Service of Conflicting Interests and Healers and as Citizens' in R Spece, D Shimm and A Buchanan (eds) *Conflicts of Interests in Clinical Practice and Research* (Oxford University Press, 1996) 52

act for the good of specific third parties or society when the patient poses a threat of disproportionate harm'.[9]

The legal duty owed by a doctor to a patient occurs in tort and contract; in both instances, it is an undertaking to 'advise and treat' a patient with reasonable skill and care.[10] Once the DPR is established, doctors have a duty not to abandon their patients as part of their freely accepted professional duties, and to offer treatment that is in their patient's best interests.[11] This duty is qualified. For example, it is limited by futility, whereby the doctor cannot be compelled to provide treatment that would not benefit the patient.[12]

2.2 THE ORIGINS OF THE DUTY TO TREAT

Despite a positive duty to treat, providing an ethical justification for this duty is challenging and the current lack of clarity is, in part, reflective of the persistent indecisiveness amongst healthcare professionals concerning appropriate conduct. The question of whether and to what extent healthcare professionals have a duty to treat during a pandemic has a long pedigree.

Scholarship on the history of medical ethics reveals that the medical community has never arrived at a consensus on the nature and scope of its responsibilities during outbreaks of infections and (lethal) disease.[13] Between the early nineteenth and now twenty-first century, a duty to treat even at sizable personal risk has been generally accepted by physicians. However, before then, healthcare professionals, acting according to their own individual predilections, fled from outbreaks of uncontrolled disease with high mortality rates to avoid infection. Galen, the doctor who described the Antonine plague, left Rome for the countryside at the height of the epidemic – though, two years later when the plague reached the Pergamon where he was seeking

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[9] *ibid* 52

[10] *Breen v Williams* (1996) 186 CLR 71

[11] General Medical Council, *Good Medical Practice* (2013) 4

[12] *Airedale NHS Trust v Bland* [1993] 789, 869

[13] A Zuger and S Miles, 'Physicians, AIDS and Occupational Risk: Historical Traditions and Ethical Obligations' (1987) 258 *Journal of the American Medical Association* 1924

refuge, Galen claimed to have received a dream from Asclepius requiring him to return to Rome. In Philadelphia, during the yellow fever outbreak of 1793, three prominent doctors left the city for the countryside to try and avoid contact with the disease.[14] Further, during the AIDS crisis of the 1980s, healthcare professionals were faced with the stark reality that epidemics were still occurring and risking their lives to treat patients was still just as much part of the job description as it had been in Marcus Aurelius' Rome. Some clinicians, when informed that there was a small chance of contracting a disease, which was then thought to be fatal, stated that they could not work in those conditions; it was only after data proved that the risk of patient-to-patient transmission was low that a strong justification of the duty to treat could be enforced.[15]

In contrast, throughout the recent Covid-19 pandemic, many retired and former healthcare professionals returned to work to assist in the pandemic response - and their commitment to treat, despite increased personal risks, was imperative to a successful public health response.[16] Though, at this time there were also examples of healthcare professionals being referred to regulators after they delayed seeing a Covid positive patient.[17] Many doctors have confirmed that they would be willing to continue to provide care for patients in the event of an outbreak of an unknown but potentially deadly illness, and some went so far to say that they would be willing to put themselves at risk of contracting the deadly illness to save others' lives.[18] There is no coherent historical basis upon which to understand the duty to treat, and thus, in the face of relative ethical disarray of a pandemic, the dichotomy between a healthcare professionals' traditional ethical obligation and right to autonomy must be evaluated and understood.

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[14] *ibid*

[15] P Wallis, 'Debating a Duty to Treat: AIDS and the Professional Ethics of American Medicine' (2011) 85(4) *Bulletin of the History of Medicine* 620

[16] D Anantham and Others, 'Clinical Review: Influenza Pandemic - Physicians and their Obligations' (2008) 12(3) *Critical Care*

[17] C Dyer, 'COVID-19: Healthcare Professional Is Referred to Regulator for Delaying Seeing a Patient Because of Lack of PPE' (2020) 370 *British Medical Journal* m3201

[18] N Schluger, 'Suppose They Gave an Epidemic and Nobody Came?' (2008) 8(8) *American Journal of Bioethics* 23

2.3 THE NATURE OF THE DUTY TO TREAT

The duty to treat is a positive obligation to provide treatment, and in the pandemic context implies that healthcare professionals should continue offering treatment irrespective of a patient's infective status, and the exposure risk this carries for them. Practicing in these conditions demands much more of a healthcare professional, potentially including: working increased hours whilst wearing restrictive personal protective equipment ("PPE") (when it became available); undertaking tasks outside the remit of general responsibilities; and/or exposing themselves to a risk of infection or death when providing care to their patients.

One promising starting point for this inquiry is to focus on the medical need of the infected patients and their right to access healthcare, notwithstanding that these persons harbour a potentially lethal virus and many may be contagious. This assertion has been debated over time, with most scholarly debate existing in the context of a physician's duty to treat patients suffering from AIDS in the 1980s, which was the first disease in several generations to raise the question of the existence of a duty to care.[19] A compelling response to this need is to claim that it initiates either an individual right to treatment or a social duty to provide it. This approach suggests that as a result of the central claim patients have to treatment, each person who requires treatment has a claim, grounded in justice, to the provision of healthcare.[20] However, to follow this argument neglects a healthcare professional's other, competing, obligations towards their other patients, the health service, and to their family, friends and to themselves. The duty to treat, therefore, cannot be absolute.

Mr Amged El-Hawrani, aged 55, was an associate Clinical Director and ENT Consultant at University Hospitals of Derby and Burton. He was the first British hospital doctor to die of Covid-19 and his death prompted outpouring of emotion and gratitude across the UK for the NHS and its staff who exposed themselves to risk in

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[19] J Arras, 'The Fragile Web of Responsibility: AIDS and the Duty to Treat' (1988) 18(Suppl 2) *Hastings Central Repository* 10, 20; J Harris and S Holm, 'Is There a Moral Obligation Not to Infect Others?' (1995) 311(7014) *British Medical Journal* 1215, 1217

[20] J Rawls, *A Theory of Justice* (Cambridge, Harvard University Press, 1971) 102, 103

the line of duty. [21] In order to answer the question of whether a vaccine mandate can be justified, this chapter examines the nature and extent of a healthcare professional's duty to treat in the pandemic context. It concludes that the duty is not absolute, and that clinical staff, like Mr El-Hawrani, cannot be compelled to treat at significant risk to themselves. However, it will be shown that where the risk to healthcare professionals can be lessened (for example through safe and effective vaccinations) the scales are re-weighted and the duty is strengthened. Ultimately, the pandemic response aims to ensure that healthcare systems can continue to provide treatment and this chapter sets the backdrop to understand initial staffing issues and why mandatory vaccination could be considered in pre-pandemic planning to support the workforce.

2.3.1 The Legal Duty

There is limited case law, literature, and legislation concerning a healthcare professional's legal duty of care during a pandemic.[22] Conflicts within existing commentary indicate the duty to treat is not strictly defined.[23] Since the mid-1980s, medical historians have accepted Zuger-Miles' theory that prior to the twentieth century there was no 'strong or consistent' tradition of the nature of a healthcare professionals' duty to treat during an epidemic as, in the absence of official guidance, each healthcare professional is left to make a personal decision as to how far their duty to treat extends.[24]

Without a specific legislative provision, the legal duty to treat during a pandemic is defined by the general body of law regulating established doctor-patient and doctor-employer relationships.[25] Only a few jurisdictions, like the United States, have specific

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[21] NHS England, 'NHS Confirms First Death of a UK Doctor Due to Coronavirus' (*Pulse*, 30 March 2020) <https://www.pulsetoday.co.uk/news/uncategorised/nhs-confirms-first-death-of-a-uk-doctor-due-to-coronavirus/?cmpredirect> accessed 10 February 2021

[22] A Schwartz, 'Doubtful Duty: Physicians' Legal Obligation to Treat During an Epidemic' (2007) 60(2) *Stanford Law Review* 657, 659

[23] C Ruderman and Others, 'On Pandemics and the Duty to Care: Whose Duty? Who Cares?' (2006) 7(6) *BMC Medical Ethics* <http://dx.doi.org/10.1186/1472-6939-7-5> accessed 10 February 2022

[24] A Zuger and S Miles (n 13) 1924

[25] General Medical Council (n 11) 4

legislative provisions regulating the duty of doctors to treat patients during a pandemic, although the rising toll of the current pandemic may induce later legislative action in other nations.[26] Accordingly, the duty to treat is contractual, as between the doctor and the individual patient, or found in the framework of the doctor–hospital employment contract and is thus concluded with the termination of said contract.

2.3.2 The Ethical and Moral Duty

Notwithstanding the structural limitations of existing legal frameworks pertaining to healthcare professionals' duties, this subsection turns to fill the void regarding healthcare professionals' duties to patients in a pandemic. It will be shown that there is a strong ethical duty to treat, which is reflective of rules provided by an external source, such as GMC guidance, and grounds for a robust moral duty which stems from an individual's own principles regarding right and wrong.

This discussion acknowledges that the degree of risk a healthcare professional can reasonably be expected to confront during a pandemic is far from clear. And further, it recognises that as a consequence of the lack of comprehensive legal guidance addressing healthcare professionals' obligations in a pandemic, it is impossible to create a bright-line test for determining what exactly healthcare professionals should and should not be obliged to do in such circumstances. Therefore, this section shall expand Malm et al's framework to evaluate the impact of four significant moral and ethical grounds including: the assumption of risk; oaths and codes of conduct; special training; and reciprocity in shaping the duty to treat in a pandemic.[27]

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[26] The Model State Emergency Health Powers Act (MSEHPA) was commissioned by the Centres for Disease Control in 2001, following the September 11 aircraft hijackings and anthrax letter attacks. Section 608(a) of MSEHPA affords State authorities the power, during a declared public health emergency, to require healthcare professionals to provide treatment as a condition of retaining their medical licence within that State. Further, the state of Maryland has imposed criminal liability on healthcare providers who refuse an order from the State Governor to respond to outbreaks of disease.

[27] H Malm and Others, 'Ethics, Pandemics and the Duty to Treat' (2008) 8(8) *American Journal of Bioethics* 4

2.3.2.1 The Assumption of Risk

Some commentators purport that healthcare professionals have an inherent obligation to work during an infectious-disease pandemic because they 'assume the risk' of exposure to infectious diseases when they voluntarily commit themselves to the profession.[28] The supporters of a strong duty to treat propose that consent by healthcare professional provides a convincing– and possibly the strongest – ground for asserting the existence of this duty.[29] Ruderman commentates that 'any informed reading of the medical literature in the last 20 years has shown that infectious diseases remain ubiquitous and problematic'.[30] Therefore, as a consequence of these known dangers, it is held that these recognisable risks are reasonably included within the remit of the professional obligations which are implicitly consented to when accepting a vocational career in healthcare.[31] Orentlicher continues that the physician's role in a pandemic is not exceptional compared to other service professions (e.g., police officers and firefighters). He notes that 'when medical students embark on their careers, they understand the risks that they will face… [the] occupational risks for physicians are by no means exceptional'.[32] Thus, the assumption of risk should be understood as 'part of joining the profession and affirming its objective to helping the needy'.[33]

This assumption indicates that a healthcare professional has given explicit consent, for example by signing an employment contract, when accepting the role.[34] Further, with regard to the degree of risk, Orentlichter observes that the risks to health in a pandemic are 'increasingly diminished' with the efficacy of new vaccines and appropriate use of PPE.[35]

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[28] C Ruderman and Others (n 23)

[29] H Malm and Others (n 27) 7

[30] C Ruderman and Others (n 23)

[31] D Gardiner, 'Are You Coming to Work During Pandemic Flu?' (2008) 63 *Anaesthesia* 803, 803

[32] D Orentlicher, 'The Physician's Duty to Treat During Pandemics' (2018) 108(11) *American Journal of Public Health* 1459, 1461

[33] K Iserson and Others (n 1) 346

[34] M Selgelid, 'Pandethics' (2009) 123(3) *Public Health* 255, 259

[35] D Orentlicher (n 32) 1461

The challenge, however, with basing a duty to treat on explicit consent lies with the indeterminate nature of this consent: an explicit consent will hardly ever be sufficiently certain to compel healthcare professionals to act in specific ways; employment contracts seldom detail all rights and duties of the employee. Hence, even if one could prove a healthcare professional had explicitly consented to assist in times of crises, the precise risks and burdens cannot be stated with accuracy in advance and must be open to a certain amount of interpretation.[36] However, according to Kotalik, this inherent ambiguity is not problematic as healthcare professionals have a strong ethical obligation to serve and accept hardship regardless of whether the risks of serious infectious diseases were specifically highlighted when they began their profession.[37]

Nonetheless, many healthcare professionals have never made a commitment to treat potentially infectious patients. Medicine is no longer generalised, and many professionals practicing in peripheral fields like radiology, psychiatry, or ophthalmology, can reasonably maintain that they did not consent to the risk of treating serious infectious diseases when they consented to their job, other than the assumed background risk of exposure.[38] The risks of treating infectious diseases are not obvious in or central to some areas of medicine, and numerous healthcare professionals have selected their field of practice as a result of its low risk of exposure.

It therefore follows, that an absolute duty to treat cannot be applied to the range of professionals and specialisms needed to maintain the healthcare system during a pandemic – keeping in mind that as well as treating those infected with disease, essential medical practice, like cancer treatment, will continue. Malm asserts the duty to treat is a duty of professionals by virtue of their position as professionals,[39] and though what defines a profession may be the subject of some debate, there is consensus

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[36] i.e., pandemics of highly communicable disease, like SARS-COV-2 and respiratory pathogens, in comparison to pandemics of specific transmission like HIV/AIDS which are unlikely to infect the healthcare professional with suitable mitigations in place.

[37] J Kotalik, 'Preparing for an Influenza Pandemic: Ethical Issues' (2005) 19(4) *Bioethics* 422

[38] H Malm and Others (n 27) 8

[39] H Malm and Others (n 27) 9

that it includes occupational regulation and specialised training. Thus, whilst others may be said to do their jobs professionally, in the sense of doing their jobs in a responsible, dedicated, and competent manner, it is only members of a profession who have a moral duty to treat. Accordingly, when the duty to treat is understood as a duty of professionals *qua* professionals, further grounds to defend the duty emerge.

2.3.2.2 Oaths and Codes of Conduct

A number of ethical duties flow from the doctor-patient relationship examined above, which has a prominent foundation in the Hippocratic Oath, a form of which is still included as part of the graduation of many medical students in the United Kingdom.[40] These duties are enshrined by medical professional organisations as codes of conduct.

2.3.2.2.1 Duty of Beneficence

Before dealing with codes of conduct, it is important to consider the general duty of beneficence towards patients. Beneficence is one of the four principles of Beauchamp and Childress's medical ethics and encompasses a positive moral obligation to act in another's best interests, including preventing harm to another person, protecting another person's rights and rescuing people in danger.[41] With respect to healthcare professionals, beneficence manifests as the duty to act in a manner which promotes the welfare of patients and makes the best interests of the patient the paramount consideration.[42] Nonetheless, this is subject to reasonable limitations. The duty to rescue is not grounded in English common law, this is reflective of the respect for

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[40] Now restructured as 'the Physician's Pledge'. World Medical Association Declaration of Geneva (amended 2017) <https://www.wma.net/policies-post/wma-declaration-of-geneva> accessed 10 February 2021. See B Green, 'Use of the Hippocratic or Other Professional Oaths in UK Medical Schools in 2017: Practice, Perception of Benefit and Principlism' (2017) 10(1) *BMC Research Notes* 777

[41] T Beauchamp and J Childress, *Principles of Biomedical Ethics* (Oxford, Oxford University Press, 2001)

[42] General Medical Council (n 11) 1 'The duties of a doctor registered with the General Medical Council. Patients must be able to trust doctors with their lives and health. To justify that trust you must show respect for human life and make sure your practice meets the standards expected of you… [you must] Make the care of your patient your first concern; [and]… Protect and promote the health of patients and the public'

individual autonomy within Western legal and philosophical tradition. A failure to act with the positive moral obligation of beneficence usually would not attract a legal penalty, as it imposes a standard beyond that typically expected of the ordinary person.

To act with beneficence towards patients, the medical profession has chosen to uphold a higher ethical standard than society would generally demand of the individual. In return, doctors receive reciprocal benefits including social status and financial remuneration. Further, doctors have an implicit contract with society, generally through subsidised medical education, to apply their specialised skills during a pandemic for the public good.[43] Pelkas and Boisseau summarise this, 'in upholding values of beneficence and prioritising the needs of their patients above their own, many regard doctors as accepting a degree of risk in their daily work, including the risk of infection'.[44]

2.3.2.2.2 Professional Regulation

In the absence of specific legislative provisions regarding this duty, and in response to the multitude of reactions during epidemics, the General Medical Council ("the GMC"), founded in 1858, provides doctors with ethical and legal guidance. The GMC's first code of medical practice, the so-called 'Blue Book' was published in 1966. This was ground-breaking; in part because it served to enshrine professional duties as distinct from personal choices, and also as it clarified the public's expectations of a professional's duties. Baker describes such codes of conduct as 'medicine's moral mandate'.[45]

In terms of professional responsibility, one of the principles of the GMC guidance, is that 'Good doctors make the care of their patients their first concern… [they] must offer help if emergencies arise in clinical settings or in the community, taking account

[43] A Simonds and D Sokol (n 6)

[44] C Pelkas and M Boisseau, 'Unmasked: A Comparative Analysis of the Physician's Ethical and Legal Duty to Treat During a Pandemic' (2020) 20(3) *Medical Law International* 211, 217

[45] R Baker and Others, *The American Medical Ethics Revolution* (Baltimore, John Hopkins University Press, 1999) xxxvi

of [their] own safety… competence and the availability of other options for care'.[46] This statement seeks to balance the risk to the healthcare professional and the benefit to the patient. [47]

Yet, there is little commentary on how these competing responsibilities should be balanced: at what point is the risk to self too high and the benefit to the patient too low? The GMC's vagueness is intentional, and as a guide it cannot be exhaustive, it allows for wide applicability of the practice principles and anything more specific could divide rather than unite the profession. The guidance articulated is not legally binding, and as such 'only serious or persistent failure', to follow the regulations and acting in a manner that 'poses a risk to patient safety or public trust in doctors will put… [a doctor's] registration at risk'.[48] This is reflective of the struggle to enforce specific behaviour and the challenge to define explicitly when, and to what extent healthcare professionals should be required to provide care during a pandemic.

It is also not clear what impact these professional statements have had on the attitudes of individual healthcare professionals. In a survey of British doctors, only around a quarter thought it was ethical to abstain from work to protect themselves or their families during a pandemic.[49] Similarly, in the circumstances of a high-lethality infectious disease, 19% of healthcare professionals at the Nottingham University NHS Trust said they would leave work.[50] Numerous other surveys across the world have produced comparable results.[51] Is this fair, should society expect that healthcare professionals put their lives on the line? Jonsen et al. comment that whilst physicians

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[46] General Medical Council (n 11) 5

[47] C van der Weijden and Others, 'The Duty to Treat in the Context of an Influenza Pandemic' (2010) 28(32) *Vaccine* 5620, 5621

[48] General Medical Council (n 11) 3

[49] B Ehrenstein and Others, 'Influenza Pandemic and Professional Duty: Family or Patients First? A Survey of Hospital Employees' (2006) 6(1) *BMC Public Health* 3, 5

[50] H Barr and Others, 'Ethical Planning for an Influenza Pandemic' (2008) 8(1) *Clinical Medicine (London)* 49, 50

[51] S Damery and Others, 'Healthcare Workers' Perceptions of the Duty to Work During an Influenza Pandemic' (2010) 36(1) *Journal of Medical Ethics* 8, 12. If we extrapolate this data set to all NHS Doctors (123,717), that is a potential loss of almost 25,000 clinicians.

have ‘long accepted that infection from their patients and work setting is an occupational risk’ and they ‘are aware that precautions must be taken’, ‘the duty to preserve health and protect family, with the corresponding right to do so, is legitimate’.[52] Based in part of these self-reported attitudes, pandemic planners must seriously consider the impact of the pandemic risk on their workforce and the continuity of patient care. [53] Healthcare professionals’ actual behaviours during the SARS epidemic and the now Covid pandemic paints a much more positive picture. Whilst some healthcare professions resigned from their jobs because of the disease, the overall response of healthcare professionals has been nigh on heroic.[54] This experience suggests that healthcare professionals’ responses to the survey questions above are not necessarily true reflections of how they would respond in the face of a future pandemic; however, the uncertainty of whether or not the workforce will be available is untenable and unsafe.

2.3.2.3 Social Contract

Another argument that has been used to defend a strong duty to treat during a pandemic is based on the idea of a ‘social contract’. The claim is that ‘society grants the medical profession… special social status and certain privileges’ in exchange for the profession’s implicit agreement ‘to promote society’s health’.[55] The privileges include, amongst other things, social status and financial renumeration,[56] and are relevant because they demonstrate the fairness of compelling healthcare professionals

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[52] A Jonsen, M Siegler and W Winslade, *Clinical Ethics: A Practical Approach to Ethical Decisions in Clinical Medicine* (7th edn, McGraw-Hill Education, 2010) 2011

[53] R Parmar, 'Doctors 'Feel Like Lambs to the Slaughter' (*BBC News*, 22 March 2020) <https://www.bbc.co.uk/news/av/health-51995297> accessed 10 February 2021

[54] M Savage, ‘Stressed NHS Staff in England Quit at Record 400 a Week, Fuelling Fears Over Care Quality’ *The Guardian* (London, 26 February 2022) <https://www.theguardian.com/society/2022/feb/26/stressed-nhs-staff-quit-at-record-rate-of-400-a-week-fuelling-fears-over-care-quality> accessed 5 March 2022

[55] R Gruen and Others, ‘Physician Citizens – Public Roles and Professional Obligations’ (2004) 291 *The Journal of the American Medical Association* 94, 95

[56] *ibid*

to work during outbreaks of infectious disease.[57] Henceforth, society is not suggesting that healthcare professionals make uncompensated sacrifices; rather, it is necessitating a reasonable *quid pro quo* for the special benefits that healthcare professionals already enjoy. [58]

Many healthcare professionals will have had their training partially or wholly subsidised by the public, with an estimated cost of £230,000 to train each UK doctor contributed by the taxpayer.[59] Additionally, many patients have allowed medical students to examine them as part of their training, they are not paid for this service which would imply this was for a socially positive moral goal including the support of clinical learning which would enable the use of that acquired knowledge for the benefit of others. If this was the reason for permitting examination, then it follows that to proceed with the examination entails accepting an obligation.

In light of the personal and fiscal subsidies, it is not unreasonable to claim that society has a right to share in the benefits of healthcare professionals' knowledge and training – not least as medicine is, for the most part, a vocational career. The social contract ground implies that when healthcare professionals provide care, they do so in a manner which repays the received benefits. Furthermore, it is fair to say that healthcare professionals have consumed a scarce resource when taking a university place, this could have gone to someone willing to accept a duty to treat. Clark opines that when individual healthcare professionals refuse to fulfil the duty, they are guilty of freeriding, taking the benefit of being a member of the medical profession without doing their fair share of the work.[60]

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[57] C Ruderman and Others (n 23) suggesting that 'a social contract' between healthcare professionals and society gives the public 'a reasonable and legitimate expectation' that healthcare professionals 'will respond in an infectious disease emergency'.

[58] D Gardiner (n 31) 803

[59] Department of Health and Social Care, 'More Undergraduate Medical Education Places' (*GovUK*, 14 March 2017) <https://www.gov.uk/government/news/more-undergraduate-medical-education-places> accessed 11 February 2021

[60] C Clark, 'In Harm's Way: AMA Physicians and the Duty to Treat' (2005) 30(1) *Journal of Medicine and Philosophy* 65, 65

In the UK, individuals are precluded from practicing medicine without valid registration; this ensures exclusivity, reduces competition and safeguards higher incomes which in turn help to cultivate social standing.[61] Reid argues that granting healthcare professionals monopoly protection (under the GMC) would be absurd unless it was accompanied by an implicit commitment to work during pandemics where healthcare is desperately needed. She questions, 'why would society grant exclusive scope of practice in relation to an essential human service to a professional group not prepared to guarantee provision of that service in an emergency?'.[62] The reciprocity view claims that in exchange for these benefits and the prestige afforded by the profession, healthcare professionals have a duty *noblesse oblige* to treat even when doing so would incur a risk to themselves.[63] The relationship between society and the medical profession constitutes a justly designed agreement that satisfies the social contract. Consequently, shouldering the obligation to treat, even under conditions of personal risk, is not unrealised, uncompensated, or even an uninvited burden that has been foisted upon the profession. Furthermore, by acting for the good of society and continuing to treat during a pandemic, healthcare professionals act to strengthen their own standing as stewards of public trust, and ultimately such actions promote the autonomy and flourishing of the profession in and of itself.[64]

2.3.2.4 Specialised Skills

Based upon their training, healthcare professionals have acquired knowledge and special skills which 'enable [them] to help more effectively, and in greater safety, than the average citizen'.[65] They likely will be aware of how to provide treatment using fewer resources, in less time and with minimised infection risk as a result of access to specialised equipment.[66] Accordingly, because 'the ability of physicians and health

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[61] H Malm and Others (n 27) 10

[62] L Reid, 'Diminishing Returns? Risk and the Duty to Care in the SARS Epidemic' (2005) 19(4) *Bioethics* 348, 353

[63] C van der Weijden and Others (n 47) 5262

[64] C Clark (n 60) 75

[65] C Clark, 'In Harm's Way: Service in the Face of SARS' (2003) 33(4) *The Hastings Center Report* inside back cover

[66] H Malm and Others (n 27) 9

care professionals to provide care is greater than that of the public', this 'leads to a higher burden of responsibility to render aid'.[67] Furthermore, as part of their studies, healthcare professionals are taught about infectious diseases and infectious disease management.[68] The GMC also set out specific guidance on serious communicable diseases in 1997, [69] though this was withdrawn in 2006 and subsumed into the Good Medical Practice guide and the suite of 32 additional guidelines that support it.[70] Finally, in response to Covid-19, the GMC created a webpage of resources on practicing medicine in an emergency, health and wellbeing, and working safely.[71] These pieces of guidance mean little to the general public, but they support the development of specialised skills and knowledge which set healthcare professionals apart with their ability to deal with and treat infectious disease.

It is accepted that healthcare is a multidisciplinary profession which involves a diversity in specialised training; not every medical practitioner will have the specialist skills to deal with severe respiratory distress or a haemorrhagic fever, or the knowledge to aid an intensivist managing ICU wards. However, high-level expertise does not preclude healthcare professionals from acute specialisms like obstetrics or radiology from treating because in the course of their tuition they all receive the generalist training. Moreover, notwithstanding the effects of a pandemic, babies will still be born, and CT scans will need to be read. Whilst life as we know it stops, many parts will continue, and specialists will be required to treat the general population. Of course, numerous other categories of workers outside of healthcare are also essential to the pandemic response, ranging from postal workers to water engineers, and some

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[67] C Clark (n 60) 67

[68] Joint Royal Colleges of Physicians Training Board, 'Curriculum for Infectious Disease Training Implementation' (*JRCPTB*, August 2021)

[69] General Medical Council, 'Serious Communicable Diseases' (October 1997) <https://www.gmc-uk.org/-/media/documents/communicable-diseases-1997---2006-55678019.pdf?la=en> accessed 15 June 2022

[70] General Medical Council, 'Ethical Guidance for Doctors' (*General Medical Council*) <https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors#leadership> accessed 15 June 2022

[71] General Medical Council, 'Coronavirus' (*General Medical Council*) <https://www.gmc-uk.org/news/coronavirus> accessed 15 June 2022

of these people will be indispensable because of their specialised skills. This thesis is only reviewing the role of healthcare professionals in the pandemic; however, the argument extends to the role of all trained professionals.

2.3.2.5 Solidarity

For the most part, 'healthcare [today] is the task of a complex sector involving many agents'.[72] Healthcare professionals rarely work in isolation and most now work within multidisciplinary teams. A pandemic presents an opportunity for unity, regardless of social, cultural or political differences, against a disease that harms indiscriminately. In its common use, solidarity refers to a 'fellow-feeling' and importantly, mutual support between individuals, and one of its most prominent contemporary uses is to invoke 'emotionally and normatively motivated readiness for mutual support'.[73] Solidarity can act as a descriptive concept, explaining the emergence of norms or institutions. It can also act as a normative motivation, where group membership generates what Shelby terms 'robust solidarity'; which, rather than merely describing practices as solidary, requires that group members feel obligated to act in certain ways as a result of certain solidary bonds.[74] Solidarity's association with individual action may make it seem inappropriate for a complex institution like the NHS,[75] but while solidarity may be most obviously expressed in direct contact between individuals, it can also be expressed by active support for policies that involve the sharing of risk and benefit – including, in this case, action to ensure each person accepts a share of the burden in the pandemic response. A critical element of solidarity is its characterisation as 'we-thinking'. This distinguishes it importantly from charity, which is purely other directed. In a solidarity based arrangement people not only give to others, but are entitled to expect something back. This is noted in a shared group membership where

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[72] L Reid, 'Diminishing Returns? Risk and the Duty to Care in the SARS Epidemic' (2005) 19(4) *Bioethics* 348, 357

[73] A Laitinen and A Pessi, 'Solidarity: Theory and Practice. An Introduction' in A Laitinen and A Pessi (eds) *Solidarity: Theory and Practice* (Plymouth, Lexington Books, 2014) 1

[74] T Shelby, 'Foundations of Black Solidarity: Collective Identity or Common Oppression' (2002) 112 *Ethics* 231, 266

[75] A Buyx and B Prainsack, *Solidarity in Biomedicine and Beyond* (Cambridge, Cambridge University Press, 2017) 43-48

each person is expected to 'play their part' in order to enjoy the benefits of the group. Solidarity generates obligations to contribute to solidary systems and institutions, dependent on one's ability to do so, to ensure that the costs of one's decisions do not unduly burden others.

In a scenario where a healthcare professional is not infected but is choosing not to attend work, they are increasing the workload of their colleagues in an already under-resourced and strained system. Obligation towards colleagues has been noted by Reid who suggests that the risk that one individual does not treat is left to be absorbed by someone else, either within the healthcare institution or by society generally.[76] There are a finite number of qualified doctors in the UK, and where one chooses not to work they are (inadvertently) burdening their colleagues. There therefore exists a professional obligation towards colleagues. Universal participation would reduce the total risk carried by each individual healthcare professional, however absolute conformity is unlikely as most people, by virtue of being human, will not comply perfectly with responsible behaviours even if they are motivated by solidarity. Should the duty to treat be entirely eliminated and healthcare professionals be allowed to 'opt-out' of treatment for reasons other than illness or isolation requirements, a self-reinforcing cycle of withdrawal could be generated which would defeat any obligation developed in professional or ethical codes.[77] However, the existence of a robust obligation towards colleagues in times of stress would ultimately lead to the better functioning of healthcare systems during a pandemic and would protect institutional capacity to provide high quality care to patients.

2.3.3 Public Health Ethics

There is a substantial body of academic literature on public health ethics that draws, to a certain extent, on the existing scholarship concerning medical ethics and bioethics. Public health raises a number of moral problems that extend beyond the earlier boundaries of bioethics and require their own form of ethical analysis. There is some disagreement regarding the relationship between bioethics and public health (or

[76] n72 361

[77] D Orentlicher (n 32) 1460

among those and clinical ethics).[78] When the field of bioethics emerged in the late 1960s, it represented a significant broadening of the doctor-patient relationship and medical professionalism into to address patient rights in the face of new innovate technologies. In early bioethics, the good of the individual, and particularly their autonomy, was the dominant theme. Public health ethics however distinguishes itself from the field of bioethics by emphasising communitarian values and social justice. Balancing individual autonomy and the common good remains central, but public health ethical frameworks do not begin with an emphasis on individual interests, rather they address the issues facing a population at large rather than looking microcosmically at the individuals who make up that community. This divergence in scope is arguably not so much an intrinsic difference between the two fields as much as it is a difference between the perspective of the public health for policy and bioethics for clinical medicine.

Looking through this holistic lens, the previous examination of the duty to treat is strengthened through the application of a public health framework which evaluates an individual's duty as a member of society. The field of public health is broad in its scope and searches for the values, virtues and principles necessary for people to live together in peace, mutual respect and justice – this can also include limitations on autonomy. Public health emergencies, whether due to pandemic or natural disaster, are understood to entail restrictions on liberty consistent with public health mandates, hence restrictions on professional practice and the autonomous decision making of medical practitioners can be justified on the lines of need, efficacy, and use of the least restrictive alternative.[79]

Writing in 2018, Orentlicher argues 'a strong duty to treat would protect patient welfare without subjecting physicians to undue health risks'.[80] He continues, that it is

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[78] R Bayer and A Fairchild, 'The Genesis of Public Health Ethics' (2004) 18(6) *Bioethics* 473, 474. There exists a deep divide between the scope of bioethics, which focuses on the individual, and public health ethics, which focuses on society.

[79] T Bailey and Others, 'A Duty to Treat During a Pandemic? The Time for Talk is Now' (2008) 8(8) *American Journal of Bioethics* 29, 30

[80] D Orentlicher (n 32) 1460

‘counterintuitive to see a weakening of the duty to treat in an era where advances in medicine and infection control make it more likely that healthcare professionals can provide effective care to affected patients and much less likely that they themselves will succumb to the disease.[81]

2.3.4 Limitations to the Duty to Treat

Orentlicher is partially correct, the duty should not be weakened when successful treatments have been developed which make the general practice of medicine safer. And, whilst the claim that healthcare professionals have an absolute duty to treat would be pleasingly simple; it might have the unintended effect of deterring individuals from entering the profession.[82] The duty to treat cannot not automatically mean that healthcare professionals should undertake *any* degree of risk, as expecting a medic to treat without regard for their own safety is both an extreme and unrealistic approach. Regardless of the circumstances, healthcare professionals’ ethical duty to their patients sits in balance with a number of other duties which, referencing Simonds and Sokol’s summary of the competing duties, are ‘1) duty to patients; 2) a duty to protect oneself from undue risk of harm; 3) a duty to one’s family; 4) a duty to colleagues; …and 5) a duty to society’.[83]

In the pandemic scenario the balance between these obligations is somewhat skewed, and reasonable limits to an acceptable level of risk are needed; these risks become reasonable when they are proportional to the probability of successful rescue and when the overall good achievable from undertaking said risk is substantial.[84] The following section will review how these obligations interact and overlap and limit the duty to treat, and will set out how, if a vaccine is used as measure to reduce infection and lower risk the duty is strengthened.[85]

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[81] *ibid*

[82] H Malm and Others (n 27) 16

[83] A Simonds and D Sokol (n 6)

[84] J Harris and J Hølm, ‘Risk Taking and Professional Responsibility’ (1997) 90(11) *Journal of the Royal Society of* Medicine 625, 628

[85] D Sokol (n 5) 1238

2.3.4.1 Duty to Self

As noted in the qualification of the Good Medical Practice statements, the requirement to provide treatment extends only so far as a healthcare professional feels their safety is impinged upon.[86] Healthcare professionals have a duty to protect their own health to ensure they remain able to provide care; they are not unlimited resources and must act to guarantee that the healthcare institutions can continue to carry out essential services throughout and after the pandemic.

In response to the SARS outbreak, a group of physicians at the National Institutes of Health noted, '[i]f the danger of serious injury or death is too high… such risk could and should limit that primary duty [to treat] … [especially for] infectious agents… that are not always amendable to therapy and can even cause death'.[87] It is therefore held that the point at which risk to self prevails over the duty to treat is 'a matter of judgment and consensus'.[88] This was demonstrated in Markel's assessment of the scope of a healthcare professional's responsibility during the Ebola Public Health Emergency in West Africa, where it was reported that 'relief and humanitarian organizations urged the doctors, nurses and other health professionals working for them to flee 'the hot zone… [and] go home'.[89] If a stringent duty to treat was imposed, many would find this advice morally objectionable.

Whilst previous academic discourse centred on a healthcare professional's duty to treat HIV/AIDS patients, Schwartz cautioned that a fresh approach is necessary for highly contagious viruses.[90] The existence of 'excessive risk' can limit the ethical obligation to treat, unlike the HIV virus where universal precautions reduce the risk

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[86] General Medical Council (n 11) 11

[87] H Masur and Others, 'Severe Acute Respiratory Syndrome: Providing Care in the Face of Uncertainty' (2003) 289 *Journal of the American Medical Association* 2862

[88] E Emmanuel, 'Do Physicians Have an Obligation to Treat Patients with AIDS?' (1988) 318 *New England Journal of Medicine* 1686, 1688

[89] H Markel, 'Ebola Fever and Global Health Responsibilities' (2014) 92(4) *Milbank Quarterly* 633, 639

[90] A Schwartz (n 22) 657

and effective therapies are available, this is not the case for a novel highly infectious disease, like Covid-19 or SARS, when even where there are precautions in place there a risk of infection remains.

2.3.4.2 Duty to Family

The World Medical Association has recognised that 'physicians have the right of moral judgement regarding the interests of various stakeholders that are not exclusive to the doctor-patient relationship', and a doctor's duty to their family is compromised when they repeatedly expose themselves to a highly transmissible disease.[91] Notwithstanding pandemic disease, healthcare professionals have reported being in 'morally untenable' situations with the difficulty to keep personal and professional obligations separate when their family members are unwell.[92]

Healthcare professionals have a duty to avoid becoming a vector of contagion and putting others at risk, and it is understood to be morally wrong to negligently harm others, including negligently infecting them with a disease.[93] During a pandemic, healthcare professionals are more likely to carry and spread the infectious disease and are obliged to take preventative measures to reduce this risk (including via vaccination as shall be discussed throughout this thesis). McConnell writes that there is a 'deep mutual trust and love that characterise… [the familial] relationship' which entail 'proportionally strong obligations' to prevent harm.[94] Emmanuel comments that although the families of healthcare professionals knowingly assume and accept some risk of infectious disease, children cannot give informed consent to that risk.[95]

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[91] N Swazo, 'A Physician's Duty to Treat MERS-COV Patients? An Ethical Assessment' (2014) 24(3) *Eubios Journal of Asian and International Bioethics* 81, 83

[92] F Chen and Others, 'Role Conflicts of Physicians and Their Family Members: Rules but No Rulebook' (2001) 175 *The Western Journal of Medicine* 236, 239

[93] M Selgelid (n 34) 259

[94] D McConnell, 'Balancing the Duty to Treat with the Duty to Family in the Context of the COVID-19 Pandemic' (2020) 46 *Journal of Medical Ethics* 360, 362

[95] E Emmanuel (n 85) 1690

Outside the pandemic context, healthcare professionals generally manage to balance the duty to treat and their duty not to harm family members. However, the conditions created by the pandemic make this unusually challenging and, in some circumstances, the burden of protecting one's family override the duty to treat. To suggest an absolute interpretation of the duty to treat fails to appreciate the full weight of other conflicting duties; nonetheless, though one duty could overrule another this does not inherently mean that the other duty is no longer relevant. The duty to treat is a *prima facie* duty, being an obligation that could be rejected by more pressing issues. How to choose between these competing duties within the pandemic context has no automatic *a priori* algorithm, it is situational and depends on a personal circumstance.

2.4 CONCLUSION

This chapter has provided an overview of the inherent complexity of the duty to treat. The debate over the duty to treat is much more than a paper war, it is one which affects the institutions that govern medicine and impacts the nation's pandemic response. Pandemics do not present healthcare professionals with the normal course of events in professional practice, they challenge the professional's role and personal identity, as the above discussion has illustrated. Given the inordinate personal and professional stressors a healthcare professional faces in situations of pandemic emergency, institutional responses must be compassionate and forgiving. Rather than enforcing an absolute duty to treat they should look to ways to reduce the risk to healthcare professionals and their families whilst protecting the overall institution.

Our everyday healthcare systems are fragile, and when a pandemic strikes it is of the utmost importance to maintain the healthcare service infrastructure in such a way that can cope with the surge in demand for treatment and ensure those who require care can safely access it. Healthcare professionals are not an inexhaustible resource and as such they must not be stretched thin; thus, the question turns to how the duty to treat can be cultivated to a duty to treat *safely*.

The duty to treat has suffered erosion in recent years whilst the risks to healthcare professionals in contracting infection and becoming ill has declined substantially. It is accepted that healthcare professionals cannot be required to undertake risks to their

health unless that risk has been minimised insofar as is reasonably practicable, including measures such as: providing access to PPE; enhanced cleaning; implementing social distancing policies; infection screening and testing; isolation policies; and priority access to safe and effective vaccines.[96] A robust duty to treat ensures patient needs are met in accordance with a healthcare professional's professional and ethical obligations, and as a consequence of the above interventions, the duty no longer subjects healthcare professionals to undue health risks.

Rather than trying to identify limitations on the duty to treat, it is more constructive to ensure all reasonable steps are taken to minimise the risks to healthcare professionals treating patients during pandemics.[97] Should the circumstances be such that the social benefit of treatment outweighs the risk to the practitioner, *and* the risk to the individual's health be mitigated by infection control mechanisms, the duty to treat can be defended. Consequently, in a pandemic where a vaccine exists that is both safe and effective, there are grounds to suggest that a healthcare professional is, as a result of this duty, obliged to take reasonable precautions to limit the impact of infectious disease on their health in order to uphold their duties to patients, the health service, and the public.

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[96] D Orentlicher (n 32) 1461

[97] A Thompson, *Stand on Guard for Three Ethical Considerations in Preparedness Planning for Pandemic Influenza* (University of Toronto Joint Centre for Bioethics Pandemic Influenza Working Group, 2006) <http://jcb.utoronto.ca/people/documents/upshur_stand_guard.pdf> accessed 12 February 2021

3 CHAPTER II: THE DUTY TO TREAT SAFELY

3.1 INTRODUCTION

This chapter will develop the duty to treat, as explored in Chapter I, to establish a healthcare professional's duty to treat safely. Establishing a duty to treat safely is the linchpin of the discussion of vaccine mandates for two reasons: firstly, if vaccination will reduce the risks that the healthcare professional faces in the pandemic context, the duty to treat is strengthened which is imperative to continuity of healthcare services; and secondly if it can be shown that being vaccinated against communicable diseases is in both the professional's and the patient's best interests, in the face of insufficient uptake, discussion can turn to vaccine mandates.

This chapter will evaluate a healthcare professional's obligation to accept vaccination as part of the duty to treat safely. It will begin by exploring the professional and ethical obligations to treat safely before establishing a duty to be vaccinated, as the most effective way of upholding the duty to treat. Despite this, some healthcare professionals refuse vaccinations and place themselves, their colleagues, and their patients at an increased risk of infection, serious illness or death. It is argued that healthcare professionals, who have access to vaccines and for whom vaccination is not medically contraindicated, have a duty to be vaccinated in order to fulfil their duty to treat (safely).

The reasons behind vaccine hesitancy differ and are context specific, and they vary from religious convictions to secular beliefs, incorporate political or philosophical notions, and can be highly emotive in nature. Nonetheless, the duty to treat safely remains and to refuse vaccinations (where they are the most effective protection against disease) is, on paper, a direct dereliction of that duty. This chapter will examine the strength of existing professional guidance in requiring healthcare professionals to accept vaccinations and then demonstrate that professional guidance cannot compel any real action. Consequently, in the context of continuing pathogenic risk and the existence of vaccine hesitancy among some healthcare professionals, it will be shown that current voluntary vaccination programmes do not always attain optimal uptake levels to protect against the risk to public health.

In preparation for future pandemics, a system which relies on voluntary action may prove inadequate; and on the basis of the suboptimal uptake of the seasonal influenza and Covid-19 vaccine, it would be unwise to rest on the assumption that sufficient numbers of those eligible for the vaccine would accept it. Once the professional obligation to be vaccinated is established, this thesis will look to justify mandatory vaccination from an ethical and legal perspective.

3.2 ESTABLISHING THE DUTY TO TREAT SAFELY

Public health has been understood to include the health and safety of a community, society or population of people. The UK Public Health Faculty adopts a definition of public health as 'the science and art of preventing disease, prolonging life and promoting health through organised efforts of society'.[1] It has been defined elsewhere as 'what we, as a society, do collectively to assure the conditions in which people can be healthy'.[2] The collective responsibility for preserving the public's health is inherent in both definitions.

Doctors have a responsibility to act in the best interests of their patients, and these obligations are set out in ethical codes.[3] As was established in the preceding chapter, healthcare professionals have a prima facie duty to treat, and are obligated to treat patients with communicable disease, provided the risk to self can be mitigated.[4] When accepting patients into their care, healthcare professionals take on a special fiduciary responsibility for patient wellbeing, and that responsibility obligates them to follow all reasonable, evidence-based, best practices to guarantee patient safety. When an individual chooses to work in healthcare that individual makes an autonomous choice

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[1] D Acheson, *Public Health in England: The Report of the Committee of Inquiry into the Future Development of the Public Health Function* (The Stationery Office, 1988)

[2] Institute of Medicine (US) Committee for the Study of the Future of Public Health, *The Future of Public Health* (National Academies Press, 1988) 1

[3] General Medical Council, *Good Medical Practice* (General Medical Council, 2013)

[4] M Civaner and B Arda, 'Can "Presumed Consent" Justify the Duty to Treat Infectious Diseases? An Analysis' (2008) 8(29) *BMC Infectious Diseases* <http://dx.doi.org/10.1186/1471-2334-8-29> accessed 5 July 2021

to subscribe to its professional and ethical codes, and to act in the service of their patients.[5]

3.2.1 The Ethical Principles Supporting the Duty to Treat Safely

The professional guidance which underpins the duty to treat and the duty to treat safely is supported by Beauchamp and Childress' clinical ethical principles, specifically beneficence and non-maleficence.[6] These principles are central to medical ethics, in promoting patient well-being, and not harming the patient.[7] During a pandemic, enormous demands will be placed on healthcare infrastructure and healthcare professionals, not only as a result of the number of sick who require care, but because there will be fewer healthcare professionals available to take care of them as healthcare professionals themselves – when caring for the infected – are at an increased risk of infection, illness and death than the general population.

As discussed in the previous chapter, the duty to treat is not absolute; rather, it is balanced by the risk the risk to the healthcare professional which is exacerbated by a lack of appropriate PPE and unavailable prophylactic treatments. However, if mechanisms are introduced which successfully reduce disease transmission and lower the risk of infection, then a healthcare professional's duty to treat is strengthened.

3.2.2 The Professional Duty to Treat Safely

Certain obligations come with certain choices, and one such obligation, as held in the Good Medical Practice guidance, is the duty to contribute to and comply with systems that protect patients: doctors are required to recognise and report risks posed by malpractice,[8] review their work,[9] and consider the needs of vulnerable patients to

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[5] L Lee, 'Adding Justice to the Clinical and Public Health Ethics Arguments for Mandatory Seasonal Influenza Immunisations for Healthcare Workers' (2015) 41 *Journal of Medical Ethics* 682

[6] T Beauchamp and J Childress, *Principles of Biomedical Ethics* (Oxford, Oxford University Press, 2001)

[7] E Galanakis and Others, 'Ethics of Mandatory Vaccination for Healthcare Workers' (2013) 18 *Eurosurveillance*

[8] General Medical Council (n 3) 10

[9] *ibid* 10

ensure their safety and dignity are protected.[10] This is an essential part of medical practice, as healthcare professionals are obligated by the NHS Constitution to 'provide all patients with safe care… [free from] avoidable harm'; this commitment includes a requirement to take reasonable steps to prevent transmission of infection to susceptible patients.[11]

The requirement to contribute to and comply with systems which protect patients from infection during a pandemic includes maintaining hand hygiene, wearing appropriate PPE, practicing physical distancing, taking appropriate treatment (i.e, vaccinations or antivirals), accepting regular testing, and quarantining. In most healthcare settings these protocols are already part of general practice, and healthcare professionals found to breach infection control guidance may face sanctions or disciplinary action.[12] Cortes-Penfield reflects on the shared obligation of healthcare professionals to treat safely, and highlights that even though the actions of an individual may improve patient outcomes with consistent hand washing, the benefit is marginal if the other healthcare professionals wash their hands inconsistently.

Other measures are, at best, adjuncts to an effective vaccine strategy (if a vaccine is available), but not a replacement. Whilst vaccination may be more burdensome than hand washing, for others it may be no more burdensome than wearing full PPE for a long shift which can cause respiratory problems and dermatological reactions.[13] Reducing face-to-face clinical contact through telemedical services will also reduce disease transmission, however, these services cannot safely or effectively replace all face-to-face services. For all those for whom vaccination is not contraindicated,

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[10] *ibid* 11

[11] Department of Health and Social Care, 'The NHS Constitution for England' (*GovUK*, 1 January 2021) <https://www.gov.uk/government/publications/the-nhs-constitution-for-england/the-nhs-constitution-for-england#staff-your-responsibilities> accessed 25 March 2021

[12] N Cortes-Penfield, 'Mandatory Influenza Vaccination for Health Care Workers as the New Standard of Care: A Matter of Patient Safety and Non-Maleficent Practice' (2014) 104(11) *American Journal of Public Health* 2060, 2063

[13] N Shakut, D Ali, J Razzak, 'Physical and Mental Health Impacts of COVID-19 on Healthcare Workers: A Scoping Review' (2020) 13(40) *International Journal of Emergency Medicine*

vaccinations represent the optimum way to treat safely; the role of vaccination shall be discussed in the following section.

3.2.3 Supporting the Duty to Treat Safely through Vaccination

3.2.3.1 The Introduction of Vaccination

Vaccines were developed on the basis of pre-existing verbatim evidence of infection and disease; ancient medical scholars had noted that some diseases did not reoccur in a previously infected individual. These quasi-researchers performed tests by intentionally inoculating people with infective by-products and documented the results. In China, scabs from mild cases of smallpox were desiccated and crushed and the resultant powder was inhaled. This practice is called variolation, however as it lacked standardisation and a detailed understanding, the level of protection it offered varied. Nonetheless, the practice spread along the Silk Road and was picked up by notable diplomats including Lady Mary Wortley Montague, who returned to Britain from Turkey with her variolised children.[14] The practice gained a strong footing in Europe and by the late 1700s, Edward Jenner understood that a less virulent disease, like cowpox, could prevent infection from a more serious disease, like smallpox. He recognised that milkmaids rarely contracted smallpox, and in 1796, Jenner took infective material from cowpox lesions in his milkmaid's hand and inoculated his gardener's son with that material. The boy was then challenged with smallpox but did not develop the disease. Jenner called his cowpox inoculation a 'vaccine' derived from the Latin *vaccinus*, pertaining to cows. Though the experiment was met with some scepticism, support from Parliament and, again, Lady Mary who offered both her son and daughter to be vaccinated, made the process increasingly acceptable.[15] However, some uncertainty remained, and vaccine hesitancy will be discussed later in this chapter.

It was not until 1880 that Louis Pasteur advanced the theory of immunisation. He discovered that neglected cultures of bacteria that caused chicken cholera lost much of their ability to cause disease, and that fresh cultures failed to infect chickens

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[14] J Rathbone, 'Lady Mary Wortley Montague's Contribution to the Eradication of Smallpox' (1996) 347(9014) *Lancet* 1566

[15] *ibid* 1566

previously inoculated with the old cultures.[16] Later, Pasteur established prophylactic inoculations for anthrax, swine erysipelas, and rabies. In honour of Jenner, he extended the meaning of vaccine to include all prophylactic inoculations.

Jenner's initial vaccine has since been developed and has contributed to the global eradication of smallpox, and other vaccinations, like poliomyelitis, are close to achieving their goals of international disease extinction. Today almost a whole alphabet of vaccines are available to treat a range of diseases, with further research being undertaken into diseases like norovirus, malaria, and herpes simplex virus.[17] Each vaccine prevents infection, helps to reduce disease transmission, and saves countless lives.

3.3.2.2 The Purpose of Vaccination in a Pandemic

During a pandemic a vaccine will not be immediately available as production can only begin once the pandemic virus has been isolated, a complex process which can take many months.[18] However, remarkable progress is being in the development of new vaccines; in 2020 the 'moon-shot' objective was achieved, set by the Coalition of Epidemic Preparedness Innovations, which aimed to compress vaccine development timelines to 100 days from pathogen identification to mass production and distribution.[19] This suggests that although it may take some time, a vaccination could be created in a number of months to proactively deal with the pandemic disease at the

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[16] K Smith, 'Louis Pasteur, the Father of Immunology?' (2012) 3(68) *Frontiers in Immunology* <https://www.frontiersin.org/articles/10.3389/fimmu.2012.00068/full> accessed 27 June 2022

[17] World Health Organisation, 'Vaccine-Preventable Diseases (Including Pipeline Vaccines)' (*World Health Organisation*) <https://www.who.int/teams/immunization-vaccines-and-biologicals/diseases> accessed 20 June 2022

[18] The first person in the UK, Margaret Keenan, received the Pfizer vaccine for COVID-19 on the 8 December 2020, almost 9 months after the WHO declared the pandemic. BBC News, 'Covid-19 Vaccine: First Person Receives Pfizer Jab in the UK' (*BBC News*, 8 December 2020) <https://www.bbc.co.uk/news/uk-55227325> accessed 6 July 2021

[19] University of Oxford, 'Oxford Team Publish Blueprint for Making Millions of Doses of a New Vaccine Within 100 Days' (*University of Oxford: News and Events*, 21 December 2020) <https://www.ox.ac.uk/news/2021-12-21-oxford-team-publish-blueprint-making-millions-doses-new-vaccine-within-100-days> accessed 31 May 2022

time, rather than years. Furthermore, when a vaccine becomes available it will be in limited supply meaning a prioritisation system will be used; the UK's Pandemic Preparedness Strategy indicates priority will be given to clinically high-risk groups and frontline health and social care workers.[20] This is reflective of the importance of healthcare professionals to the pandemic response, they are accorded priority as they are essential in treating the infected and ensuring healthcare services can continue to function. Vaccination strengthens the duty to treat by overcoming many of the limitations discussed in the previous chapter: the individual is largely protected from infection; those around the healthcare professional are less likely to be infected as a result of their exposure in clinical settings; and the workforce is less likely to be stretched thin as a result of staff absenteeism.

3.2.3.3 Herd Immunity

Vaccination is essential to the realisation of herd immunity, which is a collective good produced through the co-operation of a significant number of individuals. Herd immunity halts infection transmission within a population, which prevents the disease from gaining a foothold in that society. In much the same way that handwashing between patients is generally ineffective if only one healthcare professional does it, vaccine efficiency and effectiveness is dependent on the behaviour of a sufficiently large or significant percentage of the group; though the proportion required to prevent disease circulation varies with disease transmissibility and vaccine efficacy. It is a higher level public good as it is non-excludable and non-rivalrous.[21] Herd immunity is non-excludable because it is impossible to exclude someone from benefitting even if they have not been vaccinated. All members of the herd benefit from herd immunity, even those who have accepted the burden of vaccination because in a society which

[20] Department of Health, UK Influenza Pandemic Preparedness Strategy (Department of Health, 2011) 44 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/213717/dh_131040.pdf> accessed 6 July 2021

[21] N Glover-Thomas and S Holm, 'Compulsory Vaccination: Going Beyond Civic Duty?' in C Stanton and Others (eds), *Pioneering Healthcare Law – Essays in Honour of Margaret Brazier* (New York, Routledge, 2016) 34

has achieved herd immunity fewer resources need to be directed to care for the seriously ill.

Herd immunity, though applicable to society at large, can also be understood with regard to healthcare professionals as a form of solidarity within the profession. Healthcare professionals have a crucial and multifaceted role to play in the realisation of herd immunity whereby vaccine refusal would erode public trust, place vulnerable unvaccinated patients at risk, and permit further viral transmission between colleagues and the wider community.

Arguably most importantly, herd immunity reduces the risk of infection for those who cannot be vaccinated for medical reasons (i.e., due to certain forms of cancer or serious allergies), those who do not produce an adequate immune response, or for those whom vaccination is ineffective or inappropriate as a consequence of age or pregnancy. Thus, Verweij argues that in relation to the influenza vaccine there is 'a 'duty to accept vaccination because… they will protect others for whom influenza poses a serious risk'.[22] Vaccination enhances public health and controls transmission in clinical settings whereby patients, who are at risk of severe illness or death because of their health condition, are afforded an additional layer of protection against infection.

3.2.3.4 The Importance of Vaccinating Healthcare Professionals

Nosocomial outbreaks of measles highlight the importance of vaccination coverage in controlling disease outbreaks: in one case study, all unvaccinated healthcare professionals were removed from wards for a 21-day quarantine period and contact tracing study. It revealed that an unvaccinated healthcare professional who was in direct contact with a positive case was both the victim and vector of infection; unlike vaccinated persons whose acquired immunity ensured they did not succumb to serious infection and infect others.[23] Moreover, Public Health England estimates that during the first wave of Covid-19 (from the beginning February to end of July 2020), 20%–

[22] M Verweij, 'Obligatory Precautions Against Infections' (2005) 19(4) *Bioethics* 323, 324

[23] S Hahné and Others, 'Measles Outbreak Among Previously Immunized Healthcare Workers, the Netherlands, 2014' (2016) 214(12) *The Journal of Infectious Diseases* 1980, 1982; M Battin and Others, *The Patient as Victim and Vector* (New York, Oxford University Press, 2007) 90-2

25% of Covid-19 hospitalisations may have been nosocomial.[24] In Scotland, 30% of 'Covid-19 deaths', defined as deaths within 28 days of a positive Covid-19 test in 2020, were considered 'definitive hospital onset'.[25] The real figures may well be higher.

Furthermore, studies demonstrate that influenza-related illnesses and deaths among elderly inpatients can be significantly reduced when just half of healthcare professionals working in the ward are vaccinated against influenza.[26] Vaccination protects both the healthcare professional and their patients; thus, it is argued that if a healthcare professional is unwilling to be vaccinated they cannot safely treat their patients.[27] The principle of this statement, though indelicately made, rings true - healthcare professionals are 'the most important cog in the… care machine', and should they contract the illness clinical care will be reduced with fewer medical procedures carried out resulting in fewer patients recovering and leaving hospital.[28] In order to treat safely, healthcare professionals have a duty to avoid becoming a vector for disease transmission. The obligation to be vaccinated is a consequence of the professional duty to act in the patient's best interests.[29]

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[24] Public Health England and the London School of Hygiene and Tropical Medicine 'PHE and LSHTM: The Contribution of Nosocomial Infections to the First Wave' (*Scientific Advisory Group for Emergencies*, 28 January 2021) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/961210/S1056_Contribution_of_nosocomial_infections_to_the_first_wave.pdf> accessed 26 June 2022

[25] National Services Scotland, 'Hospital Onset COVID-19 Mortality in Scotland' (2021) <https://www.publichealthscotland.scot/media/7183/2021-02-24-covid19-hospitalonset-mortality-mar-dec-2020-summary.pdf> accessed 26 June 2022

[26] W Carman and Others, 'Effects of Influenza Vaccination of Health-Care Workers on Mortality of Elderly People in Long-Term Care: A Randomised Controlled Trial' (2000) 355(9198) *Lancet* 93

[27] S Wicker and G Marckmann, 'Vaccination of Health Care Workers Against Influenza: Is it Time to Think About a Mandatory Policy in Europe?' (2014) 32 *Vaccine* 4844, 4848

[28] Z Kmietowicz, 'Covid-19: Health and Social Care Staff Must Be Vaccinated Now, Says BMA' (*The BMJ: News*, 8th January) <https://www.bmj.com/content/372/bmj.n60> accessed 25 March 2021

[29] N Cortes-Penfield (n 12) 2065

3.3 THE DUTY TO BE VACCINATED

3.3.1 Vaccine Hesitancy

Conversely to the previous discussion, vaccines – which have been hailed as one of public health's greatest achievements of the 20th century – are losing public confidence. It is noted that not all people who refuse a particular vaccine are, in general, hesitant regarding vaccination, for example someone may believe passionately in vaccination but be opposed to the use of cell lines taken from aborted foetuses in an MRNA vaccine, view them as illogical if they already have immunity from a previous infection, or believe there has been insufficient research into the side effects of a particular vaccine, however their hesitancy contributes to continuing disease transmission. The reasons for vaccine hesitancy apply to both the general population and to healthcare professionals, who, despite their first-hand experience of the benefits of vaccination, may be vaccine hesitant. The specific reasons for vaccine hesitancy do not provide an answer for whether or not a mandate can justifiably be introduced, however the complex reasons behind vaccine hesitancy illustrate why any such policy must be applied sensitively. Whilst some conspiracy theories can be flippantly disregarded as entirely ridiculous, to some people they represent genuine worries and fears about the impact of this treatment. Chapter III will discuss the duty of a difficult rescue and this chapter will demonstrate the significant impact vaccine hesitancy has on some sections of society, meaning that accepting vaccination is much higher burden than for those with no or limited objections.

3.3.2 The Origins of the Anti-Vaccination Movement

The conflict between pro and anti-vaccination movements is not limited to any one country and is recognised by the WHO as among the top ten threats to global health in 2019.[30] In 2015, the Strategic Advisory Group of Experts ("SAGE") Working Group on Vaccine Hesitancy, defined it as the 'delay in acceptance or refusal of vaccination despite availability of vaccination services', noting that 'vaccine hesitancy is complex and context specific, varying across time, place, and vaccines. It is

[30] World Health Organization, 'Ten Threats to Global Health in 2019' (*World Health Organisation: Newsroom*, 2019) <https://www.who.int/news-room/feature-stories/ten-threats-to-global-health-in-2019> accessed 01 June 2022

influenced by factors such as complacency, convenience and confidence'.[31] Vaccine hesitancy is a multifaceted issue and varies by several factors: including virus, vaccine, time, place, and cultural context; furthermore, many demographic and behavioural factors influence vaccine hesitancy.

The SAGE Working Group have suggested there are three primary issues in the '3 Cs' model which describes the complexity of vaccine hesitancy and its determinants: *complacency* occurs when the risks of the vaccine preventable disease are perceived as low; *convenience* includes availability, access, and cost; and *confidence* relates to the effectiveness and safety of vaccines, the reliability and competence of health services and professionals, and health/vaccination policies.[32]

Determinants of vaccine hesitancy are complex, fuelled in part by misinformation and conspiracy theories, sociocultural factors, increasing individualistic perceptions of autonomy and independence, and decreasing trust in governmental institutions.[33] Reluctance to vaccinate is not a new phenomenon as since antiquity when astute medical scholars were inoculating others with infected by-products to prevent infection, others were nefariously seeking to monopolise and profit from this practice.[34] In the late 1700s, just as quickly as England heralded Edward Jenner's smallpox vaccine, some met the news with 'superstitious distrust that bordered in hysteria'.[35] The vaccine was condemned through various fiery lectures and publications, including William Rowley's 1805 pamphlet which suggested, amongst other things, that the injection of bovine material into the human body could cause a

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[31] SAGE Working Group on Vaccine Hesitancy, 'Vaccine Hesitancy: Definition, Scope and Determinants' (2015) 33(34) *Vaccine* 4161

[32] *ibid* 4164

[33] L Manby and Others, 'Healthcare Workers' Perceptions and Attitudes Towards the UK's COVID-19 Vaccination Programme: A Rapid Qualitative Appraisal' (2022) 12 *BMJ Open* 1

[34] D Callender, 'Vaccine Hesitancy: More Than a Movement' (2016) 12(9) *Vaccines and Immunotherapeutics* 2464, 2465

[35] J McHugh, 'History of Vaccine Hesitancy and Refusal' *The Washington Post* (Washington, 14 November 2021) <https://www.washingtonpost.com/history/2021/11/14/smallpox-anti-vaccine-england-jenner/> accessed 01 June 2022

person to resemble a cow.[36] Rowley went so far as to warn, 'who would marry into any family, at the risk of their offspring having filthy beastly diseases'?[37] At the same time, the former surgeon Benjamin Mosely alleged that Jenner's vaccine would lead to 'cow mania', a hysteria that might cause 'the British ladies…[to] wander in the fields to receive the embraces of the bull'.[38] These doctors travelled across England warning against vaccination and when the smallpox vaccine was made mandatory for children under three months in 1853, subject to fines or imprisonment, a highly organised anti-vaccination movement was created. The vaccine became a magnet of distrust in government institutions, inducing worries about severe adverse effects, and eroding confidence in health authorities, experts and science despite its positive effects on society.[39] Subsequent scientifically validated and purposeful vaccinations have been introduced and implemented, and with each vaccine a further controversy has unfolded, which, for the most part are too expansive for the scope of this thesis.

Notably, and perhaps with the biggest impact was the Wakefield report. In the late 1990s, Andrew Wakefield, a British doctor, published a seminal paper in the Lancet linking the Measles, Mumps, and Rubella (MMR) vaccine with autism and inflammatory bowel disease.[40] The theory was that the live, though attenuated, measles vaccine reacted in the bowels to enable toxic autism-inducing materials to enter the blood stream and affect the brain. The article immediately drew widespread media attention and was grossly sensationalised. The paper was withdrawn and in the following months Wakefield was charged with medical fraud, faulty research, and his findings were unanimously discredited by scientific and medical communities. However, Wakefield has had great success in shaping a generation of attitudes towards vaccination, many people have experienced cognitive dissonance, disregarding the weighty scientific evidence in favour of emotive personal beliefs.

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[36] W Rowley, *Cow Pox Inoculation No Security Against Small-Pox Infection* (J Barfield, London, 1805) 7

[37] *ibid* 8

[38] B Mosely, *Treatise on the Lues Bovilla; or Cow Pox* (2nd Edition, London, 1805) 214

[39] H Larson and Others, 'Addressing the Vaccine Confidence Gap' (2011) 378(9790) *Lancet* 526

[40] A Wakefield and Others, 'Ileal-Lymphoid-Nodular Hyperplasia, Non-Specific Colitis, and Pervasive Developmental Disorder in Children' (1998) 351 *Lancet* 637

This is not to say any vaccine is without risk, and whilst the link between the MMR vaccine and autism has been disproved, other vaccines are associated with a minute risk of blood clots or Guillain-Barré Syndrome. The degree of risk an individual is willing to accept varies enormously, and each individual's perspective on the small chance that an unlikely positive event will occur is the same driving factor that motivates the purchase of millions of lottery tickets each week and funds thousands of betting companies across the world; unlikely events occur every day.

3.3.2.1 The Influence of Social Media

Today, current anti-vaccination groups have significant levels of global reach and influence, empowered by the internet and social networking capacities and allowing like minds to replicate rapidly.[41] These groups reach people who are not necessarily against vaccines, but who are looking for answers to questions about vaccine safety or policies, and are drawn incidentally into this rabbit hole of misinformation.[42] Online, genuine concerns and rumours mix and create fertile ground for half-truths and anti-vaccination campaigners. Through social media, there has been a cascade of viral misinformation that has formed a vaccine infodemic including conspiracy theories about the origins of viruses and the intentions behind the government and big pharma's motivations for their use.

Conspiracy theories are attempts to impose narrative coherence on frightening situations like wars, revolutions, natural disasters, financial crises, and pandemics.[43] These theories distil complex events into understandable, manageable stories and allow people to make sense of their social environment. Their ubiquity in twenty-first century culture is linked to prevalent anxieties around globalisation, technological advancement, socioeconomic inequality, terrorism and increased governmental influence, amongst other things. During the Covid-19 pandemic a Belgian clinician

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[41] S Bean, 'Emergency and Continuing Trends in Vaccine Opposition Website Content' (2011) 29 *Vaccine* 187, 188

[42] H Larson and Others (n 39) 526

[43] H Larson, E Pertwee, C Simas, 'An Epidemic of Uncertainty: Rumours, Conspiracy Theories and Vaccine Hesitancy' (2022) 28 *Nature Medicine*

highlighted an interrelationship between the novel coronavirus outbreak in Wuhan and the construction of 5G towers.[44] The tale spread like wildfire through fringe communities on the internet, before being picked up by influencers and the media.[45] It then followed that over four-day period in early April 2020, the beginning of the UK's lockdown, at least 20 mobile phone masts were damaged in the UK by those convinced that 5G was responsible for spreading Covid-19.[46] Similarly, a video was shared over 27,000 times on Facebook which suggested that the Covid-19 vaccine contained a tracking microchip that could be injected into individuals to allow the government to control the population.[47] This is not a huge leap from Rowley and Moseley's 'cow-mania' theory in the early 1800s.

Rumours and conspiracy theories contribute to epistemic uncertainty regardless of whether an individual believes them or not; exposure to these narratives sows seeds of doubt about the safety and efficacy of vaccines, and the motives behind their manufacture and administration. Caplan highlights the special role healthcare professionals play with regard vaccine uptake and notes that by declining vaccinations healthcare professionals can erode public trust in vaccination and feed into the fear of vaccines.[48] This dysfunctional information ecosystem, in conjunction with increasing scepticism of government and expert opinion have created environment devoid of trust.

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[44] A Bruns and Others, 'Corona? 5G? or Both?: the Dynamics of COVID-19/ 5G Conspiracy Theories on Facebook' (2020) 177 *Media Internal Australia* 12

[45] *ibid*

[46] J Watson and A Hern, 'At least 20 UK Phone Masts Vandalised Over False 5G Coronavirus Claims' *The Guardian* (London, 6 April 2020) <https://www.theguardian.com/technology/2020/apr/06/at-least-20-uk-phone-masts-vandalised-over-false-5g-coronavirus-claims> accessed 2 June 2022

[47] Reuters Staff, 'Fact Check: RFID Microchips Will Not Be Injected with the Covid-19 Vaccine, Altered Video Features Bill and Melinda Gates and Jack Ma' (*Reuters*, 4 December 2020) <https://www.reuters.com/article/uk-factcheck-vaccine-microchip-gates-ma-idUSKBN28E286> accessed 2 June 2022

[48] A Caplan, 'Time to Mandate Influenza Vaccination for Healthcare Workers' (2011) 378 *The Lancet* 310, 311

3.3.2.2 Intersectional Considerations

Intersectionality is a theoretical framework for understanding how multiple social identities such as race, gender, sexual orientation, socioeconomic status and disability intersect at the micro level of individual experience to reflect interlocking systems of privilege and oppression. These factors, particularly ethnicity, gender, and socio-economic status impact vaccine hesitancy and refusal.[49] Racial disparities in vaccination rates are of increasing concern, as racial and ethnic minorities are often disproportionately affected by infection in terms of severity and mortality rates.[50]

Racial disparities in vaccine rates are influenced by institutional trust. Institutional trust, such as trust in the government and the scientific community is a significant factor in promoting compliance with preventative health measures like vaccine mandates.[51] Low institutional trust is associated with lower vaccine uptake. Medical mistrust encompasses a broad spectrum of mistrust, including the overall healthcare system, medical research and researchers, and healthcare professionals. This mistrust can lead to the underutilisation of healthcare services and poorer outcomes.[52] Razia suggests that an historical mistrust of government and public health bodies runs deep in ethnic minority communities as a consequence of systemic racism and discrimination, previous unethical healthcare research in black populations, and an under-representation of minorities in healthcare research and vaccine trials.[53]

Furthermore, reflecting on the concept of misinformation discussed above, the fear that the Covid-19 vaccine could affect fertility was a genuine concern for many people

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[49] A While, 'Evidence-Based Strategies to Promote Vaccine Acceptance' (2021) 26(7) *British Journal of Community Nursing* 338

[50] D Dawes, 'Health Inequities: A Look at the Political Determinants of Health During the COVID-19 Pandemic' (2020) 35(2) *American Journal of Health Studies* 77, 82

[51] C Sibley and Others, 'Effects of the COVID-19 Pandemic and Nationwide Lockdown on Trust, Attitudes Toward Government, and Well-Being' (2020) 75(5) *American Psychologist* 618

[52] *ibid*

[53] M Razai and Others, 'Covid-19 Vaccine Hesitancy Among Ethnic Minority Groups' (2021) *British Medical Journal*

and was a significant contributor to vaccine hesitancy and refusal.[54] Vaccine hesitancy is also tied to religious convictions, for many people religion is a way of life and religious codes are a trusted source of health information – even more so, at times, than doctors or healthcare institutions. There are many reasons why religious beliefs would exempt vaccine uptake, for instance, porcine or non-halal ingredients in vaccines is a barrier to Islamic populations.

The intersect between marginalised communities and vaccine uptake is sensitive and has been researched and reviewed in detail by NHS England.[55] To increase vaccination acceptance and uptake, earlier research has indicated that communication and interventions should be targeted to a range of sub-populations with different sociocultural and educational characteristics and that there is no "one size fits all" approach to address vaccine hesitancy.[56] According to Bagasra, such strategies should encompass a reduction of potential structural barriers to the uptake of vaccination through feasible access to vaccination sites, reduced language barriers, open communication about concerns of side effects, and strategies to increase trust in the scientific community.[57]

Further interrogation of the implications of intersectionality within public health research, policy, and practice is outside the remit of this thesis, however is noted that this has increasingly become the focus of many public health scholars.[58] As work in this area develops, intersectionality has been recognised as a valuable normative and

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[54] P Diaz and Others, 'Fear About Adverse Effect on Fertility is a Major Cause of COVID-19 Vaccine Hesitancy in the United States' (2022) 54(4) *Andrologia* e14361

[55] NHS England, 'Vaccination: Race and Religion/Belief' (2021) <https://www.england.nhs.uk/south-east/wp-content/uploads/sites/45/2021/05/Vaccination-and-race-religion-and-belief-A4.pdf> accessed 2 June 2022

[56] A Bagasra, S Doan and C Allen, 'Racial Differences in Institutional Trust and COVID-19 Vaccine Hesitancy and Refusal' (2021) 21 *BMC Public Health* 2104

[57] *ibid*

[58] O Havkivsky, 'Women's Health, Men's Health, and Gender and Health: Implications of Intersectionality' (2012) 74(11) *Social Science and Medicine* 1712, 1720; S Heidari and T Goodman, *Critical Sex and Gender Considerations for Equitable Research, Development, and Delivery of Covi-19 Vaccines* (WHO, 2021)

research paradigm for furthering understandings of the complexity of health inequalities and is essential for the development of socially sound policies.

3.3.2.3 Impact on Healthcare Professionals

Research has shown that the most common reasons why healthcare professionals choose to accept vaccinations in non-pandemic contexts was to protect their patients, protect themselves and non-patients (e.g., family), and protect against absenteeism at work – a reflection of the limiting factors of the duty to treat.[59] Although many studies recognise that clinical staff are more likely to promote vaccinations to patients if they are vaccinated themselves,[60] research also establishes that self-vaccination rates among healthcare professionals are in decline or are at suboptimal rates, principally in relation to the influenza vaccine.[61]

There is considerable empirical literature concerning vaccine hesitancy amongst the healthcare profession, and the most commonly cited reason for hesitancy towards self-vaccination is concern about vaccine safety and efficacy. A preference for physiological immunity, a lack of time to get the vaccination for themselves, and belief they are at low risk were also cited as reasons for refusal.[62] Furthermore, within the pandemic context and with a novel vaccination, there are concerns that the developmental process for the vaccine was rushed, as this has meant much is still unknown about the vaccines when the programme is rolled out including long-term side effects.

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[59] A Marcu and Others, 'Accounting for Personal and Professional Choices for Pandemic Influenza Vaccination amongst English Healthcare Workers' (2015) 33 *Vaccine* 2267, 2272.

[60] J Zhang, A While, and I Norman, 'Nurses' Knowledge and Risk Perception Towards Seasonal Influenza and Vaccination and their Vaccination Behaviours: A Cross-Sectional Study' (2011) 48 *International Journal of Nursing Studies* 1281

[61] D Shrikrishna and Others, 'Influenza Vaccination for NHS Staff: Attitudes and Uptake' (2015) 2 *BMJ Open Respiratory Research* 1

[62] *ibid*

3.3.2.4 The Risks of Vaccine Hesitancy

Vaccine hesitancy does not automatically result in vaccination refusal however, it can delay uptake and willingness to accept vaccinations; the concern being that where hesitancy becomes refusal the benefits of vaccination as a pandemic response are not realised, and the virus continues.[63] It is accepted that healthcare institutions will face significant pressure during the pandemic and a workforce who cannot treat patients because of the risk to their own health will only aggravate the problem. This was apparent in January 2022, when several UK hospitals declared 'critical incident' status caused by isolation requirements of staff infected with the Omicron Covid-19 variant. In the week before Christmas 2021, the absence rate of NHS staff was 8%, compared with a 5% average absence rate in winter months pre-Covid-19.[64] It was noted that other Trusts did not declare but suspended non-urgent appointments and surgery because of workload pressures, and it was thought that the true number of Trusts in crisis could be three times the official number, but as there was no incentive to declare, these Trusts were dealing with the incidents internally.[65] These incidents also have an indirect impact of deterring service users which can lead to higher morbidity and mortality from other diseases because of missed or late diagnoses.[66] By this date, nationally 94.3% of NHS workers had received at least one dose of the Covid-19 vaccination, but regionally this was as low as 87.6% in some Trusts.[67] Despite a high proportion of those delivering healthcare services being vaccinated, it remained the

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[63] M Salathé and S Bonhoeffer, 'The Effect of Opinion Clustering on Disease Outbreaks' (2008) 5 *Journal of the Royal Society Interface* 1505

[64] BBC, 'Covid: Hospital Trusts Declare Critical Incidents Over Staff Shortages' (*BBC*, 4 January 2022) <https://www.bbc.co.uk/news/ uk-england-59866650> accessed 26 June 2022

[65] I Totjesen, 'Covid-19: Many Hospitals "Are Not Declaring Critical Incidents" Despite Severe Pressures' (*The BMJ News*, 11 January 2022) <https://doi.org/10.1136/bmj.o60> accessed 26 June 2022

[66] M Lazzerini and Others, 'Delayed Access or Provision of Care in Italy Resulting from Fear of COVID-19' (2020) 4(5) *Lancet Child and Adolescent Health* e10, 11

[67] NHS, 'COVID-19 Vaccinations of NHS Trust Health Care Workers in the NHS Electronic Staff Record (ESR) by NHS Trust' (*NHS*, 13 January 2022) <https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2022/01/COVID-19-monthly-announced-vaccinations-13-January-2022.xlsx> accessed 30 May 2022

case that the declination of a minority of healthcare professionals was adversely impacting the provision of healthcare services.

Despite the benefits of vaccination in protecting healthcare professionals and those they treat from infection; the preceding section has shown that for many reasons healthcare professionals are vaccine hesitant. We should not underestimate the importance of multisectoral partnerships, community integration, and dialogue in understanding vaccine hesitancy, and further research is needed to overcome this in a thoughtful manner.[68] The following section will review the juncture of vaccine hesitancy and the professional duty to be vaccinated, it will begin by evaluating the strength of existing obligations to be vaccinated.

3.3.3 The Professional Obligation to be Vaccinated

Concerns about novel vaccinations are understandable, in the same way that concerns about any medical intervention are. However, as was established in the preceding chapters, healthcare professionals have a duty to treat in a pandemic and are vital to the pandemic response. It is trite that when healthcare professionals are in contact with patients, they have an ethical obligation to do so safely. This personal obligation is highlighted by the GMC which instructs that doctors 'should be immunised against common serious communicable diseases (unless otherwise contraindicated)'.[69]

The language used is important, 'you must' means there is an overriding requirement, and 'you should', is used where the GMC are providing an explanation of how a doctor will meet the overarching requirement – in this case, to treat safely. It is understood that the requirement to be vaccinated is not universally applied as there are factors outside a healthcare professional's control which may affect whether or how they can follow the guidance. In these circumstances, the healthcare professional must be able to explain to their responsible officer why they can't meet the requirement and agree the next steps, including appropriate measures to demonstrate continued competence in a different way. A healthcare professional's registration is dependent on following

[68] A Hatala and Others, 'Faith Based Dialogue Can Tackle Vaccine Hesitancy and Build Trust' (*BMJ Opinion,* 28 March 2022) <https://www.bmj.com/content/376/bmj.o823> accessed 3 June 2022

[69] General Medical Council (n 3) 12

GMC guidance which would indicate there is an obligation to be vaccinated, however this is not a strict requirement.

The scientific case in favour of vaccination is strong, with potential benefits for healthcare professionals, patients and healthcare providers. Vaccination can also reduce staff absences and provide economic benefits for employers.[70] Wicker attests that if there is evidence that a vaccination is effective and, that vaccination would reduce mortality and morbidity in patients, there are good reasons to view professional guidance prescriptively as promoting or obliging healthcare professionals to accept vaccination.[71] Caplan reasons that because professionals have autonomously accepted the special ethical obligation not to harm their patients, and because their self-approved codes clearly and concisely state that patients' interests must take precedence over those of others, healthcare professionals have a duty to be vaccinated.[72] The obligation to be vaccinated rests with each individual employee as an extension of their professional obligation to uphold patient safety.[73]

The professional obligation to accept vaccination is reinforced in Immunisation Against Infectious Disease (the "Green Book"), and includes tetanus, diphtheria, polio, and MMR.[74] Other vaccines like Varicella (chicken pox) are recommended for susceptible healthcare professionals and BCG for those in close contact with infectious patients. The Hepatitis B vaccine is specifically recommended for healthcare professionals at risk of injury from blood contaminated sharp instruments or at risk of being deliberately injured or bitten by patients, in "Exposure Prone Procedures" to reduce the risk of transmission in either direction.[75] Notably the recommendation for

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[70] T Music, 'Protecting Patients, Protecting Healthcare Workers: A Review of the Role of Influenza Vaccination' (2012) 59(2) *International Nursing Review* 161, 167

[71] S Wicker and G Marckmann (n 27) 4846

[72] A Caplan (n 48) 310

[73] N Cortes-Penfield (n 12) 2065

[74] UK Health Security Agency, *The Green Book* (UK Gov, 2022) Chapter 12

[75] UK Health Security Agency, 'Integrated Guidance on Health Clearance of Healthcare Workers and the Management of Healthcare Workers Living with Bloodborne Viruses (Hepatitis B, Hepatitis C, and HIV)' (November 2021) 24
<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/10

all healthcare professionals to be vaccinated begins at university,[76] where many schools require compliance with Department of Health guidance on immunisations and may not offer students places to study or approve the student as fit to treat if they are not vaccinated.[77]

Furthermore, all healthcare professionals with direct patient contact are encouraged to have the seasonal influenza vaccination annually to protect themselves and their patients from influenza.[78] Nonetheless, in Public Health England's 2020-21 report on seasonal influenza vaccines, there was one eye opening point: roughly one in four healthcare professionals did not get a flu vaccine.[79] All sorts of efforts are made to make vaccination in the healthcare settings easy to access, including bringing carts with the vaccine directly to the wards or other communal spaces, posters, videos, emails, and various incentive schemes. None of these approaches have succeeded in getting rates up to where they need to be to protect the workforce and patients.

3.3.3.1 The Superficial Strength of Professional Guidance

If a healthcare professional declines vaccination, in some NHS Trusts they are required to sign a declaration accepting personal responsibility for the refusal and confirming that they are aware of the risks, which include contracting the infection or being taken away from certain duties.[80] This is a reflection of three major pieces of health and

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33571/Integrated_guidance_for_management_of_BBV_in_HCW_November_2021.pdf> accessed on 3 June 2022

[76] General Medical Council, *Achieving Good Medical Practice: Guidance for Medical Students* (General Medical Council, 2016) 25

[77] General Medical Council, *Medical Student Fitness to Practice* (2020) 83 <https://www.gmc-uk.org/education/standards-guidance-and-curricula/guidance/student-professionalism-and-ftp/professional-behaviour-and-fitness-to-practise/table-1-reasons-for-impaired-fitness-to-practise-in-medical-students> accessed 7 July 2021

[78] UK Health Security Agency (n 76) Chapter 12

[79] Public Health England, 'Seasonal Influenza Vaccine Uptake in Healthcare Workers (HCWs) in England Winter Season 2020 to 2021' (June 2021) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/996100/Seasonal_influenza_vaccine_uptake_HCWs_2020-21_FINAL_v2.pdf> accessed 3 June 2022

[80] Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust, 'Infection Prevention and Control Practice Guidance Note - Staff Immunisation V01' (October 2019) 8

safety policy: the Health and Safety at Work Act 1974;[81] the Control of Substances Hazardous to Health Regulations 2002;[82] and the Health and Social Care Act 2008 Code of Practice on the Prevention and Control of Infections.[83] These important pieces of legislation underline the need to ensure that healthcare professionals are free of and protected from exposure to infections that can be contracted in the workplace, so far as is reasonably practicable.

At present, there is not a 'no jab, no job' policy and unvaccinated staff can continue to work in patient facing settings. Whilst there is convincing guidance in favour of vaccination, it has no teeth and there are no vaccine mandates, nor are there any professional ramifications for refusing to be vaccinated. During the Covid-19 pandemic, the GMC publicly acknowledged that refusal of a Covid-19 vaccine would not in itself be a sufficient reason for launching a fitness to practice investigation.[84]

Remaining intentionally unvaccinated harms patients, the public, and the profession. If healthcare professionals were committed to the obligation to be vaccinated as a part of their professional duty to treat safely, there would be no need to discuss the issue of vaccine mandates as uptake would be universal for all those eligible for vaccination. However, in many cases vaccine uptake is suboptimal. This is a serious matter; vaccine

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<https://www.cntw.nhs.uk/content/uploads/2018/11/IPC-PGN-30-Immunisation-of-Staff-V01-Iss-2-Oct-19-1.doc> accessed 2 June 2022

[81] Health and Safety at Work Act 1974 s1, under which employers and employees have specific duties to protect, so far as is reasonably practicable, those at work and others who may be affected by their work activity, including patients

[82] Control of Substances Hazardous to Health Regulations 2002, which requires employers to assess the risk for exposure to hazardous substances, including biological agents (i.e., pathogens), and bring into effect measures to protect workers and others from those risks as far as is reasonably practicable

[83] Department of Health, 'Health and Social Care Act 2008 Code of Practice on the Prevention and Control of Infections' (July 2015) 31 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/449049/Code_of_practice_280715_acc.pdf> accessed 19 May 2022,

[84] Academy of Medical Royal Colleges, 'Doctors' Vaccination - Joint Statement from the GMC and Academy of Medical Royal Colleges' (2022) < https://www.aomrc.org.uk/statements/doctors-vaccination-joint-statement-from-the-gmc-and-academy-of-medical-royal-colleges/> accessed 1 June 2022

refusal could therefore be viewed similarly to any other violation of professional and ethical obligations. Medicine is a self-regulating profession, and here is a need for the profession to regulate itself.

Brazier and Harris argue that the harm of refusing vaccinations is akin to criminal activity, suggesting that:
'Communicable diseases… can kill and inflict irreversible damage to health… the interests of others are prejudicially affected by disease to a greater extent than is the case with much of the overt violence which is the everyday business of the criminal law… The highly contagious diseases threaten numbers that even the most notorious serial killer could not dream of'.[85]

Even though exposing others to infectious disease may not be intentional, the duty to treat safely denotes a responsibility that might justify a legal response to protect the rights and health of others, particularly within the clinical environment where the risk to patients and colleagues is much higher. Further, although the Offences Against the Persons Act 1861 was initially intended to deal with crimes of violence, it was recognised in *R v Dica* that infection can constitute harm under ss 18 and 20 of the Act.[86] Thus far all criminalisation has been in relation to foreseeable transmission of serious sexually transmitted infections like HIV. However, it was held that sexual contact is not a requirement for prosecution of grievous bodily harm in *R v Marangwanda*, whereby two girls were infected with gonorrhoea through casual touching.[87] Therefore, it is suggested that reckless transmission of vaccine preventable infection could be associated with the determinative seriousness of grievous bodily harm as it would likely inflict severe and long-term health issues, which accords a greater moral weight to a healthcare professional's duty to treat safely and accept vaccination.

[85] M Brazier and J Harris, 'Public Health and Private Lives' (1999) 4(2) *Medical Law Review* 171, 177

[86] *R v Dica* [2004] EWCA Crim 110; see also *R v Konzani* [2005] EWCA Crim 706

[87] *R v Marangwanda* [2009] EWCA Crim 60

Dawson proposes that each vaccination matters morally, because non-vaccinated persons increase the risk of harm to others, 'even if in an infinitely small way'.[88] He contends that 'where we can perform an action to reduce the risk of foreseen harm to others through undergoing vaccination, then we may be obligated to do so'.[89] Furthermore, Bradfield and Giubilini recognise, there is a need to reduce transmission, specifically in healthcare settings, and to ensure that healthcare professionals, and patients, do not remain in a position of disproportionately high risk.[90] This chapter has shown that in the absence of a prescriptive policy, any recommendations for healthcare professionals to be vaccinated are somewhat of a damp squib. In a hypothetical future pandemic, there could be a case where, as result of vaccine hesitancy, swathes of healthcare professionals decline vaccination enabling the disease to proliferate and for lives to be lost as a result.

3.3.4 A Collective Duty but an Individual Responsibility

Even if one healthcare professional was vaccinated, and therefore unlikely to be infected or transmit the infection to others, it would be farcical to assume that another unvaccinated healthcare professional wouldn't spread the infection themselves within the clinical setting. In isolation an individual's actions make only a slight contribution to halting the chain of transmission, to which scholars, like Verweij, suggest that an individual's contribution to vaccine coverage is irrelevant if widespread immunity is not realised.[91] The continued risk that other people are infected would be high regardless of whether one person chooses to accept the vaccine, and the impact of each person's choice on the risk of contagion would be negligible.

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[88] A Dawson, 'Herd Protection as a Public Good: Vaccination and Our Obligation to Others' in A Dawson and M Verweij (eds), *Ethics, Prevention and Public Health* (Oxford, Clarendon Press, 2007) 170

[89] *ibid* 171

[90] O Bradfield and A Giubilini, 'Spoonful of Honey or a Gallon of Vinegar? A Conditional COVID-19 Vaccination Policy for Front-Line Healthcare Workers' (2021) 47 *Journal of Medical Ethics* 468

[91] M Verweij (n 22) 329

Vaccinated individuals do benefit from their participation in the programme; it is just that they will gain an *additional* benefit if widespread immunity is realised.[92] Vaccination policies triumph when vaccination is viewed through the collective lens, one which states that the policy is most successful when widespread immunity is attained, in this instance meaning that all healthcare professionals with face-to-face patient contact are vaccinated against the disease. The duty to treat safely is a collective obligation however, it is reliant on individual actions.

3.4 TURNING TO VACCINE MANDATES

This chapter has established a duty incumbent on healthcare professionals to treat safely and has thus extended that duty to a duty to accept vaccinations, notwithstanding medical contraindications. The chapter has also examined vaccine hesitancy and explained that although there are many moral, ethical, professional, and clinical grounds in favour of vaccination, optimal uptake cannot be guaranteed. It is acknowledged that the risks of pandemic disease are substantial, and it is accepted that healthcare professionals are at high risk of infection, serious illness, and death, particularly older workers and those from ethnic minority groups (excluding white minorities).[93]

Resultantly, it is challenging to find a way that would ensure optimal uptake is achieved in the pandemic context without strengthening the existing guidance or creating a separate avenue through which vaccination could be mandated. Accordingly, to ensure the healthcare system is adequately prepared for future pandemics, focus must turn to vaccine mandates.

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[92] A Dawson (n 90) 149

[93] F Chaudhry and Others, 'COVID-19 and BAME Health Care Staff: Wrong Place at the Wrong Time' (2020) 10(2) *Journal of Global Health* 020358

4 CHAPTER III: ETHICAL JUSTIFICATION OF VACCINE MANDATES

Before analysis of any potential framework for the implementation of vaccine mandates can take place, this chapter shall first ground the justification of vaccine mandates in ethical theory.

Thus far, this thesis has established that it is the professional and ethical responsibility of healthcare professionals and the institutions within which they work to prevent the spread of infectious pathogens to their patients by following evidence-based infection prevention practices. Unfortunately, despite the strong arguments in their favour, vaccination uptake rate across hospitals has generally been disappointingly low. Therefore, in preparation for future pandemics, if a system reliant on voluntary action is thought to prove inadequate, preparation must be made which sets out clear expectations for healthcare professionals in relation to vaccinations.

Having established why vaccine mandates must be reviewed, the particular focus of this chapter is to explore how mandates can be justified as a necessary public health intervention through ethical examination. In this chapter it will be argued that a vaccine mandate would be ethically justifiable for healthcare professionals by virtue of their importance to the pandemic response. It shall be demonstrated that mandatory vaccination can be justified through both a consequential and deontological perspective, this will then permit the analysis of the legal justification of vaccine mandates which will finally support the construction of an intervention framework in the final substantive chapter. This chapter will first consider whether autonomously choosing to be vaccinated is a moral obligation, based on the duty of easy rescue. The second section asks whether, if choosing to be vaccinated is a moral requirement, is coercion ethically justified.

4.1 IS THERE A MORAL REQUIREMENT TO BE VACCINATED?

It is important to make the question of individual moral obligation to be vaccinated central to the discussion of vaccination ethics. If healthcare professionals were convinced that there was a moral obligation to be vaccinated, there would be no need

to discuss vaccine mandates.[1] Moreover, the existence of a moral obligation is central to the justifiability of vaccine mandates.

Some scholars have argued that 'there is neither a moral obligation to vaccinate nor a sound ethical basis to mandate vaccination under any circumstances'.[2] In such a case, a vaccination mandate would be by definition unjust and morally illegitimate as 'agent autonomy with respect to self-constitution has absolute normative priority over reduction or elimination of the associated risks to life'.[3] This account fails to accord due weight to the specific role of healthcare professionals in the pandemic response and the accepted duty to treat.

The case for mandating vaccination against pandemic disease in existing legal scholarship has largely been made on consequentialist principles and submits that vaccination is morally required under the principles of fairness and the maximisation of utility, and therefore mandates can be justified.[4] The primary argument is that any interreference with individual autonomy must be necessary and proportionate. The WHO suggest a broadly consequentialist approach, that ethical analysis should consider:

> Necessity: whether the required vaccination levels be achieved without a mandate;
> Proportionality of impact on freedom compared to purpose;
> Vaccine safety;
> Effectiveness: will the mandate increase vaccination levels;
> Justice in access and administration; and
> The effect on public trust.[5]

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[1] A Dawson, 'Vaccination Ethics' in A Dawson (ed), *Public Health Ethics. Key Concepts and Issues in Policy and Practice* (New York, Cambridge University Press, 2011) 150 – 151

[2] M Kowalik, 'Ethics of Vaccine Refusal' (2022) 48 *Journal of Medical Ethics* 240, 243

[3] *ibid* 240

[4] A Giubilini, 'Vaccination Ethics' (2021) 137 *British Medical Bulletin* 4

[5] World Health Organization, Ethics and Governance, 'COVID-19 and Mandatory Vaccination: Ethical Considerations: Policy Brief' (*World Health Organization*, 30 May 2022) <https://www.who.int/publications/i/item/WHO-2019-nCoV-Policy-brief-Mandatory-vaccination-2022.1> accessed 8 July 2022

Many legal scholars have already investigated and found in favour of vaccine mandates on consequentialist grounds, and this thesis agrees with that analysis. The consequentialist analysis assesses vaccine mandates from a community perspective, and it is generally objected to from the deontological perspective on the basis that it ignores the difference between individual attitudes to vaccination which may make some people more vaccine hesitant than others. To apply a broad-brush approach could risk disproportionately impacting the freedom of minorities (as discussed in the previous chapter). It is therefore proposed that if mandatory vaccination can be justified from a deontological perspective, the argument in favour of implementing the mandate for healthcare professionals is more convincing.

4.1.1 The Utility Maximisation Argument

In their article discussing the moral obligation to be vaccinated, Giublini, Douglas, and Savulescu argue that choosing vaccination is a moral duty to the collective good as per the consequentialist principle of Group Beneficence, within which they state there is a morally normative obligation to act for the benefit of others.[6] They apply Parfit's hypothetical scenario of a large number of wounded men who are suffering from extreme dehydration in the desert, and a group of altruists who each hold a pint of water. These pints of water could be poured into a cart, brought to the desert, and the water shared between the men. Each additional pint of water will enable each thirsty man to drink (perhaps) an imperceptible amount more.[7]

This vignette can be read analogously to the undetectable, but important, contribution each individual makes to total vaccination rates. It is maintained that each person has an obligation to accept vaccines by virtue of Parfit's principle which attributes each altruist with the moral responsibility to make their contribution to alleviating the men's thirst. This principle has been titled the 'Principle of Group Beneficence' whereby each member of the collective has a duty to act in a manner which enables the

[6] A Giublini, T Douglas and J Savulescu, 'The Moral Obligation to be Vaccinated: Utilitarianism, Contractualism and Collective Easy Rescue' (2018) 21 *Medicine, Health Care and Philosophy* 547, 550

[7] D Parfit, *Reasons and Persons* (Oxford, Oxford University Press, 1984) 76

collective to achieve the desirable effect.[8] The moral obligation is derived from the principle of utility maximisation; however, it does not account for the fact that to give away a pint of water involves different burdens for different individuals.

4.1.2 Contractualism

Scanlon considers that:

> '[a]n act is wrong if its performance under the circumstances would be disallowed by any set of principles for the general regulation of behaviour that no one could reasonably reject as a basis for informed, unforced, general agreement'.[9]

However, when applied to vaccination Verwenij opines that this is a morally demanding theory as those '[p]ersons most vulnerable to the disease do not respond optimally to vaccination… and therefore they will be much better protected if everyone were vaccinated, the old and the young, the ill and the healthy'.[10] Accordingly, if an individual could not justify their reasoning to refuse vaccination to vulnerable members of society, as contractualism would require, their action is morally wrong. Considering a healthcare professional's role in the pandemic justifying vaccine hesitancy or refusal is more challenging. The choice for even one healthcare professional to refuse a vaccine is impactful, as is the choice for each to accept it – they are making a conscious decision to treat safely and ensure they can continue to treat during outbreaks of infectious disease. This theory places a duty upon all healthcare professionals to be vaccinated, notwithstanding any medical contraindications.

4.1.3 Deontological Analysis

It is proposed that the moral obligation to be vaccinated *qua* mutuality of restrictions does not stem from the utilitarian reason that this would be the best way to attain

[8] M Otsuka, 'The Paradox of Group Beneficence' (1991) 20(2) *Philosophy and Public Affairs* 132

[9] T Scanlon, *What We Owe to Each Other* (Cambridge, Harvard University Press, 1998) 153

[10] M Verweij, 'Obligatory Precautions Against Infections' (2005) 19(4) *Bioethics* 323, 333

immunity, but from the deontological ground that one should only act in a way that would be justifiable and 'good' to society.

> 'Act only in accordance with that maxim through which you can at the same time will that it become a universal law'.[11]

According to Kant's maxim ("the Categorical Imperative") the rightness of a certain act is dependent first upon the consequences of that act, and only then should one consider whether a duty applies to all moral society. From this, one could, *prima facie*, derive a moral obligation to be vaccinated, and this obligation could be justified because of the overwhelming significance of a healthcare professional's immunity as a general interest. Although the utilitarian argument would most likely result in the same conclusion, the deontological argument has the benefit of taking both personal autonomy and conscience-related convictions or religious beliefs seriously. The utilitarian trajectory only aims at attaining vaccine coverage as an end in itself, whilst deontological principles appeal for interventions to respect human beings as ends and not just as means, which could more easily accommodate the doubts and fears of vaccine-refusers as autonomous beings, thereby making it easier for them to understand the importance of vaccinating. The deontological analysis begins by asking why, from an individual perspective, is there a duty to be vaccinated.?

4.1.4 The Duty of Rescue

> 'No man is an Iland, intire of itselfe; every man
> is a peece of the Continent, a part of the maine'[12]

As per Donne's adage, no one is alone. We are a social species who live in a community reliant on the collaboration of its members. Geertz submits that this is what distinguishes us as humans as it has impacted how our bodies and our morality have evolved.[13] Autonomy supports the survival and flourishing of the individual independent to the group, however, in the absence of a community this would be limited, nor would the community succeed without the commitment of its members. The reliance generates duties owed in both directions, though these are not necessarily

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[11] I Kant, *Groundwork of the Metaphysics of Morals* (1785) 4:421

[12] J Donne, *Meditation XVII, Devotion and Emergeny Occasion* (1624)

[13] C Geertz, *The Interpretation of Cultures: Selected Essays* (Basic Books, 1973) 73 - 4

matching or reciprocal. Harari sees these duties as the root of societal co-operation, as well as the conceptualisation of morality.[14] Singer understands the duties as a 'consciously chosen ethic with an expanding circle of moral concern'.[15] The duty to community is the basis of the moral duty of rescue, from which the duty to choose vaccination might arise. However, to determine how it arises, the weight of the duty must be defined.

The existence of a duty of *easy* rescue is an (almost) uncontroversial condition of morality and is accepted by both consequentialists and deontologists. The duty states that if an individual is faced by a situation in which their actions could bring about a positive result at little cost to themselves, they are morally obligated to intervene. Singer provides the classic characterisation of the duty that:

> 'if I am walking past a shallow pond and see a child drowning in it, I ought to wade in and pull the child out. This will mean getting my clothes muddy, but this is insignificant, while the death of the child would presumably be a very bad thing'.[16]

The duty of easy rescue as expressed by Singer's illustration does not presuppose, or support (though coincides with) utilitarian morality; Bentham saw a 'duty of every man to save another from mischief, when it can be done without prejudicing himself'.[17] Furthermore, Kant saw this as an imperfect duty, one which does not always hold true but is flexible depending on the context.[18]

The scope of the duty of easy rescue is unclear. Scanlon suggests it compels us to slight or even moderate sacrifice to prevent significant harm to others.[19] Beauchamp and Childress suggest that only significant risks or burdens release us of this moral

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[14] Y Harari, *Sapiens: A Brief History of Humankind* (Penguin Random House, 2015) 20 - 28

[15] P Singer, *The Expanding Circle: Ethics and Sociobiology* (Princeton University Press, 2011)

[16] P Singer, 'Famine, Affluence, and Morality' (1972) 1(3) *Philosophy and Public Affairs* 229, 231

[17] J Bentham, *An Introduction to the Principles of Morals and Legislation* (Oxford Clarendon Press, 1789)

[18] I Kant (n 11) 6:390 - 394

[19] T Scanlon (n 9) 224

duty.[20] Menzel submits the duty cannot require unrealistic effort.[21] Moreover, Rulli and Millum propose there is broad societal consensus for the duty where the cost to the rescuer is minimal, however this does not encompass a duty to difficult rescue or an obligation to fulfil a high number of low-cost rescues; if a person is drowning and the individual can swim there may be an obligation to rescue, but if a hundred persons are drowning that individual would be justified in ceasing their efforts before they are so exhausted that they drown too.[22]

4.1.4.1 Is Vaccination an Easy Rescue?

A consequentialist analysis submits that vaccination is within the duty of easy rescue on the basis that:

> 'when the cost to an individual is small of some act, but the benefit or harm to another is large, then there is a moral obligation to perform that act'.[23]

Savulescu views this duty of easy rescue as easy because the vaccine is safe and effective, therefore the choice to be vaccinated is not of a particularly high cost. Giubilini also suggests that the safety of the vaccine should be limited to an objective test only, because:

> 'if subjective costs were factored in, then basically anything could be considered over- demanding at least for someone, with the undesirable consequence that one's personal moral or religious views could exempt anyone from any moral obligation'.[24]

Nonetheless, whilst an approved vaccine is seen as safe from the perspective of the regulators, the 'easiness' of rescue must be determined by the individual being vaccinated as they must first choose to act.

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[20] T Beauchamp and J Childress, *Principles of Biomedical Ethics* (Oxford, Oxford University Press, 2001) 202

[21] P Menzel, 'The Moral Duty to Contribute and its Implications for Organ Procurement' (1992) 24 *Transplantation Proceedings* 2175

[22] T Rulli and J Millium, 'Rescuing the Duty to Rescue' (2016) 42 *Journal of Medical Ethics* 260, 261

[23] J Savulescu, 'Good Reasons to Vaccinate: Mandatory or Payment for Risk? (2021) 47 *Journal of Medical Ethics* 78, 82

[24] A Giubilini, 'An Argument for Compulsory Vaccination: The Taxation Analogy' (2020) 37(3) *Journal of Applied Philosophy* 446, 452

Vaccinations are generally safer than the disease they protect against, however they are not risk free. Although in the UK, individuals can access treatment through the NHS who will provide care in the case of side effects, strict liability claims under the Consumer Protection Act 1987 will not succeed unless the vaccine can be shown to be defective.[25] Moreover, fault-based civil compensation schemes are seldom successful unless vaccines are administered irrespective of contraindications, like known allergies, because the risk to the individual of contracting the disease is likely to outweigh risks associated with vaccination. In the UK, the Vaccine Damage Payment Scheme, established by the Vaccine Damage Payments Act 1979, introduced a statutory payment for those who are seriously disabled as a result of vaccination.[26] Presently, individuals receive a one-off tax-free payment of £120,000; which Cave recognises is a pitiful amount when compared to civil payments for comparable injuries.[27] Nonetheless, severe side effects to vaccination are rare, and the most common side effects – sore arm, redness – are mild. Risk perception varies enormously between individuals, and the degree of risk an individual is likely to accept is a highly personal choice, as discussed in the previous chapter.

For those who are afraid of needles or vaccines, or have religious objections to vaccines, the generally accepted duty of easy rescue may not apply. The consequentialist argument does not take supererogatory actions into account, and Pieruk submits that the existence of vaccination as a tool which benefits the community, in this case the duty to treat safely, requires all members of the group to take their fair share of risk.[28] Giubilini develops this and opines that vaccination is morally obligatory as it represents a fair distribution of pandemic burdens.[29] However, the burdens are not distributed equally if, for some people, the duty of rescue is more difficult. Navin submits that an individual's contribution to the collective good is only

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[25] E Cave, 'Voluntary Vaccination: The Pandemic Effect' (2017) 37(2) *Legal Studies* 279, 281

[26] Vaccine Damage Payments (Specified Disease) Order 2015, SI 2015/47

[27] E Cave (n 25) 281

[28] R Pierik, 'Mandatory Vaccination: An Unqualified Defence' (2018) 35(2) *Journal of Applied Philosophy* 381, 388

[29] A Giubilini, 'Fairness, Compulsory Vaccination, and Conscientious Objection' in A Giubilini (ed), *The Ethics of Vaccination* (Springer International Publishing, 2019) 95

fair when the burden is not only equal for everyone, but also 'reasonable', that is to say, not excessively demanding.[30]

From a deontological standpoint, the duty of easy rescue applies generally, but only up to a certain degree of difficulty. It is not clear how that degree can be determined; however, for vaccination mandates to be morally justifiable for the vaccine hesitant, a duty of a difficult rescue must be established.

4.1.4.2 The Duty of Difficult Rescue

It is suggested that the duty of rescue obliges a 'slight or even moderate sacrifice' to prevent significant harm to others, which referring back to Singer's vignette could mean ruining one's clothes or jumping into deep water to save the drowning child.[31] Bioethicists have traditionally placed the upper boundary of the duty of rescue at the level of interventions which 'would not present very significant risks, costs, or burdens to the rescuer'.[32] Rulli and Millum recognise that the parameters of the duty of rescue are not agreed, however they propose that it is generally agreed that the duty increases both where there is a connection to those to whom the duty is owed, and where there is significant danger.[33] In this case, there is an already established fiduciary duty owed by doctors to patients as per the duty to treat, as well as a connection between the healthcare professional and their family and colleagues which strengthens the duty of rescue. Moreover, during a pandemic there is a known and significant, risk to vulnerable patients.

One potential guide to frame the duty of rescue is to look at the duties a community has already accepted as socially normative. In his article, Savulescu suggests that vaccine mandates can be ethically justified in a community which has already accepted infringements of freedoms in grave emergencies comparable to the pandemic, using

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[30] M Navin, *Values and Vaccine Refusal: Hard Questions in Ethics, Epistemology and Health Care* (New York, Routledge, 2015) 142

[31] T Scanlon (n 9) 224

[32] T Beauchamp and J Childress (n 20) 202

[33] T Rulli and J Millium (n 22) 261

wartime conscription, taxation, and seatbelt laws as comparators.[34] Whether these are the most appropriate to compare to pandemics remains to be seen: national service stopped in the 1960s; taxation decisions are made by democratically elected governments; and seatbelts benefit the wearer far more than society. However, these examples do helpfully indicate that acceptance of a mandated duty of rescue is a community decision on where the limits lie. During World War II, as the perceived threat of invasion increased and following Dunkirk, the number of eligible men registered as conscientious objectors shrunk from 22 in 1000 in 1941 to 6 in 1000.[35] Those who deregistered from the conscientious objectors' roster perhaps realised that their position was morally untenable given the level of risk of an invasion on home soil and accepted the difficult duty to enlist and fight. Accordingly, it is fair to suggest that the boundaries of the duty of difficult rescue as acknowledged by a significant portion of the population, provides a guide to the limits of the duty of rescue for that population.

During a pandemic, healthcare professionals will accept extremely challenging working scenarios: they will likely face significant threats to their own wellbeing and indirectly to that of their families; they will have to manage high numbers of patients with high mortality rates in a high-pressure environment; they will have to deal with challenges in delivering care under strict infection control measures. Many will be redeployed into new roles, teams or newly purposed wards and will have to work in unfamiliar settings and without established social support from colleagues. Reflecting on the experience during Covid, there was some dissent but little actual resistance to these difficult circumstances, thus suggesting that widespread acceptance of a duty of difficult rescue can extend to things that people would rather not do. It is therefore proposed that the duty of rescue would extend, during a pandemic, to vaccine hesitancy, leaving the objection to those for whom vaccination would be more difficult than this. Nonetheless, Giubilini and Bradfield submit that the burdens of vaccination can be reduced by providing healthcare professionals with 'timely, accurate, comprehensible, culturally sensitive and balanced information about the benefits and

[34] J Savulescu (n 23) 81

[35] J Simkin, 'Conscientious Objectors' (*Spartacus International*, January 2020) <https://spartacus-educational.com/2WWco.htm> accessed 22 June 2022

risks, including areas of uncertainty' concerning vaccination.[36] The duty of rescue is variable dependent on the burden faced and if, for example, the pandemic disease was highly infectious with a high mortality rate, the duty could therefore be extended to become one of extremely difficult rescue.

4.2 DOES THE MORAL CASE FOR CHOOSING VACCINATION JUSTIFY VACCINE MANDATES?

The moral duty of individuals to autonomously accept vaccination arises from the assertion that even a strong preference against vaccination is outweighed by the duty of difficult rescue. Accordingly, after considering an individual's wishes in relation to vaccination against the duty of rescue, unless their preference exceeds a 'strong preference' against vaccination, then the morally right choice is to be vaccinated.

4.2.1 Mandates and Coercion

Even if it is considered morally right to accept vaccination, this does not establish an automatic community right to coerce individuals into being vaccinated. Vaccine mandates necessitate the implementation of legal measures to compel individuals to accept vaccination(s) that they would not otherwise accept via some form of related incentives or disincentives. Both Savulescu and Giubilini accept that this is coercive.[37] Giubilini views these interferences as 'rendering unreasonable those choices that individuals would otherwise have made through their own evaluation'.[38] Coercion is not the same as persuasion, as instead of providing individuals with reasons to choose against their better judgement, it uses 'influence by reason and argument' to tackle the root causes of the judgement itself.[39] Beauchamp and Childress offer an definition of

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[36] O Bradfield, A Giubilini, 'Spoonful of Honey or a Gallon of Vinegar? A Conditional COVID-19 Vaccination Policy for Front-Line Healthcare Workers' (2021) 47 *Journal of Medical Ethics* 467, 468

[37] J Savulesco, A Giubilini, and Margie Danchin, 'Global Ethical Considerations Regarding Mandatory Vaccination in Children' (2021) 231 *The Journal of Pediatrics* 10, 11

[38] A Giubilini, 'Vaccination Policies and the Principle of Least Restrictive Alternative: An Intervention Ladder' in A Giubilini (ed), *The Ethics of Vaccination* (Springer International Publishing, 2019) 67

[39] J Blumenthal-Barby, 'Between Reason and Coercion: Ethically Permissible Influence in Health Care and Health Policy Contexts' (2012) 22(4) *Kennedy Institute of Ethics Journal* 345, 346

persuasion as a process in which 'a person comes to believe in something through the merit of reasons another person advances'.[40]

It is a generally accepted ethical stance that 'rational persuasion is always ethically permissible, and coercion is almost always impermissible', however coercion is not necessarily ethically prohibited, as it may be justified as a public good.[41] Mandatory vaccination is generally justified through Mill's consequentialist grounds: preventing undue harm to others. According to Mill's Liberalism, the only time that the restriction of liberty can be justified is when one individual is at risk of harming others, the 'harm principle':

> 'The sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection'.[42]

The use of the law to prevent actions which would harm the community, like theft, false imprisonment, assault, and murder, is considered morally justifiable in all societies. Hobbes viewed coercion as a vital part of the state's function:

> 'The nature of Justice consists in keeping of valid Covenants: but the Validity of Covenants begins not but with the Constitution of a Civil Power, sufficient to compel men to keep them'.[43]

Thus, the principle that moral agents can be coerced to protect others from harm is acknowledged in deontology, though with one difference. Kant viewed coercion as justified only when it was to protect the rights of others from other agents who do not choose morally, as, in these circumstances coercion creates a barrier to a barrier to freedom:

> 'Right and authorisation to use coercion therefore mean one and the same thing'.[44]

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[40] T Beauchamp and J Childress (n 20) 94

[41] J Blumenthal-Barby (n 39) 346

[42] J Mill, *On Liberty* (first published 1859, Cambridge University Press, 2011)

[43] T Hobbes, *Leviathan* (first published 1651, Penguin 2016) Ch 15

[44] I Kant (n 11) 6:232

On a deontological analysis it is necessary to distinguish between two motives for refusal to be vaccinated. The first group accept that vaccination is a sufficiently easy duty to be morally obligatory, but do not weigh it into their judgement and choose selfishly, taking the option of becoming free riders. According to deontology, this group can be justifiably coerced in the first instance. Secondly, the other group do take account of the duty of rescue in their judgement, but regard vaccination as too difficult to be required by it. They are conscientious objectors, and the role of conscientious objection will be examined in the following chapter.

4.2.2 Bodily Autonomy

It may be reasoned that invading the human body crosses a barrier that is somewhat different than that which limits invasion of other interests; that is to suggest there is an absolute right to reject vaccination regardless of any moral obligation and that harm rejection may cause to others. However, there is no clear reason why moral responsibility should be limited to the acts external to the body. Ramsey proposes that bodily autonomy is given high priority in liberal societies that give precedence to personal freedoms, whilst requiring individuals to undergo treatments in the common good is more common in societies which have communitarian principles.[45] This is prioritisation is exemplified in the fluoridation of water,[46] and the mandatory fortification of wheat flour with calcium and iron in the UK. [47] This benefits society as the population is healthier and reduces strain on the NHS.

4.2.3 Degrees of Coercion

If the collective response of healthcare professionals to an outbreak of pandemic disease indicates a duty of difficult rescue which justifies coercion, there must be an understanding of what degree of coercion is considered appropriate in that specific circumstance. There are many options for coercion, and Giubilini suggests rank-ordering possible interventions consisting of: persuasion; nudging; incentivisaion; loss

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[45] P Ramsey, *The Patient as Person: Explorations in Medical Ethics* (Yale University Press, 1973) 189

[46] Water (Fluoridation) Act 1985

[47] Bread and Flour Regulations 1998

of financial benefits; imposition of financial penalties; withholding of social goods; and, as a last resort, compulsory vaccination.[48]

Furthermore, the Nuffield Council on Bioethics produced an intervention ladder in which the least intrusive step was to 'do nothing', and the most intrusive was to legislate to entirely eliminate choice.[49] They suggested that 'quasi-mandatory' approaches can be ethically justified for highly contagious and serious disease, such as a pandemic.[50] It is accepted that any such intervention on liberty should be to the least effective degree, the so-called 'principle of the least restrictive alternative' which is central to public health ethics.[51] This is also reflective of Mill's harm principle which states that any interference with liberty must be to the smallest degree possible to achieve the required result. In practice, Savulescu notes, this formulation is not much use as generally the greater restrictions on liberty will yield larger collective benefits with regard to a specific goal; for example, if no one was allowed to drive, there would be no road traffic accidents.[52] Accordingly, the question that must be asked it whether more coercion should be used to increase the expected usefulness of a policy, or less coercion with an acceptance of a less useful outcome? No strict black and white criterion exist which effectively strike the balance between the respect for individual liberty and the expected usefulness, however it is accepted that the greater the threat to public health, the more liberty can be restricted.

It is unclear when utilising the principle of the least restrictive alternative where the upper limits of any such coercion lie – meaning that in the event that the most coercive measures were the most effective, if there are any limits to permissible coercion. It is noted that excessive authoritarianism can be counterproductive, as was the case with mandatory smallpox vaccination in 1853 where the punishment for refusal was a fine

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[48] A Giubilini (n 38) 89

[49] Nuffield Council on Bioethics, *Public Health: Ethical Issues* (Nuffield Council on Bioethics, 2007) 41

[50] *ibid* 60

[51] J Childress and Others, 'Public Health Ethics: Mapping the Terrain' (2002) 30 *Journal of Law and Medical Ethics* 170, 173

[52] J Savulescu, A Giubilini and M Danchin (n 37) 14

or imprisonment. There were widespread and violent riots across England, including a massive anti-vaccination rally in Leicester which attracted around 100,000 people.[53] The legislation was subsequently softened, and then discontinued.

Even, over a hundred years on, in 2022 when it was announced that all patient facing NHS staff must be vaccinated against Covid-19 by 1 April 2022, unless medically contraindicated, or they would be redeployed or lose their job.[54] The government said that since the initial consultation in September more than 127,000 NHS staff had been vaccinated, but by 16 January 80,092 staff remained unvaccinated. Their loss would have devastating impacts on pre-existing acute workforce shortages which would compromise patient care and safety and risk the continuity of healthcare services; the polar opposite of what the regulation intended to achieve. It was therefore unsurprising that shortly before the end of the vaccine administration period, the mandate was scrapped. The regulations were revoked on the basis that the balance of risks had shifted throughout the pandemic with disease variants becoming less dangerous and the population being overall 'better protected against the need for hospital admission'.[55] It was accepted that whilst vaccination remained the 'very best line of defence' it was 'no longer proportionate' to the harm caused by the current omicron variant.[56] The mandate may well have been considered reasonable when the risk was high, however when it had been shown to have decreased it was no longer felt that a mandate was necessary or proportionate to ensure the continuation of healthcare services. And, as such many healthcare professionals were refusing to be vaccinated. Whilst highly coercive measures might be seen to produce the highest uptake, in reality the measures must be reflective of the circumstances they seek to assuage in order to be accepted, such as the UK lockdown on 23 March 2020 which halted all non-essential contact and travel, and closed schools, workplaces, and non-essential retail spaces. It is thought that 470,000 lives were saved as a result of the first

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[53] R Wolfe and K Sharpe, 'Anti-Vaccinationists Past and Present' (2002) 325(7361) *British Medical Journal* 430, 432

[54] The Health and Social Care Act 2008 (Regulated Activities) (Amendment) (Coronavirus) (No. 2) Regulations 2022

[55] HC Deb 31 January 2022, vol 708, col 70

[56] *ibid*

lockdown, but this lockdown also had massive impacts on the lives and livelihoods of the entire population.[57] At the time, and in the face of unknown risk of a novel disease, the banner of 'stay home to save lives' was accepted by society as a justified restriction on individual autonomy, and it was only when infections and death rates were declining that public opinion changed and society wanted to come out of isolation.

The limits of coercion may lie in a deontological analysis regarding the importance of moral agency. The Nuffield Council on Bioethics suggest, for example, that mandatory measures should not *unduly* compromise the voluntariness of consent.[58] This submits that there cannot be a blanket policy through which vaccine mandates are applied, each future pandemic must be reviewed and the degree to which healthcare professionals are coerced to accept vaccination must be proportionate to the risk posed by the infectious disease. In a high-risk pandemic, a vaccine hesitant individual could view a 'no jab, no policy' and consider that they would rather not continue to work in a patient facing role and leave their job. By having an 'out' whereby there is a protected option for non-compliance, individuals retain the ability to make choices in the pandemic on the understanding of the risks and benefits of that choice.[59] The final chapter will review these forms of coercion and suggest what degree would be the most appropriate whilst supporting healthcare professionals' right to autonomy.

4.3 ESTABLISHED ETHICAL BASIS

One of the most important arguments from bioethicists appeal to preventing avoidable harm to others; this concept is at the centre of public health policy and defends what

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[57] S Flaxman and Others, 'Estimating the Effects of Non-Pharmaceutical Interventions on COVID-19 in Europe' (2020) 584 *Nature* 257

[58] Nuffield Council on Bioethics, 'Department of Health and Social Care Consultation on Making Vaccination a Condition of Deployment in the Health and Wider Social Care Sector: Nuffield Council on Bioethics Response' (2021) *Nuffield Council on Bioethics* 6 <https://www.nuffieldbioethics.org/assets/pdfs/Nuffield-Council-on-Bioethics-response-to-mandatory-vaccination-for-HSC-workers-Oct-2021.pdf> accessed 8 July 2022

[59] The ramifications of this choice will be discussed in the concluding chapter

is a recognisably liberal account of intervention policy – a delicate balance of protecting individual rights whilst empowering the state to intrude into the lives of individuals to prevent harm. It is accepted that freedom to choose remains an essential component in any ethical considerations of public health, and that these freedoms are interwoven into a complex fabric in which each player has distinct roles and responsibilities. The individual duty to be vaccinated rises from the duty of rescue, which is a consequence of membership of a community, as was discussed in Chapter I, through which healthcare professionals enjoy certain benefits by virtue of their status but this also results in certain obligations to that community.

The consequentialist evaluation of vaccine mandates proposes that vaccination is a duty of easy rescue as the vaccine is safe and effective, meaning an objective determination of this is the right one, and that principles of fairness require all individuals to play the same part. It is suggested that if vaccine mandates enhance vaccination uptake, they are ethically justified. Consequentialists submit that any interference with liberty must be proportionate, however there is no criterion on which this is to be determined. Hence, though they acknowledge that the restriction to individual liberty must be the minimum needed to obtain an effective result, they do not clarify whether, if extreme coercion were to prove the most effective approach, any ethical principle prohibits this.

A deontological account submits that the limit of the duty of rescue must be defined by the rescuer, and that neither the duty of easy rescue nor fairness justify why vaccine hesitant individuals should be vaccinated. Nonetheless, an examination of the limits of the duty of rescue suggests that, in the context of a pandemic the duty of difficult rescue extends, at least, to things that individuals would rather avoid. This therefore suggests that the vaccine hesitant, who would rather not be vaccinated, are morally obligated to be vaccinated and should consider this duty in their decision.

The moral duty to accept vaccination is a duty to exercise autonomy unselfishly, or to give the duty of rescue due consideration when deciding whether or not to be vaccinated against pandemic disease. It is arguably more selfish for a healthcare professional to choose not to be vaccinated and that this is a conscious choice to expose their vulnerable patients and indispensable colleagues to increased risks of infection.

From the deontological analysis in this chapter, it is apparent that coercion of selfish choices is justifiable, as those who choose selfishly do not accept their moral duty of rescue and choose instead to place those around them at risk of infection. It is therefore contended that in the pandemic context, these selfish choices can be heavily coerced, since these choices significantly impact the freedoms of others (remembering that even a limited number of refusers could lead to additional, avoidable deaths).

5 CHAPTER IV: LEGAL BASIS FOR VACCINE MANDATES

This chapter will discuss the plethora of human rights and normative conflicts in both law and morality inherent to mandatory vaccination schemes, especially where specific moral norms are subsequently given effect through positive-legal provisions. Thus far, this thesis has established in the pursuit of public health, both morally and legally, any liberal-democratic state adhering to and protecting the rule of law and human rights must always protect its most vulnerable members, in this case by reducing nosocomial transmission and by safeguarding the continued provision of healthcare services. There therefore exists, *prima facie*, a moral obligation to be vaccinated, and this obligation can be justified on the basis of the overwhelming value in safeguarding the health of healthcare professionals during a pandemic as a general interest. This collective good must be realised by individuals, but it has been noted that not all healthcare professionals will be voluntarily vaccinated - in this context, it has been shown that the coercion of selfish choices is justifiable, as those who choose selfishly to rely on the shared immunity of a group to protect against infection do not accept their moral duty of rescue.

According to this line of reasoning, persons living and benefitting from participation in a group are required to contribute to the effort needed to achieve that benefit. Given that a form of herd immunity in clinical settings is in the general interest of the workforce and society at large, not contributing to it as a free rider would be immoral, and thus, all are morally obligated to contribute to it. HLA Hart describes this obligation in *political*, and not *moral*, terms, though it comes very close to supporting an obligation to be vaccinated:

> 'when a number of persons conduct any joint enterprise according to rules and thus restrict their liberty, those who have submitted to these restrictions when required have a right to a similar submission from those who have benefited by their submission'.[1]

If this postulate is read through a moral lens, it means that anyone deriving a benefit from the actions of a group are morally required to perform the same action, and that

[1] HLA Hart, 'Are There Any Natural Rights?' (1955) 64 *The Philosophical Review* 175, 185

enjoying a shared benefit also requires sharing potential costs. In the context of vaccinations against infectious diseases, this means that everyone for whom the vaccination does not impose an insurmountable degree of difficulty is morally obligated to contribute to the creation and maintenance of the public good of herd immunity by being vaccinated.[2]

Having established a moral obligation to be vaccinated, which can be said to co-exist with or even predate the respective human rights as well as their balancing through proportionality and necessity in the case of clashes, this chapter shall establish how current international and domestic law and morality are connected in the context of vaccination. This interrelationship will be exculpated on the basis of the fact that the decision to be vaccinated, or not, entails consequences beyond the individual, and that, as a consequence, being vaccinated contributes to a higher public good that also protects other individuals, and in particular, those more vulnerable to infectious diseases. Thus, it becomes a moral obligation to halt the spread of such diseases and to protect those who cannot be vaccinated due to legitimate medical reasons.

However, as moral obligations are not directly enforceable, in some circumstances states resort to giving effect to them by enacting corresponding legal obligations that make certain vaccinations mandatory in order to ensure a high level of public health and to protect the most vulnerable members of society. From this follows two further questions:

i. Is there a *negative* human rights obligation of the state to refrain from imposing mandatory vaccination laws in order not to interfere with the lives, bodily integrity, and the personal autonomy of individuals?
ii. Is there a positive legal obligation on the state to impose mandatory vaccination laws in order to counteract the outbreak of infectious diseases and to protect the lives and health society, in particular the most vulnerable?

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[2] A Dawson, 'Herd Protection as a Public Good: Vaccination and Our Obligation to Others' in A Dawson and M Verweij (eds), *Ethics, Prevention and Public Health* (Oxford, Clarendon Press, 2007) 174

Any such laws or legal interventions, as will be discussed, must certainly strike a delicate and fair balance between these interests of the state as a collective and those of individuals in general. Both obligations exist and clash with one another, which means that one of these two conflicting rights must be prioritised by way of proportionality. It will be demonstrated that, both morally and legally, the argument in favour of a positive right is most convincing. It is more convincing as it is supported by the powerful normative tool that is the Categorical Imperative, demonstrating why there is a moral obligation to be vaccinated (as highlighted in the previous chapter). It is also more convincing because we find the Categorical Imperative (at least implicitly) reflected in the domestic jurisprudence and in the European Court of Human Right's ("ECtHR") case law, wherein, after a detailed proportionality test, it is clear that mandatory vaccination schemes, if implemented according to the science and in the service of social solidarity, are not in violation of human rights.

This chapter will review international health regulations and international law to highlight their overarching support for vaccine mandates, before reviewing domestic jurisprudence in favour of vaccination for incapacitous adults and children. It will also consider the basis of the relevant ECtHR jurisprudence, and most importantly the landmark case of *Vavřička and Others*, which had been submitted long before but was decided during the Covid-19 pandemic in April 2021. It is examined whether such mandatory vaccination laws are justifiable or not in the light of epistemic, personal autonomy, religion, or conscience-based reasons to refuse vaccinations. It will use the judgment in *Vavřička* to provide a novel argument in support of mandates for healthcare professionals by extending the judicial endorsement of solidarity and concluding that vaccination is considered to be in the best interests of the professional, as well as their patients and colleagues.

5.1 CONSENT

Consent is a pre-condition to autonomous decision-making and a requirement of lawful medical intervention. Failing to obtain valid consent can give rise to action for

negligence or battery and can constitute an assault.[3] In the case of *Montgomery v Lanarkshire Health Board* ('*Montgomery*') 2015, Lords Kerr and Reed said:

> 'An adult person of sound mind is entitled to decide which, if any, of the available forms of treatment to undergo, and her consent must be obtained before treatment interfering with her bodily integrity is undertaken'.[4]

Cave proposes that consent is valid if it complies with ethical principles and with the law, it must be voluntary, made by a person with capacity, and adequately informed.[5] Competent refusal of medical treatment, even where fatal, must be respected. Correspondingly, the choice to be vaccinated ordinarily sits with the individual, insofar as that individual retains autonomy.

However, the presumption of personal autonomy is not 'immutable', and it can be overridden, for example, in the provision of emergency medical care where, in the absence of evidence to the contrary, healthcare professionals will act in a patients' best interests.[6] In the case of vaccination, this is both an individual medical treatment and a public health measure, and as noted above, public health measures often necessitate personal sacrifice for the sake of the community. In these circumstances, the requirement for consent can arguably be legally and ethically superseded.[7]

5.2 JUSTIFICATION IN INTERNATIONAL LAW

5.2.1 International Health Regulations

The cornerstone of the international legal framework on managing pandemics is the WHO's International Health Regulations (the "IHR").[8] The IHR define their role as to:

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[3] *R v Brown* [1994] 1 AC 212, 230

[4] *Montgomery v Lanarkshire Health Board* [2004] UKSC 11, 87

[5] E Cave, 'Valid Consent to Medical Treatment' (2020) 47 *British Journal of Medical Ethics* e31, 1

[6] A Beazley, 'Contagion, Containment, Consent: Infectious Disease Pandemics and the Ethics, Rights, and Legality of State-Enforced Vaccination' (2020) 7(1) *Journal of Law and the Biosciences* 1, 3

[7] A Giubilini and J Savulescu, 'Demandingness and Public Health Ethics' (2019) 6(1) *Moral Philosophy and Politics* 65

[8] Constitution of the World Health Organization, Article 21

> ‘prevent, protect against, control, and provide a public health response to the international spread of disease in ways that commensurate with [and] which avoid unnecessary interference with international traffic and trade’.[9]

The regulations are based on the principles of public health and its intersection with human rights. The IHR have a particular focus on the precautionary principle, which imposes an obligation on states to protect populations against reasonably foreseeable threats. Accordingly, in light of significant risks to the population, this justifies state-imposed restrictions to individual liberty to prevent harm.

The IHR is intended to be a legal framework for the prevention, detection, and containment of public health risks, and these interventions should be applied in accordance with other international laws and agreements.[10] It has a broad scope and is applicable to all events that may constitute a public health emergency of international concern. Beazley submits that this broad scope implies that provided the proposed intervention is within the bounds of the IHR, a public health measure could make substantial demands of individuals – including compulsory vaccination.[11]

In order to prevent unnecessarily excessive demands and ensure that the IHR is interpreted and applied in accordance with the objects and purposes of the International Covenant on Civil and Political Rights, there are defined limits for the IHR’s application; the Siracusa Principles on the Limitation and Derogation of Provisions in the International Covenant on Civil and Political Rights (the “Siracusa Principles”).[12] The principles affirm that public health is a valid ground for limiting certain human rights ‘in order to allow a state to take measures dealing with a serious threat to the health of the population or individual members of the population’; and any qualification of human rights must be specifically aimed at preventing disease or

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[9] International Health Regulations 2005, Article 2

[10] World Health Organization, ‘Ten Things You Need to Do to Implement the IHR’ (*World Health Organization: News Room*, 26 May 2014) <https://www.who.int/news-room/questions-and-answers/item/emergencies-ten-things-you-need-to-do-to-implement-the-international-health-regulations> accessed 19 May 2022

[11] A Beazley (n 6) 4

[12] UNCHR, ‘Siracusa Principles on the Limitation and Derogation of Provisions in the International Covenant on Civil and Political Rights’ (28 September 1984) UN Doc E/CN.4/1985/4

providing care for the sick, and give due regard to the IHR.[13] As Gostin remarks, limitations under the Siracusa Principles are legitimate provided they are '…in accordance with the law; based on a legitimate objective; strictly necessary in a democratic society; the least restrictive and intrusive means available; and not arbitrary, unreasonable, or discriminatory'.[14] Models like the Siracusa Principles try to ensure 'careful consideration' in the balancing of individual rights and the role of the state in protecting the health of the nation.

Although the principles offer guidance on the compromises to be made between individual rights and those of society, their effectiveness and application is dependent on the willingness of states; they are non-binding, soft law.[15] During a pandemic, states can implement any mechanism to combat the spread of disease and protect individuals, provided they are in line with accepted international standards, like the Siracusa Principles. In this instance, vaccination mandates can be justified as a legitimate response to control the spread of pandemic disease and ensure that healthcare professionals remain available to care for the sick.

5.2.2 The Right to Health

The management of infectious disease outbreaks invariably implicates a plethora human rights, including the right to health.[16] The right to health is a fundamental element of human rights and of our understanding of dignity.[17] However, due to the breadth of its definition it is not clear whether 'health' is a meaningful, identifiable,

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[13] *ibid* Article 25

[14] L Gostin, 'When Terrorism Threatens Health: How Far are Limitations on Human Rights Justified?' (2003) 31(4) *The Journal of Law, Medicine and Ethics* 524, 528

[15] D Filder, 'International Law and Global Public Health' (1999) 48 *University of Kansas Law Review* 652, 661

[16] *A priori*, one could consider examining an interference with the prohibition of torture, however this thesis considers that an approved, safe vaccination would not amount to the minimum threshold required by Article 3 ECHR

[17] Office of the United Nations High Commissioner for Human Rights (OHCHR), *The Right to Health: Fact Sheet No. 31* (United Nations, 2008) 1

operational, and enforceable right or, whether it is purely aspirational.[18] Gostin suggests that when health is too broadly defined, it lacks clear content and value, which is reflected in the WHO's definition of health as a 'state of complete physical, mental, and social well-being', which is effectively impossible to achieve.[19] The Special Rapporteur to the UN High Commission for Human Rights, has developed this definition and has noted that the right to health is an inclusive one, comprising of freedoms and entitlements.[20] There are significant freedoms incorporated within this definition, including the right to control one's health, such as the right to consent, as previously discussed. The entitlements incorporate the right to access a system of healthcare that provides equality of opportunity for individuals to attain the highest possible standard of health, and, notably, the right to prevention, treatment, and control of diseases.[21]

The right to health imparts on states an obligation to actively protect the lives of individuals under their jurisdiction from avoidable harm. Article 12, section 1 of the International Covent on Economic, Social and Cultural Rights (the "ICESCR") declares that '[t]he States party to the present Covenant recognize [sic] the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'.[22] ICESCR places positive obligations upon states to take the necessary steps to prevent, control and treat disease to ensure their citizens can enjoy optimal health. The right to health cannot be seen in a vacuum; it is dependent on the realisation of other rights, such as the right to life and the right to privacy.

Article 12(d) requires '[t]he creation of conditions which would assure to all medical service and medical attention in the event of sickness'.[23] In addition, Article 11 of the

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[18] L Gostin, 'The Human Right to Health: A Right to the "Highest Attainable Standard of Health"' (2001) 31(2) *Hastings Centre Report* 29, 29

[19] World Health Organization, 'Constitution of the World Health Organization' (1946) 36(11) *American Journal of Public Health* 1315, 1315

[20] Office of the United Nations High Commissioner for Human Rights (n 17) 4

[21] *ibid* 4

[22] International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1976) 993 UTSS 3 (ICESCR)

[23] *ibid*

European Social Charter states: 'with a view to ensuring the effective exercise of the right to protection of health, Contracting Parties undertake, either directly or in co-operation with public or private organisations, to take appropriate measures designed *inter alia*… to prevent as far as possible epidemic, endemic and diseases'.[24] This right, and its correlated duties, appear to provide *prima facie* justification for the imposition of vaccination requirements as part of the requirement to have a functioning healthcare service. There is an expectation that the government will promote better healthcare for their citizens, especially by facilitating access to health services, which follows from the assertion that healthcare professionals must be available to work during the pandemic.

The right to health is enjoyed by both the individual and the community. Individuals are empowered to make choices concerning their medical treatment, including vaccination. When viewing the right to health as a public right, a convincing argument can be made in favour of measures like compulsory vaccination, which restrict other, more individualistic rights. It is proposed that the community, which has an entitlement to access healthcare institutions, would be unable to exercise this right if healthcare professionals are unvaccinated and unable to work as services would be limited. Furthermore, if individuals did not access healthcare services for fear of contracting the disease from healthcare professionals, their right to health and society's health is denigrated as a result of the refusal to be vaccinated. Looking at this in the round, there are certainly grounds to suggest that vaccine mandates could be used to uphold the public right to health.

5.2.3 The Right to Life

As Beazley suggests, to speak of a right to health, could also be to speak of a right to life, and the intervention of public health is legitimised where this is otherwise threatened'.[25] If, for example, an infectious disease begins to spread with virulence, state intervention, in the form of a vaccine mandate, could be justified for the sake of the preservation of lives – provided that the vaccine is safe and effective. Article 2

[24] European Social Charter (adopted 18 October 1961, entered into force 26 February 1965) ETS 65

[25] A Beazley (n 6) 4

ECHR enjoins the State to not only refrain from the intentional and unlawful taking of life but also to take appropriate steps to protect the lives of those within its jurisdiction.[26] Article 2 contains a positive 'systems duty' and an 'operational duty'; the former requiring the state to put in place a legislative and administrative framework designed to protect against risks to life, whilst the latter requires the state to take practical steps to safeguard people's right to life from specific dangers within the remit of the state's responsibility. The resultant positive obligation requires the state to actively do 'all that could have been required of it to prevent that applicant's life from being avoidably put at risk'.[27] Common infections are not generally qualified as a direct threat to life, meaning that Article 2 ECHR is only applicable to circumstances in which the disease is life-threatening.[28] The extent of the measures the state 'could have been expected to take' is determined by whether the state 'knew or ought to have known' about the risk and reflecting on the information available at the time,[29] and the effective execution of this right is guaranteed by the application of appropriate domestic legal frameworks. The exact form of these frameworks remains within the bounds of a state's margin of appreciation, and they can take many different forms, including vaccine compulsion. [30]

Although this thesis has acknowledged the benefits of vaccination in protecting public health, a number of individuals have sadly died as a direct consequence of vaccination. Vaccine associated deaths are technically understood as unintentional killings, for which the state has breached its obligation to protect life. However, this is only applicable for isolated unforeseeable fatalities, meaning that vaccinations were not given to those for whom the vaccine was contraindicated. However, it has been explicitly stated in *Association of Parents v the United Kingdom* that if a state maintains an effective monitoring system (i.e., the Yellow Card Scheme) with the aim

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[26] Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) (ECHR) Article 2(1)

[27] *LBC v the United Kingdom* App no 23413/94 (ECtHR, 9 June 1998) para 36

[28] For example, the outbreak of Monkey Pox in the UK has not led to any deaths thus far and therefore Article 2 cannot be applied

[29] *LBC* (n 24) para 41

[30] *Lopes de Sousa Fernandes v Portugal* App no 56080/13 (ECtHR, 19 December 2017) para 165

of reducing vaccine-associated side effects and deaths, isolated deaths do not constitute an interference with the right to life.[31] It is worth highlighting that the meticulous monitoring of the safety of vaccines is even more important in relation to novel vaccinations, in terms of uptake, transparency about new adverse effects is important to build confidence in the vaccines. This means that a vaccine mandate ought not be a blanket rule and exceptions must be made where medically indicated. In preparation for a pandemic, which is likely to constitute a serious risk to public health and with risk of death, a vaccine mandate is supported by the positive obligations of Article 2 ECHR.

5.2.4 Freedom of Thought, Conscience, and Religion

'Thought' in the sense of Article 9 protects everyone from any indoctrination by the state,[32] meaning that no one can be prevented or prohibited from having negative thoughts or convictions toward vaccinations by mandatory vaccination schemes, nor can the disclosure of one's vaccination status necessarily result in an exploration of one's thoughts regarding vaccines.[33] Consequently, the right to freedom of thought can never be interfered with, let alone violated by relevant vaccination measures, and it is therefore, both morally and legally unproblematic.

'Conscience', conversely, goes beyond that, and is more akin to religion and other beliefs. Although it can, it does not necessarily have to be influenced by religion or philosophy. It enjoins a person to contemplate what is good or bad and to act accordingly,[34] yet nobody can be forced by the state to disclose matters of conscience as part of their *forum internum*. Mandatory vaccination cannot interfere with the freedom of conscience in this form, but it could do so once someone's conscience

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[31] *Association of Parents v the United Kingdom* App no 7154/75 31 (Commission Decision, 12 July 1978) para 32

[32] Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) (ECHR) Article 9

[33] P Gragl, 'Kant and Strasbourg on Mandatory Vaccinations' (2022) 3 *European Convention on Human Rights Law Review* 220, 258

[34] *Eweida and Others v the United Kingdom* App no 48420/10 (ECtHR, 15 January 2013) Judge Vučinić's and Judge De Gaetano's joint partly dissenting opinion, para 2

manifests itself in the decision to refuse vaccination as a conscientious objection, as it thereby enters the *forum externum* and has an impact on society for which moral and legal considerations apply.[35] If a person decides not to vaccinate on the basis of their conscience, then the legally mandatory order to vaccinate certainly interferes, *prima facie*, with the right to act in accordance with one's conscience.

However, notwithstanding the notable exception to the right to conscientiously object to compulsory military service, the Court does not accept a right to refuse, on the basis of conscience or convictions, to abide by the law, provided the law is applied neutrally and generally in the public sphere.[36] Freedom of conscience can be legitimately infringed upon when conscientious objection is disallowed, provided that there are reasonably available alternatives.37 The right to freedom of conscience is a qualified one and it is recognised that although values are an important part of living a meaningful life, values and conscience have different roles in public and private life. In medicine, they should influence discussion on *what* kind of health system to deliver, but they should not influence the quality of care an individual doctor offers their patient.38 Savulescu suggests the door to "value-driven medicine" is a door to a '"Pandora's Box" of idiosyncratic, bigoted, discriminatory medicine' and emphatically states that public servants must act in the public interest, not their own.39 Conscientious objection is limited in the GMC's standards on 'Personal Beliefs and Medical Practice', which respects an individual's objection to active participation in treatment, but states that when a practitioner objects to performing a procedure, they must refer the patient to a doctor who can meet the patient's needs.40 This is primarily in relation to the provision of abortion or contraception and it is unclear whether this

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[35] A Giubilini, *The Ethics of Vaccination* (Springer International Publishing, 2019) 1 - 27

[36] *Bayatyan v Armenia* App no 23459/03 (ECtHR, 7 July 2011)

[37] A Giubilini and Others, 'Vaccine Mandates for Healthcare Workers Beyond COVID-19' *Journal of Medical Ethics* (forthcoming)

[38] B Zolf, 'No Conscientious Objection Without Normative Justification: Against Conscientious Objection in Medicine' (2019) 33 *Bioethics* 146, 148

[39] J Savulescu, 'Conscientious Objection in Medicine' (2006) 332 *British Medical Journal* 294, 297

[40] General Medical Council, 'Personal Beliefs and Medical Practice' (2013) <https://www.gmc-uk.org/-/media/documents/personal-beliefs-and-medical-practice-20200217_pdf-58833376.pdf> accessed 26 June 2022

exemption extends to vaccine refusal. In any event it would not be a practical solution, as if it were to be relied upon, workforce shortages would be exacerbated, and patient safety would be compromised. Accordingly, a legally mandatory vaccination scheme that can be qualified as generally and neutrally phrased would not interfere with the freedom of conscience under the Convention.

Even though vaccine hesitancy in itself is not a religion, vaccines or their ingredients, as mentioned in Chapter II, may conflict with particular religious doctrines. In this vein, the refusal to vaccinate could be regarded as a practice or rite under the protection of the freedom of religion. Yet, not every religious practice or rite is protected under this provision, in particular if these acts are not essential to the expression of a religion or belief,[41] if a belief is insincere,[42] or if the obligation to vaccinate applies to everyone regardless of their religion or personal beliefs.[43] Furthermore, the Court has carefully distinguished between medical treatment solely affecting the individual, which can always be refused, even if it leads to a fatal outcome (e.g., blood transfusions), and medical treatment needed to protect others, such as vaccines against transmissible infectious diseases, for which the general interest of mandatory vaccination overrides individuals' freedom of religion,[44] especially during an epidemic.[45] Blood transfusions could, perhaps, be universalised as the ultimate expression of autonomy, as the decision would always only materially affect the individual, although at the high price of giving up the duty of self-preservation and one's own life. In contrast to that, rule-universalisation is impossible in relation to vaccination, as such a decision would always involve other persons and their autonomy.

Should the Court be unable to ascertain and grant a religious status, individuals could potentially rely on the freedom of belief if the requirements for this notion are met. A belief is protected by Article 9, if it is sufficiently cogent, serious, cohesive, and

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[41] *Arrowsmith v the United Kingdom* App no 7050/75 (ECmHR, 5 December 1978) para 31

[42] *D v France* App no 10180/82 (ECmHR, 6 December 1983)

[43] *Boffa and 13 Others v San Marino* App no 26536/95 (ECmHR, 15 January 1998) para 34

[44] *Jehova's Witnesses of Moscow and Others v Russia* App no 302/02 (ECtHR, 10 June 2010) paras 134 - 136

[45] *ibid* para 136

important,[46] which would apply to veganism, but not to the personal belief that vaccinations only benefit pharmaceutical companies or than vaccinations are microchipped.[47] There is no clear definition of what exactly makes a belief sufficiently cogent, serious, cohesive, and important, however the Court has found that any belief or objection to vaccination must be more than just health-related, and based on any philosophical or religious aspects.[48]

5.3 JUSTIFICATION IN DOMESTIC LAW

The transition from the moral to the legal realm (or the reflection of the former on the latter) is, perhaps, best explained by the fact that, if people autonomously understood that there is such a moral obligation to be vaccinated, there would be no need for any positive laws on mandatory vaccination.[49] Yet, it is problematic that although the breach of moral duties may be sanctioned socially (e.g., by shunning the perpetrator), they remain – in contrast to positive laws – largely unenforceable. It thus falls to the individual, and the individual alone, to comply with these duties.

5.3.1 Mental Health Law

There is legal precedent for compelling treatment to prevent harm to others under the Mental Health Act which allows mentally ill individuals, with capacity, to be treated against their will if they are a danger to others.[50] Non-consensual treatment of capacitous persons under the Mental Health Act for the purposes of protection of others is analogous to the case of compulsory medical intervention for pandemic control. The Mental Health Act contains significant restrictions on compulsory treatment, including that the threat the individual poses to others (or themselves) in the absence of treatment must be imminent, and the treatment must be appropriate to the patient's condition. Nonetheless, it would not be a stretch to apply (and satisfy) the

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[46] *Bayatyan v Armenia* App no 23459/03 (ECtHR, 7 July 2011) para 110

[47] *W v the United Kingdom* App no 18187/91 (ECmHR, 10 February 1993)

[48] *Vavřička and Others v the Czech Republic* (App nos 47621/13, 3867/14, 73094/14, 19306/15, 19298/15, and 43883/15, 8 April 2021) paras 334 - 335

[49] A Dawson, 'Vaccination Ethics' in A Dawson (ed), *Public Health Ethics. Key Concepts and Issues in Policy and Practice* (New York, Cambridge University Press, 2011) 150 - 151

[50] Mental Health Act 1983 s 63

same conditions with respect to compulsory medical intervention for pandemic control.

The risk of extensive harm associated with not applying a mandate to a highly communicable pandemic disease is likely to be greater than in typical mental health cases. Consider a scenario whereby one healthcare professional was likely to infect two persons when infective, and that each of those individuals would infect a further two persons, when repeated over a ten-week period one person could theoretically infect over a thousand people, of whom we could assume around 10 would die with a fatality rate of 0.8%.[51] This back of the envelope calculation suggests that vaccination of a single person with a high number of contacts, such as a healthcare professional in a hospital setting, might be expected to prevent a significant number of infections. It would also prevent a number of deaths, and other long-term harms. An individual detained under the Mental Health Act might post serious threats to others, however, it would be very unlikely that this would be on a similar magnitude to pandemic disease.[52]

5.4 A JURISPRUDENTUAL JUSTIFICATION

Anxiety towards vaccination, which can be well meant, has been balanced by domestic and international courts against the advantages offered by the treatment, which, according to scientific evidence and the benefit of history, is 'largely irrefutable'.[53] Whilst competent adults have the ultimate right to choose, as has been discussed, they do not necessarily choose in their perceived best interests, thus, this section will focus on caselaw concerning vaccination incapacitous persons to set out the court's opinion of vaccination as a best interests decision for both the individual and the community.

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[51] $2^{10} = 1024$

[52] T Douglas, L Forsberg, J Pugh, 'Compulsory Medical Intervention Versus External Constraint in Pandemic Control' (2020) 47(e77) *British Medical Journal* 1, 4

[53] C O'Neill, '*Re H (A Child) (Parental Responsibility: Vaccination)* The Merits of Adopting a Softer Approach to Vaccination of a Child in Care?' (2020) 28(4) *Medical Law Review* 817, 818

5.4.1 Incapacitous Adults

The court has considered the vaccination of incapacitous adults within the pandemic context. In *Re E (Vaccine)*, E was an 80-year-old lady who had been living in a care home since 2020, she had a diagnosis of dementia and schizophrenia and was assessed not to have capacity.[54] E's son was 'deeply sceptical' of the expediated Covid-19 vaccine and was concerned about the safety and efficacy of the treatment. In his judgment, Hayden J recognised the particularly insidious nature of the pandemic virus and the 'statistically established vulnerability of the elderly living in care homes';[55] of which the evidence indicates care home residents accounted for almost a third of total registered deaths from Covid-19 in England.[56] By employing a risk matrix, it was determined that vaccination would reduce the risk to Mrs E 'dramatically' and it was held to be in her best interests to receive it.

This principle is sustained in *SD v Royal Borough of Kensington and Chelsea* where again, Hayden J recognised that in the circumstances of a vaccine preventable pandemic, the risks of contracting Covid-19 were 'unacceptably high'.[57] SD's daughter was of the view that her mother should not be vaccinated on the basis that available Covid-19 vaccines should be regarded as still in preliminary trials, and any data produced should not be considered reliable. Hayden J distinguished the daughter's personal anxieties about the vaccine from her mother's previous compliance with medical interventions. In cases involving an adult without capacity, it was therefore held that there is a strong draw towards vaccination as likely to be in the best interests of the protected party.

However, this will not always be the case, nor even presumptively so, as was examined in the third case of *SS v LB Richmond on Thames and SWL CCG*, where the refusal

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[54] *Re E (Vaccine)* [2021] EWCOP 7

[55] *ibid* [17]

[56] Office of National Statistics, 'Care Home Resident Deaths Registered in England and Wales, Provisional' (*Office of National Statistics,* 6 July 2021) <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/carehomeresidentdeathsregisteredinenglandandwalesprovisional> accessed 11 July 2021

[57] *SD v Royal Borough of Kensington and Chelsea* [2021] EWCOP 14, [33]

came from the person themselves, not from family members.[58] SS, had a diagnosis of dementia and was vehemently opposed to vaccination, or any medical intervention for that matter, and had been even when she had capacity. She lacked insight into her diagnosis and believed she was living with her parents sometime in the 1930/40s. There was no question of SS accepting the vaccine, and one of her carers observed that if SS was vaccinated against her will, the practitioners ought to be 'kung-fu experts'.[59] In this case, the likely irreconcilable damage to SS's sensitive relationship with her carers was considered a greater harm than the benefits of vaccination, and Hayden J, despite recognising that if he were to confine his judgment to healthcare issues he would conclude that vaccination was in SS's best interests, unfortunately could not 'constrict SS's best interests to the purely epidemiological'.[60]

These judgments are fact-specific and should be treated as such, however, it is useful to see the court's approach in determining best interest decisions in the specific context of pandemic vaccinations. In each case concerning vaccine refusal the court has found in favour of the 'overwhelming objective evidence of the magnetic advantage of a vaccination' in reducing transmission and saving lives.[61] However, as per the Mental Capacity Act 2005, [62] Hayden J took the individual's preferences and values into account and did not apply a blanket policy in favour of vaccination.

The legislation focuses on the individual's best interests, however the individual being vaccinated is not the only person with an interest in their vaccination. In a pandemic context, a wider body of public or third parties' interests in an individual being vaccinated may also be ethically relevant in decision-making regarding the vaccination of those lacking capacity. The Mental Capacity Act requires that when making a decision in the best interests of the person, the decision-maker consider 'all relevant circumstances' and 'other factors that he would be likely to consider if he

[58] *ibid* [33]

[59] *ibid* [37]

[60] *ibid* [36]

[61] *Re CR* [2021] EWCOP 19 [4.7]

[62] Mental Capacity Act 2005 s 4

were able to'.[63] This leaves room for expansion outside of the patient's immediate best interests. It is arguable then, that the public health interest, the person's susceptibility to disease, the burden on the 'burden' on those caring for them if they develop the infection, and/ or the risk of them transmitting the disease to others, especially to those who they enjoy a close relationship, are relevant considerations for decision-making.

Whilst this specific consideration relating to vaccination protecting others has not been considered by the courts, it can be viewed alongside other cases in terms of weighing up benefits to others when a decision-maker is contemplating a decision on another's behalf. In *Re Y*, the Court of Protection held that it can be in a person's best interests to donate stem cells in order to benefit a loved one.[64] In this case, an 18-year-old woman lacked capacity to decide whether to donate stem cells to her mother who had chronic leukaemia. The court carefully reviewed the risks and benefits of the proposed donation and concluded that it was both in the woman and her mother's best interests for the donation to proceed given the social, emotional and physiological benefits it would bring should it prolong her mother's life. Additionally, in the patient's limited capacity she was aware they she may have the ability to extend her mother's life and had repeatedly expressed a wish to do so. Essentially, her would-be autonomous decision was judged not on the direct benefit it would bring her (as this is an altruistic action), but based on the benefit that prolonging her mother's life would bring her.

This thesis has expressed the pressing need to reduce transmission in clinical environments, and a proportionate policy which increases vaccination uptake and effectively reduces infection, morbidity and mortality is worthy of consideration, like the Covid-19 vaccine as a condition of deployment for patient-facing NHS staff. A review of the case law has shown that the Court of Protection has carefully reviewed the risk-benefit ratio for individual vaccination, however this is somewhat limited to that individual. Whilst individual autonomy interests in not being vaccinated could tip the scales against vaccination, public interest considerations could tip the scales the other way. This is not to suggest that, in the case of SS, a public interest consideration would necessarily result in SS being vaccinated against her present wishes, but

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[63] *ibid*

[64] *A NHS Foundation Trust v MC* [2020] EWCOP 33

introduces the idea that it would at least be ethically legitimate for the public interest in vaccination be weighed up along with other relevant factors in making such a determination.

It is reassuring to observe the court's prevailing opinion in favour of vaccination, although there is scope to extend this; and this is reiterated in relation to children's vaccination.[65]

5.4.2 Children

Firstly, in *Re H (A Child) (Parental Responsibility: Vaccination)* ("*Re H*") the parents of a child in Local Authority care disagreed with routine vaccination.[66] This was on appeal from the High Court where Hayden J had affirmed that it was in the child's best interests to be vaccinated, and that vaccines were a 'facet of public preventative health-care intending to protect both individual children and society more generally'.[67] In the Court of Appeal, King LJ (with whom both McCombe LJ and Peter Jackson LJ agreed) recognised that medical opinion was very supportive of vaccination provided there were no medical contraindications, and stated that the clear benefits of vaccination 'outweigh the long-recognised and identified side-effects'.[68] Vaccinations are not regarded as serious or grave medical treatment and are accordingly to be understood as medically sound interventions which are in a child's best interests in the absence of convincing evidence to the contrary.

Although it was not argued that the actions of the Local Authority breached the parent's Article 8 ECHR rights, for completeness King LJ determined that, in accordance with *Bank Mallat v HM Treasury*, even if the vaccination did represent a breach of the parents' rights, the interference was proportionate and, therefore, justifiable.[69] Article 8 was also considered in *Re B (A Child: Immunisation)* where

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[65] Department of Health and Social Care, *Making Vaccination a Condition of Deployment in Care Homes: Government Response* (Department of Health and Social Care, 2021)

[66] *Re H (A Child) (Parental Responsibility: Vaccination)* [2020] EWCA 664

[67] *Re T (A Child)* [2020] EWHC 220

[68] *Re H* (n 61) [55]

[69] *Bank Mallat v HM Treasury* [2014] AC 700

Bellamy J examined whether vaccinations were a proportionate interference with Article 8, he referenced *F v F* where Theis J held that vaccinations were a proportionate interference,[70] and stated that the parents' views had to be considered in light of other evidence, particularly the medical evidence in favour of vaccination.[71]

Vaccination as a best interest's decision was continued in *M v H*, where the father successfully applied for a specific issue order for his two children to be vaccinated according to the NHS' vaccine schedule. MacDonald J considered the role of the court in this area and applied the principles of *Re H* to a private law context. Whilst the initial application concerned the MMR vaccination the ambit was widened to include routine childhood vaccinations; the father sought to include vaccinations required for overseas travel and Covid-19 however, the judge declined to comment on them due to their speculative nature. It was made 'abundantly clear' that no decision would be made in relation to a Covid-19 vaccine because, at that point, no vaccine had been recommended for children, however, MacDonald J commented that 'it would be very difficult to foresee a situation in which an approved Covid-19 vaccination would not be endorsed by the court as being in a child's best interest, notwithstanding any contraindications to that child.[72] Notably, MacDonald J referred to vaccines outside the purview of the Green Book, and by including the Covid-19 vaccination it is evident judicial opinion is in favour of non-routine and novel treatment unless there is a credible development in medical science or peer-reviewed research signifying concern for the efficacy or safety of a vaccine and/or a well evidenced medical contraindication specific to the person.[73]

Both cases were heard during the Covid-19 pandemic, and it is timely to consider, from a national security and public health perspective, the impact of the judgment

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[70] *F v F* [2013] EWHC 2683 (Fam)

[71] *Re B (A Child: Immunisation)* [2018] EWFC 56 [84]

[72] *M v H (Private Law Vaccination)* [2020] EWFC 93 [4]

[73] In the last 17 years, in only one of the reported cases did the court decide a child should not receive one of the proposed vaccinations due to age and medical history which indicated some vaccinations were not in that child's welfare interests, see *Re C and F (Children*) [2003] EWHC 1376 (Fam) 20 (Sumner J)

within the context of public health emergencies. In this brave new world, with a heighted risk to public well-being and increased strain on stretched healthcare systems, it is vital that for those whom the vaccine is recommended accept treatment to ensure the continuation of healthcare services. The *ratio Re H* and *M v H* has added clarity to the best interest debate and accorded jurisprudential weight to well-reasoned scientific evidence and the preceding caselaw to find in favour of vaccination. Whilst there are obvious differences between the state's duty to the child and healthcare professionals' duties to their patients, there are also parallels in relation to the relevance of beneficence in both cases.

It is pertinent therefore, that in the absence of direct authorities on the compliance of mandates aimed at healthcare professionals with human rights, we consider the acceptance by the ECtHR that a vaccine mandate protects the best interests of both the child and children. The distinction between the child and children is arguably paralleled by the healthcare professional's duty to the particular patient and patients in general, as supported by the concept of solidarity.

5.4.3 Vaccination as Solidarity

In *Vavřička and Others v the Czech Republic* ("*Vavřička*"), the Grand Chamber of the ECtHR considered whether compulsory childhood vaccination could be compatible with the European Convention on Human Rights.[74] In the Czech Republic, all permanent residents and foreigners with authorisation to reside in the country on a long-term basis are required to undergo a set of routine vaccinations in order to protect society as a whole. The duty to vaccinate includes vaccination against nine diseases: diphtheria, tetanus, whooping cough, Haemophilus influenzae type b, poliomyelitis, hepatitis B, measles, mumps, rubella, and, for those with specified health indications, vaccination against pneumococcal infections.[75] Vaccination is generally administered before the age of one, and children with medical contraindications are exempt from this duty. Parental non-compliance with this duty constitutes a minor offence punishable by a fine up to EUR400,[76] and is a precondition to attending preschool

[74] *Vavřička* (n 45)

[75] *ibid* para 76

[76] *ibid* para 17

unless the child has acquired immunity or vaccination is contraindicated.[77] This is precisely the point where the moral and the legal realms meet, and their connection is the strongest: namely that legally mandated mandatory vaccination schemes reflect the moral obligation to be vaccinated and thus give effect to the first dimension of the principle of publicity (i.e., that morality should be public and be given effect through legal codification). Consequently, one could regard these positive-legal rules as bolstering the relevant moral rules on being vaccinated or giving effect to them in the case of non-compliance.

In this matter, the first applicant, Mr *Vavřička*, was fined EUR110 as he refused to vaccinate his 13- and 14-year-old children as per the legislation. The remaining five applicants were children who had been excluded from preschool on the ground that they posed a risk to the health of the other children. The domestic court dismissed the appeals. The Grand Chamber did not consider that this requirement interfered with the applicant's Article 2, 6, 9, 13 or 14 Convention rights, however both the parties and the Court agreed that the sanctions interfered with the applicant's 'private life' in light of the Court's previous Article 8 jurisprudence.[78] Article 8 comprises of two parts and, for a violation to occur, Article 8(1) must be engaged in the absence of an Article 8(2) qualification. Article 8(1) asserts that 'Everyone has the right to respect for his private and family life, his home and correspondence'.[79] It is notable that in previous judgments, including *Solomakhin v Ukraine* the ECtHR held that mandatory vaccination interfered with a person's right to integrity as per Article 8.[80] The Court accepted this in *Vavřička*.[81]

However, Article 8 ECHR is a *qualified* right, meaning that interference may be permissible if that interference is lawful, pursues a legitimate aim (including the protection of health and the protection of others), and is necessary in a democratic

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[77] *ibid* paras 15, 73

[78] *ibid* paras 337, 347

[79] Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) (ECHR) Article 2(1)

[80] *Solomakhin v Ukraine* (App no 24429/3, 15 March 2012) para 33

[81] *Vavřička* (n 45) para 263

society. The ECtHR concluded in *Solomakin*, that compulsory vaccination may be permissible if 'justified by the public health considerations and necessary to control the spreading of infectious diseases in the region'.[82] In relation to Article 8(2), no Article 8 violation was found as the duty to vaccinate, and the corresponding sanctions for non-compliance were prescribed in Czech domestic law,[83] and the measure followed the legitimate aim of safeguarding public health.[84] The final condition, that is, whether the policy is necessary in a democratic society, took up the lion's share of the Court's legal analysis. Before engaging with these issues, the Court affirmed that a policy of mandatory childhood vaccinations fell within the wide margin of appreciation enjoyed by the State in pursuing the legitimate public health aims.[85]

The Court recognised:

> 'a general consensus … that vaccination is one of the most successful and cost-effective health interventions and that each State should aim to achieve the highest possible level of vaccination among its population'.[86]

It was understood that, as a consequence of the significance of vaccination, compulsion was a considered a necessary and proportionate response to pressure of social need, particularly in light of a State's positive obligation to take appropriate measures to protect the lives and health of those within their jurisdiction,[87] both under the ECHR and international legal obligations (as above).

Notably, in *Vavřička*, the Court was impressed not only by the individual child's best interests but by the best interests of children generally:

> '[I]t cannot be regarded as disproportionate for a State to require those for whom vaccination represents a remote risk to health to accept this universally practised protective measure as a matter of legal duty and in the name of social

[82] *Solomakhin* (n 75) para 36

[83] *Vavřička* (n 45) para 271

[84] *ibid* para 272

[85] *ibid* para 221

[86] *ibid* para 277

[87] *ibid* para 282

> solidarity for the sake of the small number of vulnerable children who are unable to benefit from vaccination'.[88]

Vaccination is therefore understood to be of benefit to the community in both the individual sense, in that the individual does not succumb to illness, and the collective as society, including its most vulnerable, which is protected against disease. Furthermore, in terms of proportionality, the Court invoked the duty of easy rescue, as was discussed in Chapter IV, in that the cost of acting is minimal, though the benefits are substantial. In her case note, Cave along with Archard and Brierly, note that this judgment 'is not best understood as being about balancing individual and collective benefits and burdens. Instead, it is about protecting what matters in our society: that we are all bound together by shared ties, and everyone must play their part in maintaining those ties'.[89] With regard to healthcare professionals, it is not a far leap at all to regard patients as the vulnerable persons who may not benefit from vaccination; indicating that healthcare professionals have a duty to be vaccinated as it is in the best interests of their patients, and the NHS more generally. The judicial focus on solidarity is a new consideration for vaccine mandates, and in exploring the best interests of a child, the judgment has emphasised that the best interests of the individual must be considered in relation to the collective group. Vaccination is therefore understood to be in the interests of the healthcare professional who is vaccinated, as they are less likely to get the illness, and all others who benefit from the administration of the vaccine as a consequence of continuing healthcare services, reduced risk of transmission, and protection of the most vulnerable members of society.

Throughout its reasoning, the Court was clear that *Vavřička* should not be interpreted as a precedent for compulsory vaccination against Covid-19 (the judgment was handed down during the early days of the pandemic), and whilst this precautionary statement is appropriate, the judgment's relevance for vaccination against pandemic disease in general cannot be ignored. In her review of the case, Nilsson recognises how *Vavřička*

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[88] *ibid* para 306

[89] D Archard, J Brierley, E Cave, 'Compulsory Childhood Vaccination: Human Rights, Solidarity, and Best Interests' (2021) 29(4) *Medical Law Review* 716, 721

enhances previous jurisprudence on vaccination by clarifying that the imposition of sanctions on those who do not comply with the obligation to vaccinate constitutes a legitimate interference with Article 8.[90] This is understandably attractive to governments considering different strategies to encourage vaccine uptake during a pandemic; for example, the Italian 'No Jab-No Job' policy which was in favour of vaccination for a range of healthcare professionals. For those eligible, non-compliance necessitated removal from certain activities or, where this was not feasible, suspension from work, though healthcare professionals with medical contraindications were discharged from this obligation. There are clear similarities with this policy and that in *Vavřička*: both serve to protect the health of others; both incorporate a duty to vaccinate with sanctions for non-compliance; and both exempt only individuals with contraindications.

5.4.4 Judicial Support of Vaccine Mandates During a Pandemic

In the former case, the conflict of the rights and interests at stake is between the parents' right to make decisions on behalf of their children and the state's interest to protect public health, including the health of those children. Where an adult declines vaccination, as previously discussed, the situation is more nuanced, at least if they have been informed of the risks and benefits and have capacity to make a voluntary decision in respect of that information. This is a clear example of a conflict between the right to personal self-determination and the protection of public health. Whether, and if so, how this distinction ought to affect the argument in favour of vaccine mandates under Article 8 remains to be seen. The matter is not addressed in the *Vavřička* case.

On 19 August 2021 the ECtHR received an application 672 French firefighters against a state requirement to be vaccinated against Covid-19, in accordance with Law no

[90] A Nilsson, 'Is Compulsory Childhood Vaccination Compatible with the Right to Respect for Private Life? A Comment on *Vavřička and Others* v. *the Czech Republic*' (2021) 28 *European Journal of Human Rights* 323, 337

1040-2021, introduced on 5 August 2021.[91] And, on 2 September the ECtHR received two similar applications from 30 Greek healthcare professionals disputing the Greek government's decision to impose compulsory vaccination against Covid-19.[92] In both cases, the law demanded that public employees be vaccinated in order to continue working. The ECtHR declared that both applications fell outside the scope of interim measures as per Rule 39; interim measures are temporary injunctions intended to prevent harm during the pendency of litigation and in practice are generally granted in cases of fatal risk to private or family life.[93] In both applications, as suspension from work was the most severe consequence for vaccine refusal, the denial of interim measures was hardly surprising.

When reading the vaccine mandates, both appear to cohere with the text of the ECHR and interpretation by the ECtHR. From a textual point of view, the governments established compulsory vaccination through domestic statutes which were accessible and 'formulated in such a way that a person can foresee, to a degree that is reasonable in the circumstance, the consequences which a given action will entail'.[94] As for the legitimate aim of the legislation, Article 8 expressly mentioned the 'protection for health' as a legitimate reason for an inference – and in that respect, based on the high total number deaths and hospitalisations at that time, it would be reasonable to contend that Covid-19 did pose significant threat to public health. Furthermore, vaccination during an epidemic has been considered a typical example of an interference when drafting Article 8's limitations as it would be necessary to protect third parties.[95] In

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[91] European Court of Human Rights, 'Notice of Application Before Court Concerning Compulsory Vaccination of Certain Workers Imposed by French Law on Health Crisis' (2021) <https://hudoc.echr.coe.int/eng-press#%20> accessed 5 June 2022

[92] European Court of Human Rights, 'Request for Interim Measures Against Greece Concerning Compulsory Vaccination for Health Staff' (2021) <https://hudoc.echr.coe.int/eng-press#%20> accessed 5 June 2022

[93] European Court of Human Rights, 'Rules of Court' (17 March 2022) 39 <https://www.echr.coe.int/documents/rules_court_eng.pdf> accessed 5 June 2022

[94] B Rainey, P McCormick, and C Ovey, 'Jacobs, White, and Ovey: Th European Convention on Human Rights' (8th edn, Oxford University Press, 2020) 350

[95] W Schabas, *The European Convention on Human Rights: A Commentary*, (Oxford University Press, 2015) 371

terms of whether the imposition of the state on to an individual's privacy is necessary, this is clearly a debatable question and one which has generally been deferred by the court to the states' margin of appreciation.[96]

Finally, Article 15 expressly grants the derogation from some ECHR provisions 'in time of war or other public emergency threatening the life of the nation' with Article 8 being a derogable right. To date, only a few member states have triggered this mechanism and it was suggested that states could have used this during Covid-19. To do so, should also enhance vaccine acceptance as by emphasising the emergency conditions and thus the legality and necessity of their decision-making, the government would strengthen the legal case for compulsory vaccination. As per the previous caselaw it is not necessary to trigger Article 15's mechanism, however it may be beneficial to emphasise the emergency conditions in which the mandate is imposed as a rationalisation of why such a mandate is necessary.

5.5 LEGAL AND ETHIC SUPPORT OF VACCINE MANDATES

On the basis of the scientific consensus that vaccinations are both safe and effective, it is concluded that mandatory vaccination schemes are, under certain circumstances, both morally legitimate and legally permissible. *Vavřička* has highlighted that to vaccinate is, besides protecting oneself, about the protection of others, namely those most vulnerable to contagious diseases, and about society's health, autonomy, and dignity. It demonstrates the difference between restricted freedom, that makes living together possible, and absolute freedom, that eventually turns out to be nothing other than selfishness that makes freedom in itself impossible. As human beings, we can abscond neither from morality nor the law; this is particularly relevant when viewed alongside a healthcare professional's professional and moral duties to treat in a pandemic. Their freedom can be justifiably restricted in this sense by virtue of their role within society.

In legal terms and, in particular, in terms of human rights as understood within the system of the ECHR, it is clear that none of the pertinent provisions – the right to life,

[96] B Rainey, P McCormick, and C Ovey (n 89) 350

the right to respect for private and family life, and freedom of thought, conscience, and religion – prohibit, in principle, the introduction of mandatory vaccination laws. Less restrictive measures should certainly be sought in the first instance, but even though mandatory vaccination schemes can be considered to interfere with these human rights, they can be justified, and therefore do not constitute violations of these rights as *negative* rights. Conversely, states are not obligated under the Convention to implement mandatory vaccination schemes in order to protect the *positive* rights of individuals, as long as they protect the public health against infectious diseases in other ways. It therefore follows that mandatory vaccination policies can be justified through both law and morality, and the relevant jurisprudence balances the interests and rights through proportionality and the obligations of solidarity and professional duties. The following and final substantive chapter will shape this analysis into a framework with which to assess a pandemic response.

6 CHAPTER V: A FRAMEWORK FOR VACCINE MANDATES

This chapter aims to suggest how, when, and in what form a vaccine mandate could be implemented during a pandemic. It has been accepted that individual autonomy can justifiably be infringed to prevent harm to others, and equally that during a pandemic healthcare professionals can be compelled to accept a duty of difficult rescue. As such, the question to address here is *when* and *how* a vaccine mandate can be introduced. This chapter shall firstly define how exactly a mandate should be understood as a public health intervention to guarantee healthcare professionals are aware of and understand the weight of the obligations placed upon them. Next, this chapter will utilise a set of four conditions, which include the nature of the pandemic threat, vaccine safety and efficacy, the comparative value of vaccination over other public health interventions, and the appropriateness of the level of coercion. The four desiderata must be fulfilled in order to warrant the introduction of a vaccine mandate, and notably, whilst these remain constant, the empirical facts and our level of knowledge will differ in future pandemics meaning the same principles may yield different practical implications in different scenarios.

6.1 THE USE OF MANDATES IN PUBLIC HEALTH

A public health mandate must meet two criteria: firstly, opting out of the mandate should require some action beyond simply declining; and secondly, there should be an enforcement mechanism to encourage compliance. A mandate is much more than simply a recommendation to be vaccinated or an attempt to persuade someone to accept treatment, it requires positive action to fulfil the demand.

There are only a few mandatory vaccines for adults. The yellow fever vaccine is mandatory if someone is travelling to a region where the disease is endemic. The meningococcal vaccine is also mandatory for travelling to Mecca.[1] Proof of the Hepatitis B vaccine is required for all healthcare professionals undertaking Exposure Prone Procedures, although even without this the healthcare professional can still

[1] World Health Organisation Headquarters, *International Health Regulations* (3rd Edn, 2005) Annex 7

practice medicine but will be taken off the roster for those clinical cases.[2] These examples aside, the vast majority of vaccinations are not mandated for healthcare professionals, they are merely recommended. As a result, vaccination rates can be low, to the great detriment of individual and public health.

6.1.1 The Need for Semantic Certainty

'Mandatory' is a term commonly invoked but poorly defined. Stemming from the Latin *manus* for 'hand', and *dare*, for 'give' – a mandate is understood to be a command, or an order handed down from a ruler to subjects (in this case, a government to commissioning bodies or to healthcare professionals). The public health benefit of the intervention must be clear to justify an invasion of individual liberties with a mandate. There is no standard formula for this calculation, but the cost/benefit ratio for society should be positive in reducing the burden of disease. The term is used periphrastically by both opponents and proponents of public health interventions to great rhetorical effect, but at the expense of necessary certainty which can cause confusion as to what a mandate actually is, and the obligations encompassed within.

For opponents, calling a recommendation a 'mandate' can be used to raise hackles, no one likes to be forced to do something they do not want to, and the term suggests the use, or at least the threat, of force. Hence, one sometimes sees the distinction between routine and mandatory purposefully blurred, as has been the case with some recent discussions around HIV testing. Proposals made to make HIV testing a routine part of adult medical care (i.e., not requiring specific informed consent or counselling prior to the test) have sometimes been portrayed as mandatory testing. This was described by one commentator as 'requiring health professionals to test most, if not all, patients

[2] UK Health Security Agency, 'Integrated Guidance on Health Clearance of Healthcare Workers and the Management of Healthcare Workers Living with Bloodborne Viruses (Hepatitis B, Hepatitis C, and HIV)' (November 2021) 24 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033571/Integrated_guidance_for_management_of_BBV_in_HCW_November_2021.pdf> accessed on 3 June 2022

for HIV.[3] This is not necessarily intended to be malign, however any pressure to test for HIV specifically is likely to be poorly received as a consequence of the ongoing stigma associated with a diagnosis. Notably, there is a push across the UK to increase disease surveillance and end new HIV transmissions by 2030 and order to meet this goal, opt-out HIV testing was launched on 1 April 2022 in emergency departments in London meaning that all patients who attend A&E are routinely tested for HIV when having blood tests unless they refuse.[4] To call this is a mandate would be a misnomer, and it is important that it is not reported as one.

Conversely, many *pro*ponents of public health measures have also described them as being 'mandates' even when they do not demand any meaningful barrier to opting out. This is understandably an effort to ensure the recommendations are treated seriously, for example prenatal screening tests for HIV and other infections have been labelled as 'mandatory' even where there are no penalties for refusal. Instead, the obligation is attached to the healthcare professional and the healthcare institution, who must document that the appropriate tests were offered, any refusal is ancillary to this.[5]

Recent scholarship illuminates the diverse ways in which the term 'mandate' has been applied, and it is important that public health measures use simple and accessible language to ensure that healthcare professionals are aware of and understand the weight of the requirements being placed upon them within the pandemic context.

6.2 THE APPLICATION OF VACCINE MANDATES

The ethical acceptability of mandatory vaccination policies is dependent on factors including disease severity, vaccine effectiveness, safety and target population(s), as

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[3] S Fry-Revere, 'Exposing AIDS' (*New York Sun*, 13 June 2007) <https://www.nysun.com/article/opinion-exposing-aids> accessed 22 June 2022

[4] Terrance Higgins Trust, 'HIV Testing When Blood is Taken in A&E Launched in London Hospitals' (2022) <https://www.tht.org.uk/news/hiv-testing-when-blood-taken-ae-launched-london-hospitals> accessed 25 June 2022

[5] *Khan v Meadows* [2021] UKSC 21

well as social, cultural and political considerations.[6] Any policy should draw on current evidence, attempt to manage residual uncertainties, and prepare for future developments. On one end of the vaccine policy spectrum, as submitted by Giubilini, are the less restrictive options such as opt-in and voluntary recommendations, whilst on the other end, there are more restrictive options like mandates supported with legal or financial penalties.[7]

Vaccine mandates, though the most intrusive form of vaccine policy, have been shown to yield high vaccine uptake among healthcare professionals.[8] For this reason, there has been heightened interest in mandating vaccines in future pandemics, once a vaccine is available.[9] It is noted that vaccination mandates are generally more acceptable in emergency situations caused by outbreaks of infectious disease that pose an imminent threat to public health as a consequence of low vaccine coverage as a result of voluntary policies, particularly in healthcare and educational settings.[10] Mandatory influenza vaccination policies of healthcare professionals in healthcare settings have gained popularity in some countries in response to low vaccine uptake amongst healthcare professionals and increased evidence strengthening the influenza vaccine's success in reducing influenza infection and overall disease severity.[11] These policies, especially those with penalties for noncompliance, consistently yielded influenza vaccine uptake rates of above 90% whilst maintaining medical, philosophical, and religious exemptions.[12]

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[6] H Boas, A Rosenthal, and N Davidovitch, 'Between Individualism and Social Solidarity in Vaccination Policy: The Case of the 2012 OPV Campaign in Israel' (2016) 5(64) *Israel Journal of Health Policy Research* 1

[7] K Attwell and C Navin, 'Childhood Vaccinations Mandates: Scope, Sanctions, Severity, Selectivity, and Salience' (2019) 97(4) *The Milbank Quarterly* 978

[8] C Blank and Others, 'Mandatory Employee Vaccination as a Strategy for Early and Comprehensive Health Care Personnel Immunization Coverage: Experience from 10 Influenza Seasons' (2020) 48 *American Journal of Infection Control* 1133

[9] D Reiss and A Caplan, 'Considerations in Mandating a New Covid-19 Vaccine in the USA for Children and Adults' (2020) 7 *Journal of Law and Bioscience* 1

[10] K Attwell and C Navin (n 7) 978

[11] C Blank and Others (n 8) 1133

[12] S Schumacher and Others, 'Increasing Influenza Vaccination Coverage in Healthcare Workers: A Review on Campaign Strategies and their Effect' (2020) 49 *Infection* 389, 394

The determination of the appropriateness of a mandate requires considerable time and resources, something which are in scant supply in a pandemic. The following section will provide a four-step test which can be applied to a pandemic context to determine whether a vaccine mandate is necessary and proportionate. It is proposed that if this can be agreed in advance of a pandemic, and communicated throughout the health service with strong and open leadership, vaccination rates will increase.

The Nuffield Council of Bioethics published a leading report on public health which considers the circumstances when coercion and mandatory vaccination might be justified:

> 'When assessing whether more directive policies are acceptable, the following factors should be taken into account: the risks associated with the vaccination and with the disease itself, and the seriousness of the threat of the disease to the population. In the case of incentivised policies, the size of the incentive involved should be appropriate so that it would not unduly compromise the voluntariness of consent…
>
> [Q]uasi-mandatory vaccination measures are more likely to be justified… for highly contagious and serious diseases, for example with characteristics similar to smallpox'.[13]

Using this as a guide, the subsequent section will incorporate Savulescu's Covid-19 vaccine matrix to provide a structured test for when a vaccine mandate could be considered necessary and proportionate in respect of future pandemics.[14]

There is a strong case for making a vaccination mandatory in response to an outbreak of communicable disease in future pandemics if the following desiderata are met:

There is a significant threat to public health;

The vaccine is safe and effective;

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[13] Nuffield Council on Bioethics, *Public Health: Ethical Issues* (Nuffield Council on Bioethics, 2007) 60

[14] J Savulescu, 'Good Reasons to Vaccinate: Mandatory or Payment for Risk?' (2021) 47 *Journal of Medical Ethics* 78

Mandatory vaccination has a superior utility profile compared with less restrictive options; and

The level of coercion is proportionate.

Each condition must be satisfied before the subsequent condition can be considered or the matrix will fail.

6.2.1 A Significant Threat to Public Health

It cannot be said with complete certainty how serious future pandemics will be, however, if the infection is only mild and causes a minor illness with low risk of death, there is no need to implement a vaccine mandate – in fact it is unlikely that global science would rush to create a vaccination in such circumstances. However, it is not difficult to imagine a 'Super flu', or bioengineered disease, which could have 10% mortality rate across all ages with similar impacts to the Spanish Flu (which had an associated deaths toll of between 50 and 100 million). Where a pandemic poses a serious public health threat, as measured by mortality rate, incidence, and prevalence there is good reason to support a mandate. The recently retracted 'Vaccination as a Condition of Deployment' policy for healthcare professionals in England an ideal sounding board to determine a how and when the threat to public health is significant enough to warrant state intervention.

The consultation on the vaccine mandate went live on 9 September 2021 and around this time there were almost 100,000 deaths in England with laboratory confirmed Covid.[15] The infection was shown to disproportionately affect older people: rates of hospitalisation and death were less that 0.1% in young children but increased to over 10% in people aged over 70 years.[16] Covid also disproportionately affected ethnic

[15] UK Health Security Agency, 'COVID-19 Confirmed Deaths in England (to 30 September 2021): Report' (*Gov.UK*, 3 May 2022) <https://www.gov.uk/government/publications/covid-19-reported-sars-cov-2-deaths-in-england/covid-19-confirmed-deaths-in-england-to-30-september-2021-report> accessed 27 June 2022

[16] S Mallapaty, 'The Coronavirus is Most Deadly if you are Older and Male – New Data Reveals the Risks' (2020) 585(7823) *Nature* 16

minorities in terms of frequency and severity of infection.[17] Within healthcare settings, the risk and impacts of Covid-19 were (and are) significant to healthcare professionals who continued to treat infected patients at substantial risk to themselves.[18] By January 2022, nationally 94.3% of NHS workers had received at least one dose of the Covid-19 vaccination, but regionally this was as low as 87.6%.[19] Whilst these figures indicate sub-optimal uptake, from September to January, the nature of Covid-19 had substantially changed. The omicron variant no longer had the debilitating symptoms of its viral predecessors and had a significantly lower risk of hospitalisation and death (by 59% and 69% respectively).[20] In November 2021, there were serious concerns about the risk of infection to the workforce and patients, and it is arguable to say that because there was a significant risk to public health and the vaccine mandate was justified. However, in January, the regulations were withdrawn on the basis that the risk to public health was no longer so significant.[21] It was no longer necessary or proportionate to implement vaccine mandates when the risk of the infection had reduced.

That being said, if there is a pandemic which is having significant impacts on the health of the population and that scientists are working rapidly to create a vaccine for, it would be reasonable to assume that on the balance of probabilities it is more likely than not that the pandemic disease poses a significant threat to public health – thus satisfying this condition.

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[17] M Razai and Others, 'Covid-19 Vaccine Hesitancy Among Ethnic Minority Groups' (2021) *British Medical Journal*

[18] M Mutambudzi and Others, 'Occupation and Risk of Severe COVID-19: Prospective Cohort Study of 120 075 UK Biobank Participants' (2021) 78(5) *Occupational Environmental Medicine* 307

[19] NHS, 'COVID-19 Vaccinations of NHS Trust Health Care Workers in the NHS Electronic Staff Record (ESR) by NHS Trust' (*NHS*, 13 January 2022) <https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2022/01/COVID-19-monthly-announced-vaccinations-13-January-2022.xlsx> accessed 30 May 2022

[20] T Nyberg, 'Comparative Analysis of the Risks of Hospitalisation and Death Associated with SARS-Cov-2 Omicron (B.1.1.529) and Delta (B.1.617.2) Variants in England: A Cohort Study' (2022) 399 *Lancet* 1303, 1309

[21] HC Deb 31 January 2022, vol 708, col 70

6.2.2 The Vaccine is Safe and Effective

Vaccines have traditionally been developed by attenuating or inactivating pathogens and have successfully decreased the burden of a number of infectious diseases in the past. However, these established methods may not always be appropriate or achievable in a pandemic; live attenuated vaccines generally bear the risk of reversion, rending this approach unfavourable for highly pathogenic, uncharacterised infections, and inactivation may not produce protective responses.[22] Focus has since turned to mRNA vaccines which encode a spike protein that produces an antigenic response. As a consequence of many years of research preparedness, these vaccines can be produced significantly faster than their conventional counterparts. Moreover, within the pandemic, as society clamours for a way out of lockdowns and quarantine measures, researchers are likely to receive increased funding which will allow testing phases to happen in parallel rather than sequentially, considerably accelerating the process.

As a consequence of this speed, there may be concerns that the novel vaccine will have been rushed through testing and may not be safe or effective. The balance of how safe is safe enough to justify a vaccine mandate is a challenging line to draw, and although the technology used for new vaccines has been successfully used for other diseases, no one will have ever produced a safe and effective vaccine against a novel infectious disease, and there will be no long-term safety data on side effects.

It is accepted that no vaccination is 100% safe, and it will take time and close reporting to ensure data pertaining to the extent of the risks and the vaccine efficacy are accrued, this was evident in the monovalent adjuvanted influenza vaccines (including Pandemrix) produced in response to the 2009 H1N1 pandemic influenza virus. Approximately 31 million doses of Pandemrix were administered to populations across Europe and in August 2010 the Swedish Medical Products Agency announced a possible increased risk of narcolepsy, a rare but chronic sleep disorder, following Pandemrix vaccination. [23] Studies were rapidly commissioned through Europe and

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[22] S Rauch and Others, 'New Vaccine Technologies to Combat Outbreak Situations' (2018) 9 *Frontiers in Immunology* 1963

[23] K Edwards, P Lambert, and S Black, 'Narcolepsy and Pandemic Influenza Vaccination

most indicated a significant although small absolute risk associated with Pandemrix vaccination, translating to an attributable risk of one per 16,000 doses in the susceptible age group.[24] It was recognised that such a rare event would not have been detected *a priori* in phase 3 human trials, and the vaccine was discontinued.[25]

There is a balance to be struck between (i) introducing a vaccine early and saving more lives from the infectious disease, but risking side effects or ineffectiveness, and (ii) engaging in longer and more rigorous testing and having more confidence in safety and efficacy, but more people dying of the infection while this testing occurs. There is no bright line test to decide but, given the economic, social and health impacts of pandemic control measures there will be considerable pressure to have a vaccine available for use as soon as practicable. Vaccine safety concerns are commonly associated with outcomes that seem to be increasing in incidence, have poorly understood aetiology, and are concerning to the public.[26] If there are widespread concerns about safety, it is highly unlikely that a vaccine mandate to be acceptable to population, and it would be arguably more likely that many individuals would prefer sanctions rather than risk an adverse event following immunisation. In order to overcome this, communication around vaccine safety must be proactive and timely, and research must be conducted with rigour, objectivity, and transparency. Any mandatory vaccination programme would need to make a value judgement about what level of safety and what level of certainty are safe and certain enough. Of course, this would need to be very high, but a 0% risk option is highly unlikely.

6.2.3 Vaccination is Better than Alternatives

Even where the risk to public health is serious, interventions aimed at reducing or counteracting those risks must have proven their value before their implementation can be justified. The expected usefulness is a concept from decision theory whereby

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What We Need to Know to be Ready for the Next Pandemic' (2019) 38(8) *The Pediatric Infectious Disease Journal* 873, 876

[24] D Salmon and Others, 'Novel Vaccine Safety Issues and Areas that Would Benefit from Further Research' (2021) 6 *British Medical Journal Global Health* 1, 3

[25] K Edwards, P Lambert and S Black (n 23) 876

[26] D Salmon and Others (n 24) 8

the expected utility of a proposed option must be compared with the expected utility of relevant alternatives. In the pursuit of treating safely, there are many alternatives to vaccination mandates, which Savulescu describes as increasing interferences which range from wearing appropriate and effective personal protective equipment (including face masks, eye goggles, protective suits, and face shields) and handwashing requirements, to mandatory isolation and contact tracing, up to mandatory vaccination policies.[27]

Even the more minimal interventions come with their own costs, in particular personal protective equipment can be cumbersome for clinicians to wear and could impede communication, which could in turn may result in poor patient care. Moreover, in the early stages of the Covid-19 pandemic there were concerns about shortages of masks, gloves, and gowns as a consequence of insufficient surge planning and insecure supply chains.[28] Contact tracing can be highly effective at obviating the need for mandatory vaccination. South Korea used aggressive tracking, tracing, and quarantines to control new Covid-19 cases, however, to implement such a measure requires significant technological investment and infrastructure and, there is a high chance of social opposition to such invasive use of personal data.[29] Rigorous contact tracing mechanisms would also negatively impact healthcare professionals' availability to treat as they will come into contact with infected persons in hospitals as well as in the community and be required to isolate.

In analogous outbreaks of infectious disease, like seasonal influenza, studies demonstrate that influenza-related illnesses and deaths among elderly inpatients can be significantly reduced when just half of healthcare professionals are vaccinated against influenza.[30] In these cases, mandates that utilise vaccination as a condition of

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[27] J Savulescu (n 14) 80

[28] World Health Organization, 'Shortage of Personal Protective Equipment Endangering Health Workers Worldwide' (2020) <https://www.who.int/news/item/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide> accessed 28 June 2022

[29] N Kim, 'More Scary than Coronavirus: South Korea's Health Alerts Expose Private Lives' *Guardian* (Seoul, 6 March 2020)

[30] W Carman and Others, 'Effects of Influenza of Healthcare Workers on Mortality of Elderly People in Long-Term Care: A Randomised Control Trial' (2000) 355(9198) *Lancet* 93

employment were shown to be the single most clinically and cost-effective intervention to increase vaccination uptake.[31] Moreover, vaccination uptake rates can also be used an effective indicator of a hospital's commitment to the delivery of safe, quality care.

Notably, a popular opinion, particularly among healthcare professionals, is that vaccine mandates are supererogatory because people are self-interested or altruistic enough to voluntarily accept vaccination.[32] If this were true, and universal uptake was guaranteed, this thesis would have no practical scholarly value. However, as has been discussed throughout the work, that notion is idealistic at best, and dangerous at worst. Previous iterations of infectious disease evidence a clear trend of suboptimal vaccine uptake which reasonably suggests that in future pandemics, voluntary vaccination strategies will be insufficient to ensure the continuation of healthcare services and empower healthcare professionals to treat safely.

6.2.4 The Level of Coercion is Proportionate

The Nuffield Council's 'intervention ladder' grades public health policies according to the degree to which they restrict individual autonomy; this is considered Appendix 1, with reference to vaccinations for healthcare professionals. Although the more restrictive policies will generally achieve greater utility, this table does not imply that they are all ethically justifiable – particularly forced vaccination.[33] Consideration must be given to whether a mandate is the *only* way to obtain individual and public health benefits, and less restrictive measures should first be shown to be ineffective at attaining a specific goal before the more intrusive measures are reviewed. If it is possible to attain the optimal result without a mandate but through education or persuasion, a mandate would be an unnecessary and disproportionate interference with individual rights. Less restrictive measures can be beneficial, for example, simply

[31] T Lytras and Others, 'Interventions to Increase Seasonal Influenza Vaccine Coverage in Healthcare Workers: A Systematic Review and Meta-Regression Analysis' (2016) 12(3) *Human Vaccines and Immunotherapeutics* 671, 675

[32] D Graeber, C Schmidt-Petri, C Schröder, 'Attitudes on Voluntary and Mandatory Vaccination Against COVID-19: Evidence from Germany' (2021) 16(5) *PLoS ONE* e0248372

[33] Nuffield Council on Bioethics (n 13) 41

offering vaccines on-site to healthcare professionals will increase vaccine uptake, however, as has been described above, uptake is generally significantly higher with a mandate than with other measures. Polgreen highlights that in the case of influenza, it has been demonstrated that policies using declination forms are far less effective than mandates in improving vaccination rates in healthcare institutions seeking to achieve high coverage.[34] Other types of interventions including increased awareness, educational initiatives, and financial or social incentives were found individually to have little effect, although their cumulative effect was comparable to that of 'soft mandates'.[35]

The principle of the least restrictive alternative is used to balance public health goals with healthcare professionals' autonomy, and states that if two proposed public health interventions both effectively resolve a public health concern, then the least restrictive intervention should be preferred. The principle uses liberty as the determining factor between options with the same outcome. In reality, it is much more likely that the expected utility will be the tiebreaker when comparing potential restrictive policies. Hence, in accordance with the principle of proportionality, additional coercion or infringement on liberty is justified if it is proportionate to the gain in expected utility of the more coercive option in comparison with the less restrictive alternative. A vaccine mandate might not be strictly necessary, but nevertheless be more likely than a nudging policy or information campaign alone to yield the desired outcomes. In other words, applying a principle of least restrictive alternative often means assuming a risk. Accordingly, it is suggested that if a policy can prevent 'great harm' – as would be the case with widespread vaccination of healthcare professionals – then the risk of not acting or failing to achieve that target would not be worth taking.[36] To ensure the mandate is proportionate, research is also needed into the relative protection of

[34] P Polgreen and Others, 'Relationship of Influenza Vaccination Declination Statements and Influenza Vaccination Rates for Healthcare Workers in 22 US Hospitals' (2015) 29(7) *Infection Control and Hospital Epidemiology* 675

[35] T Lytras and Others (n 31) 675

[36] O Bradfield and A Giubilini, 'Spoonful of Honey of Gallon of Vinegar? A Conditional COVID-19 Vaccination Policy for Front-Line Healthcare Workers' (2021) 47 *Journal of Medical Ethics* 467, 469

vaccine-acquired immunity and natural immunity, and whether following infection, the healthcare professional needs to be vaccinated.

6.3 A CONDITIONAL VACCINE MANDATE

It is on this basis, the appeal for the least restrictive alternative, that this thesis proposes consideration of 'conditional' mandates which could be made in advance of any future pandemics and be enforced as a means to balance individual liberty with the need to minimise the risks of lower uptake and nosocomial infections. Such a mandate requires the temporary redeployment of healthcare professionals refusing the vaccine to non-clinical roles (e.g., telemedical services).[37] There are a finite number of redeployment roles, and priority should be given to those who cannot be vaccinated due to medical contraindications. If redeployment is not possible, then unvaccinated healthcare professionals could be asked to take paid or unpaid leave. And, if, after that period of leave, the healthcare worker remains unvaccinated, then their employment or professional registration could be terminated. In this sense, the intervention imposes conditions on a healthcare professional's job or registration, it would be possible to opt-out but there are unattractive consequences for doing so. The policy minimises the risk of staff shortages while still achieving the goal of protecting patients.

6.3.1 Implementing a Conditional Mandate

The conditions specified in employment contracts ask future employees to accept certain requirements as part of their job role, and deviation from these can result in disciplinary action or termination. As this thesis has already discussed, healthcare professionals already agree to health and safety requirements such as washing their hands and wearing appropriate PPE to provide patient care. If a healthcare professional declined to follow these requirements, they would not be allowed to have patient contact, or at the very least would be reprimanded by their line manager. This is a form of coercion, but an acceptable one – even when wearing PPE for long periods of time is burdensome and unpleasant. However, it is acknowledged that vaccinations are somewhat different from these safety practices, they affect a person's physiology and

[37] *ibid* 469

have much broader and long-lasting impacts. In these cases, the justification of coercion is higher because the burden is higher – though reflective of the risk at hand.

It is recognised that this vaccination as a condition of employment/deployment could impose significant costs on public health services, and it could also entail significant professional burdens on vaccinated healthcare professionals who would be required to assume their unvaccinated colleagues' clinical duties. Some of these costs might be considered reasonable, so long as the delivery of safe and effective healthcare is not compromised. However, as the primary aim of healthcare systems and healthcare professions is providing safe care to patients, healthcare professionals' individual autonomy may (and arguably should) be constrained accordingly to meet that aim and fulfil their professional obligation to treat safely – especially within the pandemic context. Thus, returning to the justification of vaccination as a form of solidarity as in Chapter IV.

Furthermore, it could be argued that the costs associated with non-compliance are extensive, especially as alternative career paths are not always easily available for someone who has been in the healthcare industry for a number of years. It is accepted that a conditional mandate would not be as coercive for a graduate starting their career in medicine and acknowledged that it can be more coercive for someone who previously entered the profession on the basis that the vaccine they would rather not take was not mandated. Accordingly, one way to minimise this coercive pressure and strike a balance between individual freedom and patients' interests is to make vaccination a condition of *entry* into the profession rather than mandating those already employed, and adopt a conditional mandate, if at all possible, for those already in the profession. This is because while someone can relatively easily choose a different career path when young and deciding whether to join the profession, it is more difficult, for someone to change career decades in as a result of a new condition of employment that they had not previously consented to. To mitigate this burden in the long-term it is suggested that robust provisions for a conditional mandate are included within employment contracts and professional regulations. This proposal would, eventually, mean that the conditions are consented to in all employment contracts. Moreover, this would ensure the pandemic strategy is in place and accepted

by all those working in the field and would prevent any decisions having to be made in haste in the midst of the emergency.

It is imperative that healthcare professionals attain immunity as soon as possible after a vaccine is licenced, and healthcare services need to have a clear and well communicated plan in advance of the pandemic to account for the fast-moving situation. The proposed policies must be disseminated early to ensure that healthcare professionals opposing vaccination can be targeted quickly with low level interventions and have advance notice of the consequences of their refusal. In a pandemic, if the goal is to rapidly protect the workforce against the infection, the time and resources do not exist for gentle nudging.

6.4 COMPLEX POLICY CONSIDERATIONS

This chapter has evaluated the functionality of a vaccine mandate, considering the risks, benefits, and the restrictiveness necessary to meet a public health goal. It has demonstrated the fine ethical balance between upholding patient wellbeing and coercing some healthcare professionals into having a vaccine that they would prefer not to receive. The harm prevented should be great enough and the risks small enough to make the coercive pressure justified. Nonetheless, some may deem conditional mandates unjustifiable in principle, regardless of their justifiable proportionality, on the basis that they are excessively coercive and/ or unfairly discriminatory.[38]

6.4.1 Discrimination

Discrimination means treating individuals differently – this is not ethically problematic in and of itself. However, in the normative sense, discrimination is generally understood to mean 'unfair discrimination', where individuals are treated differently on the basis of factors which should not be considered relevant. In the first, unproblematic sense, all conditions of employment contracts already preclude individuals who do not fulfil certain academic or training requirements. Vaccination requirements are thus, not far removed from requirements to provide evidence of visa status, proof of qualifications, and submit to police checks, in terms of their factual

[38] M Kowalik, 'Ethics of Vaccine Refusal' (2022) 48 *Journal of Medical Ethics* 240

weight. The salient question therefore is whether it is unfair to require vaccination as a condition of de/employment. It would be unfair to require vaccination if it were not directly relevant to employment, such as a ban on tattoos or unnatural hair colours, or if vaccination status were a protected characteristic that should not create any form of disadvantage in employment decisions, in the way that gender, age, and race are, or if individuals could not access vaccines.

However, vaccination status is an ethically significant factor as it considerably reduces the risk of infection and disease transmission. This reduced risk allows healthcare professionals to fulfil their professional duty to treat safely, as well as the healthcare institution's duty to their staff to provide appropriate health and safety protection, and to patients by minimising the risks of workforce shortages. At present, vaccination status is not a protected characteristic, however it is accepted that it may qualify for this, perhaps if vaccination status was taken as an expression of an individual's core ethical or religious beliefs.[39] However, that is not the question this thesis seeks to address.

It would be discriminatory to exclude healthcare professionals from service if they were unable to access a vaccine because of cost or availability or because of a genuine medical exemption. However, in almost all settings where a mandate might apply vaccines will be made available, likely at no cost, to healthcare professionals. As noted previously, healthcare professionals will also be in the first priority group to be vaccinated. Individuals with recognised medical exemptions must be discharged from vaccination requirements, although in such cases alternative precautions should be adopted; including the continued use of PPE and routine testing for asymptomatic infection, where available to protect patients.

[39] A Giubilini and Others, 'Vaccine Mandates for Healthcare Workers Beyond COVID-19' *Journal of Medical Ethics* (forthcoming)

6.4.2 A Mindful Application

Compulsory vaccination is not a panacea and may harm the safety of patients and healthcare professionals, as well as affecting workload and wellbeing.[40] There are many sensitive issues to address when applying vaccine mandates, none more important than maintaining good will between healthcare professionals and their employers. Overly coercive regulation may engender resentment, opposition, and mistrust, and risk aggravating employees.[41]

Many studies have shown that healthcare professionals already experience higher severity of mental health disorders and associated symptoms than the general population. This includes burnout, anxiety, depression and acute stress disorder as a result of regularly working in extremely high stress environments and dealing with the tragic realities of a pandemic.[42] Therefore, any mandate must be implemented in a way that is respectful and cognisant of the impact the pandemic will likely have on the overwhelming majority of healthcare professionals. There must be opportunities to discuss and allay fears and support staff.

As was mentioned in Chapter II, a mandatory vaccination policy must also address the cultural and informational needs of diverse racial and ethnic minority groups who are likely to be disproportionately impacted by a pandemic. Another risk identified was that compulsion and resultant erosion of trust in government and leadership could further increase vaccine hesitancy among minority groups. Any policy must effectively engage with ethnic minority and religious groups to assuage their concerns and work with stakeholders to address specific cultural or religious views. Notably, this would indirectly benefit racially and ethnically diverse communities as it would support the healthcare professionals to spread important public health messages within their own diverse communities. An increased acceptance of vaccination would go

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[40] L Shemtob and Others, 'Vaccinating Healthcare Workers Against Covid-19' (*BMJ*, 11 August 2021) <https://www.bmj.com/content/bmj/374/bmj.n1975.full.pdf> accessed 20 June 2022

[41] D Ksienski, 'Mandatory Seasonal Influenza Vaccination or Masking of British Columbia Health Care Workers: Year 1' (2014) 105(4) *Canadian Journal of Public Health* e312

[42] C Sung and Others, 'Mental Health Crisis in Healthcare Providers in the COVID-19 Pandemic: A Cross-Sectional Facility-Based Survey' (2021) 11 *BMJ Open* 052184

some way to ensure policies do not unfairly target and further disadvantage already marginalised groups. Therefore, it is essential that healthcare professionals are provided with timely, accurate, coherent, culturally sensitive and balanced information about the benefits and risks, including any areas of uncertainty to minimise the burdens associated with mandatory vaccination

7 CONCLUSION

In the wake of Covid-19, there have been calls for the world to be better prepared for the next pandemic, these calls are driven by the sense that the outbreak ought to have been foreseen and prevented, or that the infection could have been more effectively contained causing less social and economic disruption. These calls have been made in the past and whilst some have resulted in meaningful medical and scientific advances, in a few months a new crisis will take centre stage and bring about the now familiar cycle of "panic and neglect" leaving global society dangerously vulnerable. This is a concern and shows that the question of pandemic preparedness is not just an academic inquiry, this study has real-life consequences and holds the potential to save lives.

Covid-19 has brought into sharp focus the limitations of previous efforts and the need for an ambitious and sustained approach to preparedness. Having lived through the chaos and complexities of a public health emergency, it is clear that policymakers must examine and clarify the responsibilities of key members in advance of the next pandemic, rather than scrambling to address the pandemic already upon us. Through its examination of relevant judicial and academic scholarship, this thesis has highlighted the political, ethical, and social challenges inherent to controlling communicable disease, and the sacrifices required to protect wider society. It is noted that the law cannot solve all, or even most, of the difficulties facing public health authorities. Law cannot eliminate political strife any more than it can prohibit the mutation of viruses - yet law is an important part of the ongoing work to face the next pandemic.

This jurisprudential analysis began by recognising the impact of healthcare professionals in the success of a pandemic response but noted that, by virtue of their role in treating the infected population, they face a disproportionate risk of serious illness and death. The examination has shown that whilst healthcare professionals have a duty to treat during outbreaks of infectious disease, this is limited by the risk to self – however, this is mitigated by the provision of measures to protect against infection. The duty to treat is understood as a duty to treat safely, meaning that healthcare professionals are obligated to take all reasonable steps to protect patients from

foreseeable harm, including accepting vaccines. One of the great triumphs of vaccination is the direct benefit of immunity it bestows on the individual, but the indirect benefits are even more widely enjoyed, particularly through reducing staff shortages and decreasing the risk of nosocomial infection. To ensure optimal vaccine uptake is achieved, vaccine mandates should be considered, and these can be defended through a pluralist account of medical ethics, as well as in international and domestic jurisprudence. Framing vaccination as a moral duty supersedes individual preferences and by introducing a requirement to be vaccinated as a (pre)condition of employment, freedom of conscience can be reasonably infringed upon. It is accepted that risk posed by unvaccinated healthcare professionals outweighs concerns that conditional vaccination policies are coercive, provided that public health messages engage with people from diverse communities and groups within society. Compulsory vaccination is not a panacea and there are additional legal and ethical considerations regarding their practical application that must be addressed.

In what follows, this thesis will briefly outline some of the measures which must be reviewed to substantiate public health interventions, including data management and access to compensation for vaccine injuries. Ultimately, however, it is vital that policymakers look beyond the present workforce issues and address underlying staff shortages to ensure the health service has the necessary manpower to robustly respond to pandemic threat.

To enforce a vaccine mandate, employers will be required to ask employees for details pertaining to their vaccination history. Making a record of this data creates strict obligations concerning the processing of the information as it is, as with other types of health data, 'special category data' subject to specific rules under the UK GDPR.[1] This raises difficulties for employers as the lawful grounds for processing special category data are limited and the consent of the employee alone is unlikely to suffice, as this is not freely given within the employment relationship. However, other grounds

[1] J Chadha, 'Vaccinations and GDPR' (*3CS*, 21 May 2021) <https://www.3cslondon.com/en/newsletter/5bemployment-5d-vaccinations-and-gdpr> accessed on 27 June 2022

may provide satisfactory justification, including public health grounds.[2] Consideration also needs to be given as to what will be done if an employee who says they have been vaccinated refuses to supply confirmatory documentation or if an employee refuses to disclose their vaccination status.

Moreover, if mandatory vaccination is to be considered, sufficient vaccine supply and access to vaccination without financial or logistical barriers must be guaranteed. There must also be comprehensive and real-time surveillance of vaccine side effects or vaccine safety surveillance platforms, like the Yellow Card reporting scheme. Furthermore, adequate compensation systems must be in place with the aim to achieve optimal prevention against adverse reactions to vaccines. In the UK, the Vaccine Damage Payments Act provides a single tax-free payment for vaccine-damaged persons in cases of death or severe disablement, which are proven on the balance of probabilities to have been caused by a vaccination specified by the Secretary of State by statutory instrument.[3] If a causal link is established and disablement suffered is 60% or more, a lump sum of £120,000 is awarded. Goldberg has reviewed the scheme and highlights that the success rate for claims is extremely low - 13.9% - as the majority of claims have historically been disallowed as a causal link could not be established, and the claims were received outside the statutory time limit.[4] Any novel vaccine created for a future pandemic must be included within the remit of this compensation system. Furthermore, there are noteworthy propositions to reform this system, including Sir Christopher Chope's Covid-19 Vaccine Damage Bill introduced to review the adequacy of compensation offered to persons disabled as a consequence of the Covid-19 vaccination.[5]

Finally and somewhat paradoxically, a public health intervention cannot address or overcome pre-existing workforce shortages, which are only exacerbated by the

[2] Data Protection Act 2018 s10(1)(d)

[3] Vaccine Damage Payments Act 1979 s1(2)

[4] R Goldberg, 'Vaccine Damage Schemes in the US and UK Reappraised: Making Them Fit for Purpose in the Light of Covid-19' (2022) *Legal Studies* 1, 15

[5] Covid-19 Vaccine Damage HC Bill (2021-22) [44]

pandemic and the foundational issue in preparedness strategies.[6] The absence of any comprehensive national long-term plan to secure an appropriately skilled and well-trained workforce have necessitated operating strategies like voluntarily recalling retired staff, cancelling pre-arranged leave, and fast-tracking trainees into hospitals - these go some way to mitigate staff shortages, but they do not amount to a sustainable workforce policy. The scale of the challenge necessitates multifactorial action across training routes and staff retention. There is no silver bullet answer, and it is essential that policymakers continue to engage with this issue to deliver functional solutions.

The purpose of this thesis was to examine, *inter alia,* if mandatory vaccination policies can be justifiably used during pandemics. It may be a limited aim, but it has been shown that there are circumstances in which coercive strategies are necessary and proportionate to the risk posed by the disease. This analysis supports the introduction of disease-specific and vaccine-specific mandates, whereby the mandate is superior to the less coercive alternative and the loss of autonomy is balanced with the benefits to society. In order to do this, and to do this well, we must be wary of coercive strategies that exceed the bounds of proportionality and risk alienating healthcare professionals. Indeed, we must be wary of the role of culture and society and talking transparently about vaccination to avoid fuelling the fires of vaccine hesitancy and encourage voluntary uptake. We must be wary of rushing and give due consideration to all salient factors before healthcare professionals face the sharp end of the needle.

[6] A Charlesworth, 'What Action is Required to Make NHS Workforce Shortages a Thing of the Past?'(*The Health Foundation*, 13 May 2021) <https://www.health.org.uk/news-and-comment/blogs/what-action-is-required-to-make-nhs-workforce-shortages-a-thing-of-the-past> accessed 5 July 2022

APPENDIX 1: 'INTERVENTION LADDER' FOR VACCINATION

An adaptation of the Nuffield Council's 'Intervention Ladder' with vaccination policy for healthcare professionals from most to least coercive:

Policy	Consequence for Non-Compliance
Forced vaccination	Forced vaccination, with approved use of chemical or physical restraint
Compulsion/ penalties	Fines or imprisonment; loss of professional regulation; termination of employment contract
Restrictions or conditions on employment	Suspended from work; loss of salary when on sick leave; conditions imposed on professional regulation
Redeployment	A restriction on direct patient contact
Loss of incentives	Removing access to employee privileges
Nudging	Opt-out policies like requiring healthcare professionals to sign a declinature form explaining why they are refusing to be vaccinated; using public spaces, like leader boards, to publicly track vaccine update in different departments
Persuasion	Education campaigns to persuade healthcare professionals to be vaccinated, no penalties for non-compliance
No intervention	Do nothing if the healthcare professional declines vaccination

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Solomakhin v Ukraine App no 24429/3 (ECtHR, 15 March 2012)

Vavřička and Others v the Czech Republic App nos 47621/13, 3867/14, 73094/14, 19306/15, 19298/15, and 43883/15 (ECtHR, 8 April 2021)

W v the United Kingdom App no 18187/91 (ECmHR, 10 February 1993)

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Offences Against the Persons Act 1861

Social Action, Responsibility and Heroism Act 2015

The Health and Social Care Act 2008 (Regulated Activities) (Amendment) (Coronavirus) (No. 2) Regulations 2022

Vaccine Damage Payments Act 1979

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European Social Charter (adopted 18 October 1961, entered into force 26 February 1965) ETS 65

International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1976) 993 UTSS 3 (ICESCR)

Model State Emergency Health Powers Act (MSEHPA) 2001 (USA)

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