

## 8 Beyond Childhood Vaccination

Before the COVID-19 pandemic emerged in 2020, almost all ethical discussions on the regulation of collective immunization concerned children. Most of the examples and arguments discussed in this book had the same child-centered focus. This is not only to be explained by the fact that it is often children who, due to their relatively “naive” immune system, are especially vulnerable to infectious diseases and that they are therefore the most important target for national programs. From a regulatory perspective, the more important aspect is that they are too young to make their own deliberate decisions on vaccination and that their parents, who are expected to make medical decisions in their name, sometimes decide against it. This creates a dilemma for governments, which have a responsibility to protect the basic interests of children. In the previous chapters, we argued that mandatory childhood vaccination can therefore be justified in specific circumstances. The same argument cannot, however, be simply applied to adults who are capable of observing their own interests. Can coercive vaccination measures aimed at adults be justified at all?

In this chapter, we first explore in general how the arguments we have developed so far for childhood vaccination can also apply to coercive vaccination of adults—which involves exploring relevant differences between policies aimed at children and those aimed at adults (section 8.1). Next, we discuss in detail vaccination policies in the specific context of the SARS-CoV-2 pandemic (sections 8.2–8.4), which, in our view, offers a good illustration of how adult vaccination can be coercive but also how complex this still is. An important dimension of vaccination during a large outbreak is that there will often already be many liberty-limiting measures in place, and against this baseline, it is easier to justify coercive vaccination policies

in the context of a pandemic. In section 8.5, we return to the more general level: is coercion also justified outside the context of a pandemic? Finally, in section 8.6, we evaluate the differences between the policies we defended for vaccination for children and adults.

## 8.1 Coercing Adults to Participate in Collective Vaccination

In the past few decades, the best-known example of collective immunization programs for adults was probably the yearly influenza vaccine. Other examples are those for shingles or pneumococcal disease, but such vaccinations are offered through fully voluntary programs. And before we discuss coercive measures and their possible justification, we should repeat here what we emphasized in section 7.4.2 on childhood vaccination. More coercive measures can only be considered after all reasonable attempts to cater for and support voluntary vaccination have been employed.

Compulsory or mandatory vaccinations are not uncommon, but they are only for traveling abroad or in very specific professional contexts, so are not generally part of national immunization programs. Countries in Africa and South America in which the yellow fever virus is endemic require incoming foreign travelers to be vaccinated against the disease. In specific professions, people are required to be vaccinated during either training or practice. For example, care workers who work with needles and other sharp objects run more risks of encountering hepatitis B, and in addition to the risk of being infected during professional practice, infected professionals also generate a risk of infecting patients. For these reasons, employers are sometimes required to offer hepatitis B vaccination to every employee if they may be exposed to the hepatitis B virus. Employers may also refuse to give unvaccinated health care workers tasks that involve an increased risk of infection and require them do other suitable work—and this can be made a mandatory policy. Hepatitis B vaccination is not mandatory for health professionals in all countries; for example, in the Netherlands, at-risk employees who work in health facilities are free to refuse it but can be required to have an antibody test every three months.

Outside international travel and professional contexts, a coercive policy for the *collective* vaccination of adults is very hard to justify. To understand this, we have to refer back to the fundamental rights discussed in section 3.5,

in particular bodily integrity and the freedom of thought, conscience, and religion. In the context of childhood vaccination, the freedom of thought, conscience, and religion—in combination with parental autonomy—is a fundamental liberty that sets a clear though not absolute constraint on coercive childhood vaccination policies. We have shown under which conditions mandatory vaccination of children can be a justified and proportionate infringement on the freedom of parents. Yet this justification was partly based on the state's responsibility to protect the basic interests of children who cannot (yet) take care of their own interests. Parents have the right to organize their lives according to their own basic convictions, and this freedom also extends to their ideas about what is best for their children. Yet this extension is limited if they make decisions that may be harmful for their child—ultimately, this is the harm principle at work. It will be much more difficult to constrain their freedom of thought, conscience, and religion or belief if it concerns vaccination for themselves. This is a first ground for believing that the bar will be much higher for justifying mandatory vaccination of adults.

A second ground for this normative stance is a person's fundamental right to bodily integrity. Vaccination involves invading someone's body, and if this is done without that person's voluntary consent, it is rightly considered to be even more intrusive for that person than other restrictions of liberty, such as restricting their freedom to move or travel. Being able to determine what is happening with and in one's own body is indeed one of the most fundamental rights in the human rights catalogue. A person's choice to refrain from vaccination is a choice they make about their own body and health, and liberal-democratic governments should be extremely cautious about interfering with that right, as a matter of respect for bodily integrity. Mandatory childhood vaccination, as we argued in section 3.6, does not interfere with anybody's right to bodily integrity; it merely interferes with a parent's choice to refuse vaccination *for their child*, and bodily integrity is a matter for which the state has a responsibility and a right as well: to preserve the basic interests of each child. However, coercing adult citizens to accept vaccination certainly does interfere with their bodily integrity.

To summarize: the fundamental liberty of thought, conscience, and religion that is often invoked against compulsory or mandatory childhood immunization policies is even stronger regarding the vaccination of adults. In addition, the right to bodily integrity may be irrelevant for childhood

vaccination policies but it is certainly applicable in the context of nonvoluntary immunization of adult citizens.

At the same time, these fundamental liberties of adults, even their right to bodily integrity, can be legitimately constrained by an appeal to the harm principle. In exceptional cases, it is conceivable that vaccination of adults is necessary for the protection of the health of others, and in such cases, the harm principle applies—as explained in chapter 4. If vaccination is necessary to prevent direct harm to others, or, the more plausible case, if maintaining a high vaccination rate is necessary to protect public health and society at large, coercion can, in principle, be justified.

A core element of our justification for childhood immunization was the government's responsibility to protect each and every child's basic interest to life and health. In exceptional cases, this can amount to enforcing vaccination against the will of their parents, but in normal times, it will support proportionate mandatory policies to ensure robust herd immunity against certain vaccine-preventable diseases. One may question whether the state has a similar and far-reaching responsibility to protect each and every adult. It is already clear that the bar for justified coercive policies is much higher in the case of adult immunization. After all, the primary responsibility for their health lies in the hands of these adults themselves.<sup>1</sup>

Nevertheless, the protection of public health may sometimes require coercive policies. There are a few cases when legal force was used, and the aim was the collective immunization of adults to protect the health of others. The 1905 Supreme Court case *Jacobson v. Massachusetts*, about compulsory smallpox vaccination, which targeted all citizens of Boston, is still a landmark verdict in US public health law. More recently, in 2019, the mayor of New York required all inhabitants in several quarters of the city, regardless of their age, to be vaccinated to control a severe measles outbreak. This requirement was backed up with punitive measures that could have involved a \$1,000 fine (NYC Health Department, 2019). By mandating the measles vaccination for everyone, children and adults, it was hoped that risks for children too young to be vaccinated themselves would decrease.

It is not only health interests that are at stake, however—especially when infectious diseases are hitting adult populations as well. Indeed, the most evident kind of harm that might justify the restriction of adults' rights results from the societal disruption that emerges during a large-scale outbreak of a new infectious disease and the pressure it puts on the health care system. The

COVID-19 pandemic is a predominant example. In the next sections, we discuss more specific forms of coercive public health policies by taking a closer look at the ways in which the COVID-19 pandemic emerged and the discussions it generated on mandatory and compulsory vaccination of adults.

## 8.2 The COVID-19 Pandemic and the Societal Disruption It Caused

In December 2019, hospitals in Wuhan, a Chinese city of 11 million inhabitants, saw a rise of cases of lung disease, including pneumonia. After some time, the disease was traced back to a food market where live animals were sold. At the beginning of the outbreak, it was assumed that the disease did not transmit from human to human, but as the infection appeared to spread rapidly, it became clear that this was happening. Within a few weeks, the SARS-CoV-2 virus had generated the COVID-19 pandemic that took the world by surprise.

The nonpharmaceutical pandemic response measures taken from 2020 onward were unprecedented in their magnitude and intrusiveness on individual freedoms. They can only be compared to how measures were implemented during smallpox outbreaks in the nineteenth century (Hirose, 2023, pp. 79–100). Schools, universities, offices, shops, bars, restaurants, gyms, theaters, and cinemas were closed, and festivals were canceled—often for several months. People had to work and study from home, state borders were closed, and some countries introduced curfews. People were only allowed to leave their home for essential reasons and, if they did go out, had to wear protective face masks. Symptomatic patients and those who had been in contact with them were quarantined. Even attendance at funerals was restricted to just a few people. Air travel was banned almost completely, and other restrictions applied to traveling more generally.

The nature and extent of the measures differed between countries: some governments, like those of Sweden and the Netherlands, opted for relatively mild (yet still intrusive) measures, while others, like those of China and New Zealand, were much stricter. In France, the government had a top-down way of implementing compulsory policies, while other states relied less on government force and more on general instructions. Differences can be explained by many factors, including the local mortality rate and the disruptive impact of the control measures, but also cultural differences, the political climate, and, last but not least, the timing of measures: some countries were forced

to accept long lockdowns because early precautions and proactive responses had been lacking.

Arguably, the differences between lockdown measures across countries reflected different epidemiological circumstances and also different judgments about what interventions were necessary and proportionate. The diversity in such judgments is not strange given the high level of uncertainty about how the pandemic would evolve and about the effectiveness of the various measures. In all cases, however, there is little reason to doubt which normative idea offers the justificatory basis for control measures: the harm principle. Societies are justified in curtailing individual freedom to prevent harm to others, and during a severe epidemic, this also applies to activities that can reasonably be assumed to facilitate the spread of the virus.

Fortunately, these liberty-limiting lockdown measures did not exhaust possible societal responses to the pandemic. With exceptional speed, SARS-CoV-2 vaccines were developed and approved. The hope was that vaccination would enable societies to abandon lockdowns and other disruptive pandemic response measures. In December 2020, the US Food and Drug Administration issued the first emergency use authorization for the Pfizer-BioNTech vaccine. Several other vaccines were authorized soon afterward—AstraZeneca, Moderna, and Johnson & Johnson—not only in the US but also in most other countries. The vaccines offered strong protection against the most serious disease symptoms. Over time, it also became increasingly evident that even though the vaccines did not guarantee “sterile immunity” (meaning that a vaccinated person cannot infect others; for an explanation, see section 1.7), they did reduce human-to-human transmission significantly, although less so for some later mutations of the coronavirus. Within eighteen months after the onset of the global pandemic, most high-income countries were able to offer vaccines to all citizens who wanted to be vaccinated, first from eighteen years of age and older, later from twelve years of age, and subsequently even for younger children. In these early stages, there was little or no ground for considering policies that would *require* persons to be vaccinated. On the contrary, in the early stages of the rollout, these vaccines were scarce and discussions primarily revolved around which categories of citizens were most vulnerable to the disease and should therefore be given priority access to the first vaccines. At the same time, the issue of coercive immunization was already being widely discussed in the media and put on the agenda by

antivaccination groups that advertised their concerns and their rejection of the possible future use of government force.<sup>2</sup>

When the vaccination campaigns started, they were warmly welcomed, and at the beginning, vaccination rates skyrocketed. Over time, however, the increase in vaccination coverage slowly plateaued, and it became clear that the much-desired protection against the virus might not be achieved with an entirely voluntary program. More coercive measures were debated and introduced in an attempt to further increase the vaccination coverage. An important difference between these discussions on COVID-19 vaccination and those on decreasing childhood vaccination rates that emerged around 2015 is that childhood diseases had been mostly under control for decades due to successful vaccination programs. COVID-19 vaccination programs, on the other hand, had to start from scratch, with novel vaccines, and this all happened in the context of a pandemic concerning a new virus to which not only newborn children but the whole population was naive. Moreover, the COVID-19 pandemic had triggered dramatic response and control measures, so when the vaccines became available, individual freedom was already curtailed severely with lockdown measures, mandatory tests, and quarantine and other social distancing measures. As we shall argue, this situation involving already severely limited rights provides the normative baseline against which justification of policies that seek to promote vaccine coverage must be evaluated during *and* after a severe disease outbreak.

### 8.3 Admission Passes: Pressure on the Unvaccinated

One of the major societal problems in a pandemic is that health care institutions are overwhelmed with very large numbers of patients in immediate need. If the outbreak causes a respiratory disease, one can expect that intensive care units will be flooded with patients and that there will be shortages of mechanical ventilation. Moreover, as hospitals are caring for more and more pandemic patients, other less acute health care will be postponed, which itself will generate more health problems. This is exactly what happened during the COVID-19 pandemic. The most dramatic waves of the pandemic, especially during the winter months, resulted in peaks in COVID-19 hospital admissions that temporarily overwhelmed both regular and intensive health care. Triage protocols were drafted to guide dramatic decisions: which

patients should be offered access and at whose expense (Pierik, 2020b; Verweij & Pierik, 2020; Verweij et al., 2020)? In addition, a variety of essential but nonacute health care treatments, including cancer and heart surgeries, were postponed in order to keep enough acute care intensive care beds available, almost always for patients with COVID-19. The COVID-19 peaks generated a large backlog in essential but nonacute care. An important goal of lockdown measures was precisely to prevent this: to mitigate the peaks in the pandemic and thus to ensure continuous access to essential health care services.

By the time vaccines became available, mass immunization was not only seen as providing the best individual protection against infection. It was also considered the best way to relieve the pressure on hospitals and intensive care units, and it promised to enable at least some lifting of lockdown measures and end other physical distancing measures. Vaccination could open the door to returning to prelockdown school, work, and leisure routines. Collective vaccination would thus be the way out, not only for societies at large but also for individuals who, arguably, could be allowed more freedom once they were protected individually by their shots.

In spring 2021, while still in lockdown, Israel was the first country to introduce so-called green passes allowing vaccinated citizens exceptions to the general lockdown rules by giving only them the possibility of visiting nonessential services such as restaurants, fitness centers, and museums. Many other countries followed suit and implemented passes in several guises. European countries developed a joint COVID-19 certificate that would also enable people to travel between countries. The basic gist of these passes was that vaccinated persons, since they were protected individually, could be given more room to resume pre-COVID-19 recreation activities than unvaccinated persons. Given that often a negative COVID-19 test result also offered (temporary) access, we will use the term *protected access pass* to mean a pass for individuals who are considered sufficiently protected against the (transmission of) infection (Brown et al., 2020; Cameron et al., 2021). Over time, two types of passes emerged to regulate access to events or meetings, which can best be described using the German abbreviations 3G and 2G. A 3G policy offers access to persons who are *geimpft* (vaccinated), *genesen* (recovered from COVID-19), or *getestet* (recently tested negative for COVID-19). A 2G policy is more restrictive as it does not provide the option of being *getestet* as a means to get access.<sup>3</sup> 2G policies limit the options of unvaccinated persons considerably more than 3G policies. 3G policies were adopted almost everywhere; 2G



policies were implemented in fewer countries. Some governments tightened the restrictions for unvaccinated citizens even further by making vaccination fully compulsory. For example, Austria initiated a law that could punish vaccine refusal with a €3,600 fine every three months.

A follow-up discussion ensued around the *domain* of protected access policies. Should they be implemented only in premises that provide less essential services, such as bars, theaters, or night clubs? Or should they also be implemented in venues that are considered more indispensable: high schools, universities, and police stations? Services are considered nonessential when not participating in or not having access to activities within these sectors or fields has no far-reaching consequences for the person and does not change their legal status as a citizen. The more essential the services for which the passes offered exclusive access, the more the freedoms of unvaccinated persons were curtailed, for example, the right to education in the case of protected access policies in higher education. In some countries, access passes were even required for workers (e.g., in health care or the military), which made it very difficult for unvaccinated people in those domains to hold on to a job. In Latvia, members of parliament who were not able to present proof of COVID-19 vaccination or recovery were excluded from parliamentary buildings, which implied exclusion from meetings and the ability to vote in parliament. Sometimes such limitations were imposed by means of democratically approved national policies; sometimes (e.g., in the US), these policies were also made by private corporations.

Early proposals in the Netherlands about introducing a 3G policy initially triggered vocal political opposition, as it was felt to effectively compel people to accept vaccination. Later on, however, a protected access pass was accepted by parliament, although only for specific nonessential services (Pierik, 2021a; Pierik & Bonten, 2021; Pierik & Verweij, 2020a, 2020b; Verweij & Pierik, 2021). Nevertheless, societal debates about coercive COVID-19 vaccination policies have continued throughout the pandemic, often in a strongly polarized way.

One factor that might have contributed to this polarization was the variety of motives at play for adopting 2G or 3G restrictions. At least initially, governments primarily emphasized that access passes were being introduced to relieve lockdown measures while simultaneously reducing the risk of transmission. If crowded public places were only accessible for persons who were vaccinated, recovered from COVID-19, or had recently tested negatively, this

would clearly limit the spread of infection. Such a policy would keep possibly infectious people (unvaccinated, untested) away from places where there is much interaction and risk of transmission. As such, this policy would prevent the chain of infection affecting persons for whom contamination could lead to serious health damage or even death. In contrast, critics of vaccination explicitly emphasized a second possible policy motive, which was less prominent in government communications—namely, that these restrictions were just another indirect measure to pressurize reluctant persons to accept vaccination. Protected access passes did indeed work as an incentive: many countries showed a (temporary) uptick in the number of people booking a vaccination immediately after new protected access policies were announced and introduced.

Over time, the argument that vaccination rates were still too low to contain the pandemic became more emphatically manifest in government communications. The French president, Emmanuel Macron, even went as far as to say that he wanted to annoy the unvaccinated into accepting the shots by squeezing them out of the country's public spaces: "Les non-vaccinés, j'ai très envie de les emmerder! [The unvaccinated, I really want to piss them off]" (Onishi, 2022). Some countries further tightened the restrictions for unvaccinated groups by switching to 2G.

At the same time, however, it became less evident that even much higher vaccination rates would be sufficient to prevent subsequent outbreaks of the disease: new variants of the virus appeared capable of spreading between vaccinated persons as well. However, even though vaccination did not prevent outbreaks, the vaccines remained highly effective in preventing the severe forms of the disease that ended up as hospitalizations.<sup>4</sup> In public debates, discussants disagreed about which of these arguments for 2G or 3G policies constituted the "real" policy motive, which further fueled the already highly polarized debates.

At the end of the day, it was clear that there was no single silver bullet that would stop COVID-19 infections in a similar way to how a sufficiently high vaccination rate effectively curbs measles, making additional measures unnecessary. COVID-19 vaccines did not provide "sterilizing immunity," and new variants of the virus appeared more contagious and less affected by vaccines, which had been developed for earlier variants. So, even though it was evident that a high vaccination rate was indispensable in curbing and

eventually ending the pandemic, it also became increasingly clear that there was no threshold vaccine coverage that alone would protect society robustly against new waves.

Still, outside the peaks of infection, at times of moderate spread, these COVID-19 access pass policies were considered effective in limiting the spread of COVID-19 without necessitating a full lockdown. Moreover, it was assumed, either implicitly or explicitly, that such policies would contribute to the very high vaccination rate that is necessary to ultimately contain the pandemic. For our purpose, the question is as follows: to what extent is the coercion of protected access policies justified? Or should governments implement more straightforward compulsory measures to protect societies against (massive) COVID-19 outbreaks?

#### 8.4 Vaccination during an Epidemic: Restricting Fundamental Rights

In this section, we discuss the justification of epidemic control policies that restrict access to social events or facilities to persons who are unvaccinated. Such policies, which give people who are vaccinated access to social events, fit our definition of a *mandatory vaccination policy*. Earlier, in section 7.4.2, we defined mandatory programs as state policies that involve withholding valuable social goods or services from persons who choose to forgo vaccination for themselves or their children for nonmedical reasons. In childhood immunization policies, this revolves around goods such as access to child day care or child benefits. In the context of an epidemic, protected access passes enable access for certain persons to specific services and events that would otherwise be closed to all as a matter of infection control. An important difference between this pass and mandatory childhood vaccination (apart from the fact that the pass is not about children) is that, as previously explained, this pass will also offer access for individuals who are protected in ways other than vaccination, notably having gained immunity due to a previous infection or having tested negative for infection very recently. The fewer the alternatives to getting access are left, the more the pass will constitute a form of mandatory vaccination.

Can such a semimandatory vaccination policy for adults be justified in the context of a widespread epidemic? Although COVID-19 offers an excellent and dramatic example that we refer to occasionally, in the forthcoming

subsections, we present a general normative argument on coercive vaccination policies for adults. We argue that the justification of protected access passes is about more than merely (curtailing) individual freedoms and protecting public health, because protected access policies sometimes have a wider negative impact on society. Our conclusion is that in some cases, *compulsory* vaccination might be ethically preferable to *mandatory* 2G policies.

#### 8.4.1 A Lockdown as a Baseline for Evaluating Protected Access Policies

The context of a widespread epidemic has a major impact on how nonvoluntary vaccination policies should be evaluated. First of all, such policies will ultimately be justified by appealing to the harm principle, and during an epidemic, the risk of severe harm is very real. Hence, such coercive policies will be more easily justified than in epidemiologically “normal” times. Moreover, in cases of severe outbreaks, a range of coercive infection control measures will already be in place. Such measures, ranging from quarantine to social distancing or long lockdowns, also need to be justified (White et al, 2022). They must be necessary to prevent harm caused by infection, the curtailment of rights should be proportionate given the harms to be prevented, and certainly the cure should never be worse than the disease. If mandatory vaccination policies are proposed in such a situation, the obvious route to implementing them is to *release* vaccinated and other non-infectious persons from the liberty-limiting measures that are already in place, for example, via offering these individuals a protected access pass. This makes sense if vaccinated, recently tested, and recovered persons are indeed sufficiently protected against infection and hence against transmitting the pathogen to others.

Interestingly, compared to the baseline of a lockdown, a protected access policy does not constrain people’s freedom but enlarges their possibilities for participating in social life. It removes restrictions—at least for vaccinated, recently tested, and recovered persons, who no longer pose a serious risk of further spreading the disease. One might even argue that from an ethical perspective, it is inevitable that these individuals will be granted these freedoms. After all, the lockdown measures should not only be justified in terms of necessity but also satisfy the principle of proportionality. If the risk is negligible that these individuals will be links in the chain of

further transmission, it is no longer necessary to keep them in lockdown, and therefore lockdown measures that also apply to them would be a disproportionate infringement of liberty.

In the case of COVID-19, the situation was slightly more complicated. Although immunization did significantly reduce transmission, vaccinated individuals could still transmit the virus to some extent, and therefore it was not obvious that they *should* be released from lockdown. But let us return to the example of vaccines that sufficiently prevent the transmission of a pathogen to curb an outbreak, so that vaccinated individuals play a negligible role in the chain of further transmission.<sup>5</sup> Is different treatment of vaccinated and unvaccinated persons by employing protected access passes justified? Let us discuss the 3G and 2G policies in turn.

#### **8.4.2 3G Policies: Enhancing Freedom, Compared to the Baseline of a Lockdown**

Effective 3G protected access policies can be seen as relaxing, in a limited way, the restrictions of a lockdown: they provide more freedom of movement for vaccinated and unvaccinated persons without compromising the goals of infection control. The latter must undergo tests regularly to participate in social life, while those who are vaccinated (or those recovered from infection) have immediate access. Of course, vaccination refusers may experience this as a form of exclusion or as pressure to accept the shots. Yet as long as they have the alternative option of getting tested to get access to social activities without immunization, the 3G policy does not tighten the constraints that were already imposed on them as a matter of infection control.<sup>6</sup> On the contrary, against the baseline of a lockdown already in place, access to events after a negative test also enhances the freedom of unvaccinated persons.

The primary goal and justification for 3G protected access policies is to selectively release society from the most stringent measures without compromising the goals of infection control. They promote vaccination coverage but do not coerce individuals to get vaccinated, since there is still the alternative of taking tests to gain access. This situation changes if the policy is tightened further: if access to testing sites becomes restricted or if the policy changes from 3G to 2G.

### 8.4.3 2G versus Compulsory Policies

If the policy goal of increasing the vaccination rate in society becomes more important, more intrusive policies may be required. This explains the shift from 3G to 2G protected access policies, which removes the option for unvaccinated persons to employ a negative test as a means to gain access to specific establishments. Under a 2G regime, accepting vaccination becomes virtually inevitable for persons who still want to participate in societal life, so they can reasonably complain that this constitutes a further limitation of their rights.

First, we should be clear, though, about the impact that the introduction of 2G has on unvaccinated persons. Compared to the baseline situation of a lockdown, introducing 2G policies does not change their situation in *absolute* terms. They were in lockdown and remain in lockdown. However, their situation worsens in *relative* terms compared to that of vaccinated persons, because 2G only opens society for the latter. Vaccination refusers who stick with their choice may argue that this policy is discriminatory: they are not treated as equals in society, since they are excluded from social life. Moreover, vaccination refusers can experience 2G policies as a further pressure to accept vaccination, and this limits their right to act in line with their fundamental convictions about how to live (i.e., freedom of thought, etc.). Second, if vaccination is not a voluntary choice, it can be considered an intrusion into their bodily integrity. As a rebuttal, one could argue that if mandatory tests have already been justified under 3G and were accepted by vaccine refusers, mandatory vaccination is not a further infringement of bodily integrity. But this response ignores the fact that most people (certainly vaccine refusers) will consider the injection of a vaccine to be much more invasive than a simple mouth/nose swab.

However, as different as values like equal treatment, freedom of thought, and bodily integrity are, all three complaints can be rebutted by appealing to the same argument that appeals to the harm principle. None of these rights and values are absolute: if the exercise of a right constitutes a genuine risk of harm to others, there can be legitimate grounds for restricting it. Hence, in line with what we have argued throughout this book, there is a principled ground for restricted access policies, especially during a major outbreak during which the lives of many are in danger and societal life is disrupted due to infection control measures. Nevertheless, the bar has to be quite high for a 2G protected access policy not to disproportionately curtail these freedoms.

We discussed the four-pronged proportionality test in sections 7.2 and 7.3. Fundamental rights can only be legitimately infringed by a specific policy if these criteria are met: (1) the goal of the policy is legitimate, (2) the measure is suitable for achieving that goal, (3) there are no less intrusive policies available that are as effective as this right-infringing measure, and (4) the measure is reasonable, that is, it takes the interests of all involved into account.

At first sight, there might be little debate about the first element of proportionality, that the infringement serves a legitimate purpose. During a major outbreak of an infectious disease, few will deny that the protection of public health through containing this outbreak is such a legitimate goal. At the same time, as discussed earlier, we can distinguish two subgoals of protected access policies. First, they aim to enable partly opening up society by loosening the most stringent lockdown measures without compromising the goals of infection control. The second goal is to encourage unvaccinated people to give up their resistance, change their mind, and accept vaccination. This complicates the application of our proportionality test, which, obviously, works best if there is a single straightforward policy goal to be assessed. More often than not, however, policy proposals are more complex, pursuing two or more goals simultaneously, not all of which are always explicitly stated. In our proportionality analysis of the 2G protected access policy, we take both subgoals into account, analyze them separately, and then come to an overall assessment. So let us discuss both goals in turn.

A 2G protected access policy might be (very) suitable for the goal of opening up society without compromising the goals of infection control (criterion 2 above), but it might be disproportionate, given the availability of 3G policies that are less intrusive and might be as effective to achieve this goal (criterion 3). A restricted access policy is clearly more proportional if the spread of the disease can as effectively be contained in a 3G policy in which unvaccinated persons also have the option to get access via a negative test. All in all, we must conclude that a 2G protected access policy, aimed at opening society without compromising the goals of infection control, disproportionately curbs the freedom of unvaccinated persons because a less intrusive alternative is available.

But what if we assess 2G as a means to achieve the second goal of encouraging vaccination? The goal of the policy is again legitimate (criterion 1), there are good reasons to assume that the measure is suitable for achieving this goal (criterion 2), and there might be no less intrusive policies available

that are as effective (criterion 3). Still, there are good reasons to conclude that the measure is disproportionate from an *all-things-considered* perspective (criterion 4). In this last step of the proportionality test, we should not only balance the infringement of liberty versus the value of public health but also take all relevant considerations into account and come to an overall assessment of the policy.

What is genuinely problematic in 2G policies regarding increasing the vaccination rate is that the government demands that private actors—restaurants, pubs, museums, sporting facilities—and those who work there must identify unvaccinated people and exclude them from their premises. This just reinforces polarization within society. A 3G policy can be justified during a lockdown because it will (temporarily) exclude *all* categories of persons at increased risk, but a 2G policy specifically identifies and excludes unvaccinated people.

It might be the case that the goal of public health protection by means of promoting vaccination offers sufficient ground for curtailing the freedom of unvaccinated citizens. But not every way of implementing this policy is equally suitable. Achieving this goal is ultimately the responsibility of the state, and law enforcement activities can only be delegated to nonstate actors to a limited extent. This consideration carries more weight the more socially controversial the exclusionary policy is. Checking the vaccinations status of customers is categorically different from checking admission tickets at the entrance hall of a movie theater because the latter task is part of the business process, whereas the former serves an external purpose. Checking the age of a customer before serving a drink in a bar also requires a controlling action by the bartender, but the drinking age of eighteen is a relatively uncontroversial restriction—because it involves minors, for example. Mandatory vaccination, on the other hand, remains a much more controversial policy, and the more controversial the goal, the more obvious it is that government agencies cannot delegate the enforcement of this policy to private actors, especially when a private actor can be criminally prosecuted if they do not comply with this law.

If the primary goal is not so much curbing contagion by excluding unvaccinated persons from risky venues but ensuring that as many people as possible are vaccinated, then government must clearly and explicitly communicate this message in the policy it imposes. And the best, and most honest, way is



by making vaccination compulsory for everyone. Noncompliance could be made punishable by a periodical fine that lasts as long as the refuser remains unvaccinated. Such an approach is more straightforward. Government has determined that a high vaccination rate is important to fight a disease but realizes that vaccination is controversial among certain groups in society. In such a situation, government should be very explicit about the aim and address this problem itself directly rather than through the detour of private actors. Moreover, by making refusal illegal, it will also be clear that securing compliance is a responsibility of the government itself—this cannot and should not be delegated to private actors. A 2G policy is disproportionate because it incorrectly puts the responsibility for the enforcement of controversial policies on private actors and thus fuels polarization and undermines solidarity within society.

Bringing the two lines of the proportionality test together, we can conclude that 2G is an unfortunate compromise between 3G and compulsory policies. If the goal is to partly open society without compromising the goals of infection control, 3G is more suitable. If the goal is to increase the vaccination rate, compulsory policies are more appropriate (Verweij & Pierik, 2021). In box 8.1, we show how the same line of reasoning applies to requiring employees to be vaccinated.

It may seem as if 2G protected access policies—one form of mandatory vaccination—are less intrusive and thus more proportional than the compulsory measure of a legal requirement to be vaccinated. This is in line with the Nuffield Council's "intervention ladder": enforceable legal requirements are more intrusive than policies that still leave individuals the possibility of staying home and avoiding vaccination. This view, however, presupposes that the problem is two-dimensional: societal protection through infection control versus the (intrusions into) liberties of the unvaccinated. But taking the wider context into account, especially the fact that 2G policies require private citizens to police others, it becomes clear that other values are at stake as well: these policies undermine social cohesion and solidarity, values that are essential, especially in times of social disruption caused by a pandemic. All in all, we conclude that 2G policies are disproportionate; if it is necessary to coerce adult citizens to accept vaccination, it is much more appropriate and justifiable to make vaccine refusal illegal.<sup>7</sup>

**Box 8.1**

## Can It Be Justified to Require Employees to Be Vaccinated?

Mandatory immunization implies that unvaccinated persons are not allowed access to certain valuable yet nonessential goods. One of the most far-reaching measures in this context is to require persons to get vaccinated as a necessary condition to do their paid work—with the ultimate possibility that they will not be able to get a job (or will lose their job if the requirement has recently been implemented) if they keep refusing. Such a form of mandatory immunization is exceptional because the costs of opting out are so severe that, depending on one's profession, hardly any freedom of choice will be left at all.

There are different possible grounds for requiring employees to be vaccinated. One is that their immunization is implied as part of a broader 3G policy, as discussed in section 8.4.2. If a protected access pass is required for visitors to restaurants, it is inevitable that it will be required for restaurant employees. Such a pass also offers access with a negative test and does not force people to get a vaccine. What about a more straightforward requirement for employees to be vaccinated? This has been discussed especially in relation to health care providers being vaccinated against influenza (van Delden et al., 2008) and, more recently, during the COVID-19 pandemic. For example, in 2021, France made COVID-19 vaccination mandatory for health care workers, who thus risked being fired if they did not comply. The main argument here is that health care providers not only work with vulnerable patients but also have a specific professional duty to prevent infection. Another ground might be that during a disruptive epidemic, it will be essential to prevent too many employees from getting ill as this would put further pressure on an already overburdened health care system. If immunization is necessary to fulfill health care workers' professional duty and to protect health care, such a mandatory policy may be justified.

It is much more doubtful whether it can be justified to mandate immunization for all employees, as the US government did during the COVID-19 crisis. Is such a measure proportionate? If the goal is to prevent infection, then a less restrictive 3G protected access policy could do the job just as well. If the goal is to promote overall vaccination rates, this policy seems rather futile given that it only affects a subset of the population. A compulsory policy that applies to all adults would make much more sense (Pierik & Verhulp 2022).

## 8.5 Nonvoluntary Policies outside the Context of an Imminent Threat

We argued in the previous section that during a widespread epidemic with severe infection control measures already in place, 3G protected access policies providing more leeway to vaccinated, tested, or recently infected adults are not necessarily liberty-limiting policies. They might actually be a good way to partly reopen society without compromising the goals of infection control. Such protected access policies can only be successfully implemented when vaccination protects adequately against infection, though. However, if such policies are tightened from 3G to 2G to further increase the vaccination rate, compulsory immunization policies are more justifiable than excluding those who are unvaccinated from services or social activities.

This does not settle the question of which of the policy options is most justified after such an outbreak has been largely contained and lockdown measures have been lifted. Can governments continue to impose mandatory or compulsory vaccination on citizens when the threat is no longer present? Before we can answer this question, we need to establish exactly what this immediate threat is about. In countries with a well-functioning health care system, epidemics will especially disrupt society because hospitals (and notably intensive care) are overwhelmed, and dramatic infection control measures may be taken to prevent that. Lockdowns and other social distancing measures are often aimed at “flattening the curve”—to prevent too many patients from being in immediate need of medical treatment at the same time.

When the epidemic is more or less under control, thanks to the fact that enough persons in a society have gained immunity, small outbreaks may still occur sometimes but fade out relatively quickly and thus do not overburden the health system again. However, if individual immunity decreases over time, as is the case with COVID-19, group-level protection may also decline. In that case, to prevent new large outbreaks, it may be necessary to maintain a high level of immunity within the population via regular booster vaccinations. Are mandatory or compulsory vaccination policies justified to prevent a new outbreak even if the threat is not imminent?

In our view, 2G mandatory policies that exclude unvaccinated groups from services or social life cannot be justified. If these are unacceptable

during a lockdown, as argued earlier, they are even more unacceptable if they are installed *permanently* to *prevent* lockdowns. Hence, if a nonvoluntary approach is justified, it should be a compulsory policy that makes vaccination refusal legally punishable. This will prevent new outbreaks and thus protect public health and undisrupted societal life. If, moreover, a large part of the population shares these aims and is willing to participate, vaccination refusal can be considered harm to others: it obstructs and undermines the joint endeavor to protect all (cf. section 4.3).

Again, whether such a policy can really be justified will be a matter of applying the principle of proportionality. Given that this is about adult persons who are capable and have a right to control their own life and body, the protection of individual liberty and bodily integrity will not be easily outweighed by the values of public health and the protection of society—especially if threats are not imminent. What policy can be proportional? It is impossible to answer this question in general as a full justification will depend on the severity of the disease, the level of infectiousness of the pathogen, and the effectiveness of the vaccine fighting the spread of the disease. A compulsory policy will be more easily justified if there are vulnerable groups who fully depend on group immunity because they cannot secure protection for themselves, for example, because the vaccine is not safe for them or does not provide effective protection. In the theoretical case that everyone could secure their own protection by having booster shots and everyone had optimal access to vaccines and reliable information about the risks and benefits of vaccines, it would be more difficult to justify compulsory immunization. After all, “harm to others” caused by vaccine refusal would then first and foremost affect persons who had opted out of vaccination themselves and who, therefore, voluntarily accepted the risk of falling ill. The harm caused by vaccine refusal is then primarily self-harm, which invalidates the application of the harm principle. However, even in that case there could still be indirect broader societal harm: if the group of (unvaccinated) infected persons who require hospitalization is large, this might overwhelm the health care system, resulting in the postponement of regular health care provision for all patients with dangerous diseases like cancer, metabolic diseases, or heart diseases. In short, the question of whether a compulsory policy is justified cannot be answered in general. But given the fundamental nature of liberty and bodily integrity rights, it would only be justified to maintain a sufficiently high vaccination rate against a disease

that is extremely infectious and very dangerous, so that outbreaks do not genuinely overwhelm the health care system.

The next question concerns how to shape a compulsory policy—what room is there to make it as unintrusive as necessary, given that a high but not 100 percent immunity rate would be necessary? Suppose 95 percent immunity in the population would provide a minimum level of protection. At first glance, this seems to create the possibility for booster exemptions of up to 5 percent. However, our argument against exemptions in chapter 6 is equally valid in this context, and moreover, it is difficult to see how exemptions could be legally granted at all if refusal is legally prohibited. A better approach is to “use” the fact that 100 percent immunity is not necessary for individuals who cannot be immunized for medical reasons (medical exemptions), for target groups that are not sufficiently reached by even strong government communication, but also by making the interval between periodic boosters depend on how fast or slow population immunity is waning. The latter would imply that people do not get compulsory boosters more often than necessary for the maintenance of herd protection. Interestingly, although this approach looks very different from our proposal for coercive childhood immunization, the approaches are in certain respects quite similar, as we argue in our concluding section.

## 8.6 Revisiting Contrasts between Adult and Childhood Immunization

Let us take stock. In the previous chapters, we distinguished mandatory from compulsory policies: the latter imply a legal duty to vaccinate, the refusal of which would imply breaking (criminal or administrative) law and running the risk of punitive action being imposed by government. We have expressed a preference for mandatory childhood immunization policies because these strike a reasonable balance between respect for parental autonomy and the obligation of government to protect the basic interests of all children. Our proposal is to require all children attending nurseries or day care centers to be vaccinated according to the regular immunization schedule but to implement this measure only when vaccine coverage falls below a predetermined threshold level. In this chapter, we have turned our attention to the vaccination of adults, taking the COVID-19 pandemic as an example. We have argued that during a massive outbreak, it can be justified to allow vaccinated persons more freedom than those

who are unvaccinated. Just like our proposal for regular childhood immunization, this is a form of mandatory immunization. However, we have also argued that if the goal of the policy is to promote vaccine coverage, rather than to directly prevent transmission during an outbreak, it is ethically preferable to shift policies toward a compulsory approach rather than tightening mandatory approaches that exclude unvaccinated persons from societal life.

To emphasize the coherence of our overall argument, it is helpful to revisit overlaps and explicate some of the contrasts between our different proposals for regulating vaccination of children and adults. First, in both cases, the obvious start is to endorse voluntary programs and ensure optimal access to vaccination, and only if this does not result in a sufficient vaccine coverage should more coercion be considered.

Second, the core of the argument for both proposals is the harm principle. Forgoing participation in a collective immunization schedule can be considered to constitute harm to others in various ways, but the main line of argument is that it obstructs and undermines a collective endeavor to achieve population-level protection. This collective harm offers a principled ground for constraining liberty. In childhood immunization programs, the health (and thereby the basic interests) of young children is especially at stake. In adult vaccination programs, the protection of a well-functioning society plays a much more prominent role.

Third, a key difference is that, in the case of adults, there is a much higher threshold for justified limitation of individual rights, notably freedom of thought, conscience, and religion and the right to bodily integrity. A person's right to make choices in line with their religion or conscience is exceptionally strong if it concerns choices about what happens to their own body—and this is also reflected in the right to bodily integrity. Regarding the vaccination of children, parents' right to the freedom of thought, conscience, and religion—although still important—has less weight, and a child's right to bodily integrity does not have any place at all. The near-absolute character of rights that concern one's own person and body is a ground for seeing coercive vaccination policies aimed at adults as only being justified in exceptional cases, possibly only in the context of a realistic threat of widespread disease or societal disruption due to outbreaks. In the case of endemic childhood diseases, the rights at stake have less weight, and freedom can be constrained more easily—even when there is no immediate threat of massive

outbreaks: the maintenance of group-level protection to safeguard the basic interests of all children can be a sufficient ground.

Fourth, this higher threshold for coercive immunization of adults seems to be in tension with our preference for *compulsory* approaches for adults and *mandatory* policies for childhood immunization. One response to this is (a) to acknowledge that, when considered pragmatically, the difference between compulsory and mandatory policies is not as straightforward as it may seem. For parents, the costs of being declined access to (state-sponsored) child day care can be much higher than the costs of a legally imposed fine—it all depends on the magnitude of the sanctions. This response, however, does not explain how it could be proportional to require child day care centers to refuse unvaccinated children, while requiring pubs and museums to refuse unvaccinated adult would be fully unacceptable. What is relevant here is that (b) when evaluating the proportionality of alternative coercive policies (and notably when applying the fourth criterion of the proportionality test), more values are at stake than only freedom and public health. A tightened 2G mandatory policy aimed at adults has a much larger negative societal impact. It excludes citizens from the possibility of being an active member of society and excludes them from specific social activities. In addition, it requires private actors—restaurant owners, sporting club owners—to identify and exclude certain individuals from their establishment. In this respect, this specific tightened mandatory policy aimed at adults leads to much more social exclusion within society than our proposal to require all children who attend child day care to be vaccinated. Moreover, in the latter policy, the determination of the vaccination status of children in childcare facilities is a once-a-year administrative act, while in the former, it requires ongoing checks, day in, day out, at the entrance of pubs, museums, and other facilities. Such a permanent process of citizens verifying the immune status of other citizens distorts societal life and relationships between citizens much more than limited access to child day care does. A *compulsory* policy to maintain sufficient immunity will have, all things considered, a less negative impact on societal life and relations between citizens, all citizens are treated as equals regarding societal activities, and the responsibility to enforce it (by means of a penalty) remains with the government.

Fifth, the previous step shows how we have included a variety of normative and pragmatic considerations in our weighing of the competing values at stake, which is the final criterion of the principle of proportionality. How

competing values are balanced also reflects an idea about a just and good society. In both our proposals, we try to establish that vaccine-hesitant or refusing groups are still considered part of the population to be protected—and not as complete outsiders. In the case of childhood immunization, our proposal achieves this by maintaining voluntary policies for as long as possible. For adult vaccination, the preferred policy is such that vaccination refusers are not excluded from societal life.

Unfortunately, antivaccination groups do not just undermine the public good and collective effort of maintaining herd protection by means of their vaccine refusal. They also subvert the collective endeavor by spreading messages that call on everyone not to trust the safety of vaccines (“do your own research!”) or the motives of governments and public health agencies (“microchips in COVID-19 vaccines”). If collective trust in vaccination is so important, shouldn’t the state also impose constraints on the freedom to spread misinformation, just like they should constrain people’s freedom to opt out of vaccination? We turn to that question in the next, penultimate chapter.



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# Inducing Immunity?

## Justifying Immunization Policies in Times of Vaccine Hesitancy

By: Roland Pierik, Marcel Verweij

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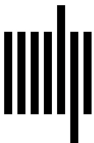
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