

## 2 The Role of Government in Promoting Collective Immunization

The central question in this book is how governments should regulate vaccination, given their role in protecting individual and population health, that herd immunity is an important collective good, and that not all citizens endorse vaccination for themselves or their children. A first step in our normative analysis, then, is to ask whether national governments have a role at all in promoting vaccinations. In this chapter, we distinguish various grounds on which liberal-democratic states can organize collective immunization. In the last part of this chapter, we outline the various modalities the government can use to promote collective immunization.

### 2.1 The Responsibility of Government: Protecting Public Health and Societal Life

As the COVID-19 pandemic has made abundantly clear, an infectious disease can spread rapidly in a population, causing illness and premature death. Disease outbreaks can be a major, and potentially disruptive, threat to society. They involve not only the morbidity and mortality themselves but also the threat of a disease and the fear it can generate of being infected by others, in private or public, that can affect—or, in extreme cases, paralyze—social coexistence. Contagious diseases may, therefore, directly undermine social interaction and community. The large-scale lockdowns following the 2020 COVID-19 outbreak were implemented because there was not yet a vaccine or another way to protect society and its members against the disease. But well-known vaccine-preventable diseases like measles can also reemerge and disrupt social life on a smaller scale, for example, in schools or childcare centers, and can put health care systems under serious pressure.

For these reasons, combatting infectious diseases is generally considered a classic task for government, especially if those diseases transmit from person to person and infections occur in societal life. The paradox of infectious disease control is that in response to (an immediate threat of) an outbreak, the protection of a community often requires measures that impose restrictions on social contact, including social distancing, isolation, or quarantine. In the past few decades, most people in affluent countries have only learned of such large outbreaks via historical documents or portrayals in novels. Philip Roth's novel *Nemesis* (2010), for example, provides a dramatic story of the impact of a 1944 emerging polio epidemic in Newark (New Jersey) on children and parents. Even though current vaccination levels will often preclude the devastating impact that epidemics had before the introduction of vaccines, outbreaks of childhood diseases still can and do disrupt societal life, not only through the impact of a disease and the collective fear of infection but also through the public health responses implemented to contain or mitigate the spread of a disease.

For younger generations, the COVID-19 pandemic has been an acute firsthand experience of the impact of a large disease outbreak. After the first cases in China, which were contained by a complete lockdown, a major outbreak occurred in northern Italy in February 2020. Hospitals were overwhelmed with patients with lung disease, and intensive care departments appeared unable to offer mechanical ventilation to everyone who needed it. Within weeks, the disease was everywhere in the world, especially hitting nursing home residents and older people more generally, but younger people—including many health care workers—also fell ill. When it became clear that initial quarantine and isolation measures were insufficient, complete regions and ultimately countries went into lockdown. Borders were closed, flights were cancelled, and schools and universities closed, and in many places, citizens were only allowed to leave their homes for necessary reasons. Not all countries faced a situation as bad as northern Italy did, but often hospitals were overwhelmed or could only just deal with the large influx of patients. Health care for non-COVID-19 issues was reduced to a minimum to prioritize the victims of the pandemic. Large parts of the global economy came to a standstill, and the expectation was that economic losses would lead to much more suffering in the years to come.

By mid-2020, China and, later, Europe had slowly recovered from the first wave of the pandemic, but infections in other parts of the world, notably

North and South America, were surging. As a result, new waves of the pandemic emerged, and lockdowns had to be reinstated. The world awaited impatiently the advent of novel vaccines to fight the disease. But even after the arrival of the vaccines and the massive rollout of vaccination programs, it remained hard to keep COVID-19 infections in check, because the vaccine did not fully protect against the spread of the disease, and vaccination rates remained suboptimal.

Such an epidemic outbreak first and foremost affects society by overwhelming the capacity of hospital care—in particular, the availability of intensive care units (ICUs). This implies that fewer staff will be available for other patients, complete hospital wards may need to be reserved for infected patients, and special (time- and energy-consuming) precautions need to be taken to prevent those infections from spreading to other patients in the hospital. Of course, the capacity of hospitals and ICUs is geared to a steady flow of patients, but a characteristic of outbreaks of infectious diseases is that they generate waves of patients, most likely during the winter months. Moreover, patients with COVID-19 remain in ICU wards for a relatively long time, usually two weeks or more, which generates a major drain on ICU capacity. At the same time, sufficient ICU capacity is not a frivolous luxury. Anyone, at any time, can get involved in a serious traffic accident, have a heart attack, or encounter another acute health problem.

Obviously, not every outbreak of an infectious disease disrupts society so thoroughly. Yet it is clear that epidemics of vaccine-preventable diseases, notably COVID-19, but also polio and measles, can threaten and undermine societal life in a myriad of ways. This is a central concern for any government, liberal, socialist, or conservative, and the concern is consistent with diverging political philosophies. Even libertarians who plead for a minimal role of the state might accept that governments have a basic task to protect society against external and internal threats.<sup>1</sup> A major part of the legal framework governing infectious disease control can be justified in this way. Protection against outbreaks is a basic condition for a flourishing and open society, and in many cases, vaccination and robust herd immunity will offer such protection most effectively, because they prevent outbreaks altogether. Moreover, collective immunization makes it possible for people to trust that, in normal circumstances, being part of a crowd, sneezing, laughing, and even talking do not create severe health risks. If liberalism and other views that leave only a relatively modest role for the state can accept that the state

still has a responsibility to protect the basic functioning of society by creating conditions in which people can live together safely without constant fear of dangerous infections, this will arguably also be the case for egalitarian or utilitarian political philosophies that favor a more expansive role for governments in promoting health. This justifies the conclusion that most if not all political views support the belief that a liberal-democratic state has a responsibility to do all that is reasonable to prevent outbreaks of contagious diseases.

## 2.2 The Benefits of National Immunization Programs

Immunization is a highly effective intervention that can prevent contagious diseases while still allowing people to engage in social life. Vaccination programs can effectively reduce infection risks and, more specifically, prevent or at least limit the impact of outbreaks. The latter effect, however, requires a large part of the population to be immunized. Just offering individuals the possibility of getting vaccinated might not be enough; from the perspective of the governmental responsibility to prevent outbreaks, it is important to aim at group-level protection.

To realize this, vaccination against such infectious diseases should not merely be discussed in terms of the individual health of the vaccinated person. It should also be analyzed in terms of *public health*, and that explains the additional importance of coordinated national immunization programs. By offering vaccinations collectively and striving toward a high coverage that is sufficient for herd protection, it becomes almost impossible for disease-causing microorganisms to reproduce and circulate within a population, and small outbreaks will soon fade out. The benefits of vaccination programs thus surpass the aggregate benefits for all individual vaccinated persons. Herd immunity protects several categories of vulnerable persons who cannot be protected individually against a disease. The first category consists of infants and young children who have not yet completed the recommended immunization schedule. A clear example is the potential risk of exposure to measles for children aged between six and fourteen months. In their first months after birth, infants still benefit from the immunity they have acquired from their mother. After six months, this protection fades away, but these children will not receive their first MMR vaccination before the age of twelve to fourteen months.<sup>2</sup> If there is robust herd immunity, this temporary lack of individual

immunity is unproblematic: the chance that these children will be exposed to the virus is negligible. The second category of vulnerability concerns persons whose vaccination turns out to be insufficiently effective because it does not mount an adequate immune response. In the case of measles, the first of two vaccinations, administered around the fourteenth month, provides an average protection of 95 percent. Adding a second inoculation around the age of nine years results in an average protection of 96 percent (Di Pietrantonj et al., 2020). This means that 4 to 5 percent of vaccinated persons remain vulnerable to the disease. And even persons for whom the vaccine has initially worked well can become vulnerable if their immune system is weakened due to illness or immune-suppressive medical treatment. The third category concerns those who cannot undergo vaccination for medical reasons: because they have a particular form (or forms) of cancer, have a compromised immune system, or are likely to have a serious allergic reaction. The final category of vulnerable persons consists of children whose parents have refrained from vaccinating them. In all these cases, exposure to a pathogen would create a risk that is prevented by robust herd immunity. It is through this collective protection that large-scale vaccination programs are so much more effective than individual vaccination. This is the reason why collective vaccination programs are cornerstones of public health programs in liberal democracies.

In addition, maintaining herd immunity within a country not only benefits the population of that country itself. It also inhibits the spread of infection worldwide and could thus contribute to the eradication of a disease altogether. This is a significant feature, even if, arguably, most programs primarily aim at controlling the disease domestically to protect the health of that nation. However, infectious diseases do not respect national borders. Moreover, mortality and morbidity caused by infectious diseases are almost always higher in low- and middle-income countries due to poverty, inadequate nutrition, and relatively weak health care infrastructures. If global immunization rates remain high, all countries are contributing to the protection of people who live in conditions that make infections most dangerous (WHO, 2013).

To conclude, collective immunization that succeeds in establishing and maintaining group-level protection can be considered serving a public good that is beneficial to all persons: young or old, ill or healthy, vaccinated or not, or whether they like it or not. All of them benefit from the prevention

of outbreaks that may cause severe disease and potentially disrupt societal life. Given that protection from infectious diseases is a core responsibility of society, governments have an important task in organizing national immunization programs that aim at high vaccination rates.

### 2.3 The Responsibility of Government: Ensuring Equitable Access to Vaccinations

As important as the collective benefits of vaccination may be, the protective effects can only be attained via the individuals who are immunized. Immunization first and foremost renders individual benefits. Some vaccines do not even result in group protection, as they protect against diseases that do not spread from human to human—tetanus, for example. Other vaccines, such as the HPV vaccination, do result in group protection, but their function is not to protect against sudden outbreaks of a disease: the cancers caused by HPV infections do not manifest themselves in acute outbreaks but in individual, unconnected instances. Some might argue that the government has no responsibility to make those individual benefits available.<sup>3</sup> Yet even if we disregard for the moment the public good of herd protection, we can still see immunization as a key element of public health care. In public health ethics—and notably in the ethical literature on universal health insurance—justice is seen as argument *par excellence* that supports the state taking responsibility for health care. Health has a special value for each individual as it is a central feature of human well-being that also influences what people can become and do in their lives and the extent to which they can employ the benefits of their fundamental rights (Wilson, 2021). Disease and disability, on the other hand, can strongly constrain their mobility, their ability to earn an income, and their potential to live according to their idea of the good life. Health care therefore has an important—sometimes essential—function to protect people’s range of opportunities. In a liberal-democratic state, citizens are due equal concern, and this supports policies that ensure that everyone has access to (at least basic) health care provisions. In his Rawlsian approach to health justice, Norman Daniels sees equal access to basic health care as a matter of fair equality of opportunity (Daniels, 2001). In a capability approach, one can expect health to fulfill a central role, either as one of the basic human capabilities (Nussbaum, 1992) or as a meta-capability that is necessary to have access to all other central capabilities (Venkatapuram,

2011). And again, for most people, access to health care is a necessary condition for protecting these capabilities. Although the idea of equal access to essential health care may not fit well in libertarian political philosophies, it is widely accepted, and indeed, almost all high-income countries—maybe with the US as the most notable exception—have some form of universal health care coverage (Garrett et al., 2009).

This is not the place to provide a profound justification of the role of democratic states in realizing equitable access to health care, but *if* we assume that there is such a role for government, then there is no reason to limit this idea to patient care and to not also include certain forms of preventive care, especially vaccination. To promote fair equality of opportunity, the state should create equal access to vaccinations that are necessary for individual persons to maintain health. If particular persons run a substantial risk of developing a severe disease and vaccination can take away or significantly reduce the risk, it is unfair if some of them can afford vaccination and others cannot. If this is the case, the state has moral reasons to offer equal access to this vaccination—within the limits of reasonable health care expenditures, of course.

Let us take vaccination against human papillomavirus (HPV) as an example. HPV is a sexually transmittable infection that mostly occurs without clinical symptoms and often disappears over time. However, if the infection perseveres, it may cause various forms of cancer in genital and oral body parts. HPV is responsible for most cases of cervical cancer, one of the most common forms of cancer in high- as well as low- and middle-income countries. The possibility of sexually transmitted HPV infections is arguably not an immediate threat to public health or societal life, because the ensuing cancers do not manifest themselves in acute, massive outbreaks. Governments therefore have no compelling reason to offer vaccination as part of their responsibility to protect societal life. Moreover, in high-income countries that have universal health care coverage, presumably all women who are diagnosed with cervical cancer will be eligible for treatment. Yet, given that both the disease and the treatment come with heavy burdens and risks, and that the success of treatment is limited, a vaccination that reduces a woman's risk of developing cervical cancer by 80 percent or more makes a huge difference (Laprise et al., 2020). If such protection were only available to women who can afford to pay for the vaccinations, this may well be a matter of inequity. Hence, even if there was no clear justification (utilitarian or otherwise) for

offering vaccination in terms of protecting society, it may still be ethically appropriate for reasons of justice. Governments can also decide to aim at herd immunity against HPV. This would involve vaccinating girls *and* boys. Males will also benefit from HPV vaccination—it offers protection against genital and anal cancers. The risk of developing these diseases is very slim, though, which implies that the individual health benefits of HPV vaccination for boys are only remote. HPV vaccination of boys can thus be justified by an appeal to the public good of herd immunity—primarily to protect women against cervical cancer—but it will be more difficult to argue that boys should be offered vaccination as a matter of equitable access to essential preventive health care.

Whether a specific vaccination *is* considered an element of basic health care that should be available to everyone and what criteria should guide such ethical choices will be a matter of political deliberation. This concerns, for example, discussions about which vaccines are included in collective programs and which are left out. The harmful impact of some vaccine-preventable diseases, such as measles and polio, is so far beyond dispute that vaccinations against them are included in all programs. The argument is less obvious for other vaccines. For example, some but not all countries have included the varicella vaccination for children: in the Netherlands, it was decided that the disease burden of varicella was not large enough (Gezondheidsraad, 2020; Pierik, 2020a). It might be difficult to attain consensus on what preventive interventions are to be made available for everyone given the need to contain rising health care costs and given that many people might be tempted to prioritize therapy for patients in acute need above vaccinations that have less tangible effects on individual persons (Verweij, 2015). On the other hand, policies aiming at justice in relation to health cannot do without adequate preventive care, and vaccination programs are certainly among the most effective preventive strategies.

Another line of justice-based reasoning addresses the government's special responsibilities toward children and their vaccination. The state's responsibility for promoting and protecting the health of adult individuals is limited. It should at least not undermine each person's own responsibility for their health and allow individuals to make their own health-related choices. Yet this assumption about there being specific limits to government responsibility for health can apply only to competent adults who are to be respected as



autonomous persons—it does not apply to children who cannot yet make responsible autonomous choices. Moreover, emphasizing the responsibility of individual adults can only be fair if they have achieved a basic level of health in their childhood years and a capability to maintain it afterward. Universal childhood vaccination programs can play an important role in that respect. This suggests that governments have a special responsibility to ensure the health of children, first because children cannot take that responsibility themselves and second because such programs offer children—at least in some respects—an equal basis on which to achieve and maintain health for the rest of their lives.

Note that these considerations of justice do not primarily focus on achieving or maintaining a public good such as the protection of *public* health and the conditions for societal life—they are ultimately about ensuring and promoting the health of every individual. Hence, considerations made in this and previous sections jointly acknowledge that vaccination policies yield collective as well as individual benefits and that the state has responsibilities regarding both.

## 2.4 National Immunization Programs: Mapping the Legal Regimes

A large variety of possible legal regimes may govern vaccination programs for children and adults. In this section, we distinguish several categories and describe options in more detail. One option, only presented for the sake of comprehensiveness, is that a government has no policy whatsoever regarding vaccination. The decision to vaccinate would then be left completely to individuals, either in their role of an individual recipient or as a parent, and a government would not encourage or discourage any choice. It might even be the case that citizens have to pay for their vaccinations themselves. However, given the fact that protection against infectious diseases is generally considered such an important, even classic, government task, all states, in one way or another, promote or even mandate childhood immunization against at least some diseases.

In box 2.1, we present a general overview of policies that are available to stimulate both childhood vaccination and vaccination for adults.<sup>4</sup> Since vaccination programs during the past few decades have primarily targeted children, most of the examples presented below revolve around childhood

**Box 2.1**

Degrees of Coercion in Vaccination Policies

**Voluntary policies: encouraging**

- information campaigns
- offer vaccinations free of charge, easy to access, adequate reminders
- persuasive communication; positive nudges
- offer opportunities for persons not vaccinated in their youth to catch up later
- allow childcare centers or schools to publish vaccination rates

**Voluntary policies: norm expressing**

- require childcare centers or schools to publish vaccination rates
- opt-out policy: parents must take action if they choose to avoid vaccination
- allow childcare centers and schools to refuse unvaccinated children
- expand possibilities for tort cases in case someone is infected by an unvaccinated person

**Mandatory policies**

- set vaccination as a condition for child benefits
- require that all children attending child day care centers are vaccinated (with/without exemptions)
- require that all children attending schools are vaccinated (with exemptions)

**Compulsory policies**

- require that all children in schools are vaccinated, without exemptions, and back this up with financial penalties
- make vaccine refusal a criminal offense with punitive sanctions

**Enforced vaccination**

- impose vaccination with force (i.e., against the will of a person or their parent)

vaccination. We distinguish categories of policies (encouraging, norm expressing, mandatory, compulsory by law, enforced by law) that involve different degrees of coercion.

### 2.4.1 Voluntary Policies

Encouraging people to be vaccinated or to have their children immunized can be done in multiple ways that can also be combined to render them more effective. Initially, a government can launch campaigns to inform the public about the dangers of infectious diseases and the benefits and limited risks of vaccination, as an antidote to antivaccination websites.<sup>5</sup> Most governments also promote access to immunization by making it available free of charge and by securing sufficient supply. An obvious way to encourage participation is to make it as easy as possible, for example, sending invitations and reminders when necessary and making vaccination sites easily accessible. In addition, another way of encouraging hesitant persons is to visit them in their neighborhood or at home with information and the opportunity to receive the vaccination on the spot. The Dutch government, for example, entices parents to vaccinate their children through active invitations and an effective system of vaccination reminders. Parents can ignore the schedule if they want to, but the program generates an unmistakable message that will make it highly unlikely that appointments are overlooked.

In addition, the government can allow and enable day care centers and schools to publicize their nonvaccination rates. This provides parents with relevant information to be taken into consideration, along with other variables, when they are choosing a specific day care center or school: travel distance, pedagogic climate, opening hours, price, and so on.<sup>6</sup>

Note, however, that even in high-income countries (e.g., in rural parts of the US or in some countries in Europe), access to vaccines is not self-evident. Unfortunately, public health institutions are not always well funded, so getting one's child vaccinated may be burdensome for parents (e.g., require traveling a long distance) even if vaccines are free of charge. It goes without saying that access to vaccination should be optimal before more coercive policies are adopted.

### 2.4.2 Norm-Expressing Voluntary Policies

Normative policies go a step further in the sense that they do not just facilitate and encourage choosing immunization but also make it the norm or express it as such—without immediately enforcing parents to comply. They could *require* childcare centers to publish vaccination rates rather than just allowing them to do so. Childcare centres could even be given the option to deny unvaccinated children access. It is clear that this strongly *expresses* the norm that children should be vaccinated, without it actually being legally enforced. It may create clarity for people who are seeking a safe environment for their children, but it does not come without risk. Arguably, some schools or childcare centers that do not require vaccination may end up with a population in which almost no children have been immunized, which would be a perfect context for outbreaks of infectious diseases (Pierik & Verweij, 2019b). These types of regulations will probably not only influence parental decision-making in the sense that they create choices but also have an impact on public opinion and may even lead to polarization about childhood vaccinations in a way that means parents will experience social pressure to opt for vaccination.

Another normative approach would be to organize the program in such a way that *opting in* is the default position, and parents must take action if they want to *opt out* (Opel & Omer, 2015). For example, opting out is only possible if parents first visit their family physician to discuss the reasons for their choice—so the physician can question incorrect assumptions or resolve unnecessary concerns. In New Zealand, parents must show an immunization certificate signed by their doctor at the early childcare service or school. The physician will sign the certificate if parents have made a well-considered choice to opt out, and in this way, the policy prevents parents forgetting to have their child vaccinated or forgoing vaccination because of the burden of visiting their physician (Ministry of Health, 2020, pp. 611–612). The policy ensures that seeking vaccination is not more burdensome for parents than waiving the shots.<sup>7</sup>

### 2.4.3 Mandatory Policies

Policies that take a step further are what we call mandatory policies, the name implying even more clearly that the government expects all children to be immunized. We define *mandatory vaccination* programs as those

programs in which the state withholds valuable social goods or services from persons who choose to forgo vaccination for themselves or their child for nonmedical reasons.

A very specific example of mandatory vaccination was imposed during the COVID-19 pandemic: people had to show proof of vaccination to get access to restaurants or other social or cultural activities. Mandatory policies have been much more common in relation to childhood immunization. For example, in Australia, immunization is a requirement for child-related advantages, including child allowance: the *no jab no play* policy and the *no jab no pay* policy. The former is a federal program focusing on a national entitlement scheme, while the latter is a set of distinct state-level policies (Attwell et al., 2020a; Beard et al., 2017; Leask & Danchin, 2017). Parents who do not fully immunize their children—up to nineteen years of age—will cease to be eligible for various forms of family assistance payments. This policy leaves the decision regarding vaccination to parents, but if they decide to forgo vaccination, this will lead to various financial setbacks.<sup>8</sup>

Another mandatory policy is requiring all children in childcare centers to participate in the national immunization program and therefore receiving all the age-appropriate immunizations. Parents can still opt out by organizing other forms of care for their child. In many countries, including the United States, Italy, and France, children must have completed their vaccination schedule before they are allowed in schools. There may be various ways for parents to opt out, either by homeschooling their children or by applying for an exemption. Many US states also offer parents the possibility of being exempted from vaccinating their child for religious and/or philosophical reasons. We will discuss exemptions in more detail in chapter 6. Interestingly, the various US states differ regarding the extent to which they allow or discourage such nonmedical exemptions (Navin & Largent, 2017). So even if a completed childhood vaccination scheme is a requirement for day care or school entry, there are still degrees of power a state can use and apply to enforce the policy.

#### 2.4.4 Compulsory Policies

A further coercive step is to impose a legal duty on parents or other citizens to vaccinate. We define *compulsory vaccination* as policies that make vaccine refusal a criminal or administrative offense, backed up with punishment such as a fine or imprisonment. The punishment can be directly linked to vaccine

refusal (e.g., in Belgium, refusal to have one's child vaccinated against polio can be punished with imprisonment) or indirectly by punishing parents because they refuse to fulfill the requirements for compulsory school attendance of their child.<sup>9</sup>

#### 2.4.5 Forced Immunization Policies

The most far-reaching intervention would be *forced immunization*, which involves vaccination against the parents' will. This could be done through the temporary suspension of the exercise of parental authority, during which the child can be vaccinated. This bypasses parents' choice completely by eliminating their opportunity to avoid or forgo the measure. Such a measure would be extreme, but it might make sense if unprotected children run an immediate risk (e.g., during an outbreak), as we will discuss in section 5.4.

### 2.5 The Intervention Ladder

Our taxonomy of legal regimes can be considered an application of the *intervention ladder* that the Nuffield Council on Bioethics (2007) proposed for the ethical review of public health measures. The intervention ladder is based on the assumption that compulsory or mandatory policies can only be justified if less intrusive measures have been exhausted or are expected to have an insufficient effect. Compulsory policies, then, would only be considered a last resort. At the same time, governments are obliged to ensure effective protection and to take precautions against (outbreaks of) infectious diseases, and this may well offer a sufficient basis for mandatory policies. Determining which "rung" of the intervention ladder is appropriate for a particular society at a specific moment ultimately depends on contextual factors like the level of vaccine coverage, the risk of outbreaks, and the severity of specific diseases. At the same time, it may often not be easy to rank all possible measures along one ladder. For example, in the United States, all states have mandatory vaccination policies, but how easy it is for parents to be exempted can differ. In fact, a mandatory policy requiring vaccination for school entry from which it is easy to gain an exemption may be not more "intrusive" in practice than a fully voluntary "opt-out" policy. As we will argue in the later chapters, governments need a strong justification for immunization policies that go beyond voluntary choice. They should invest a great deal of energy in encouraging the acceptance of policies and should

only revert to the enforcement of legal duties as a last resort when voluntary policies cease to protect the basic interests of the children involved. This is because liberty is such a central value in a constitutional liberal democracy.<sup>10</sup>

Indeed, it is vital for achieving the public good of herd immunity that a large majority wholeheartedly accepts vaccination and is willing to cooperate in collective immunization schemes. The success of policies that offer collective protection against diseases is determined not only by the quality of vaccines provided but also by the amount of trust that the public has in the health care system and health care professionals, where trust implies “deferring with comfort and confidence to others, about something beyond our knowledge or power, in ways that can potentially hurt us” (Whyte and Crease, as quoted in Goldenberg, 2016, p. 570). The importance of public trust sets limits on the level of coercion that the state can use to promote immunization. We will return to trust and trustworthiness in chapter 9.

## **2.6 The Role of Government in Promoting Collective Immunization: A Conclusion**

In this chapter, we established that the state has a responsibility to protect the conditions that are necessary for a well-functioning society, and also a duty to guarantee equitable access to essential vaccinations for every citizen. These tasks normally coincide. National immunization programs aim at high vaccination rates, and this will likely also promote equitable access. Such protection is a fundamental interest of each and every citizen and a precondition for the enjoyment of fundamental rights for both children and adults. In the forthcoming chapters, we discuss in what ways this may involve policies that constrain the freedom of individuals to refuse vaccination. This will often be about vaccine-preventable childhood diseases, but if there is a threat of society-disrupting outbreaks or even pandemics, like COVID-19, there is a particular need to consider whether coercive vaccination of adult citizens can be justified as well.

Most infectious diseases affect populations primarily via children, because their immune system has not yet encountered the pathogens causing the various diseases. Moreover, since children are too young to make an independent and well-considered choice about vaccination, others—their parents or the government—should make this decision for them, guided by the best interests of the child. In a modern democracy, it seems rather

obvious that it is the parents who will authorize medical treatment of their child—including vaccination. But what if parents decline (some of) the vaccinations that the state considers to be necessary to protect public health? In chapters 4 through 7, we develop an argument about how liberal-democratic governments should deal with such disputes. We argue in favor of contextual childhood vaccination policies that upscale interference: programs are voluntary when possible, but they are changed to a mandatory (or even compulsory) approach when that is necessary to maintain the herd immunity required to protect children's basic interests.

The responsibility of the government to protect public health is not limited to childhood immunization. Outbreaks of novel life-threatening contagious diseases can endanger a well-functioning society in a myriad of ways. They affect health and threaten the lives of many, can lead to an overwhelmed health care system, and can result in a fear of infection that will inhibit societal—economic and educational—life. Moreover, the necessary public health responses for reducing social proximity, gathering, interaction, and so on will add further to the societal disruption. In chapter 8, we argue that in such a context, if a safe and effective vaccine is available, governments are justified in curtailing the freedom of citizens who refuse vaccinations—and this will often not only be about immunization of children but especially also of adults.

In all cases, however, vaccination refusal and the grounds that individuals invoke to forgo immunization should be taken seriously. Let us explore this in the next chapter.



This is a section of [doi:10.7551/mitpress/15307.001.0001](https://doi.org/10.7551/mitpress/15307.001.0001)

# Inducing Immunity?

## Justifying Immunization Policies in Times of Vaccine Hesitancy

By: Roland Pierik, Marcel Verweij

### Citation:

*Inducing Immunity?: Justifying Immunization Policies in Times of Vaccine Hesitancy*

By: Roland Pierik, Marcel Verweij

DOI: 10.7551/mitpress/15307.001.0001

ISBN (electronic): 9780262378376

Publisher: The MIT Press

Published: 2024

The open access edition of this book was made possible by generous funding and support from MIT Press Direct to Open



The MIT Press

© 2024 Massachusetts Institute of Technology

This work is subject to a Creative Commons CC-BY-NC-ND license.

This license applies only to the work in full and not to any components included with permission. Subject to such license, all rights are reserved. No part of this book may be used to train artificial intelligence systems without permission in writing from the MIT Press.



The MIT Press would like to thank the anonymous peer reviewers who provided comments on drafts of this book. The generous work of academic experts is essential for establishing the authority and quality of our publications. We acknowledge with gratitude the contributions of these otherwise uncredited readers.

This book was set in Stone Serif and Stone Sans by Westchester Publishing Services.

Library of Congress Cataloging-in-Publication Data

Names: Pierik, Roland H. M., author. | Verweij, M. F., author.

Title: Inducing immunity? : justifying immunization policies in times of vaccine hesitancy / Roland Pierik and Marcel Verweij.

Other titles: Basic bioethics

Description: Cambridge, Massachusetts : The MIT Press, [2024] | Series: Basic bioethics | Includes bibliographical references and index.

Identifiers: LCCN 2023013919 (print) | LCCN 2023013920 (ebook) | ISBN 9780262547796 (paperback) | ISBN 9780262378369 (epub) | ISBN 9780262378376 (PDF)

Subjects: MESH: Vaccination—ethics | Mandatory Programs—ethics | Vaccination Hesitancy | Health Policy | Communicable Disease Control

Classification: LCC RA638 (print) | LCC RA638 (ebook) | NLM WA 115 | DDC 614.4/7—dc23/eng/20230727

LC record available at <https://lcn.loc.gov/2023013919>

LC ebook record available at <https://lcn.loc.gov/2023013920>