

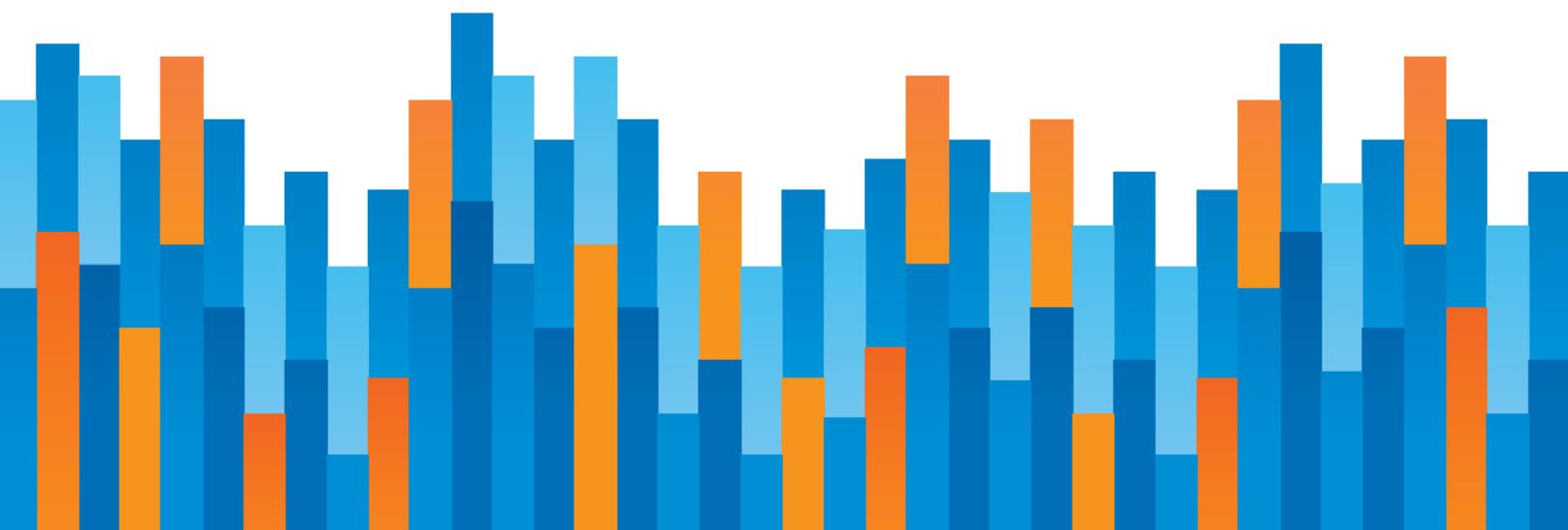


reason
FOUNDATION

PUBLIC HEALTH MODELS AND RELATED GOVERNMENT INTERVENTIONS: A PRIMER

by Pierre Lemieux
Project Director: Adrian T. Moore

March 2021





reason
FOUNDATION

Reason Foundation's mission is to advance a free society by developing, applying, and promoting libertarian principles, including individual liberty, free markets, and the rule of law. We use journalism and public policy research to influence the frameworks and actions of policymakers, journalists, and opinion leaders.

Reason Foundation's nonpartisan public policy research promotes choice, competition, and a dynamic market economy as the foundation for human dignity and progress. Reason produces rigorous, peer-reviewed research and directly engages the policy process, seeking strategies that emphasize cooperation, flexibility, local knowledge, and results. Through practical and innovative approaches to complex problems, Reason seeks to change the way people think about issues, and promote policies that allow and encourage individuals and voluntary institutions to flourish.

Reason Foundation is a tax-exempt research and education organization as defined under IRS code 501(c)(3). Reason Foundation is supported by voluntary contributions from individuals, foundations, and corporations. The views are those of the author, not necessarily those of Reason Foundation or its trustees.

TABLE OF CONTENTS

PART 1	INTRODUCTION	1
PART 2	PUBLIC HEALTH AS PUBLIC GOOD(S)	4
	2.1 WHAT ARE PUBLIC GOODS?	4
	2.2 EXTERNALITIES AND PUBLIC GOODS	6
	2.3 PROTECTION AGAINST EPIDEMICS AND THE HISTORY OF A DRIFT	7
	2.4 GENERAL VACCINATION AS A PUBLIC GOOD?	15
	2.5 COERCION AND SUBSIDIZATION	19
	2.6 EXTENSIONS.....	21
PART 3	PUBLIC HEALTH AS GOVERNMENT MEDICAL CARE	24
	3.1 PRIVATE HEALTH AND PUBLIC HEALTH.....	25
	3.2 GOVERNMENT HEALTH EXPENDITURES TODAY	26
	3.3 WHY THE DRIFT?.....	27
PART 4	PUBLIC HEALTH AS TOTAL GOVERNMENT CARE	30
	4.1 THE HISTORY OF A DRIFT (CONTINUED)	30
	4.2 A NON-SCIENTIFIC CONCEPTION OF SOCIETY	34
	4.3 PUBLIC HEALTH AS SOCIAL JUSTICE.....	37
	4.4 GOVERNMENT FAILURES AND PUBLIC HEALTH IN THE REAL WORLD	42
	4.5 COST IGNORED	50
PART 5	THE VOLUNTARY COOPERATION MODEL OF PUBLIC HEALTH: AN ALTERNATIVE APPROACH	54
	5.1 A MODEL OF VOLUNTARY COOPERATION.....	54
	5.2 CAN IMMUNIZATION AND HERD IMMUNITY BE VOLUNTARY?	59
	5.3 CAN PROTECTION AGAINST AN EPIDEMIC SUCH AS COVID-19 BE VOLUNTARY?.....	64
	5.4 THE LIMITS OF COERCION	71
PART 6	CONCLUSION AND POLICY ORIENTATIONS	76
	ABOUT THE AUTHOR	81

PART 1

INTRODUCTION

SARS-Cov-2, the coronavirus at the origin of the COVID-19 pandemic,¹ provides a good opportunity to review different models of public health. These models range from protection against epidemics of contagious diseases up to social justice. Based on different methodologies and different theories of the social world, the various meanings of public health lead to very different prescriptions for government intervention and public policy—including in a pandemic like the current one. As Ilona Kickbusch says, “We have reached a point where we need to make a choice of what kind of model of global public health we want to promote.”² This paper addresses a double question: What are the main concepts and models of public health? To which extent do public health considerations require government intervention?

“

This paper addresses a double question: What are the main concepts and models of public health? To which extent do public health considerations require government intervention?

”

¹ A pandemic is an epidemic that extends to a wide geographic area, or even the whole world.

² Ilona Kickbusch, “From Charity to Rights: Proposal for Five Action Areas of Global Health,” *Journal of Epidemiological Community Health* 58 (2004), 630.

“In many respects,” says a major textbook of public health, “it is more reasonable to view public health as a movement than as a profession.”³ Since a movement is based as much on ideology as on rational inquiry, understanding it requires a grasp of its ideological beliefs. This is especially true in the current emergency, where the movement and its experts claim more influence on public policy. Moreover, the foundations of public health have changed through history, especially in modern history, which provides another reason to consider its different models.

This paper addresses four models of public health. Part 2 considers the concept of public health as an instance of what economists call *public goods*. The nature of public goods is reviewed as it relates to different means of protection against epidemics, including immunization when available. It can be argued that this economic approach corresponds historically to the “old public health,”⁴ as opposed to today’s “new public health,” even if the history of public health has not been linear.

Part 3 explores public health as *government medical care*. Public health as a public good can easily drift to this newer concept, as “public” can be taken to mean “governmental” and “health” to mean “medical care.” This part of the paper explores how public health came to be understood as government medical care at different moments of history.

In the expression “public health,” “health” can have many meanings. Depending on how expandable the term is, government health care can become very expansive, up to *total government care*, the model reviewed in Part 4. Of course, “total” cannot be taken literally, but it will be seen to represent an ideal for the public health movement. This drift of public health was typical of the 20th century. This part will examine how a new definition of health as well as a new conception of “public” led to the “new” public health.

Part 5 explores the feasibility of the opposite model of public health: *voluntary cooperation*. The question is: Can vaccination decisions or measures to control an epidemic be left to the domain of private choices? This part of the paper will also examine the limits of coercion, which suggest both that the total government care is infeasible (at least, in a free society) and that voluntary cooperation should be considered.

³ Bernard J. Turnock, *Public Health: What It Is and How It Works*, 5th Edition (Jones & Bartlett Learning, 2012), 22.

⁴ Richard A. Epstein, “Let the Shoemaker Stick to His Last,” *Perspectives in Biology and Medicine* 46:3 (2003) Supplement, S138-S159.

The conclusion will advance some broad policy orientations, organized around a presumption of liberty and the general goal of minimizing coercion.

Any rational public policy must deal with the questions raised by the different models of public health. By sketching an economic approach that is too often missing in discussions of public health, the paper hopes to contribute to a better understanding of the issues involved and, hopefully, to better public policy. That the label “public health” can mean, and has historically meant, many different things should always be kept in mind.

PART 2

PUBLIC HEALTH AS PUBLIC GOOD(S)

Public health or its components can be viewed as what economists call “public goods.” In this perspective, public health is concerned with the prevention and control of medical events that are in everybody’s interest to prevent or control but in nobody’s private capacity to do. Prevention and control of epidemics of contagious diseases is an obvious case. Note that the economic concept of *a* public good is different from what philosophers call “*the* public good,” which normally refers to some virtuous ideal over and above the preferences of individuals. The economic concept of a public good is more concrete and always grounded in all individuals’ preferences.

2.1

WHAT ARE PUBLIC GOODS?

Technically, a public good is defined as a good (or service⁵) that has two properties: non-rivalry and non-excludability. Non-rivalry means that its consumption by one person does not remove anything from the consumption possibilities of other persons. Non-excludability means that it is difficult—that is, very costly—to exclude anybody intent on taking advantage of these consumption possibilities without contributing his share of the

⁵ The economic concept of good incorporates services.

cost.⁶ One standard example is national defense: the fact that your neighbor benefits from it does not reduce your own benefits (it is a non-rival good); and it is impossible to exclude you from benefiting once it has been financed by your neighbors (it is non-excludable). Contrary to the case of a private good, which is produced for, and only for, paying customers, everybody will be tempted to free ride on a public good. Therefore, no private producer will supply it in “optimal” quantity. At best, it will be undersupplied; at worst, it will not be produced at all.

Note that the production of a public good requires private goods as inputs. For example, the production of national defense requires tanks, which are made of steel, which is a private good. The steel I consume can’t be consumed by others, and steel producers can easily charge a price for what they produce.

Many economic theorists see the public good (or category of goods) of security (national defense, police protection, courts, and prisons) as the main, if not only, justification for the state. There are other candidates—for example, the prevention of a large asteroid collision with earth⁷ or an epidemic. Economists have extended the list to less “pure” public goods. Note that the prevention of a public “bad,” that is, something that imposes unwanted costs on everybody, is a public good.

“

Mainstream economists argue that only a government can supply a public good in optimal quantity by forcing all beneficiaries, in their own interests, to contribute to its financing by way of taxes.

”

⁶ The technical definition was given in two seminal articles by Paul A. Samuelson: “The Pure Theory of Public Expenditure,” *Review of Economics and Statistics* 36:4 (November 1954), 387-389; and “Diagrammatic Exposition of a Theory of Public Expenditures,” *Review of Economic and Statistics* 37:4 (November 1955), 350-356.

⁷ Ana Swanson, “The Greatest Threat of Planetary Extinction That We’re All Not Talking About,” *Washington Post*, June 30, 2015, <https://www.washingtonpost.com/news/wonk/wp/2015/06/30/the-greatest-threat-of-planetary-extinction-that-were-all-not-talking-about/>.

Mainstream economists argue that only a government can supply a public good in optimal quantity by forcing all beneficiaries, in their own interests, to contribute to its financing by way of taxes. The government can then produce the public good; alternatively, it may be less costly for the government to produce it indirectly through subsidies to, or contracts with, private businesses. Private activities are subject to better incentives.

2.2 EXTERNALITIES AND PUBLIC GOODS

A public good can also be viewed as something that transmits positive externalities to *all* individuals. An externality is a benefit (positive externality) or a cost (negative externality) that bypasses markets and for which charging a price or offering compensation is impossible.⁸ Although externalities and public goods overlap,⁹ they show an important difference. A public good exists when its production for the benefit of paying customers automatically generates positive externalities *for all* members of society, including the potential free-riders. Compared to externalities, public goods are unanimously liked; this unanimity condition makes them rarer.¹⁰

Compared to externalities, public goods are unanimously liked; this unanimity condition makes them rarer.

Externalities and especially public goods are generally considered “market failures,” for they prevent markets from providing consumers with what they want and are willing to pay for. Mainstream economic theory argues that market failures justify the government to intervene in markets in order to guarantee the satisfaction of individual preferences. In the case of a public good, this may imply forcing free-riders to contribute to its production in their own interest.

⁸ For a short explanation, see Bryan Caplan, “Externalities,” Econlib, n.d., <https://www.econlib.org/library/Enc/Externalities.html>. For a critical view, see Donald J. Boudreaux and Roger Meiners, “Externality: Origins and Classifications,” *Natural Resources Journal* 59:1 (2019), 1-34.

⁹ Francis M. Bator, “The Anatomy of Market Failure,” *Quarterly Journal of Economics* 72 (1958), 369-371 (351-379). E.J. Mishan, *Introduction to Normative Economics* (Oxford University Press, 1981), 433.

¹⁰ When a public good is not perfectly non-rival and non-excludable it is not a *pure* public good. Delimiting the contour of “society” also raises issues.

The distinction between mere positive externalities (for some) and public goods (externalities for all) is important. If an epidemic simply exposed non-infected people to negative externalities from the infected, the justification for government intervention would be different and more complicated. The reason is that externalities are symmetric or reciprocal.¹¹ Contagious individuals expose the others to negative externalities, but locking down everybody could be said to impose negative externalities to the non-infected who need, for example, to work or earn a living. Cost-benefit analysis could then be used to evaluate if the costs of a given policy (lockdown or freedom) is higher than its benefits, but it would remain for the government to make a value judgment by deciding that the benefits of some are worth imposing costs, even if lower, on others.¹² A public good is beneficial to everybody, at least in an ex ante sense: everybody wants to be protected against an epidemic when it happens in the future because he does not know if he will be infected or not. The model of public health as a public good deals with such a situation.

Limiting public health to the realm of public goods avoids the philosophical problem of requiring government to discriminate in favor of some citizens and against others. Historically, this conception corresponds to how public health was conceived when, in the field of health, political authorities were mainly concerned with epidemics.

2.3

PROTECTION AGAINST EPIDEMICS AND THE HISTORY OF A DRIFT

The public good of protection against epidemics consists in preventing them and stopping their spread once they start. Methods of stopping their spread may involve vaccination if available, quarantines, lockdowns, etc. Methods of preventing epidemics may involve sanitation measures against the conditions favorable to the spread of microbiological

¹¹ Ronald Coase, "The Problem of Social Cost," *Journal of Law and Economics* 3 (October 1960), 2 (1-44). James M. Buchanan and William Craig Stubblebine, "Externality," *Economica* 9 (1962), 371-384.

¹² For a defense of the externality approach and cost-benefit analysis, see Cass R. Sunstein, *The Cost-Benefit Revolution* (MIT Press, 2018). A radical attack on this approach is proposed by Anthony de Jasay, who argues that comparing the benefits of some individuals to the costs of others amounts to making arbitrary interpersonal comparisons of utility (satisfaction) and "are merely a roundabout route all the way back to the irreducible arbitrariness to be exercised by authority... [T]he two statements 'the state found that increasing group P's utility and decreasing that of group R would result in a net increase of utility,' and 'the state chose to favor group P over group R' are descriptions of the same reality." (*The State* [Liberty Fund, 1998; 1985 for the original edition], 111-112). A defense of unanimity in a political context is given by James M. Buchanan, *The Limits of Liberty: Between Anarchy and Leviathan* (Liberty Fund, 2000 [1975]).

agents: provision of clean water through aqueducts and removal of human waste through sewer systems. Such measures are a public good only if everybody in a society wants them.



Public health was largely part conceived as a public good, even if neither expression was known until relatively recently.



Modeling public health as the production of public goods is rare among public health experts. The public good aspect of public health is not discussed in Bernard Turnock's popular textbook of public health.¹³ The index of Lawrence O. Gostin and Lindsay Wiley's textbook of public health law shows no entry for "public good."¹⁴ Sociologist Jacob Heller's book *The Vaccine Narrative* contains the expression "public good" twice, only to refer to a vague moral concept of the good of the public.¹⁵ Externalities have recently found their way into public health analysis, but they are often given such wide extension that they can justify nearly any public health intervention.

It seems that, for a long time, public health activities have been mainly related to the control and prevention of epidemics of contagious diseases—although the biology of contagion was not understood until the late 19th century. Public health was largely part conceived as a public good, even if neither expression was known until relatively recently. From high antiquity, it was believed that uncleanness played a role in diseases and epidemics. The authorities of the wealthiest cities found ways to supply clean water and dispose of human waste. In his monumental history of public health, George Rosen notes that, "as builders of sewerage systems and baths, and as providers of water supplies and other health facilities, [the Romans] set the world a great example and left their mark in history."¹⁶ The Roman aqueducts brought clean water to fountains, public baths, and, with

¹³ Turnock, *Public Health*. This is also true for the 6th edition (Jones and Barnett Learning, 2016).

¹⁴ Lawrence O. Gostin and Lindsay F. Wiley, *Public Health Law: Power, Duty, Restraint*, 3rd Edition (University of California Press, 2016). When they do mention public goods in what appears to be the economic sense (p. 443), they seem to mean everything that some political majority considers a public good.

¹⁵ Jacob Heller, *The Vaccine Narrative* (Vanderbilt University Press, 2008), 24 and 95.

¹⁶ George Rosen, *A History of Public Health*, Revised Expanded Edition (John Hopkins University Press, 2015 [1958]), 10.

special permission, to a few privileged private houses. The sewer system helped dispose of human waste, which transmits many contagious diseases.¹⁷

Personal hygiene and sanitation declined after the fall of the Roman Empire and into the Middle Ages (500-1500 AD), partly due to the neglect of sanitation works and partly because “health problems were for the most part considered and dealt with in magical and religious terms.”¹⁸ Epidemics occurred regularly, including leprosy and the Black Death of the 14th century. Isolation, *cordons sanitaires*, and other forms of isolation of the sick were primary means of fighting epidemics.

Early modern times (16th and 17th centuries) were also characterized by a poor state of public health, due partly to ignorance of the contagion mechanism and partly to poverty. A 1682 report from Pisa conveys the picture:

*None of the houses has a privy with its own underground cesspit but they shit between the houses where there are gaps between the walls ... and there are hundreds of turds to be removed which, as well as stinking horribly, present an extremely disgusting sight to those who pass by in the street.*¹⁹

At the same time, the idea of government intervention in public health was advancing along with a new theoretical foundation—that a healthy population was a resource for the state both as taxable material and as human conscripts for war.²⁰ The *raison d’État* called for increasing national power.²¹ In England, active government intervention in health care and even a national health service were proposed during the second part of the 17th century, but with no follow-up.²²

¹⁷ Sonia Shaw, *Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond* (Farrar, Straus and Giroux, 2016), 57.

¹⁸ Rosen, *A History of Public Health*, 19. This is not saying that the fall of Rome was an unmitigated evil. According to Walter Schiedel, it generated a political anarchy that ultimately led to the Enlightenment, the Industrial Revolution, and the “great escape” from poverty; see his *Escape from Rome: The Failure of Empire and the Road to Prosperity* (Princeton University Press, 2019).

¹⁹ Quoted in Mary Lindemann, *Medicine and Society in Early Modern Europe*, 2nd Edition (Cambridge University Press, 2010), 196.

²⁰ Rosen, *A History of Public Health*, 57-59.

²¹ *Ibid.* 55.

²² *Ibid.* 58-59.

In America, the main concern remained the protection of the healthy from contagious diseases:

The colonies followed the European practice of attempting to control the introduction of contagious disease by quarantining ships or traffic from places of infection. In 1665 both Boston and New York quarantined ships from London to prevent the introduction of the plague. ... [O]nce infection was introduced then isolation of the infected had to be imposed, restricting the sick to their homes, impressing nurses to look after them and placing guards on the door to prevent contact with the outside. In 1717 Boston established a pest house on Spectacle Island to which infected cases would be removed.²³

Quarantines and even lockdown at home are not new.

During the epidemics of yellow fever in America in the 1790s, “most believed that it was caused by miasmas and citizens and officials were driven to enormous efforts to eliminate all causes of miasmas.”²⁴ The theory of miasmas, which was only definitively abandoned at the end of the 19th century, claimed that “communicable diseases arose from effluvia produced by decaying organic matter.”²⁵ This error was related to the idea of spontaneous generation, according to which microorganisms could be generated from dirtiness. The contagion theory, on the contrary, argued that “specific contagia are the sole causes of infections and epidemic diseases.”²⁶ Mary Lindemann explains:

Roughly speaking, contagion means that diseases are passed from person to person, either directly or through water, air, or inanimate objects, while miasma suggests that some condition of the atmosphere bears the principal responsibility.²⁷

Until the rise of microbiology and immunology from the late 19th century on, most public health activities were successful only by fluke or thanks to crude empiricism. Quarantine and isolation of contagious individuals were efficient because they were based on the

²³ Helen Brock, “North America, a Western Outpost of European Medicine,” in Andrew Cunningham and Roger French, Editors, *The Medical Enlightenment of the Eighteenth Century* (Cambridge University Press, 1990), 209 (194-216).

²⁴ *Ibid.* 209-210.

²⁵ Rosen, *A History of Public Health*, 158.

²⁶ *Ibid.* 165.

²⁷ Lindemann, *Medicine and Society in Early Modern Europe*, 216.

correct intuition of contagion from person to person. Sanitation through clean water and the removal of human waste was successful not because uncleanness generated dangerous miasmas, but because infectious micro-agents could pass from human waste into the water supply.

Before the miasma theory was definitively debunked, John Snow (a medical doctor) and Henry Whitehead (an Anglican priest) discovered that a specific well was the main source of an intense cholera outbreak in a London neighborhood in 1854. The well had been contaminated by a nearby cesspool and the removal of the pump handle had an immediate impact on the epidemic.²⁸ It is ironic that water as a public good supplied by a public authority (the Council of Guardians²⁹) turned out to be a “public bad”—a reminder that, even for public goods, government intervention is not necessarily efficient. In this case, scientific error was a major factor in the inefficiency, but we will see in Part 4 and Part 5 that other sorts of “government failures” occur.

The 18th and 19th centuries marked the continuous advance of the public health activities of epidemic prevention and control, consistent with the public-good interpretation. These two centuries witnessed the Enlightenment and the Industrial Revolution, two momentous events in the history of mankind. But the state also advanced. The French Revolution of 1789, emblematic of much political thought on the Continent, affirmed both individual rights *against* the state and social rights to security *from* the state, a contradiction that was to have major consequences and remains with us today.³⁰ Medical historian Roy Porter noted that “the Enlightenment no more resolved its medical than its cultural, social and political paradoxes.”³¹

Many public (that is, government) hospitals appeared in Europe besides those operated by charities. Many city governments appointed municipal physicians to help the poor, including in the United States for a while.³² In countries where local resistance was not too strong, central health administrations were created. In the second part of the 18th century,

²⁸ G. Patrick Lynch, “Learning from Epidemics Past,” *Law and Liberty*, May 13, 2020, <https://lawliberty.org/book-review/learning-from-epidemics-past/>.

²⁹ See Kari S. McLeod, “Our Sense of Snow: The Myth of John Snow in Medical Geography,” *Social Science & Medicine* 50 (2000), 923-935—which also argues that the time frame of the cholera reduction is not entirely consistent with the standard Snow story.

³⁰ On the philosophical contradictions in the French declarations of rights (in 1789 and 1793), see Émile Faguet, *Le Libéralisme* (Société Française d’Imprimerie et de Librairie, 1902).

³¹ Roy Porter, *Medicine in the Enlightenment* (Editions Rodopi, 1995), 3.

³² Brock, “North America, a Western Outpost of European Medicine,” 205.

German writers started referring to public health administration as the “medical police,”³³ meaning that the state must implement public health policies with an administrative machinery capable of enforcing them. In 1840, a British government committee mentioned “the property which the country has in [the workers’] useful labours”³⁴ as a reason for the government to be concerned with the health of the poor. In 19th century Germany, the public health movement progressed rapidly. With the creation of the Second Reich after the Franco-Prussian war, a central Reich Health Office was established.³⁵

But there was resistance. The case of France is interesting. Resistance to centralization and the idea of “the sanctity of property”³⁶ slowed down the advance of public health outside its (implicit) public-good conception. French courts interpreted an 1850 law on housing standards in a way that landlords could not be forced to make improvements to rented dwellings. By the end of the century, the law had been strengthened but a landlord whose property was condemned for public health reasons had to be fully compensated. The law also provided that doors and windows created for public health reasons would not be subject to the aperture tax, which was designed as a wealth tax because tax inspectors could not inspect houses other than by looking at them from the street.³⁷

The miasma theory of epidemics suggested that dirty living quarters would, by themselves, promote epidemics. What is true is that clean water and waste treatment prevent contagion, that rats or other animals can carry pathogens, and that overpopulated housing can fuel the spread of contagion. But it is also true that many poor families are better off in insalubrious houses than on the street, which is what more expensive housing would often mean. There is always a danger of hurting people by wanting their good despite what they choose themselves. Coercive compassion often has bad consequences. You don’t help somebody by removing an option from his choice set.

³³ Rosen, *A History of Public Health*, 59-60 and 87.

³⁴ *Ibid.* 119.

³⁵ *Ibid.* 146.

³⁶ Matthew Ramsey, “Public Health in France,” in Dorothy M. Porter, Editor, *The History of Public Health and the Modern State* (Editions Rodopi B.V., 1994), 102 (45-118).

³⁷ *Ibid.* 69 and 83.



What is true is that clean water and waste treatment prevent contagion, that rats or other animals can carry pathogens, and that overpopulated housing can fuel the spread of contagion. But it is also true that many poor families are better off in insalubrious houses than on the street, which is what more expensive housing would often mean.



Until the last decades of the 19th century, *hygiénistes*—as public health experts were called in France—were often classical liberals. François-René Villermé, probably the best-known 19th-century *hygiéniste*, observed that the poor were more subject to disease and epidemics—a temporary problem of poverty, he believed, that would be solved by economic growth. History proved him largely right as higher incomes brought better nutrition, better sanitation, and soon more and better vaccines. Villermé agreed to limitations of work hours for young children, but did not think that the work choices of adults should be regulated. He wrote that “affluence or wealth—that is to say, the conditions of existence that such means provide those who enjoy them—is here in truth the most important of all hygienic factors, namely that which best assures the very preservation of life.”³⁸

In the U.S., by the 18th century, the health of the colonists was good for the times, but more because of growing prosperity than health policies, which were often ineffective:

By the eighteenth century colonial health had improved, but not through any attempt at improvement beyond laws introduced, in towns like Boston and New York, to control miasmas and bad smells. Improved general health resulted mainly from better housing and an improved and more varied diet which increasingly contained vegetables and fruit and the availability of beer or cider as a drink instead of polluted water.³⁹

³⁸ Quoted in William Coleman, *Death is a Social Disease* (University of Wisconsin Press, 1982), 304. In a sense Villermé also believed that illness and early death were a social disease, because general prosperity would reduce them.

³⁹ Brock, “North America, a Western Outpost of European Medicine,” 210.

Until the late 19th century, it is safe to say that the public-good conception of public health was dominant in the United States. Public health was largely a local matter or, at most, a state-level matter, organized around quarantines and isolation of the infected or potentially infected.⁴⁰ Public and private provision of medical care for the poor existed in the United States as elsewhere, and that is a different reality than public health as a public good. A hospital bed is a private good that can only be occupied by one person and for which he—or his family or a charitable third-party—can be charged a price.⁴¹

Large and fast-growing cities with overpopulated housing were a fertile ground for epidemics, especially when aqueduct and sewer systems were unsatisfactory. Whether journalist Sonia Shaw exaggerates or not, the protection against contagious disease still had some way to go: “By the nineteenth century, the European descendants of the ancient Romans who came to populate the city of New York ... each likely ingested two teaspoons of fecal matter every day with their food and drink.”⁴² Many epidemics occurred in the United States during that century, including diphtheria, typhoid, yellow fever, and polio. New York City’s sewer system was eventually created and expanded to virtually the whole city between the middle and the end of the century. Increasing wealth and the microbiological revolution would soon improve the situation dramatically.

The Civil War saw 360,000 Union soldiers (not counting Confederate ones) killed by infectious diseases. In its aftermath, “most states created boards of health.” In 1879, Congress created a National Board of Health.⁴³



It was mainly in the 20th century that public health expanded its scope much further than the public-good concept.



⁴⁰ Elizabeth Fee, “Public Health and the State: The United States,” in Dorothy M. Porter, Editor, *The History of Public Health and the Modern State*, 226 and 224-275.

⁴¹ A more institutional definition of public goods would take account of the definition of property rights. Things are more or less excludable depending on how property rights are defined or protected. See Cowen Tyler, “Public Goods Definitions and their Institutional Context: A Critique of Public Goods Theory,” *Review of Social Economy* 43:1 (April 1985), 53-63. This opens a possible interface between public health and private health.

⁴² Shaw, *Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond*, 58.

⁴³ Fee, “Public Health and the State,” 230-233.

It was mainly in the 20th century that public health expanded its scope much further than the public-good concept. Government propaganda and new powers brought by the two world wars favored public health campaigns. During World War I, U.S. public health officials portrayed vaccine refusal as unpatriotic sabotage.⁴⁴ Rosen wrote that “emphasis on scientific nutrition was pushed in the name of patriotism.”⁴⁵ In the case of World War II, Elizabeth Fee noted that “public health was now declared a national priority for the armed forces and the civilian population engaged in military production.”⁴⁶ Historian Michael Willrich observed that “epidemic disease, like war, is the health of the state.”⁴⁷

2.4

GENERAL VACCINATION AS A PUBLIC GOOD?

Along with sanitation and ex post control of infectious persons, vaccination can be viewed as a public good. Law professor Richard Epstein argues that the power to compel quarantine or vaccination is part of public health conceived as public good—what he calls the “old public health,” as opposed to the “new public health,” which has a much wider scope.⁴⁸ This issue is relevant to COVID-19.

The first vaccine, against smallpox, was invented at the end of the 18th century. It represented an improvement over the practice of “variolation” which, in that century, had been used in Western countries after being imported from the East. Variolation consisted of inserting in a small skin puncture real smallpox scabs or fluid from the pustules of an infected person. The risk of developing the real disease instead of being immunized was relatively high.⁴⁹ In the late 19th century, admission to American public schools started being subject to vaccination mandates.⁵⁰ After 1784, the German government had already imposed such mandates at the national level. The French government resisted until 1887. “For partisans of public health,” Ramsey argues, “France lagged a generation behind several other Western European countries, particularly Britain and Germany.”⁵¹

⁴⁴ Marc Navin, *Values and Vaccine Refusal: Hard Questions in Ethics, Epistemology, and Health Care* (Routledge, 2016), 8.

⁴⁵ Rosen, *A History of Public Health*, 243.

⁴⁶ Fee, “Public Health and the State: The United States,” 248.

⁴⁷ Michael Willrich, “‘The Least Vaccinated of Any Civilized Country’: Personal Liberty and Public Health in the Progressive Era,” *Journal of Policy History* 20:1 (2008), 76 (76-93).

⁴⁸ Epstein, “Let the Shoemaker Stick to His Last.”

⁴⁹ U.S. National Library of Medicine, Variolation, https://www.nlm.nih.gov/exhibition/smallpox/sp_variolation.html.

⁵⁰ Cecilia Lee and Joan L. Robinson, “Systematic Review of the Effect of Immunization Mandates on Uptake of Routine Childhood Immunizations,” *Vaccine* 33 (2015), 659-660 (659-666).

⁵¹ Ramsey, “Public Health in France,” 85.

By all evidence, vaccines have been extraordinarily beneficial.

By all evidence, vaccines have been extraordinarily beneficial. Between the 1860s and about 1930, the number of smallpox deaths among one-year-old to five-year-old children in England and Wales decreased by 99.5%, from 474 per million to 0.51. Anti-vaccination campaigners argued that this was due to the progress of sanitation (not to mention better nutrition and the disappearance of overpopulated slums), but the smallpox vaccine certainly had a major impact. By 1979, the disease had been eradicated in the world.⁵² More recent vaccines bolster the argument. Polio vaccines have brought the number of cases of the disease from 400,000 per year worldwide in the late 1980s to 3,500 in 2001.⁵³ The disease has been eradicated from the United States since 1979 and remains endemic only in three poor countries.⁵⁴ According to one estimate, vaccines have prevented “over 100 million cases of previously routine childhood diseases, such as polio and measles.”⁵⁵

The story of the Hib vaccine is also telling. Hib (Haemophilus Influenzae Type B) is a sort of influenza infection that, before 1985, was one of the main causes of meningitis in the United States and led to some 1,000 deaths per year. Hib hit toddlers and infants, and often resulted in devastating neurological deficits and other health problems. Vaccination became available in 1985 and was improved over the next few years. Figure 1 shows the dramatic reduction in incidence of the disease in America.⁵⁶

⁵² R.E. Spier, “Perception of Risk of Vaccine Adverse Events: A Historical Perspective,” *Vaccine* 20 (2002), S82. See also Centers for Disease Control and Prevention, The Spread and Eradication of Smallpox, <https://www.cdc.gov/smallpox/history/smallpox-origin.html>.

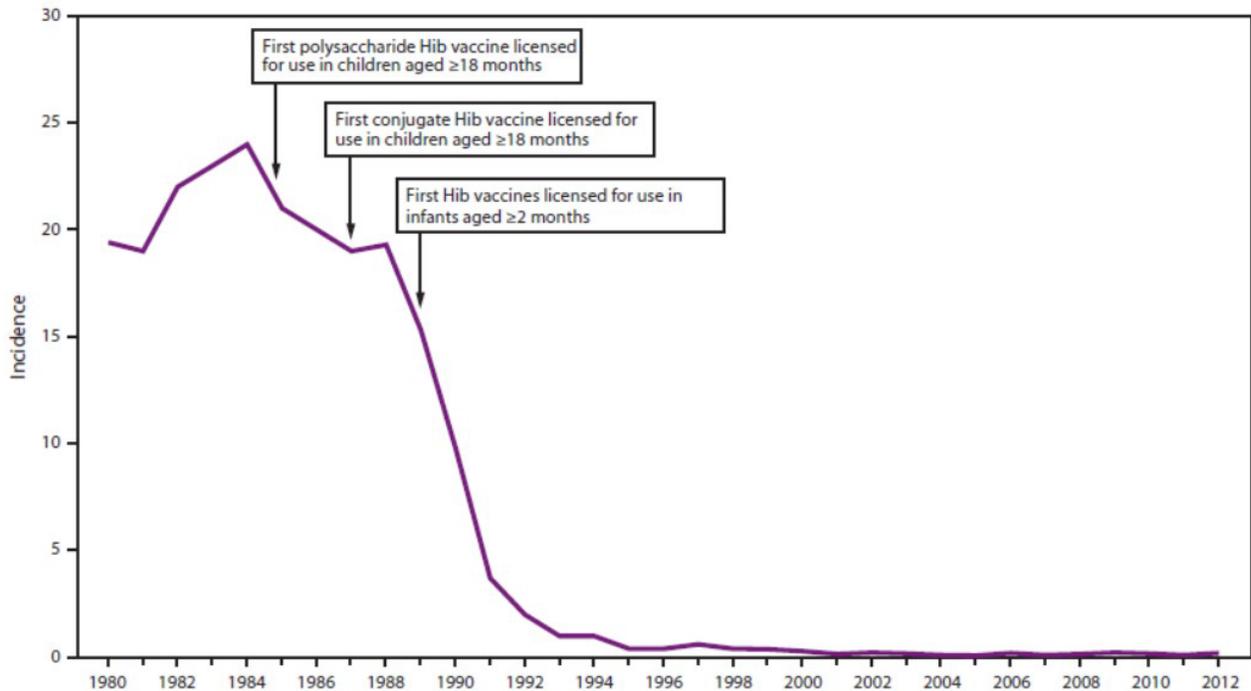
⁵³ Spier, “Perception of Risk of Vaccine Adverse Events,” S83.

⁵⁴ CDC, Polio Elimination in the United States, <https://www.cdc.gov/polio/what-is-polio/polio-us.html> and <https://www.who.int/features/qa/07/en/>.

⁵⁵ Navin, *Values and Vaccine Refusal*, 6, and the citations therein.

⁵⁶ Peter J. Hotez, *Vaccines Did Not Cause Rachel’s Autism: My Journey as a Vaccine Scientist, Pediatrician, and Autism Dad* (John Hopkins University Press, 2018), 21-25.

FIGURE 1: ESTIMATED ANNUAL INCIDENCE* OF INVASIVE HAEMOPHILUS INFLUENZAE TYPE B (HIB) DISEASE IN CHILDREN LESS THAN FIVE YEARS OLD, UNITED STATES, 1980-2012



* Per 100,000 population.

Source: Peter J. Hotez, *Vaccines Did Not Cause Rachel's Autism: My Journey as a Vaccine Scientist, Pediatrician, and Autism Dad* (John Hopkins University Press, 2018). Elizabeth C. Briere, "Prevention and Control of Haemophilus Influenzae Type b Disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP)," *Centers for Disease Control and Prevention, Recommendations and Reports* 63:1 (February 28, 2014), <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6301a1.htm>.

Vaccines do carry some risk, even mortal ones in very rare cases, but the probability of serious effects remains very small:

For example, less than one child out of 1,000,000 will develop long-term seizures or brain damage after receiving the DTaP vaccine (Centers for Disease Control and Prevention 2007). Children face a similar low risk of becoming deaf after the MMR vaccine (Centers for Disease Control and Prevention 2012a).⁵⁷

A risk of 1/1,000,000 risk is 1/40th of the probability of dying in an accident at home.⁵⁸

⁵⁷ Navin, *Values and Vaccine Refusal*, 6.

⁵⁸ Spier, "Perception of Risk of Vaccine Adverse Events," S79.

U.S. courts have generally sided with public authorities on vaccination mandates, although penalties were small. Limits were recognized, such as serious medical contraindications, the requirement of “present danger,” and the prohibition on targeting people on the basis of race. Moreover, forced vaccination—by restraining somebody to forcibly vaccinate him—was declared unlawful.⁵⁹ Despite the general “police power” recognized to state governments in matter of public health, a Rhode Island public health officer could still lament in 1913 that the United States was the “least vaccinated of any civilized country.”⁶⁰



Yet, it is not as obvious as it first looks that general vaccination is a public good. The first reason is that there is an easily substitutable private good, that is, individual vaccination. Any healthy individual who wants to avoid the risk of the disease can be individually vaccinated; he doesn't have to wait for everybody else being vaccinated.



Yet, it is not as obvious as it first looks that general vaccination is a public good. The first reason is that there is an easily substitutable private good, that is, individual vaccination. Any healthy individual who wants to avoid the risk of the disease can be individually vaccinated; he doesn't have to wait for everybody else being vaccinated. It is as if, for an individual in the valley, a flood-control dam—as an example of a pure public good, at least for people there—had a substitute that consisted in building a little barrier with a couple of sandbags. It remains true, however, that some individuals may be too young or too old, or have a too weak or compromised immune system, to be vaccinated, so that only the immunity of others can protect them. But then immunity looks more like a positive externality for those at risk than a public good.

Moreover, from an economic perspective, if some individuals in society do believe, rightly or wrongly, that vaccination is ineffective or dangerous, it is not, by definition, a good for them and thus not a public good.

⁵⁹ Willrich, “The Least Vaccinated of Any Civilized Country,” 86-88.

⁶⁰ Ibid. 81.

“Herd immunity” is a better candidate for the status of public good. Herd immunity is a situation where a large enough number of vaccinated or recovered individuals renders the spread of a disease impossible. The threshold required to produce herd immunity varies with the contagiousness of specific diseases and depends on how many persons a contagious individual has contact with (and how many have recovered from infection and are immune). The threshold varies widely, from around 75%-80% (80% for Hepatitis A,⁶¹ for example) to around 95% for measles.⁶² (It is not known when this article is written what is the herd immunity threshold for COVID-19.) If too many individuals in the population choose not to be vaccinated, the public good of herd immunity is not produced (or only produced after more recoveries or deaths). If some individuals still prefer to not be vaccinated even when herd immunity does not obtain, the public good looks more like positive externalities for the other part of society. Thus, it is not clear that herd immunity is a public good.



“Herd immunity” is a better candidate for the status of public good.



2.5

COERCION AND SUBSIDIZATION

Even if we accept that herd immunity is a public good and that vaccination is necessary to reach it, the question remains as to whether vaccination should be imposed through direct mandates or through subsidy incentives instead.

⁶¹ Adrian Campo-Flores and Betsy McKay, “Hepatitis A Outbreaks Flare Up Across U.S.,” *The Wall Street Journal*, October 4, 2019, https://www.wsj.com/articles/hepatitis-a-outbreaks-flare-up-across-u-s-11570186803?mod=hp_listb_pos2.

⁶² Paul Fine, Ken Eames, and David L. Heymann, “Herd Immunity: A Rough Guide,” *Clinical Infectious Diseases* 52:7 (April 1, 2011), 911-916, <https://academic.oup.com/cid/article/52/7/911/299077>. Roy M. Anderson and Robert M. May, *Infectious Diseases of Humans: Dynamics and Control* (Oxford University Press, 1991), 88. Harumor Rashid, Gulam Khandaker, and Robert Booy, “Vaccination and Herd Immunity: What More Do We Know?” *Current Opinion in Infectious Diseases* 25:3 (June 2012), 243-249. Catherine Helps, Julie Leask, and Lesley Barclay, “It Just Forces Hardship: Impacts of Government Financial Penalties on Non-Vaccinating Parents,” *Journal of Public Health Policy* 39 (2018), 157 (156-169).

One way to bring adults to be vaccinated or parents to have their children vaccinated is to otherwise deny them some other government benefits to which they would normally be entitled, such as access to public schools. U.S. states have long required vaccination as a condition for admission in school, but exemptions were notably easy to obtain for religious or conscientious reasons. A number of state governments have recently removed all but medical exceptions, including California, Mississippi, West Virginia, New York, and Maine.⁶³ Negating school access, or removing other benefits, amounts to a special tax on those from whom the government wants a behavioral change.



Subsidizing parents—bribing them to have their children vaccinated—is arguably easier to justify from a moral (distributive) viewpoint: let the general taxpayers who want herd immunity for all children pay for vaccination.



There is another way to proceed. Subsidizing parents—bribing them to have their children vaccinated—is arguably easier to justify from a moral (distributive) viewpoint: let the general taxpayers who want herd immunity for all children pay for vaccination. (This argument would equally apply if the government wanted to incentivize adults to get vaccinated.) A subsidy instead of a tax (removal of benefit) would seem to minimize coercion and resistance. Apparently, the Australian government once did that.⁶⁴ Subsidization allows the targeted individual to refuse to participate if the reward is not worth his evaluation of the cost, while others are free to take the bait. As economist Charles Phelps notes, the argument for subsidies as opposed to taxes parallels the argument in favor of a voluntary army paid by *general* taxes as opposed to conscription of specific individuals for the benefit of others.⁶⁵ To the extent that vaccination or herd

⁶³ Helps et al., “It Just Forces Hardship,” 157. Jon Kamp, “Maine Voters Keep Tightened Vaccine Requirements,” *The Wall Street Journal*, March 3, 2020, <https://www.wsj.com/articles/maine-voters-keep-tightened-vaccine-requirements-11583292366>.

⁶⁴ Kristen Ward, Brynley P. Hull, and Julie Leask, “Financial Incentives for Childhood Immunisation –A Unique but Changing Australian Initiative,” *Medical Journal of Australia* 198:11 (June 17, 2013), 590-592. Katie Attwell et al., “Recent Vaccine Mandates in the United States, Europe and Australia: A Comparative Study,” *Vaccine* 36 (2018), 7381 (7377-7384).

⁶⁵ Charles E. Phelps, *Health Economics*, 2nd Edition (Addison-Wesley, 1997), 511-512.

immunity is a public good, the government is justified in subsidizing vaccines or the health providers who deliver them. This approach also justifies the current practice, in most countries, of offering recommended vaccines at low cost if not free of charge.

It could be objected that a tax and a subsidy are two faces of the same coin: a tax (removal of a benefit, in this case) is akin to a negative subsidy and a subsidy to a negative tax. Offering a subsidy for vaccination then appears as coercive as imposing a tax (removal of a benefit) on non-vaccination. This objection suggests a more philosophical argument about who has the right to the money—the subsidized or the subsidizer.⁶⁶ This objection is not convincing if one believes that a public good should be financed by those who benefit from it, closely approximated by the general taxpayers, which brings us back to Phelps' argument.

2.6

EXTENSIONS

In the model of public health as a public good, we can identify areas other than the prevention or control of epidemics. One example is protection against the mounting problem of drug resistance—a protection that does appear to be a pure public good. The use or overuse of antibiotics, both by humans (30% of prescriptions are thought to be unnecessary, and the prescription course is often not completed) and for animal growth, have led to the development of many drug-resistant bacteria such as *C. difficile*. Drug-resistant infections kill 700,000 persons a year in the world, a death toll forecasted to rise to 10 million in 2050.⁶⁷ In the United States, the number of deaths from antimicrobial resistance reaches more than 35,000 persons every year.⁶⁸

⁶⁶ Thanks to the anonymous reviewer who suggested this objection.

⁶⁷ “When the Drugs Don’t Work,” *The Economist*, May 36, 2016, <https://www.economist.com/leaders/2016/05/21/when-the-drugs-dont-work>. “Antibiotic Resistance: The Grim Prospect,” *The Economist*, May 21, 2016, <https://www.economist.com/briefing/2016/05/21/the-grim-prospect>. “Resistance to Antibiotics: The Spread of Superbugs,” *The Economist*, March 31, 2011, <https://www.economist.com/briefing/2011/03/31/the-spread-of-superbugs>. “What if Antibiotics Stop Working,” *The Economist*, July 6, 2019, <https://www.economist.com/the-world-if/2019/07/06/what-if-antibiotics-stop-working>.

⁶⁸ Denise Roland, “Antibiotics Makers Struggle, Hurting War on Superbugs,” *The Wall Street Journal*, January 5, 2020, https://www.wsj.com/articles/antibiotic-makers-find-rewards-for-tackling-superbugs-are-scarce-11578259557?mod=hp_lead_pos4.



Protection against antimicrobial resistance is more clearly a public good than vaccination is. Everybody presumably doesn't want drug-resistant microbes around and this benefit is non-excludable.



Protection against antimicrobial resistance is more clearly a public good than vaccination is. Everybody presumably doesn't want drug-resistant microbes around and this benefit is non-excludable. In practice, controlling drug resistance may require policies such as a tighter control of prescriptions, restriction on the use of antibiotics for animals,⁶⁹ and perhaps subsidies to pharmaceutical companies for the development of new drugs against resistant microbes.

Interestingly, herd immunity may be a solution to drug resistance: the less a microbe proliferates, the lower the probability it will have to be fought with drugs and that resistant strains will develop. The need to prevent the evolution of drug-resistant microbes makes herd immunity and vaccination more akin to public goods. Vaccination may be a substitute for other measures to control drug resistance. The model of public health as a public good could arguably justify mandatory vaccination and other government interventions.

To conclude Part 2, the concept of public goods helps define a distinct field of public health and, at the same time, to limit its domain. Before the late 19th century or early 20th century, such was, implicitly and broadly, how public health was conceived. The public good approach helps analyze difficult issues such as vaccination mandates or measures to control the spread of epidemics. However, the analysis also reveals that what looks like a public good is not always obviously so or is not a *pure* public good (according to the technical definition). This realization provides another argument for public policies of subsidization out of general taxes as opposed to direct coercion.

⁶⁹ Since 2017, the FDA “implemented a rule that bans farmers from using antimicrobial drugs that are medically important for humans to promote growth in livestock.” (Micah Maidenbert, “Stuart Levy Changed Science, Public Policy on Antibiotics,” *The Wall Street Journal*, September 27, 2019, <https://www.wsj.com/articles/stuart-levy-changed-science-public-policy-on-antibiotics-11569594601>.)

Before going further, it is important, for the clarity of the analysis, to distinguish two different activities: the production of public health as a public good on the one hand and, on the other hand, the alleviation of poverty. A public good is a good or service whose production is the interest of everybody. Alleviation of poverty is a government activity that helps some individuals procure the private goods they need to survive at a certain level. Whether and to which extent the alleviation of poverty is justified or desired is outside the scope of this paper.



A public good is a good or service whose production is the interest of everybody. Alleviation of poverty is a government activity that helps some individuals procure the private goods they need to survive at a certain level.



PART 3

PUBLIC HEALTH AS GOVERNMENT MEDICAL CARE

The idea that public health was once viewed in the way most of today's economists analyze public goods requires some qualifications. The term “public health” dates back only to the 17th century, the field started resembling a “fully articulated program” only in the late 18th century, and the term became current only in the 19th century.⁷⁰ Assigning the “public good” label, which comes from 20th-century economics, to activities of political rulers throughout the ages is anachronistic. Public health has seldom, if ever, been restricted solely to pure public goods. There has always been some mix of, and confusion between, public health and private health, and between public health and the alleviation of poverty. The old public health included some governmental provision of ordinary medical care for poor people. These concepts, however, remain useful for the analysis of society and public policy.

⁷⁰ Lindemann, *Medicine and Society in Early Modern Europe*, 193.

3.1 PRIVATE HEALTH AND PUBLIC HEALTH

From about the sixth century BC, Greek cities started hiring a town physician. The municipal doctor could accept fees, but his salary allowed him to treat the poor for free.⁷¹ From the second century AD, the Roman Empire also had public physicians who cared for poor citizens.⁷² Public infirmaries cared for slaves or even for citizens.⁷³ In the Middle Ages, the poor could receive medical care from physicians hired by the Church and from hospitals belonging to it or financed by rich philanthropists. Toward the end of the late Middle Ages, municipal doctors reappeared for a time, and many hospitals came under the jurisdiction of municipal authorities.⁷⁴ The Renaissance and Early Modern period (16th and 17th centuries) continued on the same path, with municipal governments and developing national states taking more responsibility for the medical care of the poor.⁷⁵ This movement accelerated after the start of more modern times in the 18th and 19th centuries, although there was still much private philanthropy in the 18th century.⁷⁶ As modern times progressed, public health was more and more understood as public health *care* and soon not only for the poor.



It is one thing for public authorities to offer medical care (and other services) to counter epidemics, an activity close to the production of public goods; it is a different thing for them to offer medical care in the form of private goods (drugs) or private services (doctors' services and hospital stays) as a matter of course.



It is one thing for public authorities to offer medical care (and other services) to counter epidemics, an activity close to the production of public goods; it is a different thing for them to offer medical care in the form of private goods (drugs) or private services (doctors' services and hospital stays) as a matter of course. It is true that, in times of epidemics or to

⁷¹ Rosen, *A History of Public Health*, 8.

⁷² Ibid. 15.

⁷³ Ibid. 16.

⁷⁴ Rosen, 34.

⁷⁵ Ibid. 36.

⁷⁶ Lindemann, *Medicine and Society in Early Modern Europe*, 208.

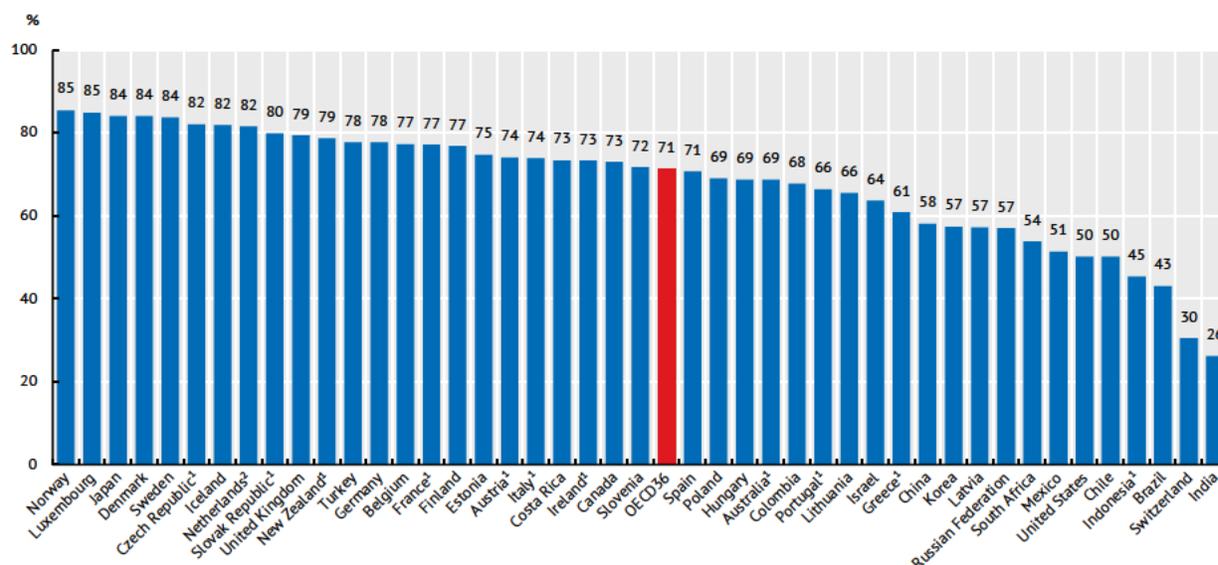
prevent them, the distinction is not so neat. The public good of combatting an epidemic may require encouraging infected individuals to be treated and treating them for free during the epidemic, perhaps even insuring some minimum medical services beforehand.

3.2

GOVERNMENT HEALTH EXPENDITURES TODAY

As can be seen in Figure 2, the proportion of health expenditures from public sources averages 71% of total health expenditures in OECD countries⁷⁷ and is about 50% in the United States.⁷⁸ Public expenditures on health are not only more important than private health expenditures in nearly all countries, and equally important in the United States, but they mostly finance the production of private health services, not of public health in the sense of public goods.

FIGURE 2: HEALTH EXPENDITURES FROM PUBLIC SOURCES AS A SHARE OF TOTAL HEALTH EXPENDITURES, 2017 (OR NEAREST YEAR)



1. Public expenditure is calculated using spending by government schemes and social health insurance.
2. Public expenditure is calculated using spending by government schemes, social health insurance and compulsory private insurance.

Source: OECD Health Statistics 2019.

⁷⁷ Excluded from the (unweighted) OECD average are the countries represented on the chart that are not OECD members: Brazil, China, Costa Rica, India, Indonesia, Russia, South Africa, and Colombia (the latter has since become a member).

⁷⁸ OECD, *Health at a Glance 2019: OECD Indicators* (OECD Publishing, 2019), 158-159.

One imperfect indication is that, in the average OECD country, only 3.2% (3.4% in the United States) of health expenditures financed by government or compulsory schemes goes to the “preventive care” function.⁷⁹ As defined by the OECD, the preventive care function includes many health activities related to the old public health such as immunization programs and epidemiological surveillance, but it also includes expenditures on private goods—for example, “detection of non-communicable diseases,” or “healthy condition monitoring.”⁸⁰ On the other hand, some public goods appear to be excluded—in diagnosis and possible hospital treatment of epidemic-infected individuals, for example. It appears that the proportion of public goods in total public health expenditures is small.

Another indication of the dominance of private goods and services in government health expenditures can be obtained from the U.S. Bureau of Economic Analysis’ Health Care Satellite Account.⁸¹ According to these data, only 4.5% of all government health expenditures in the U.S. is devoted to the category “infectious and parasitic diseases.”⁸² It can be argued that sanitation expenditures by local governments (water supply and sewage services), provided elsewhere by the BEA,⁸³ should be added. Adding these, we get an estimate of 7.8% for the proportion of government health expenditures going to the old public health function. It is very unlikely the proportion of regular public health expenditures going to public goods is higher than 10%. (This proportion will have increased temporarily during the COVID-19 pandemic.)

3.3

WHY THE DRIFT?

It is not as obvious as it appears at first sight why the state is interested in providing medical care to people over and above the scope of the public goods. Why shouldn’t governments offer nutrition care or shelter care? It is true that governments supply education services up to a certain level, but it can be argued that a minimally educated population is a public good in a democratic society. Some sophisticated arguments may suggest that markets for private health insurance show market failure, but these arguments

⁷⁹ OECD’s online dataset on health expenditures and financing.

⁸⁰ OECD, Eurostat, and WHO, *A System of Health Accounts 2011*, Revised Edition (OECD Publishing, 2011), 100-108, <https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-05-19-103>.

⁸¹ Abe Dunn, Lindsey Rittmueller, and Bryn Whitmire, *Introducing the New BEA Health Care Satellite Account*, BEA, January 2015, https://apps.bea.gov/scb/pdf/2015/01%20January/0115_bea_health_care_satellite_account.pdf.

⁸² Data are from the 2016 BEA’s Health Care Satellite Accounts database at <https://www.bea.gov/media/6611>.

⁸³ BEA, National Income and Product Accounts, online database, Table 2.5.5, line 25, for 2016.

don't necessarily imply that government should be responsible for all medical care. Similarly, as noted before, we must distinguish issues of health from the problem of poverty.



Some sophisticated arguments may suggest that markets for private health insurance show market failure, but these arguments don't necessarily imply that government should be responsible for all medical care. Similarly, as noted before, we must distinguish issues of health from the problem of poverty.



Confusion between the two sorts of health intervention—in public health and in private health care—may arise for a number of reasons. One historical reason lay in the medical ignorance about contagion that lasted until late in the 19th century. Contagious diseases could not be clearly distinguished from other diseases, and it was a natural shortcut to put all health care problems in the same bag. Moreover, it was not until the 20th century that economics distinguished between public goods and private goods.⁸⁴

The confusion was also fueled by the dire poverty at the bottom of the social scale and, during the 19th century Industrial Revolution, the difficult conditions of industrial workers.⁸⁵ Many social reformers agitated for government interventions in health care after observing these conditions, which were largely generated by the poverty that existed before the Industrial Revolution, although perhaps not as visibly.

Another factor that may have contributed to the drift is a confused conception of the “public” in “public health” not as a set of individuals but as a mythical “community as a whole.”⁸⁶ In this perspective, individuals may be legitimately coerced by the majority to serve the “community as a whole.” “The push to limit public health’s scope,” argue Gostin

⁸⁴ The distinction is not as neat in the contractarian theory of Nobel economist James Buchanan: see Pierre Lemieux, “Lessons and Challenges in The Limits of Liberty,” *Econlib*, November 5, 2018, <https://www.econlib.org/library/Columns/y2018/Lemieuxlimitsofliberty.html>.

⁸⁵ Rosen, *A History of Public Health*. Coleman et al., *Death is a Social Disease*.

⁸⁶ For example: “Tobacco control, alcohol moderation, healthy eating, and physical activity interventions are intended to benefit the community as a whole” (Gostin and Wiley, *Public Health Law*, 444). “The public health approach is scientific, emphasizes prevention, focuses on the community as a whole.” (David Hemingway, *Private Guns and Public Health* [University of Michigan Press, 2004], 224.

and Wiley, “is deeply counter-majoritarian and undemocratic, threatening to disable communities from undertaking measures to improve their own well-being.”⁸⁷ In practice, “public” means “governmental.” It may be possible to justify coercive public health measures like Epstein argues, but these must be justified by the welfare of all individuals in some meaningful sense.

Still another problem of government health care is that it can easily drift to an even more encompassing concept of public health, depending on how health is defined. This has already happened, as is discussed in Part 4.

⁸⁷ Gostin and Wiley, *Public Health Law*, 549.

PART 4

PUBLIC HEALTH AS TOTAL GOVERNMENT CARE

Consider the following argument. Health depends on the multiple circumstances of life: one's genes, one's income, the way one spends it, and everything else up to one's general happiness. Health depends on all the circumstances of life. It cannot be improved without improving all these circumstances. For example, low income affects health care, food, housing,⁸⁸ and mental health. Low income and other unfavorable circumstances can be traced to a lack of social justice, which is related to what every other individual in society does or does not do or should do or should not do. Therefore, public health interventions must target and encompass the whole life of individuals. This strand of argument is questionable but the corresponding model—public health as total government care—started rolling at the end of the 19th century.

4.1

THE HISTORY OF A DRIFT (CONTINUED)

Among the milestones in the drift of public health toward the idea of total government care, a legal principle going back to 19th-century America (some European influence is

⁸⁸ “Every person needs a healthy home, in a neighborhood that supports, not thwarts, them.” (Scott Burris et. al, *A Vision of Health Equity in Housing*, Temple University, Center for Public Health Law Research, November 2019, 6, http://phlr.org/sites/default/files/uploaded_images/HousingHealthEquityLaw-Report1-Nov2019-FINAL.pdf).

likely) claims that, in some matters (which have expanded with time), government is to the citizens or subjects what parents are to their children. The legal doctrine has a Latin name, *parens patriae*, which means “parent of the country” or, more exactly, “parent of the fatherland.” The theory is explained in Gostin and Wiley’s textbook of public health law:

From a constitutional perspective, there exist historic wellsprings of state authority to protect the common good: the police power to protect the public’s health, safety, and morals, and the parens patriae power to defend the interests of persons unable to secure their own interests. ...

In the United States, the parens patriae function belongs primarily to state and local governments. It is traditionally invoked in two contexts: to protect individuals who are unable to protect themselves because they are incapacitated, and to assert the state’s general interest and standing in communal health, comfort, and welfare, safeguarding collective interests that no individual, acting alone, has the capacity to vindicate. ...

The Supreme Court has recognized the states’ broader parens patriae capacity in the context of quarantine, sanitation, protecting the water supply, and preventing air and water pollution. In recent years, many state and city governments have acted in their parens patriae capacity in litigation against industries that produce and distribute harmful products.⁸⁹

Under the public-goods approach, citizens are considered adults, each of whom is capable of determining what is good for himself. Under the *parens patriae* approach, the state can overrule individual preferences. The federal government has occupied more and more of the *parens patriae* function, formerly reserved to the states.

Gostin and Wiley hail the 1905 Supreme Court decision in *Jacobson v. Massachusetts* as the “paradigm of judicial restraint in deference to the police power” and as “the most important judicial decision in public health.”⁹⁰ The Reverend Henning Jacobson was a Cambridge (Massachusetts) pastor who refused to be vaccinated after the Board of Health mandated the smallpox vaccination of all inhabitants of the city. Jacobson was prosecuted, found guilty, and condemned to pay a fine of five dollars (which would be equivalent to about \$43 today, assuming an annual rate of inflation of 1%). The case went up to the Supreme Court, which ruled against Jacobson with a 7-2 majority.

⁸⁹ Gostin and Wiley, *Public Health Law*, 87, 91, and 93.

⁹⁰ *Ibid.* 121.

An expansion of the definition and scope of public health would soon follow. In 1920, a famous public health expert and founder of the Yale University Department of Public Health, Charles-Edward Amory Winslow, defined public health as including

*...the organization of medical and nursing services for the early diagnosis and preventive treatment of diseases, and for the development of the social machinery to insure everyone a standard of living adequate for the maintenance of health, so organizing these benefits as to enable every citizen to realize his birthright of health and longevity.*⁹¹

Less than three decades later, the 1946 constitution of the World Health Organization (WHO) defined health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.”⁹²

“Public Health,” wrote George Rosen, “must care for society as a whole by considering the general and physical conditions that may adversely affect health, such as soil, industry, food, and housing.”⁹³ According to the Institute of Medicine’s 1988 characterization, the mission of public health consists in “fulfilling society’s interest in assuring conditions in which people can be healthy.”⁹⁴

To fit their broad definition of health, public health theorists also adopted a new concept of epidemics, liberated from contagious diseases. An epidemic became simply “a disease or condition with rapid spread, growth, or development that simultaneously affects many individuals in a community or a population.”⁹⁵ We hear about the “alcohol epidemic,” the “tobacco epidemic,” the “vaping epidemic,” the “obesity epidemic” or “fat epidemic,” among

⁹¹ Quoted by Turnock, *Public Health* (6th edition), 12.

⁹² Constitution of the World Health Organization, https://www.who.int/governance/eb/who_constitution_en.pdf. See also WHO, Dr. Brock Chisholm, Director-General, <https://www.who.int/dg/chisholm/chisholm/en/>. Dr. Chisholm, a psychiatrist, was one of the founders and the first Director-General of the WHO. Friedrich Hayek, a Nobel economics prizewinner, wrote (alas without a citation): “Chisholm advocated no less than ‘the eradication of the concept of right and wrong’ and maintained that it was the task of the psychiatrist to free the human race from ‘the crippling burden of good and evil’—advice which at the time received praise from high American legal authority.” (F.A. Hayek, *The Fatal Conceit: The Errors of Socialism* [University of Chicago Press, 1988], 58)

⁹³ Rosen, *A History of Public Health*, 145.

⁹⁴ Turnock, *Public Health* (6th edition), 11.

⁹⁵ A. Morrill and Christopher D. Chinn, “The Obesity Epidemic in the United States,” *Journal of Public Health Policy* 25 (2004), 353 (353-366), <https://link.springer.com/article/10.1057%2Fpalgrave.jphp.3190035#article-info>.

others.⁹⁶ It sometimes seems that everything that the new public health establishment considers the consequence of some activity it does not like, or of some individual decision it does not approve, is labeled an epidemic.



It sometimes seems that everything that the new public health establishment considers the consequence of some activity it does not like, or of some individual decision it does not approve, is labeled an epidemic.



Ideas and institutions have their logic and often lead to consequences that were not part of their promoters' intentions. Who would have thought that the principle of mandatory vaccination recognized by U.S. courts in the early 20th century would lead to the Supreme Court's 1927 justification of the forced sterilization of a "feeble-minded woman" named Carrie Buck? "The principle that sustains compulsory vaccination," Justice Oliver Wendell Holmes famously wrote in the court's majority decision, "is broad enough to cover cutting the Fallopian tubes."⁹⁷

As paradoxical as it may seem, eugenics can be considered one of the harder versions of the total government care model. Governments claimed the right to preserve the nation's genetic stock through the forcible sterilization of individuals deemed physically or mentally defective or "socially inadequate." In the name of eugenics, compulsory sterilization was practiced in about 30 states, starting with Indiana in 1907. The practice claimed about

⁹⁶ A few examples: "Most affected by the rising alcohol epidemic are young women," from Kelly Wynne, "Alcohol Is Killing More People per Year than the Opioid Crisis, and Most Deaths Are Young Women," *Newsweek*, November 17, 2018, <https://www.newsweek.com/alcohol-killing-more-people-year-opioid-crisis-and-most-deaths-are-young-1220622>. See also: WHO, *WHO Report on the Global Tobacco Epidemic 2019*, https://www.who.int/tobacco/global_report/en/; FDA, Statement on the Agency's Actions to Tackle the Epidemic of Youth Vaping and Court Ruling on Application Submission Deadlines for Certain Tobacco Products, Including E-Cigarettes, <https://www.fda.gov/news-events/press-announcements/statement-agencys-actions-tackle-epidemic-youth-vaping-and-court-ruling-application-submission>; Morrill and Chinn, "The Obesity Epidemic in the United States."

⁹⁷ Quoted in Willrich, "The Least Vaccinated of Any Civilized Country," 90.

65,000 victims, half of them before 1940.⁹⁸ It is sobering to learn that sterilizations continued to be performed until 1980, and that the last repeal of a sterilization statute occurred as late as 2008 in Mississippi.⁹⁹ Changing public opinion finally put a stop to eugenics but the public health principles and accompanying government power that justified it remain, so that we can still fear that they will be abused.¹⁰⁰

Lombardo, a professor in the College of Law of Georgia State University, reviewed the connections between the eugenics and the public health movements.¹⁰¹ The “eugenic marriage laws,” which restricted marriage with individuals deemed unhealthy or morally defective, as well as interracial marriages, were widely supported in the public health community. Dr. Rupert Blue, the surgeon general from 1912 to 1920, was a eugenicist who supported compulsory sterilization. FDA (Food and Drug Administration) founder Harvey Wiley was also a eugenicist. Many officials of the American Public Health Association were too. Historian Martin Pernick wrote:

*Eugenics was not an isolated movement whose significance is confined to the histories of genetics and pseudo science. It is an important and cautionary part of past public health and of general medical history as well.*¹⁰²

4.2

A NON-SCIENTIFIC CONCEPTION OF SOCIETY

One factor in the drift of public health toward total government care has been a non-scientific conception of society. Its theorists and activists tend to forget that society is made of individuals. They imagine that the patient to be treated is “society as a whole.” They also seem to believe that society acts like an individual: Turnock explains that the

⁹⁸ Paul A. Lombardo, *Three Generations, No Imbeciles: Eugenics, the Supreme Court, and Buck v. Bell* (John Hopkins University Press, 2008), 293-294. Thomas Leonard, *Illiberal Reformers: Race, Eugenics & American Economics in the Progressive Era* (Princeton University Press, 2016), 110 and 117.

⁹⁹ Lombardo, *Three Generations, No Imbeciles*, 249, 263, 270, 294, and here and there.

¹⁰⁰ Allegations have been recently made that some migrant women were sterilized without their informed consent while in custody of Immigration and Customs Enforcement (ICE). See American Civil Liberties Union, “Reproductive Abuse is Rampant in the Immigration Detention System,” <https://www.aclu.org/news/immigrants-rights/reproductive-abuse-is-rampant-in-the-immigration-detention-system/>.

¹⁰¹ Paul Lombardo, “Eugenics and Public Health: Historical Connections and Ethical Implications,” in Anna C. Mastroianni, Jeffrey P. Kahn, and Nancy E. Kass, Editors, *The Oxford Handbook of Public Health Ethics*, 2019, 3 (1-12), <https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780190245191.001.0001/oxfordhb-9780190245191-e-56>.

¹⁰² Martin S. Pernick, “Public Health Then and Now: Eugenics and Public Health in American History,” *American Journal of Public Health* 37:11 (November 1997), 1770 (1767-1772).

results of public health “reflect the decisions and actions that a society makes.”¹⁰³ This view is not only metaphorical: it sees society as some sort of reality independent from the individuals who compose it.



One factor in the drift of public health toward total government care has been a non-scientific conception of society. Its theorists and activists tend to forget that society is made of individuals.



One common way to justify this view of society has been, in the history of political thought, to see it as a biological organism, a sort of super-individual. One eugenic argument in the early 20th century was that, for the good of the social organism, the defectives should not be prevented from dying. Eugenicist Leon Cole wrote that “[d]eath is the normal process of elimination in the social organism,” adding that “in prolonging the lives of defectives we are tampering with the function of the social kidneys.”¹⁰⁴ As Lombardo puts it, “[t]he goal of public health and eugenics was population health, or the common good rather than the welfare of any individual.”¹⁰⁵

In reality, society is not a biological organism, and there is no heuristic advantage of conceiving it that way (although there might be political advantages). Nobel economist Friedrich Hayek emphasized this important point in his general criticism of “scientism,” which includes the attempts to conceive of society as a biological organism. Society does not think or act except metaphorically, but the metaphor is dangerous for it easily leads to analytical and political errors.¹⁰⁶

A related confusion is the assumption that there is a clear scientific meaning to “the welfare of the country as a whole” or of “society as a whole” or of the “community as a

¹⁰³ Turnock, *Public Health*, 6th edition, 19.

¹⁰⁴ Quoted in Lombardo, “Eugenics and Public Health,” 3-4.

¹⁰⁵ Lombardo, “Eugenics and Public Health,” 4.

¹⁰⁶ F.A. Hayek, *Law, Legislation and Liberty*, Vol. 1: *Rules and Order* (University of Chicago, 1979), 52-53 and passim. *The Counter-Revolution of Science: Studies in the Abuse of Reason* (Liberty Press, 1979 [1952]), especially Part 1.

whole.”¹⁰⁷ Because society is not an independent organism and because preferences and values vary among its constituting individuals, the only unambiguous meaning of the welfare of society is the welfare of *all* its individual members. The correspondence between “the welfare of the country as a whole” and the welfare of its constituting individuals is only obvious for public goods, which, by definition, benefit everybody. Only in the case of unanimity is the problem of aggregating individual preferences trivial, but public health discussions typically ignore the large scientific literature on this topic.¹⁰⁸

A related confusion relates to the nature of the public interest, which needs to be a *common* interest, that is, an interest shared by *all* individuals in society, in order to overcome the problems mentioned above. A public good represents such a common interest. Outside of public goods, the “public interest” is difficult to ascertain because the interests of different members of society are different. Public health’s mere assumption that the “public interest” exists and is objective and unambiguously ascertainable provides a powerful justification for an expansive concept of public health, but it has no scientific basis.



Outside of public goods, the “public interest” is difficult to ascertain because the interests of different members of society are different. Public health’s mere assumption that the “public interest” exists and is objective and unambiguously ascertainable provides a powerful justification for an expansive concept of public health, but it has no scientific basis.



¹⁰⁷ Rosen, “A History of Public Health,” 59, 127, 225, and here and there.

¹⁰⁸ For an introduction to welfare economics (admittedly weak on public goods, though), see Pierre Lemieux, “Social Welfare, State Intervention, and Value Judgments,” *The Independent Review* 11:1 (Summer 2006), 19-36. On the impossibility of aggregating individual preferences to obtain a “social welfare function,” a seminal text is Kenneth J. Arrow, *Social Choice and Individual Values*, 2nd edition (Yale University Press, 1963 [1951]); see also William H. Riker, *Liberalism Against Populism: A Confrontation Between the Theory of Democracy and the Theory of Social Choice* (Waveland Press, 1982).

Otherwise, as Richard Epstein argues, anything can become “affected by the public interest” (to use a hundred-year-old jurisprudential expression), which implies that everything can be subject to government regulation.¹⁰⁹ You will always find somebody whose interest would be favorably affected by a given public policy and who will call it “the public interest.” The alternative is to view the public interest as a *common* interest and to aim for public policies that represent it (or come as close to it as is ascertainable).

Otherwise, everything is fair game for public health intervention. Turnock defines public health as the “[a]ctivities that society undertakes to ensure the conditions in which people can be healthy.” He adds that they “include organized community efforts to prevent, identify, and counter threats to the health of the public.”¹¹⁰ This definition is not atypical but not very useful. Defining “public health” in terms of “the health of the public” is a circular definition. “Organized community efforts” must mean either government activities or the activities of voluntary organizations, and it would be useful to distinguish the two, as well as to explain what it means that “society” undertakes something.

4.3

PUBLIC HEALTH AS SOCIAL JUSTICE

Some philosophical justifications must ultimately be found to justify coercion against individuals. This is not an easy task. A typical justification used by theorists of the new public health and the movement’ activists lies in the idea of “social justice.” “Social justice is the foundation of public health,” Turnock writes.¹¹¹ Gostin and Wiley express a similar idea:

*The idea of social justice is a core value of public health and is foundational of public health law. We define social justice as a communitarian approach to ensuring the essential conditions for human well-being, including redistribution of social and economic goods ... Like public health practice, social justice is, by its nature, politically charged.*¹¹²

This opinion brings the political movement of public health in sharp focus. Any government intervention that is not justified by the production of some public good must choose which

¹⁰⁹ Epstein, “Let the Shoemaker Stick to His Last, S142.

¹¹⁰ Turnock, *Public Health*, 6th edition, 430.

¹¹¹ *Ibid.* 19.

¹¹² Gostin and Wiley, *Public Health Law*, 534 and 535.

citizens to favor and which ones to harm, that is, to discriminate against. The ones who are on the receiving side of the redistributed benefits tend to call it “social justice”; the ones who are on the coerced side typically experience it as unjust—and try to get equal by grabbing some compensating benefits from somebody else through the state.¹¹³ It is true that we can try to find a non-contentious philosophical definition of social justice: philosophers have been at it for a few millennia and still disagree.¹¹⁴ If individuals have different conceptions of social justice, which one will the state impose? No wonder that social justice is political and divisive. This paper does not argue that politics has no role to play at all, that public assistance to the poor is indefensible, or that a democratic state is not useful. But it does emphasize that the public health movement defends a very specific political and moral philosophy that is especially divisive.



This paper does not argue that politics has no role to play at all, that public assistance to the poor is indefensible, or that a democratic state is not useful. But it does emphasize that the public health movement defends a very specific political and moral philosophy that is especially divisive.



Examples of what some other well-known public health theorists think may further illustrate that point. Professor Gerard Hastings of the University of Stirling writes that “lethal though tobacco is, the harm done to public health by our economic system is far

¹¹³ On this approach, see the work of philosopher and economist Anthony de Jasay. His classic work is *The State* (Liberty Fund, 1998 [1985]).

¹¹⁴ For an overview of the problems involved, see Anthony de Jasay, *Social Justice and the Indian Rope Trick* (Liberty Fund, [2015]); James M. Buchanan, *The Limits of Liberty: Between Anarchy and Leviathan*; Pierre Lemieux, “An Unavoidable Theory of the State,” *Library of Economics and Liberty*, June 4, 2018, <https://www.econlib.org/library/Columns/y2018/Lemieuxstate.html>; Pierre Lemieux “Lessons and Challenges in *The Limits of Liberty*,” *Econlib*, November 5, 2018, <https://www.econlib.org/library/Columns/y2018/Lemieuxlimitsofliberty.html>; and Robert Nozick, *Anarchy, State, and Utopia* (Basic Books, 1974). Those with more conservative leanings may be interested in F.A. Hayek, *Law, Legislation and Liberty*, Vol. 2: *The Mirage of Social Justice* (University of Chicago Press, 1976). See also Plato’s conception of the philosopher-king in Karl R. Popper, *The Open Society and Its Enemies*, Vol. 1: *The Spell of Plato* (Princeton University Press, 1966 [1962]).

greater.” Marketing, he claims, “undermines our mental as well as our physical well-being” and, when done by multinationals, presents “a major threat to public health.”¹¹⁵

Describing the possible synergies between the “anticorporate movement,” and the public health movement, Professor William H. Wiist of Oregon State University argues for “[focusing] on the corporation as a societal structural factor in disease,” and, referring to Ilona Kickbusch, for “radical models and strategies that prevent health from being subjected to the market.”¹¹⁶ “The field of public health,” Wiist writes, “needs to address the corporate entity as a distal, structural societal factor that causes disease and injury.”¹¹⁷ Of concern to public health are “inequities in health, income inequality, economic growth and instability, social relationships, the built environment, and trade regulations,” as well as “race/ethnicity, gender, age, socioeconomic status, and disability that are often manifest in a corporate setting.”¹¹⁸ He mentions “public goods,” citing Kickbusch,¹¹⁹ but neither one defines the term (and both clearly ignore the economic usage).

Dr. Kickbusch herself, a former professor and now international public health consultant, proposes “a global Bismarckian type of health insurance.” She seems to conceive of “social public goods” as what she thinks everybody *should* want, instead of the economic definition where public goods are defined by what individuals would *actually* choose.¹²⁰

In her book *The New Public Health*, Australian academic Fran Baum defines one of the “critical perspectives” of public health:

One such perspective on health that has been particularly influential is that which maintains that health is defined in such a way by dominant forces in a capitalist society that it becomes a defining and controlling mechanism. Writers adopting this perspective

¹¹⁵ Gerard Hastings, “Why Corporate Power Is a Public Health Priority,” *BMJ*, August 21, 2012, <https://www.bmj.com/content/345/bmj.e5124>.

¹¹⁶ William H. Wiist, “Public Health and the Anticorporate Movement: Rationale and Recommendations,” *American Journal of Public Health* 96:8 (August 2006), 1374 and 1370 (1370-1375), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1522093/>.

¹¹⁷ *Ibid.* 1372.

¹¹⁸ *Ibid.* 1370-1371.

¹¹⁹ Wiist, “Public Health and the Anticorporate Movement,” 1374-1375.

¹²⁰ Ilona Kickbusch, “From Charity to Rights: Proposal for Five Action Areas of Global Health,” *Journal of Epidemiological Community Health* 58 (2004), 630-631.

*use a Marxist analytical framework ... Central to this view is the idea that capitalist societies are structured in such a way that they produce illness.*¹²¹

These examples do not represent the opinion of all public health experts, although they seem not too far from the mainstream. Peter Jacobson of the University of Michigan School of Public Health observes that “most public health law/policy scholars would identify as being on the political left.”¹²² Elizabeth Fee wrote of the famous George Rosen, with whom she was broadly in agreement, that “[a]t different times in his life, Rosen might have characterized himself as a democratic socialist or a left liberal.”¹²³

With its wide definition, ideology, and scope, public health is as much as, or more of, a political movement than a field of scientific inquiry. Elizabeth Fee agrees with “the idea that public health is not just a set of disciplines, information, and techniques but is, above all, a shared social vision.”¹²⁴ This shared social vision is not founded on the respect of the preferences of all individuals and an attempt to find social institutions that can best reconcile them, but on the idea that some experts, or perhaps a democratic majority that agrees with them, should impose their values and trade-offs on other individuals in society. The progress of public health appears closely tied to the collectivist ideologies that developed in the 19th century. At the beginning of the 20th century, medical educator Harvey Jordan of the University of Virginia predicted that in light of eugenics and “the general change from individualism to collectivism,” medicine would be transformed into public health, and that physicians would upgrade from “doctors of private diseases” to “guardian of the public health.”¹²⁵

The public health movement’s ideology is not consistent with economic efficiency and prosperity.

¹²¹ Fran Baum, *The New Public Health*, 3rd Edition (Oxford University Press, 2008), 10.

¹²² Peter D. Jacobson, “Changing the Culture of Health: One Public Health Misstep at a Time,” *Social Science and Modern Society* 51:3 (May/June 2014), 224 (221-228).

¹²³ Elizabeth Fee, “Public Health, Past and Present: A Shared Social Vision,” introduction to George Rosen, *A History of Public Health*, lx.

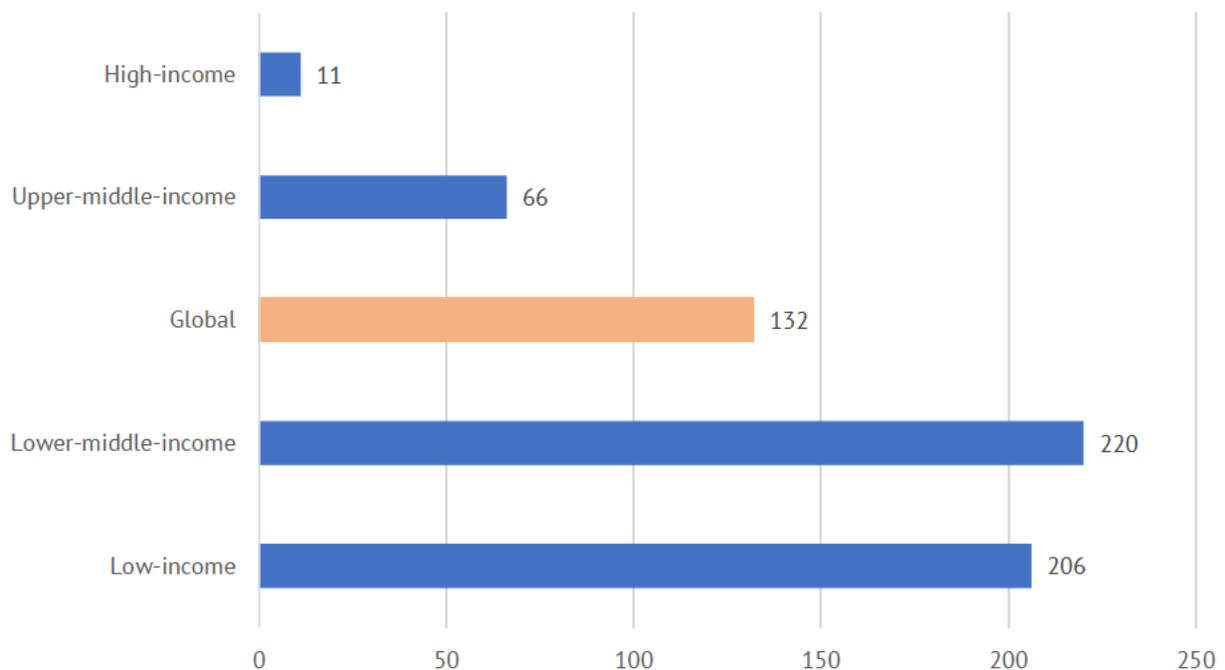
¹²⁴ Fee, “Public Health, Past and Present,” xxxiii.

¹²⁵ Quoted in Paul Lombardo, “Eugenics and Public Health.”

The public health movement's ideology is not consistent with economic efficiency and prosperity. Economic theory suggests and historical evidence confirms that a large measure of economic freedom is necessary to prosperity. And prosperity is generally a condition for a good level of health in the population.

In general, the higher the income per capita, the better the state of public health in both the sense of a public good and in the (confusing) sense of the health of the public. Figure 3 illustrates this with the incidence of tuberculosis per 100,000 population per year according to average income in the world. Despite more uncertainty in the estimates for low-income and lower-middle-income countries, it is quite clear that the incidence of tuberculosis generally diminishes with the level of income, from 11 per 100,000 in high-income countries to more than 200 in low-income ones. It appears that general poverty is the worst enemy of health. Economic growth solves many issues of public health and should be a major concern. George Rosen understood that point: "Economic development," he wrote, "is the crucial element if living standards are to be raised and health conditions improved."¹²⁶

FIGURE 3: ANNUAL INCIDENCE OF TUBERCULOSIS PER 100,000 POPULATION BY WORLD BANK INCOME GROUPS, 2018



Source: WHO, Global Health Observatory data repository, <http://apps.who.int/gho/data/view.main.57038ALL?lang=en>.

¹²⁶ Rosen, *A History of Public Health*, 283.

When a pandemic hits, economic freedom is presumably important to attenuate the economic shock: a flexible economy will suffer less damage than one in which the reallocation of resources is impeded and takes more time. In practice, this means that, with more economic freedom, GDP would drop less and the recovery would be more rapid. A recent econometric study by Vincent Geloso and Jamie Bologna Pavlik shows that this is precisely what happened during and after the 1918 influenza (“Spanish flu”) pandemic. They summarize their results:

Countries with higher levels of economic freedom suffered substantially less from the pandemic ... [H]igher levels of economic freedom mitigate the effect of the crisis. In terms of magnitude, an extra point of economic liberty [on a scale of 10] offsets roughly 16% of the [economic] effect of an extra flu death per 100,000 persons.¹²⁷

This 1918 pandemic, which infected one-third of the total world population and caused 50 million deaths, was much worse than COVID-19 (at least as of July 2020). But if the experience of the 1918 pandemic is of any use, more economic freedom would have mitigated the current pandemic, all else equal. This suggests that the government controls (including price controls) that came with the declarations of emergencies of many states and the federal government, not to speak of the forcible closings of businesses, could have worsened the drop of GDP and dampened the recovery.¹²⁸

To the extent that “social justice” is opposed to economic freedom and market efficiency, it contributes to worsen the economic consequences of pandemics.

4.4

GOVERNMENT FAILURES AND PUBLIC HEALTH IN THE REAL WORLD

Good intentions and political slogans are not sufficient for devising and implementing public policies consistent with everybody’s interests. Practical and realistic proposals require a non-romantic understanding of how governments work, as Nobel Prize winner

¹²⁷ Vincent Geloso and Jamie Bologna Pavlik, “Economic Freedom and the Economic Consequences of the 1918 Pandemic” (SSRN, May 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3608178. An expanded version of the article is forthcoming in *Contemporary Economic Policy*. The authors added a variable to measure democracy and the result shows that it is economic freedom by itself more than democracy that mitigated the economic impact of the pandemic.

¹²⁸ The importance of economic freedom is emphasized in Darcy W.E. Allen et al., *Unfreeze: How to Create a High Growth Economy After the Pandemic* (American Institute for Economic Research, 2020).

James Buchanan argued.¹²⁹ This requirement is as valid in the field of public health as in other areas, and assumes more importance in a time of crisis and fear. In other words, it is important to analyze public health in the real world.



Good intentions and political slogans are not sufficient for devising and implementing public policies consistent with everybody's interests.



In the second part of the 20th century, economists developed new tools of analysis to understand how public choices are made by democratic governments. This “public choice” school of economic analysis starts from the reasonable assumption that, in general, individuals have the same self-interested motivations whether they operate in the private economy or in the public sector. To paraphrase James Madison,¹³⁰ government is not run by angels, which should be pretty obvious to anybody observing actual governments. The activist thinks that his own ideal government would be different but, as history confirms, governments are everywhere subject to similar inefficiencies and prone to similar dangers.

The main conclusions of public choice economics can be briefly summarized in five propositions:¹³¹

- (1) The individual voter, whose single vote is highly unlikely to change the result of an election or referendum, is motivated to remain “rationally ignorant” of politics, that is,

¹²⁹ James M. Buchanan, “Politics Without Romance,” *Policy* 19:3 (Spring 2013), 13-18.

¹³⁰ In Federalist # 51: “If angels were to govern men, neither external nor internal controls on government would be necessary.” (See <https://www.constitution.org/fed/federa51.htm>.)

¹³¹ For a summary of public choice analysis, see Dennis C. Mueller, *Public Choice III* (Cambridge University Press, 2003). Many of the foundational academic articles are collected in Dennis C. Mueller, Editor, *Perspective on Public Choice* (Cambridge University Press, 1997). See also, from Buchanan, “Politics Without Romance”; and his Nobel Prize Lecture, “The Constitution of Economic Policy,” [nobelprize.org](https://www.nobelprize.org), <https://www.nobelprize.org/prizes/economic-sciences/1986/buchanan/lecture/>. His book *What Should Economists Do?* (Liberty Fund, 1979) collects many of his methodological articles and reflections on Public Choice.

to spend little time and other resources on gathering information. Thus, he typically votes blind.¹³²

- (2) The politician's incentives are to promise more than he knows he can achieve and to support special interests that can be useful to him—instead of supporting his electors' interests, which are not homogeneous anyway.
- (3) Because of their concentrated interests as opposed to the diffuse interests of voters and consumers, interest groups gain a dominant influence on public policy.¹³³
- (4) The government bureaucrat is not a pure selfless being; he cares first about his own interests. Higher-level bureaucrats—those who wield some influence on public policy—are motivated to protect their turf and to expand the size of their bureaus (mission creep) so as to increase their opportunities, salaries, career prospects, and perks.¹³⁴
- (5) For all these reasons, “government failures” are at least as prevalent as “market failures.” Government interventions to correct market failures will not have net benefits if government failures are worse than market failures.¹³⁵

It is one thing to imagine a great public health policy; it is another thing for government (politicians and bureaucrats) to implement it. One result is the constant dissatisfaction with government interventions, each new contender to power claiming he can do better but failing in his grand nirvana schemes just like previous governments did. Public health policies do not escape these problems. In particular, it should not be expected that public health experts, who generally work in government bureaucracies or in government-subsidized institutions, will all be Mother Teresas. And even if they were, they would still have the problem of devising schemes that can work in the real world of individuals as they

¹³² Geoffrey Brennan and Loren Lomasky, *Democracy and Decision: The Pure Theory of Electoral Preferences* (Cambridge University Press, 1993). Bryan Caplan, *The Myth of the Rational Voter: Why Democracies Choose Bad Policies* (Princeton University Press, 2007).

¹³³ Mancur J. Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Harvard University Press, 1966).

¹³⁴ On the modern theory of bureaucracy see, as a summary of a voluminous literature, Ronald C. Wintrobe, “Modern Bureaucratic Theory,” in Dennis C. Mueller, *Perspectives on Public Choice: A Handbook* (Cambridge University Press, 1997), 429-454; and, in the same volume, Terry M. Moe, “The Positive Theory of Public Bureaucracy,” 455-479.

¹³⁵ See also Gordon Tullock, Arthur Seldon, and Gordon L. Brady, *Government Failure: A Primer in Public Choice* (Cato Institute, 2002).

are. Moreover, policymakers and experts are subject to the same cognitive limitations and biases as ordinary individuals are.¹³⁶

When one scheme does not work or works too well, public health experts propose a new one, usually extending the scope of the public health enterprise. The self-interest of public health bureaucrats and campaigners is apparent in the reorientation of their attacks from smoking to vaping, even if it leads to more smoking, for there is more funding to be obtained for a new cause and a new war.¹³⁷

Given all the possible sources of government failures, it is not surprising that the response to COVID-19 by U.S. governments was largely a failure. In many respects, it was also a big failure in other countries. Despite previous dry runs with SARS (technically SARS-CoV-1) in 2002-2003, H1N1 in 2009-2010, and MERS (MERS-CoV) in 2012-2014, most governments were caught unprepared. Moreover, most of them were financially unprepared as they had continued to run budget deficits after a decade of economic expansion. In that regard, the case of the U.S. government is especially striking: at the end of 2019, the federal government had increased its deficit (including under President Trump) to close to one trillion dollars.¹³⁸ The economic effects of the pandemic and the supplementary expenses will probably triple the already unsustainable deficit.



Among the failures, many governments (and especially U.S. governments) were slow to recommend face coverings to the general public, even arguing that they were not useful. Interestingly, though, the requirement to wear face masks for government employees in contact with the public came rapidly.



¹³⁶ Jessica Flanigan, “The Perils of Public Health Regulation,” *Society* 51 (2014), 229-236.

¹³⁷ Michelle Minton, *Fear Profiteers: How E-Cigarette Panic Benefit Health Activists*, Competitive Enterprise Institute, December 2018, https://cei.org/sites/default/files/Michelle_Minton_-_Fear_Profiteers.pdf. See also Guy Bentley, *A Question of Taste: The Public Health Case for E-Cigarette Flavors*, Reason Foundation, November, 2018, <https://reason.org/wp-content/uploads/public-health-case-e-cigarette-flavors.pdf>.

¹³⁸ Pierre Lemieux, “The ‘Trump Economy’: Three Years of Volatile Continuity,” *Regulation* 43:2 (Summer 2020), 36-44, <https://www.cato.org/regulation/summer-2020/trump-economy-three-years-volatile-continuity>.

Among the failures, many governments (and especially U.S. governments) were slow to recommend face coverings to the general public, even arguing that they were not useful. Interestingly, though, the requirement to wear face masks for government employees in contact with the public came rapidly. On May 7, 2020, for example, the Transport Security Administration announced it would require its screeners to wear masks,¹³⁹ presumably, as the TSA says in an updated guidance, “to protect our workforce.”¹⁴⁰

There was early evidence that face masks were useful to prevent infection and contain the pandemic. An article in *The Lancet* suggested that “wearing face masks protects people (both health care workers and the general public) against infection.” The use of face masks was protective for both healthcare workers and people in the community exposed to infection.¹⁴¹ “Wearing of face masks in public,” an article in the *Proceedings of the National Academy of Sciences* concluded, “corresponds to the most effective means to prevent interhuman transmission.”¹⁴² It appeared that face coverings help prevent *both* wearers from being contaminated and infected persons from shedding droplets or aerosols.

At the beginning of the pandemic, honest disagreements were possible on the relative efficacy of different mitigation measures. Yet, anybody could see that masks were widely used in Asia, where the pandemic was brought under control faster. Moreover, part of the evidence reviewed by Chu et al.¹⁴³ on the mitigation of SARS and MERS was available. In the United States, political factors against recommending mask wearing played a role as many politicians—led by the president of the United States—minimized the danger of the pandemic. No doubt that politicians of the other main political party were also playing politics with the epidemic, but this very polarization, which responded to politicians’ incentives, did not help individual citizens make rational or prudent choices. More

¹³⁹ Ted Hesson and David Shepardson, “TSA to Require Employees to Wear Masks at U.S. Airport Checkpoints,” Reuters, May 7, 2020, <https://www.reuters.com/article/us-health-coronavirus-usa-airports/tsa-to-require-employees-to-wear-masks-at-u-s-airport-checkpoints-idUSKBN22J1T3>.

¹⁴⁰ TSA, Coronavirus (COVID-19) information,” updated July 24, 2020, <https://www.tsa.gov/coronavirus>.

¹⁴¹ Derek Chu et al., “Physical Distancing, Face Masks, and Eye Protection to Prevent Person-To-Person Transmission of SARS-CoV-2 and COVID-19: A Systematic Review and Meta-Analysis,” *The Lancet* 395 (10242) (June 27, 2020), 1982 and 1983 (1973-1987), [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31142-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext).

¹⁴² Renyi Zhang, “Identifying Airborne Transmission as the Dominant Route for the Spread of COVID-19,” *Proceedings of the National Academy of Sciences* 117:26 (June 30, 2020), 14857 (14857-14863), https://www.pnas.org/content/117/26/14857?fbclid=IwAR0QJCK7z2xUCEYZFrIvPULvV-dXlyMxzHYQFHySecpp7h_zGBcQkpvbqE.

¹⁴³ Derek Chu et al., “Physical Distancing, Face Masks, and Eye Protection to Prevent Person-To-Person Transmission of SARS-CoV-2 and COVID-19: A Systematic Review and Meta-Analysis.”

generally, inconsistencies and frequent changes in the advice of different bureaucracies and politicians about proper responses to the epidemic responses further confused the public.

Many public health spokesmen, after saying for several months that masks were not useful for the general public, then started arguing that they should be compulsory. The ideological content of the public health movement is visible there: a priori, they believe the issue is a matter of collective choice, that is, of imposing a politically determined opinion and behavior on those who don't agree, instead of leaving it to individual choices. There is no recognition of the existence of two distinct facets of human activity: it is one thing for science to determine (at least provisionally) what are the health consequences of different actions; it is another thing to impose one course of action on those individuals who would make different trade-offs. In the perspective of this paper, truth is a matter of scientific inquiry; choice is a matter of individual preferences (with some exceptions).

This general principal seems to also apply to wearing masks, even if the cost of a mandate in that area may seem low for most individuals. As will be seen in Part 5 of this paper, individuals and businesses have incentives to protect themselves and their customers from contagion, to the extent of course that the benefit is worth the cost for the actor. Many individuals voluntarily reduced their exposure to crowds and groups, including in commercial or work venues. Some individuals also started wearing masks in public, and some businesses imposed them to their employees or customers, even before governments did so on a larger and non-voluntary scale. Voluntary adaptations, even by employers and employees, is always less coercive than government-forced adaptations, if only because it is easier to change jobs than to move to other jurisdictions. Private mask mandates on private property should be a choice; affected individuals can respond and apply pressure as they see fit. Mask mandates in government buildings could arguably follow a similar logic. The issue is whether the adaptations should be decentralized and voluntary or be imposed by governments. The main point here is that the new public health would consider this matter as automatically falling under collective choices. That it took so long for American governments, and especially the federal government, to simply *recommend* mask wearing illustrates the problem of collective choices in the real world.

The long-lasting failure of governments to recommend the wearing of masks by the general public was also due to the authorities' fear of worsening the shortage of masks facing health workers and other government workers (like police or TSA agents). This shortage (technically defined as a waiting line at a capped price) was itself caused by price

controls in the majority of states (because of the so-called “price gouging” laws) and later by federal price controls under the Defense Production Act. A price cap creates a shortage because it increases quantity demanded and decreases quantity supplied, compared to what they would have been if consumers had been allowed to bid up prices.



With the help of private laboratories and other private producers, it took weeks for testing capacity to start increasing, by which time the virus had spread in the American population.



The self-interest of bureaucrats arguably explains the early monopolization of testing by the Centers for Disease Control and Prevention (CDC), whose own test kits ended up being unusable. Some stifling regulations on private testing were suspended by the FDA after the problem was publicized in press reports. With the help of private laboratories and other private producers, it took weeks for testing capacity to start increasing, by which time the virus had spread in the American population.¹⁴⁴ The poor contact tracing of infected persons, which experts say is an important control measure, is another aspect of that government failure.

The CDC and the FDA illustrate the mission creep that public choice theory explains, given the self-interest of bureaucrats. Michelle Minton of the Competitive Enterprise Institute points out that the CDC, created in 1946 as the Communicable Disease Center, has expanded its mission to deal mainly with non-communicable and “lifestyle” diseases (heart disease, cancer, diabetes, alcohol, tobacco, traffic accidents, sport injuries, domestic violence, and gun control). “As it expanded its mission and diverted resources from infectious disease control toward controlling all manner of behaviors and factors related to

¹⁴⁴ For example, see Thomas M. Burton, “FDA to Allow Private Companies to Market Coronavirus Test Kits Without Prior Approval,” *The Wall Street Journal*, March 16, 2020, <https://www.wsj.com/articles/fda-to-allow-private-companies-to-market-coronavirus-test-kits-without-prior-approval-11584407046?fbclid=IwAR157yftAe%E2%80%A6>. Christopher Weaver, Betsy McKay, and Brianna Abbott, “How Washington Failed to Build a Robust Coronavirus Testing System,” *The Wall Street Journal*, March 18, 2020, https://www.wsj.com/articles/how-washington-failed-to-build-a-robust-coronavirus-testing-system-11584552147?mod=hp_lead_pos5.

chronic health,” writes Minton, “it undermined its own ability to effectively address its original core mission.”¹⁴⁵



The overreaching scope and consequent inefficiency of public health was starkly illustrated when, two hours before President Trump declared a state of emergency on March 13, 2020, Surgeon General Jerome Adams was speaking against tobacco at the Society for Research on Tobacco and Nicotine’s annual conference in New Orleans.



The overreaching scope and consequent inefficiency of public health was starkly illustrated when, two hours before President Trump declared a state of emergency on March 13, 2020, Surgeon General Jerome Adams was speaking against tobacco at the Society for Research on Tobacco and Nicotine’s annual conference in New Orleans. The meeting was sparsely attended as many of the registrants did not show up for fear of COVID-19. Adams declared: “[I]t’s important for us to understand more people are going to die in the next hour from smoking-related illnesses than have died in the United States from COVID-19 so far.” In December 2018, he had declared youth vaping an “epidemic.”¹⁴⁶

¹⁴⁵ Michelle Minton, “Narrow the Focus of the Centers for Disease Control and Prevention and Food and Drug Administration,” *Web Memo*, Competitive Enterprise Institute, May 13, 2020, https://cei.org/sites/default/files/Michelle_Minton_-_Refocus_CDC_and_FDA_Efforts.pdf. Eric Boehm, “Mission Creep and Wasteful Spending Left the CDC Unprepared for an Actual Public Health Crisis,” *Reason*, May 13, 2020, <https://reason.com/2020/05/13/mission-creep-and-wasteful-spending-left-the-cdc-unprepared-for-an-actual-public-health-crisis/>.

¹⁴⁶ Guy Bentley, “While a Real Epidemic Raged, the Surgeon General Was Spreading Misinformation About Masks and Vaping,” *Reason*, April 2, 2020, <https://reason.com/2020/04/02/while-a-real-epidemic-raged-the-surgeon-general-was-spreading-misinformation-about-masks-and-vaping/>.

The nomination of a “testing czar”¹⁴⁷ and an “equipment czar”¹⁴⁸ by President Trump only confirms the inefficiency of government command-and-control allocation. What would be needed instead, as suggested by the Geloso and Bologna Pavlik article mentioned above, is market competition and free prices—the opposite of what politicians and bureaucrats have done. Not surprisingly, as late as mid-July 2020, that is, four months after the dire condition of testing in the United States was revealed, shortages persisted, many individuals could not be tested, and, even in hotspots, the delivery of test results was subject to one-week waiting lines.¹⁴⁹

Some caveats are in order. At the time of writing, several months after the start of the pandemic, little is known about COVID-19 and not much about how the pandemic is likely to evolve. This lack of knowledge partly explains the questionable responses of governments. Yet, we do expect their responses to crises to be generally underwhelming, for the reasons that public choice theory has explained.

4.5

COST IGNORED

Public health theorists, experts, and activists generally ignore the inconvenient discipline of economics. Turnock’s textbook of public health, currently in its sixth edition, seems pretty typical in not even mentioning public choice economics. In certain cases, economists themselves, when they write jointly with public choice experts, ignore the lessons of public

¹⁴⁷ Rachel Weiner, William Wan, and Abigail Hausslohner, “Long Delays in Getting Test Results Hobble Coronavirus Response,” *Washington Post*, July 12, 2020, https://www.washingtonpost.com/health/long-delays-in-getting-test-results-hobble-coronavirus-response/2020/07/12/d32f7fa8-c1fe-11ea-b4f6-cb39cd8940fb_story.html?utm_campaign=wp_post_most&utm_medium=email&utm_source=newsletter&wpisc=nI_most.

¹⁴⁸ Alex Leary, “This is War: President’s Equipment Czar to Use Full Powers to Fight Coronavirus,” *The Wall Street Journal*, March 28, 2020, <https://www.wsj.com/articles/this-is-war-presidents-equipment-czar-to-use-full-powers-to-fight-coronavirus-11585435836>.

¹⁴⁹ “It also means some individuals are likely continuing to spread the virus because they don’t yet have a result, were unable to get tested, or haven’t yet been told that they have been exposed to an infected person” (Brianna Abbott and Sarah Krouse, “Growing Wait Times for Covid-19 Test Results Hinder Virus Response,” *The Wall Street Journal*, July 16, 2020, https://www.wsj.com/articles/growing-wait-times-for-covid-19-test-results-hinder-virus-response-11594891800?mod=hp_lead_pos5). See also Weiner et al. “Long Delays in Getting Test Results Hobble Coronavirus Response”; and Scott Patterson, Sarah Krouse, and Sharon Terlep, “CVS Covid-19 Test Results Are Taking Longer Than Customers Have Been Told,” *The Wall Street Journal*, July 17, 2020, https://www.wsj.com/articles/cvs-covid-19-test-results-are-taking-longer-than-customers-have-been-told-11595007356?mod=hp_lead_pos3.

choice analysis and assume that voters and politicians are more altruistic and efficient than ordinary individuals.¹⁵⁰



In certain cases, economists themselves, when they write jointly with public choice experts, ignore the lessons of public choice analysis and assume that voters and politicians are more altruistic and efficient than ordinary individuals.



At a more basic level, the public health movement tends to ignore that its proposed interventions have costs. Turnock writes: “The argument that resources are limited and that there simply are not adequate resources to meet treatment, as well as prevention purposes, is uniquely American and quite inimical to the public’s health.”¹⁵¹ It is difficult to make sense of this statement. One crucial feature of the real world is that every good or activity has a cost, that is, it prevents something else from being produced or done. Every individual has to make trade-offs between his health and other goods; nobody spends all his resources on his health. And there is nothing uniquely American about being conscious that everything has a cost. This realization does not imply that incurring a given cost is not worth it if the corresponding benefit is deemed greater. In fact, Americans spend more on health care than the residents of any other country, and about half of this consists of private expenditures (see Part 3 of this paper).

More realistically, the *Stanford Encyclopedia of Philosophy* notes that “[p]ublic health resources are always in short supply and priority setting in public health policy and practice is always morally challenging.”¹⁵² It is also economically challenging. From all we know, markets are generally more efficient than governments in producing and allocating goods and services. One relevant example of governments’ frequent inefficiency was recently

¹⁵⁰ Dwight R. Lee and J.R. Clark, “Can Behavioral Economists Improve Economic Rationality?” *Public Choice* 174 (2018), 23-40. W. Kip Viscusi and Ted Gayer, “Behavioral Public Choice: The Behavioral Paradox of Government Policy,” *Harvard Journal of Law & Public Policy* 38:3 (2018), 973-1007.

¹⁵¹ Turnock, *Public Health*, 6th edition, 320.

¹⁵² Ruth Faden and Sirine Shebaya, “Public Health Ethics,” in Edward N. Zalta, Ed., *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), <https://plato.stanford.edu/archives/win2016/entries/publichealth-ethics/>.

given by *The Economist*. In fighting malaria in Africa, governments over-distribute insecticide-treated bed nets in big cities and under-distribute them in the countryside. Moreover, compared to other means of fighting malaria, too much money is spent on bed nets, “partly because nets are easy to count—a feature that aid programmes are particularly fond of.”¹⁵³



The more realistic among public health experts along with health economists typically recognize the costs of government intervention and are tempted to weigh them against their benefits, but often forget that those who pay the costs are typically not the ones who get the benefits.



The more realistic among public health experts along with health economists typically recognize the costs of government intervention and are tempted to weigh them against their benefits, but often forget that those who pay the costs are typically not the ones who get the benefits. These experts typically find all kinds of negative externalities in public health and tend to forget that correcting them is also costly. A related problem with negative externalities, as already pointed out in Part 2, is that they are symmetric (or reciprocal). The potentially infected individuals who go shopping without a mask transmits a negative externality to the infection-prone individual, or at least to those of them who have chosen to not wear masks. But the infection-prone individuals who, through government, mandate mask wearing, thereby impose negative externalities to non-infected individuals. The costs may not be equivalent but cannot be compared because there is no actual voluntary transaction.¹⁵⁴

¹⁵³ “Malaria Infections Have Stopped Falling,” *The Economist*, December 5, 2019, <https://www.economist.com/science-and-technology/2019/12/05/malaria-infections-have-stopped-falling>.

¹⁵⁴ Cost-benefit analysis is not the solution it is deemed to be, if only because its many assumptions make it too easy to hijack in service of the desired conclusion. To get a glance at the problem, imagine that a cost-benefit analysis was proposed for the First Amendment. On the requirements of cost-benefit analysis, see, for example, E.J. Mishan, *Cost-Benefit Analysis: An Informal Introduction*, 2nd Edition (George Allen & Unwin, 1975); or Anthony E. Boardman, *Cost-Benefit Analysis: Concepts and Practice*, 3rd Edition (Prentice Hall, 2006). Some issues are illustrated, within a conventional view of cost-benefit analysis, in Pierre Lemieux, *Consumer Surplus in the FDA’s Tobacco Regulations, with Applications to Nicotine Reduction and E-Cigarette Flavors*, Reason

The public-good approach to public health aims at controlling only behavior that impose a net cost (at least potentially) to *all* individuals, and which is therefore unanimously undesired. It implies an approach to public health different from the externality approach, which can too easily be used to justify nearly everything, including total government care. These caveats and qualifications apply even more to harder policies such as lockdowns (as compared to mask wearing).

The advance of public health as total government care has not been linear. For example, eugenics and Prohibition (of alcohol) have been abandoned. But the new public health continues to drift. To give another example, some people claim that nutrition is a state responsibility, and these are not only nostalgics of the Soviet Union. A comment in *The Lancet* proposes a goal to “deliver good nutrition for all, everywhere.” In the jargon of today’s public health, which the author calls “a shared language,” he writes:

[W]e must address the underlying drivers that incentivise endless market and consumption growth over human and planetary health. ... The message of a 2013 Lancet Comment that only collective action will end undernutrition remains true today. But given the political economy of food, the commodification of food systems, and growing patterns of inequality worldwide, a broader response is now required. ... Needless to say, the meaningful engagement of children, adolescents, and young people is vital. ... However, companies cannot be allowed to influence and interfere in public policy making or bias the science that underpins this process. While constructive dialogue is necessary, a default seat at the table for private-sector representatives should not be assumed. ... This multistakeholder effort to end malnutrition must prioritise the engagement, inclusion, and empowerment of rights-holders, such as women, smallholder farmers, young people, and marginalised groups.¹⁵⁵

We are far from public health in any meaningful sense.

Foundation, June 2019. For fundamental critiques of externalities, see Boudreaux and Meiners, “Externality: Origins and Classifications”; and de Jasay, *The State*.

¹⁵⁵ Francesco Branca et al. “A New Nutrition Manifesto for a New Nutrition Reality,” *The Lancet* 395 (10217) (January 2-10, 2020), 8-9, [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)32690-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)32690-X/fulltext)

PART 5

THE VOLUNTARY COOPERATION MODEL OF PUBLIC HEALTH: AN ALTERNATIVE APPROACH

Is there an alternative to the continuing drift and expansion of “public health” up to the point where it is not clear what the term means except as a label for extensive government intervention in all areas of life? To which extent can a model of voluntary cooperation produce public health in the sense of a public good? This part of the paper will examine a model (or variants of a model) of voluntary cooperation that tries to answer these questions.

5.1

A MODEL OF VOLUNTARY COOPERATION

There are examples, both historical and current, of public goods privately produced on the market (by voluntary cooperation) despite the free-rider problem. In the early 18th century, a private company operated a lightboat (a boat with an onboard lighthouse) to assist navigation on the river Thames, collecting voluntary contributions from ship owners who used the apparently nonexcludable service. The voluntary contributions seem to have been paid ex ante through subscriptions or ex post through a reputational network based on

coffee-houses.¹⁵⁶ This example is especially interesting because lighthouses were traditionally considered a pure public good—at least for ship owners, but maritime navigation also reduces the price of shipping and travel for all consumers. Contemporary examples of public goods include the Royal National Lifeboat Institution, a British charity that organizes sea rescues and provides lifeguard services,¹⁵⁷ or the Appalachian Mountain Club, a voluntary association that manages trails and hiker refuges in the Appalachian mountains even if non-members free-ride using the trails (which are numerous and long enough to be, for all practical purposes, a non-rival good).¹⁵⁸ The great medieval cathedrals financed by churches in the Middle Ages, patronage architecture by rich private individuals in the Renaissance, and today’s private museums provide other examples. It can be argued that such examples refer to public goods that are used, in different degrees, by only by a section of society, even if they are available to all. But *pure* public goods for all individuals in society are not easy to find. And why can’t this sort of private production of public goods work in public health understood as protection against contagious diseases?



There are examples, both historical and current, of public goods privately produced on the market (by voluntary cooperation) despite the free-rider problem. In the early 18th century, a private company operated a lightboat (a boat with an onboard lighthouse) to assist navigation on the river Thames, collecting voluntary contributions from ship owners who used the apparently nonexcludable service.



To build a formal voluntary cooperation model, let’s imagine that there is no government. A potential free-rider realizes that his refusal to participate in the financing of a public good he wants implies a certain probability that it will not be produced. Think of a flood-control

¹⁵⁶ Roselino A. Candela and Vincent J. Geloso, “The Lightship in Economics,” *Public Choice* 176 (2018), 479-506.

¹⁵⁷ The charity’s 2019 Annual Report is available at https://rnli.org/-/media/rnli/downloads/2019_rnli_annual_report_and_accounts_online_public.pdf.

¹⁵⁸ Pierre Lemieux, “Producing Public Goods Privately,” *Regulation* 35:3 (Fall 2012), 8-11, <https://www.cato.org/sites/cato.org/files/serials/files/regulation/2012/11/v35n3-2.pdf>.

dam, protection against antimicrobial resistance, or a measure of epidemic control. If this potential free-rider assigns a high probability to the possibility that the minimum number of contributors will not be reached without his participation, he may rationally play the role that game theorists call “sucker” and pay his share because he thinks it is a fair bet that his contribution will be indispensable. He is making a bet to further an outcome he wants. Similarly, an entrepreneur who considers supplying the public good will make a bet regarding the number of contributors (“non free-riders”) necessary to for the project to be profitable.¹⁵⁹



A public good will likely be produced by individuals or groups of individuals who prefer to pay in order to make sure that it will be available to them even if that implies a gift to free-riders.



Another way to see the possibility of voluntary cooperation despite the free-rider temptation is the following. A public good will likely be produced by individuals or groups of individuals who prefer to pay in order to make sure that it will be available to them even if that implies a gift to free-riders. These paying consumers will choose to be suckers instead of going without the good. The game-theoretic equivalent is called the “snowbank game”: two cars are stopped by a snowbank blocking the road; each driver would prefer the other to shovel, but any one of the two will do it alone if it’s the only way for him to continue his trip.¹⁶⁰ Still another reason for the apparent sucker’s behavior is that an individual often has an interest to cooperate in social games in order to entice the beneficial cooperation of others.

In this model, we expect some private contributions to the production of public health as a public good. Some individuals or corporate bodies will hedge their bets against epidemics by voluntarily contributing to public health measures, either by being vaccinated, submitting to self-quarantine, or giving money to public health campaigns and medical-care institutions. Private entrepreneurs, on their side, will produce related goods—vaccines,

¹⁵⁹ Anthony de Jasay, *Social Justice and the Indian Rope Trick*, 153-163.

¹⁶⁰ Robert Sugden, *The Economics of Rights, Cooperation and Welfare* (Palgrave Macmillan, 2005), 132-136.

diagnosis tests, hospital beds, etc.—if they think that there is a good chance that the number of paying customers or charity money will be sufficient to yield a profit.

This model provides a reasonable expectation that some public goods will be produced by naked self-interest. Whether it will be in optimal quantity is another issue, but defining and measuring optimality is a difficult challenge (if not a mission impossible) anyway.



Philanthropy and charity should not be ignored as another sort of motivation for the production of public goods, especially in the field of health.



Philanthropy and charity should not be ignored as another sort of motivation for the production of public goods, especially in the field of health. Even in the realm on non-public-good medical care, this motivation has been historically important. From the eighth to the 12th centuries, monasteries played the role of hospitals for the poor.¹⁶¹ In the 18th century, many English hospitals and dispensaries were financed by philanthropists—whose charitable impulses were probably strengthened by their occasional right to have their sick friends (or themselves) admitted when ill.¹⁶² Before the welfare state, philanthropy and charity filled many of its functions.¹⁶³ It is true that charity, where religious groups used to dominate, may carry a stigma for the recipients and lend itself to donors’ paternalism. But the stigma is not necessarily bad, for it makes resorting to charity a last resort. Moreover, paternalism is not absent from the welfare state and arguably more dangerous there.¹⁶⁴ Some evidence suggests that Americans are the most charitable people in the world. They give to charitable organizations the equivalent of about 1.44% of their incomes, compared

¹⁶¹ Rosen, *A History of Public Health*, 33.

¹⁶² Robert Kilpatrick, “‘Living in the Light’: Dispensaries, Philanthropy and Medical Reform in Late-Eighteenth-Century London,” in Cunningham and French, *The Medical Enlightenment of the Eighteenth Century*, 256 (254–280).

¹⁶³ David T. Beito, Peter Gordon, and Alexander Tabarrok, *The Voluntary City: Choice, Community, and Civil Society* (University of Michigan Press, 2002). Marvin Olasky, *The Tragedy of American Compassion* (Regnery Publishing, 1992).

¹⁶⁴ “The more one considers the matter, the clearer it becomes that redistribution is in effect far less a redistribution of free income from the richer to the poorer, as we imagined, than a redistribution of power from the individual to the State.” (Bertrand de Jouvenel, *The Ethics of Redistribution* [Liberty Fund, 1990, (1952), 72.]

to 0.54% in the U.K. and 0.11% in France. Another estimate indicates that the two-thirds of American households who give to charity contribute 4% of their incomes. Some 15% of charitable donations go to “human services” and 11% to health.¹⁶⁵ A large reservoir of charity thus exists in America. The fact that 39% of American charitable donations go to religious organizations testifies to the importance of this motivation. Morals are also produced by social rules and conventions (that is, social pressure), which developed precisely to motivate social cooperation when it cannot be produced by ordinary market relations.



When the state does not occupy an area of social interaction and evict voluntary cooperation, new institutions can be expected to develop.



When the state does not occupy an area of social interaction and evict voluntary cooperation, new institutions can be expected to develop. In America, the 18th century and especially the 19th were characterized by the growth of fraternal societies that offered benefits to their members in case of disease or death. According to Beito et al., at the end of the 19th century, “[a] fairly safe bet is that fraternal membership encompassed one-third or more of the voting-age male population.”¹⁶⁶ Many of the fraternal orders offered life insurance: “By 1895, half of the life-insurance policies in force were on the fraternal plan,” as opposed to commercial life-insurance.¹⁶⁷ It is a reasonable hypothesis that the fraternal societies started declining in the 1930s because of both the strain of the Great Depression and the competition of the welfare state.¹⁶⁸

An interesting question, related to the discussion of Roman sewer and aqueduct systems in Part 2, is whether such services, which may have been necessarily public in former ages, would not be naturally provided by private businesses in a modern and wealthy economy.

¹⁶⁵ Philanthropy Roundtable, Statistics on U.S. Generosity, <https://www.philanthropyroundtable.org/almanac/statistics/u.s.-generosity>.

¹⁶⁶ Beito et al., *The Voluntary City*, 196.

¹⁶⁷ Ibid. 195.

¹⁶⁸ David T. Beito, *From Mutual Aid to the Welfare State: Fraternal Societies and Social Services, 1890-1967* (University of North Carolina Press, 2000), 228-230.

Private demand for clean water and sewage disposal is now probably universal enough to justify its production on a purely commercial basis without (or with little) government intervention. When there is a private money-backed demand, supply follows. Once available, these services provide the public good of preventing the spread of some pathogens.

5.2

CAN IMMUNIZATION AND HERD IMMUNITY BE VOLUNTARY?

Can herd immunity against contagious diseases be produced by enough individuals getting vaccinated in their own self-interest? One problem in answering this question is that many vaccines are most useful for infants and children, who are nowadays the ones usually targeted by mandatory vaccination. The reason for targeting only minors is presumably that in a free society, adults are treated as adults, that is, capable of making their own trade-offs between benefits, costs, and risks. Children are, however, by definition, incapable of making these choices in their own best interest. Understandably, vaccination decisions are usually made by their parents—with the help, or under the gentle pressure, of their doctors or their peers. Concern may exist that some parents will misjudge their children’s interest. But what is the alternative? If public authorities impose mandates for children, a legitimate concern arises that they will end up making bad decisions.



Concern may exist that some parents will misjudge their children’s interest. But what is the alternative? If public authorities impose mandates for children, a legitimate concern arises that they will end up making bad decisions.



Parents generally love their children and are willing to sacrifice their interests for their sake. Politicians and bureaucrats don’t have the same impulses for other people’s children, not to speak of the other forms of government failures reviewed in Part 4. Vaccination is just a special case of a general principle that public authorities should usurp parents’ authority over their children only in extreme cases. The least danger seems to be to let

parents be responsible for their children. The British government does not impose compulsory vaccination for children and no catastrophe has resulted.

Part 2 suggested that neither vaccination nor even herd immunity is a pure public good. Most individuals can be vaccinated individually according to their own self-interest or, in the case of parents, according to what they perceive to be their children's best interest.¹⁶⁹ Herd immunity then appears to be a positive externality for only a section of the public—those who, because of their age or state of health, cannot be vaccinated (at least when a vaccine exists). The question then becomes: Can such an externality be produced through voluntary cooperation? Can this unilateral transfer—the gifting of herd immunity by the vaccinated to the non-vaccinated—be made voluntarily, so that individuals incapable of being effectively or safely vaccinated can benefit from herd immunity?

The vaccination decision can be viewed as a “snowbank game”: every individual would prefer everybody to be vaccinated except for himself, but if a large number of other individuals are not, he will still prefer to get vaccinated (assuming there are no medical contraindications in his case). As University of Chicago economist Tomas Philipson showed, the fewer people are vaccinated, the higher the risk factor (the “hazard rate”) for the unvaccinated, and the higher their incentives to get vaccinated or to use other prevention measures:

*Incentives for prevention make epidemics self-limiting, because the prevalence of a disease raises the incentives for preventive behavior. ... The economic approach yields the insight that public intervention often provides less benefit than predicted by epidemiology, because private incentives counteract its effects.*¹⁷⁰

The more successfully government intervenes to limit the spread of a communicable disease, the less individuals will be incited to engage in private prevention. Philipson notes that “there is little role for public prevention of non-communicable diseases” and that “the crowding out of prevention, discussed here, limits the benefits for communicable diseases as well.”¹⁷¹

¹⁶⁹ Eve Dubé et al., “Vaccine Hesitancy: An Overview,” *Human Vaccines and Immunotherapeutics* 9:8 (August 2013), 1770 (1763-1773).

¹⁷⁰ Tomas Philipson, “Economic Epidemiology and Infectious Diseases,” in A.J. Culyer and J.P. Newhouse, Editors, *Handbook of Health Economics*, Vol. 1 (Elsevier Science B.V., 2000), 1795 (1761-1799).

¹⁷¹ Ibid. 1796-1797.

Philipson provides evidence for influenza¹⁷² and measles¹⁷³ vaccination. His research suggests a tendency for the proportion of unvaccinated not to dip below a certain threshold. When an epidemic seems to be developing, vaccination rates (or other preventive measures) increase, bringing the proportion back the threshold. The import of this analysis is considerable: it shows that self-interested behavior does, to a certain extent, mitigate the spread of epidemics.

It is true that these doubts about the necessity of government intervention in vaccination and herd immunity are attenuated by an argument mentioned in Part 2: to the extent that vaccination coverage (or uptake) and herd immunity contribute to preventing antibiotic resistance, by reducing or eliminating some infections, they seem to regain their status of public goods.



At any rate, the consequences of vaccination freedom are often exaggerated. The uptake of non-mandated or non-effectively-mandated vaccines is often high and sometimes above, or at least close to, the herd immunity threshold.



At any rate, the consequences of vaccination freedom are often exaggerated. The uptake of non-mandated or non-effectively-mandated vaccines is often high and sometimes above, or at least close to, the herd immunity threshold. Data gathered by *The Wall Street Journal* suggest that at least 70% of American primary schools (with specific data) surveyed show a measles immunization rate higher of 95% (the herd immunity threshold) or higher.¹⁷⁴ The schools with lower uptake are pockets of non-immunity liable to start outbreaks: “With over 1,200 confirmed measles cases across 31 states, 2019 has been the worst year for measles

¹⁷² Ibid. 1794.

¹⁷³ Tomas Philipson, “Private Vaccination and Public Health: An Empirical Examination for U.S. Measles,” *Journal of Human Resources* 31:3 (1996), 611-630.

¹⁷⁴ Brianna Abbott, Taylor Umlauf, and Dylan Moriarty, “Thousands of Schools Fall Below Recommended Measles Vaccination Rate,” *The Wall Street Journal*, October 3, 2019, https://www.wsj.com/articles/thousands-of-schools-fall-below-recommended-measles-vaccination-rate-11570122220?mod=hp_lista_pos1.

in the U.S. in 25 years.” But the resurgence did not spin out of control, despite much vaccination freedom through exemptions from vaccination mandates.

A similar phenomenon is, or was, observed in other countries. Many vaccines that were merely recommended in France before the new 2018 vaccine mandates already showed relatively high rates of coverage for children at two years of age: 91.6% for the pneumococcal, 90.5% for the first dose of the MMR (measles, mumps, and rubella), and 78.8% for the second dose.¹⁷⁵ It is true that there were exceptions, such as the meningococcal C vaccine which, at 70.9%, had the lowest coverage of the seven recommended vaccines. Herd immunity was not always attained, but there was no out-of-control epidemic either.¹⁷⁶

In the United Kingdom, the absence of mandatory vaccines, even for children’s admission in school, does not seem to cause more problems than in other European countries.¹⁷⁷ In the past few years, coverage has decreased, but this recent trend might have been temporary.¹⁷⁸ In Scotland and Northern Ireland, the coverage of the MMR vaccine has reached herd immunity (95% coverage).¹⁷⁹ There is some evidence that “despite not having mandates, many European countries have equally high pertussis vaccination rates to the U.S. and

¹⁷⁵ Attwell et al., “Recent vaccine mandates in the United States, Europe and Australia,” 7381.

¹⁷⁶ At least for infants, mandated vaccines in France are generally covered at 65% by public health insurance and the rest is typically reimbursed by complementary private insurance. Moreover, some government clinics can administer these vaccines free of charge. (See Ministère des solidarités et de la santé, Questions-Réponses, <https://solidarites-sante.gouv.fr/prevention-en-sante/preserver-sa-sante/vaccination/vaccins-obligatoires/questions-reponses/>). In the United States, the Vaccines for Children Program (VFC) provides all recommended vaccines free of charge for children who have no insurance and are eligible to Medicaid, plus Native American or Alaskan Native children. Moreover, many state or local programs also offer vaccines free of charge or at low cost. (See How to Pay, Vaccines.gov, <https://www.vaccines.gov/get-vaccinated/pay/>.) Many people think that public health insurance is more generous in France than it is and that health care is less accessible to Americans than in reality.

¹⁷⁷ “Analysis of varied legislative approaches across the European Region does not point to any one ‘best approach,’” writes the Sabine Vaccine Institute in *Legislative Approaches to Immunization Across the European Region*, December 2018, 24, https://www.sabin.org/sites/sabin.org/files/legislative_approaches_to_immunization_europe_sabin_0.pdf.

¹⁷⁸ Adam Vaughan, “Should the UK Make Childhood Vaccinations Mandatory,” *New Scientist*, September 30, 2019, <https://www.newscientist.com/article/2218087-should-the-uk-make-childhood-vaccinations-mandatory/>.

¹⁷⁹ Hugh Pim, “Should Vaccinations Be Compulsory,” *BBC*, September 30, 2019, <https://www.bbc.com/news/uk-scotland-49881317>.

Australia.”¹⁸⁰ This has not prevented calls for mandatory vaccination, although not all doctors agree.¹⁸¹

There is some evidence that vaccination mandates increase coverage.¹⁸² Mandated or recommended vaccines are typically subsidized, following the public-good model, which also increases coverage.¹⁸³ But, as reviewed above, Philipson’s analysis suggests that governments’ efforts toward herd immunity actually crowd out some private vaccination and other private protection efforts. Moreover, it’s not unreasonable to believe that in a society where public health would be a matter of voluntary cooperation, individuals would be more attuned to individual responsibility. Add to this that charitable organizations could subsidize vaccination and organize vaccination campaigns.

Other factors support voluntary vaccination. That most people want the protection of vaccines, and especially for their children, is to be expected in a rich, advanced country, influenced by the general belief in reason and science inherited from the Enlightenment. Social rules (sometimes called “norms”) may spontaneously develop to support vaccination and exert non-coercive pressure on people to conform. As Dubé et al. put it, “people have their children vaccinated because everybody does so and it seems the normal thing to do.”¹⁸⁴ Rules of that sort are one of the most powerful regulators of a free society and there is reason to believe that the least coercive government is, the more such non-coercive rules become important.

Voluntary cooperation may not work as smoothly in poor countries. The few countries where polio has not been eradicated may serve as an illustration. As suggested in Part 4 and by Figure 3, higher incomes correlate with better public health. In the meantime, major private charity efforts are aimed at poor countries. In 2018, the Bill and Melinda Gates Foundation spent more than \$1.3 billion on its Global Health activities, including vaccine development, vaccination of children, and programs against HIV, tuberculosis, and

¹⁸⁰ Cecilia Lee and Joan L. Robinson, “Systematic Review of the Effect of Immunization Mandates on Uptake of Routine Childhood Immunizations,” *Journal of Infection* 72:6 (April 2016), 664 (659-666).

¹⁸¹ Laura Donnelly, “England ‘May Well End Up With Mandatory Vaccines’ Says Top Doctor,” *The Telegraph*, October 10, 2019, <https://www.telegraph.co.uk/news/2019/10/10/england-may-end-mandatory-vaccines-says-top-doctor/>.

¹⁸² Lee and Robinson, “Systematic Review of the Effect of Immunization Mandates on Uptake of Routine Childhood Immunizations.”

¹⁸³ See footnote 176 above.

¹⁸⁴ Dubé et al., “Vaccine Hesitancy,” 1769-1770.

malaria.¹⁸⁵ The Foundation's Global Health budget corresponds to more than half the total annual budget of the World Health Organization.¹⁸⁶

“

Voluntary cooperation may not work as smoothly in poor countries. The few countries where polio has not been eradicated may serve as an illustration.

”

This paper focuses on advanced and rich countries, where vaccines are accessible at a low cost. That voluntary cooperation works reasonably well in these countries suggests that public health could be (at least partly) “privatized,” that is, it could be left to the domain of free, voluntary action. Legal coercion is certainly not as required as the proposals of the new public health require. A presumption for individual liberty could be the first guiding principle.

5.3

CAN PROTECTION AGAINST AN EPIDEMIC SUCH AS COVID-19 BE VOLUNTARY?

Is the voluntary model of public health still valid for a non-vaccine-preventable epidemic such as COVID-19? If we follow Richard Epstein's argument,¹⁸⁷ protection against such an epidemic is a public good and would justify, if necessary, coercive government measures like quarantines, lockdowns, compulsory social distancing, mask mandates, etc. We would then have an exception to the general efficiency of the voluntary model. The purpose of this part of the report, however, is to build a model of purely voluntary action and explore the extent to which it would work.

From the viewpoint of economics, the general social problem consists in reconciling different individual preferences in a peaceful and efficient way. In the presence of an

¹⁸⁵ Bill and Melinda Gates Foundation, *Annual Report 2018*, <https://www.gatesfoundation.org/Who-We-Are/Resources-and-Media/Annual-Reports/Annual-Report-2018>.

¹⁸⁶ World Health Organization, *WHO Results Report, Program Budget 2018-2019: Driving Impact in Every Country*, 8, https://www.who.int/about/finances-accountability/reports/results_report_18-19_final1.pdf?ua=1.

¹⁸⁷ Epstein, “Let the Shoemaker Stick to His Last.”

epidemic, some individuals want to continue to work or offer their goods and services to consumers; some individuals, on the contrary, want mainly to protect themselves from infection. Between these two polar cases, a whole gamut of individual preferences and trade-offs exists. To which extent is it possible to reconcile these preferences and coordinate the actions of the different individuals in a mutually advantageous way is an application to public health of the general social problem.



In the presence of an epidemic, some individuals want to continue to work or offer their goods and services to consumers; some individuals, on the contrary, want mainly to protect themselves from infection. Between these two polar cases, a whole gamut of individual preferences and trade-offs exists.



The first argument pointing to the feasibility of voluntary solutions even in a case such as COVID-19 is that private solutions do exist. Tomas Philipson showed that in the case of HIV, private prevention measures were available and contributed to slowing down the epidemic until more effective treatments were available. These private protection measures included condoms, choice of partners, and reduction of sexual activity.¹⁸⁸ This is consistent with a basic economic idea: individuals respond to incentives (here, the fear of being infected) and adapt their behavior to the situation, even in the absence of coercion. The same reasoning applies to COVID-19, whose danger can be mitigated (although not eliminated) with self-quarantines, social distancing, personal hygiene, and personal protective devices such as face masks.

We may hope for, and try to imagine, a society of perfect altruists where self-interested incentives would be replaced by sacrifice to the interests of others. One problem is what happens if these others are similarly motivated by the interest of others, but we don't need to be concerned by this contradiction since a society of perfect altruists does not exist. More practically, there is no doubt that, in many cases, individuals do consider the interest of others; in economic terms, we say that an individual's utility function can include the

¹⁸⁸ Philipson, "Economic Epidemiology and Infectious Diseases," 1790-1793.

interest of others—most often those who are close to him like family and friends. But an analysis of society and public policy based on the assumption that individuals are generally more altruistic than self-interested would not be very useful. To use economist Harold Demsetz’s expression, this would be a “nirvana approach” to public policy.¹⁸⁹ As suggested before, it is realistic to assume, when analyzing public policy, that politicians and bureaucrats are as self-interested as ordinary individuals. It is in this context that individual incentives matter and that individuals adjust their behavior to the situations they encounter, whether it be ordinary social interactions or the challenges of a contagious disease.

An econometric study by two University of Chicago economists, Austan Goolsbee and Chad Syverson, estimated that the early lockdowns imposed by state and local governments may have been responsible for only 10% of the drop in economic activity.¹⁹⁰ According to this study, most of the impact came from individuals who decided to avoid crowded places, as measured by comparing traffic in stores and shops that were not under lockdown orders with those that were. The authors used a database of cellphone data on foot traffic spanning contiguous counties subjected to different or differently-timed legal restrictions from March 1st to May 16th. The data comprise more than 2.25 million business locations. The research concludes:

*The COVID-19 crisis led to an enormous reduction in economic activity. We estimate that the vast majority of this drop is due to individuals’ voluntary decisions to disengage from commerce rather than government-imposed restrictions on activity.*¹⁹¹

It thus seems reasonable to believe that much of the reduction in economic activity was voluntary. In the domain of voluntary protection, we must include stores that decided to require mask coverings, presumably because they thought it was the best way to protect their customers (and they wanted to communicate this concern) or at any rate because that was what many of their customers wanted. Similarly, it is efficient to let private businesses require the protection measures they find most protective of their employees, or not

¹⁸⁹ Harold Demsetz, “Information and Efficiency: Another Viewpoint,” *Journal of Law and Economics* 12:1 (April 1969), 1-22. See also Hester M. Peirce, Alligators in Nirvana: Smart Regulation and the Future of Financial Services, Speech at George Mason University, May 16, 2019, <https://www.sec.gov/news/speech/peirce-alligators-nirvana>.

¹⁹⁰ Austan Goolsbee and Chad Syverson, “Fear, Lockdown, and Diversion: Comparing Drivers of Pandemic Economic Decline,” Becker Friedman Institute, June 17, 2020, <https://bfi.uchicago.edu/working-paper/2020-80/>.

¹⁹¹ Ibid. 12.

require them if they are not deemed profitable or there is no pressure from employees. We again observe private adaptations to an epidemic.

Private mitigation responses come not only from individual or corporate self-interest, but also from private rules that develop (as a pandemic lingers, not wearing a mask may be frowned upon) and from private charity. As of May 4, 2020, the Bill and Melinda Gates Foundation had committed \$125 million to the development of drugs and a vaccine against COVID-19 with a focus to distribution to low-income countries.¹⁹²



Besides private mitigation actions, a second argument pointing to the feasibility of voluntary solutions even in a case like COVID-19 is that coercive solutions impose large costs on part of the population.



Besides private mitigation actions, a second argument pointing to the feasibility of voluntary solutions even in a case like COVID-19 is that coercive solutions impose large costs on part of the population. Those who are coerced into stopping work or closing their businesses or reducing other social relations—coerced because they would not have chosen that course of action had it not been for government orders—are the ones who support the highest cost in their own evaluation. If they would not have done it voluntarily, it is because they estimate that the relative cost of getting infected was lower than the cost for them of reducing social interaction. (It is true that some and perhaps many individuals may be genuinely concerned about spreading contagion, but if we assumed that this is their primary motivation, the case for voluntary cooperation would be too easy to make and quite probably unrealistic.) Even if future research confirms Goolsbee and Syverson’s claim that most of the reduction in economic activity was due more to voluntary choices than to government coercion, the cost of the latter was very large and only imperfectly measured by the drop in GDP. The reason to be concerned by the cost of government intervention

¹⁹² Bill and Melinda Gates Foundation, Statement from the Bill & Melinda Gates Foundation about Today’s Coronavirus Global Response Summit, May 4, 2020, <https://www.gatesfoundation.org/Media-Center/Press-Releases/2020/05/Bill-and-Melinda-Gates-Foundation-Statement-about-todays-Coronavirus-Global-Response-Summit>.

more than by the cost that individuals impose voluntarily on themselves is that only in the latter case is it clear that the individual benefits are higher than the individual costs (this is part of what is called “revealed preference”).

Before resorting to such extreme measures as forcibly preventing people from working, offering their goods and services on the market, or leaving their homes at will, governments should adopt less costly measures (and whose cost is transparent) such as guaranteeing and subsidizing widespread testing, providing medical care to the infected, tracing the contacts of the infected,¹⁹³ and making sure it does not itself raise obstacles to the efficient functioning of markets and prices.¹⁹⁴ In private venues, as suggested above, arbitrage will be made by consumers, producers, and workers depending on the preferences of individuals in the different groups. The main point is that it is not impossible that, in a free-market economy and under a voluntary model of public health, coercive measures—or at least the most coercive ones—against consumers, workers, business owners, or taxpayers would be unnecessary.

Economist Brian Williamson has recently proposed a scheme to make the necessary trade-off between the protection of the individuals most at risk (older people and others whose immune systems are compromised or too weak) and the freedom of individuals to work or engage in other commercial and social activities. The goal is to minimize costs by letting each individual make his own trade-off to the extent possible, instead of government policy imposing a uniform burden that some individuals will deem higher than the accompanying benefits. In Williamson’s scheme, individuals less at risk of infection would be free to work and leave their homes if they wish, thereby (probably) contributing to building some herd immunity. But they would have, through their taxes, to subsidize the individuals more at risk in order to provide them with an incentive to accept self-quarantine; those who would prefer not to self-quarantine would simply forgo the bribe. Williamson presents this as a Coasean contract between the two groups of individuals: the infection externalities are internalized (through taxes) by those who cause them (they pay compensation to the victims); and the externalities supported by those who self-quarantine are eliminated by payments they consider more valuable.¹⁹⁵ The Williamson scheme amounts to considering

¹⁹³ Pierre Lemieux, “Government Failure on a Grand Scale,” *Econlib*, March 20, 2020, and the links therein.

¹⁹⁴ Pierre Lemieux, “Don’t Confuse Shortage and Smurfage,” *Econlog*, March 6, 2020 <https://www.econlib.org/dont-confuse-shortage-and-smurfage/>; and “When Free-Market Prices Are Banned,” *Econlog*, April 1, 2020, at <https://www.econlib.org/when-free-market-prices-are-banned/>.

¹⁹⁵ Brian Williamson, “Beyond COVID-19 Lockdown: A Coasean Approach With Optimality,” *Economic Affairs* 40 (2020), 155-161. A “Coasian contract” or a “Coasian bargain,” named after Nobel economist Ronald Coase, is a trade whereby individuals adversely affected by negative externalities are compensated to the point where

pandemic protection as a matter of externalities and granting a “property right” in protection to the potential infection victims, as opposed to giving the less infection-prone a “property right” in working and engaging in other social activities of their choice without compensating their “victims” for the risk they impose.



Once we consider epidemic protection as a sort of (non-pure) public good instead of a set of (symmetric) externalities to be politically manipulated, we can see how government subsidization may, in fact, not be necessary.



Once we consider epidemic protection as a sort of (non-pure) public good¹⁹⁶ instead of a set of (symmetric) externalities to be politically manipulated, we can see how government subsidization may, in fact, not be necessary. Absent government intervention, we expect that the less infection-prone or more risk-seeker would individually choose to continue working and engaging in normal activities, while the more infection-prone or more risk-averse would voluntarily accept self-quarantine or other personal protective measures. As we saw during COVID-19, an important part of the labor force worked remotely, facilitating trade-offs between self-quarantining and working, and further dampening contagion risks. Infection-prone people without savings or family support and who cannot work remotely would presumably have to continue to work normally, which would admittedly be more difficult if economic activity decreases.

Perhaps new types of insurance policies or different forms of charitable or associative support might develop to help individuals choose a safer alternative? Note that private health insurance already covers the treatment of contagious diseases. It is true that, in case

their benefits are higher than their costs, thereby eliminating the externality—just as, say, somebody who voluntarily rents a room in his house is compensated for the inconvenience by the rent he receives. When the externalities are produced or supported by a large number of individuals (in some phenomena of pollution or in the case of contagious diseases), the “transaction costs” are high and some government intervention may be necessary to simulate the trade, although in some cases a good definition and enforcement of property rights may be all that is required. See Coase, “The Problem of Social Cost.”

¹⁹⁶ Perhaps by imagining an anterior social contract between individuals who don’t know who will be more likely to catch contagious diseases. On a form of such social contract, see Buchanan, *The Limits of Liberty*.

of a novel virus, the lack of information renders adaptations more difficult. But note also that there is nothing in the working of (even democratic) governments that guarantee that collective choices and government information will be better, as many aspects of the current pandemic have shown. The nirvana fallacy consists in comparing an admittedly imperfect system of voluntary interaction with a perfect government that does not exist.

In these ways, a pandemic without an available vaccine would, up to a point, be self-limiting. Another factor that would normally work in the same direction is herd immunity through the infection and recovery of the healthier—although we still don't know how that worked out during COVID-19. Some analysts claim that government intervention prevented the natural development of herd immunity, implying that the total cost of the pandemic would have been minimized with less coercion. At any rate, the most infection-prone, such as the old and the sick, could have been better protected while herd immunity was developing. That old people in nursing homes were so badly protected was another government failure. This argument is defended by David Henderson and Charles Hooper:

Lockdowns and hiding behind doors and masks have just delayed the inevitable—reaching herd immunity. It's better to protect the old and sick while exposing the rest of us to possible infection, allowing us to get to herd immunity more quickly. ... Let the young and healthy become infected in the natural course of their lives to help create a protective layer around the old and sick.¹⁹⁷

The notion that, in an emergency, the government can “close the economy” until it is ready to “reopen the economy” is strange idea in a free economy, where each individual makes his own work decisions and any business decides when to open or close in response to consumer demand. It looks as if the government were a store owner, and the citizens its store clerks. This idea leads to the no less strange idea expressed in a *Wall Street Journal* story that “countries,” by which is meant “governments,” can “reopen their societies.”¹⁹⁸ If the preceding analysis is correct, even in a pandemic, this is not necessarily the best course of action.

¹⁹⁷ David R. Henderson and Charles L. Hooper, “Herd Immunity: Saving Lives and Saving the Economy at the Same Time,” *Risk Analysis* 16, Goldman Institute, July 20, 2020, <http://www.goodmaninstitute.org/wp-content/uploads/2020/07/Goodman-Institute-BA-138-Herd-Immunity.pdf>.

¹⁹⁸ Jennifer Calfas, Chong Koh Ping, and Drew Hinshaw, “Global Coronavirus Death Toll Passes 81,000 as Some Lockdowns Tighten,” *The Wall Street Journal*, April 7, 2020, <https://www.wsj.com/articles/global-coronavirus-death-toll-nears-75-000-as-lockdowns-tighten-11586254730>.

5.4

THE LIMITS OF COERCION

There is still another argument for the desirability of voluntary public health solutions. It is that, in practice, coercion can only go so far, in public health as in other areas of life.

Vaccine resistance is a paradigmatic case. The anti-vaccine movement was launched by an 1854 pamphlet entitled *Our Medical Liberties* in reaction to an 1853 British law making the smallpox vaccine compulsory for infants born in England and Wales.¹⁹⁹ Similarly, the recent wave of vaccine resistance may have been fueled by the expansion of the scope of public health in the last few decades.



There is still another argument for the desirability of voluntary public health solutions. It is that, in practice, coercion can only go so far, in public health as in other areas of life. Vaccine resistance is a paradigmatic case.



In 2016, the Australian government strengthened penalties to enforce the mandatory children's vaccination program that had come in force in 2015. The penalties include the non-payment of a family tax benefit and of two childcare subsidies.²⁰⁰ Catherine Helps of the School of Public Health at the University of Sydney and her colleagues conducted in-depth interviews of 31 Australians in a local community with a low rate of vaccination. Many interviewees intended to go without the government subsidies instead of having their children vaccinated, at the cost of significant hardship to families and children. Although intentions and words are not the same as actual behavior and revealed preference, the research illustrates what was apparently a growing vaccine resistance movement.

Research indicates that in Western countries, no more than 2% of parents refuse vaccination in principle and about 5%-10% refuse some vaccines.²⁰¹ But a larger proportion

¹⁹⁹ Spier, "Perception of Risk of Vaccine Adverse Event," S81. Navin, *Values and Vaccine Refusal*, 7.

²⁰⁰ Helps et al., "It Just Forces Hardship," 157.

²⁰¹ Navin, *Values and Vaccine Refusal*, 9.

express concerns. A 2010 U.S. survey suggested that 77% of parents of children between one and six years old have a vaccine concern.²⁰² In France, the most skeptical European country, 41% expressed concern over vaccine safety.²⁰³ Although vaccine resistance is observed in marginal socio-geographic categories, vaccine hesitancy is often higher among more educated parents.²⁰⁴



Although vaccine resistance is observed in marginal socio-geographic categories, vaccine hesitancy is often higher among more educated parents.



Reasons for vaccine refusal or hesitancy include the spread of mistaken fears, made easier by the Internet and social networks. Already in 1998, a scare about the measles vaccine, blamed for causing autism, started with a 1998 article in *The Lancet*.²⁰⁵ The article was later “retracted,” but its author, Dr. A.J. Wakefield, now discredited in professional circles, has acquired a following among “anti-vaxxers.” More general reasons include doubts about the efficiency of vaccines, different evaluations of the trade-off between benefit and risk, mistrust of medical authorities, “democratic epistemic norms” (the belief that ordinary people know at least as much as the experts), and other values such as “‘natural’ forms of bodily purity.”²⁰⁶ The rise of vaccine refusal and hesitancy has recently served as a justification or an excuse by many jurisdictions for imposing stricter vaccine mandates, often by limiting or abolishing exemptions.²⁰⁷

²⁰² Attwell et al., “Recent Vaccine Mandates in the United States, Europe and Australia,” 7378.

²⁰³ Heidi Larson et al., “The State of Vaccine Confidence 2016: Global Insights Through a 67-Country Survey,” *EBioMedicine* 12 (2016), 295-301. R. Cohen et al. “Impact of Mandatory Vaccination Extension on Infant Vaccine Coverages: Promising Preliminary Results,” *Médecine et maladies infectieuses* 49 (2019), 35.

²⁰⁴ Larson et al., “The State of Vaccine Confidence 2016,” 300. Navin, *Values and Vaccine Refusal*, 10. See also Alessio Facciola et al., “Vaccine Hesitancy: An Overview on Parents’ Opinions about Vaccination and Possible Reasons of Vaccine Refusal,” *Journal of Public Health Research* 8:1 (2019), 13-18, <https://www.jphres.org/index.php/jphres/article/view/1436/461>.

²⁰⁵ See [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(97\)11096-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(97)11096-0/fulltext).

²⁰⁶ Navin, *Values and Vaccine Refusal*, 36 and here and there.

²⁰⁷ Attwell et al., “Recent Vaccine Mandates in the United States, Europe and Australia,” 7378.

Some public health experts and supporters have warned against the perverse effects of mandatory vaccination. Helps et al. raise “[t]he risk of coercive policies being perceived by citizens as undermining core principles of medical integrity such as consent,” referring to the right not to be treated against one’s consent. Citing another study, they also warn that “compulsory vaccination can lead to increased levels of anger amongst vaccine-hesitant people, increasing their efforts to regain the constricted freedom of choice ... a psychological phenomenon known as reactance.”²⁰⁸ Philosopher Mark Navin, despite believing that “vaccine refusal is usually immoral” and that the state is morally justified to impose mandatory vaccination, warns that coercion can have the effect of politicizing resistance and reducing uptake.²⁰⁹

The focus of the new public health on lifestyle diseases may have understandably generated public mistrust. The war on smoking has hurt entrenched habits at work, at the bar, and in other social gatherings, often at the bottom of the social scale. The attempt to “denormalize” smoking can bring smokers to “lose trust in a system that looks down on them.”²¹⁰ Ordinary people have good reasons to feel that public health experts are out to deprive them of their Second Amendment rights.²¹¹ It may be that a retreat of the interventionist public health movement would, in time, promote vaccination and public health well understood.

“

The recent experience with lockdowns has shown that, even in a pandemic, coercion has its limits.

”

²⁰⁸ Helps et al., “It Just Forces Hardship,” 165.

²⁰⁹ Navin, *Values and Vaccine Refusal*, 220-221. See also Roy Widdus and Heidi Larson, “Vaccine Mandates, Public Trust, and Vaccine Confidence: Understanding Perceptions Is Important,” *Journal of Public Health Policy* 39 [2018], 171: “Part of the explanation for stalled coverage [of overall vaccination in the world] is likely to be widespread questioning of vaccination and distrust in government authorities.”

²¹⁰ Susan Kitchens, “Shaming Smokers Can Backfire,” *The Wall Street Journal*, June 8, 2020, https://www.wsj.com/articles/shaming-smokers-can-backfire-11591640792?mod=hp_jr_pos2.

²¹¹ Fran Baum writes that “[r]estricting the right of individuals to own firearms is thus an important public health measure” (*The New Public Health*, 555). Daven Hemenway writes about America that “there should be licensing of gun owners and registration of handguns, as is common in other high-income countries” (*Private Guns, Public Health* [University of Michigan Press, 2004], 226).

The recent experience with lockdowns has shown that, even in a pandemic, coercion has its limits. The demonstration has been clearer in more-democratic countries like the United States. The shelter-in-place orders and coercive business closures have met more resistance as time passed, especially in states where they were most demanding and considered less beneficial by important segments of the population. Several errors committed by U.S. governments during the pandemic may further undermine compliance in the future.

A troubling instance of (often justified) public mistrust toward public health authorities is provided by African Americans, who are more severely hit by COVID-19 and are generally undervaccinated compared to white and Hispanic Americans. The fear has been expressed in black communities that COVID-19 vaccination will target them as guinea pigs. This fear is fueled by a historical event: in a four-decade study that started in 1932 in Tuskegee, Alabama, the U.S. Public Health Service tracked 201 black men on the consequences of *not* treating syphilis. When penicillin was later recognized as an effective treatment, the study subjects were deprived of it. Anti-vaxxer leaders, including Robert F. Kennedy Jr.,²¹² have been targeting the black clientele.²¹³ The percentage of black Americans who declare they will get vaccinated has increased, partly fueled by the stark number of black victims of COVID-19, but was, at the time of writing, still only around 50%.²¹⁴

An indirect consequence of the phenomenon of mounting laws and regulations over time has been the explosion of health litigation, which may actually have restricted the number of vaccines on the market. Epstein argues that the restrictions on freedom of contract and the rejection of “any form of assumption of risk” by consumers have caused market failures that have been detrimental to the health of the population.²¹⁵ The growing regulation of

²¹² Son of the former U.S. senator and attorney general.

²¹³ Peter Jamison, “Anti-Vaccination Leaders Fuel Black Mistrust of Medical Establishment as Covid-19 Kills People of Color,” *Washington Post*, July 17, 2020, <https://www.washingtonpost.com/dc-md-va/2020/07/17/black-anti-vaccine-coronavirus-tuskegee-syphilis/>. This story mentions “U.S. government scientists” instead of the U.S. Public Health Service specifically. See also CDC, U.S. Public Health Service Syphilis Study at Tuskegee, <https://www.cdc.gov/tuskegee/timeline.htm>. At the time this page was consulted, on July 17, 2020, a note from the CDC warned: “This timeline is currently under review by CDC to verify its contents.” The reason for the review is not given.

²¹⁴ Eugene Scott, “Seeing Black Americans Get the Coronavirus Vaccine Could Encourage More Members of That Community to do the Same,” *Washington Post*, December 15, 2020, <https://www.washingtonpost.com/politics/2020/12/15/seeing-black-americans-take-coronavirus-vaccine-could-encourage-more-members-that-community-do-same/>. However, an expressed opinion is not the same as a revealed preference in action.

²¹⁵ Epstein, “Let the Shoemaker Stick to His Last,” S152-S153 and S155-S156.

health care has also likely generated inefficiencies in that industry. As previously mentioned, COVID-19 has revealed that some regulations of the private health industry were detrimental. We should also be concerned about the systemic effects of government regulations and controls. Nineteenth-century political philosopher Alexis de Tocqueville warned against regulating to the point where “each nation is reduced to nothing better than a flock of timid and industrious animals, of which the government is the shepherd.”²¹⁶ Voluntary public health would avoid these dangers.



...COVID-19 has revealed that some regulations of the private health industry were detrimental. We should also be concerned about the systemic effects of government regulations and controls.



To summarize Part 5, the voluntary cooperation model of public health should be considered as an alternative to the current model of public health. Good reasons exist to believe that voluntary cooperation is feasible in public health. At any rate, coercion reaches its limits at some point, as can already be observed in the new public health.

²¹⁶ Alexis de Tocqueville, *Democracy in America*, Vol. 4 (Liberty Fund, 2010 [1840 for the original French edition]), 1252.

PART 6

CONCLUSION AND POLICY ORIENTATIONS

This primer has focused on alternative ways of viewing and modeling what has been called public health for three centuries but existed without the name for more than two millennia. To summarize the paper:

1. In the *public-good model*, public health corresponds to some *common* good that each and every individual deems to be in his own interest. This model focuses on protection against contagious diseases. Vaccination, herd immunity, other measures of control of contagious diseases, and the prevention of antimicrobial drug resistance illustrate this model's focus.
2. In the *government healthcare model*, public health is viewed as health care in general, to be financed if not supplied by the government. *Public health* care becomes *public healthcare*, that is, government healthcare, and the important distinction between public health and private health is easily lost.
3. The *total government care model* represents a further drift from the public-good model. Health becomes an all-encompassing concept and the healthcare role of government tends toward a role of total care. This sort of public health is based on non-scientific conceptions of society, social welfare, and the public interest. An arbitrary criterion of social justice serves to determine which individual preferences and which individuals will be discriminated against in public policies. The importance of wealth and economic

growth in promoting health is ignored, and an angelic conception of government is adopted.

4. The alternative of the *voluntary-cooperation model* of public health should be considered. Good reasons exist to believe that voluntary cooperation can contribute to the production of public health conceived as a public good, even in the case of epidemics for which a vaccine does not exist. At any rate, government coercion reaches its limits at some point.

Instead of looking for consensual solutions to epidemics of contagious diseases and similar problems, the new public health aims at replacing private choices and lifestyles by collective choices, that is, by government decisions. The quotation from Ilona Kickbusch in the introduction of this paper suggests what should be and should not be done. What should be done is to take a hard look at the different models of public health. What should not be done, this paper has argued, is what Kickbusch herself proposes: to pursue collective choices in all matters of health.

“

... coercion should be minimized. This approach is not as radical as it may look.

”

Translating these ideas in practical policy proposals starts with a general presumption for individual liberty, which should be corrected by government intervention only in the presence of clear market failures *and* when government failures are not likely to be worse. Expressed differently, coercion should be minimized. This approach is not as radical as it may look. It is related to the idea of economic freedom that led to the Industrial Revolution and the unprecedented explosion of prosperity that followed. From a moral-philosophical viewpoint, it can be thought as implementing John Stuart Mill’s principle that “over himself, over his own body and mind, the individual is sovereign.”²¹⁷

The principle of public policy proposed here—a presumption of liberty and a constant effort to minimize government coercion—implies that, when public goods are deemed to exist,

²¹⁷ John Stuart Mill, *On Liberty* (1859), <https://oll.libertyfund.org/titles/mill-on-liberty-and-the-subjection-of-women-1879-ed>.

government intervention should preferably take the form of subsidies. For example, vaccines could be offered free of charge in convenient times and places. The general taxpayers, who presumably benefit from herd immunity, would pay for the vaccination. If coercive measures were adopted during an epidemic such as COVID-19, the individuals harmed would be compensated by the general taxpayer.

A similar line of inquiry under the public-good heading relates to government financing of fundamental research in new vaccines or antimicrobials. Note that much of this is already being done, and probably over the optimal level. More than half of all fundamental research in the U.S. is financed by the federal government, to which must be added the state governments' financing of the 70% of research universities that are public institutions. In the case of medical research, the National Institutes of Health pride themselves on being "the largest source of funding for medical research in the world."²¹⁸ One should be prudent because one problem with government funding of advanced research is the same as with any government activities: there is a gap between the professed intentions and the actual outcomes, which are largely driven by bureaucrats' and politicians' own agendas. One consequence has been a stop-and-go funding that follows scares and political cycles and renders research planning difficult.²¹⁹ Whenever one argues that the government should intervene to correct market failures, these must be compared with the government failures that are likely to make the intervention much less beneficial than imagined. And, as stressed in this paper, only if the likely government failures are less serious than the presumed market failures should the proposed intervention proceed.



One way of minimizing coercion would be to specialize the government's public health action in providing information, as opposed to imposing coercive mandates.



One way of minimizing coercion would be to specialize the government's public health action in providing information, as opposed to imposing coercive mandates. This idea,

²¹⁸ On the NIH's homepage, as of January 2, 2020, <https://www.nih.gov/>.

²¹⁹ Michael S. Teitlebaum, *Falling Behind? Boom, Bust, and the Global Race for Scientific Talent* (Princeton University Press, 2014).

however, is not without danger and must be qualified. Government information can easily become manipulative propaganda, as was seen before. If government does provide public health information, safeguards should be built-in so that it remains as factual as possible.

Debates about vaccination or other public health issues are valuable. As freedom of speech is the only way to find the truth, it is only through free debates that we can be relatively sure that, for example, the safety of any particular vaccine or drug or the danger of an epidemic is not exaggerated.²²⁰ Health experts don't always agree among themselves. Studies have shown that nurses and doctors sometimes express concerns about vaccination and have themselves a low coverage ratio (for the flu vaccine, for example).²²¹ In France, nearly one in four GPs questions the usefulness of some of the vaccines recommended by the French government.²²² It was recently revealed that the U.S. government's nutrition guidelines, notably about certain kinds of fat, have been mistaken for 35 years and that the committee responsible for their annual update did not consider contrary evidence.²²³ As we saw, it was a *Lancet* article that started the false scare linking autism to the MMR vaccine.

Moreover, the evaluation of risks and benefits will naturally vary according to individual circumstances and preferences. We can hope that the consumer will not reject large benefits to avoid small risks, and will listen to his doctor's advice, as is usually the case,²²⁴ but, in a free society, the decision should generally remain with the individual. As Mill wrote,

*Each is the proper guardian of his own health, whether bodily, or mental and spiritual. Mankind are greater gainers by suffering each other to live as seems good to themselves, than by compelling each to live as seems good to the rest.*²²⁵

These considerations may be summarized in five public policy orientations:

²²⁰ Mill, *On Liberty*: "If even the Newtonian philosophy were not permitted to be questioned, mankind could not feel as complete assurance of its truth as they now do. The beliefs which we have most warrant for, have no safeguard to rest on, but a standing invitation to the whole world to prove them unfounded. If the challenge is not accepted, or is accepted and the attempt fails, we are far enough from certainty still; but we have done the best that the existing state of human reason admits of. ... This is the amount of certainty attainable by a fallible being, and this the sole way of attaining it."

²²¹ Dubé et al. "Vaccine Hesitancy," 1767.

²²² Larson et al., "The State of Vaccine Confidence 2016: Global Insights Through a 67-Country Survey," 300.

²²³ Nina Teicholz, "The Scientific Report Guiding the US Dietary Guidelines: Is It Scientific?", *BMJ* 351 (September 23, 2015), <https://www.bmj.com/content/351/bmj.h4962>.

²²⁴ Dubé et al., "Vaccine Hesitancy," 1768.

²²⁵ Mill, *On Liberty*.

Orientation 1: Focus on public health as a public good (or public goods) in the economic sense, not as something that a portion of society can coercively impose on another. This implies the abandonment of coercive measures against disliked but non-violent lifestyles. It also implies looking for public health measures that meet a very wide consensus.

Orientation 2: When government intervention is deemed necessary (or unavoidable for the time being), favor non-coercive measures as opposed to injunctions and bans. Preferred policies may include prudent and objective provision of information when there is a good reason to believe that the market does not provide enough of it, and subsidies to the production of public goods such as some protection against epidemics. This implies that price controls should be abolished and markets left free to adjust to changing supply and demand once the subsidies are given.

Orientation 3: Distinguish between problems of poverty and issues of individual choice. If certain individuals must be assisted, the problem should be addressed directly. Cash transfers and the removal of regulatory obstacles to people bettering their conditions and taking care of themselves should figure among the preferred means of intervention.

Orientation 4: Treat children as children and adults as adults. On the one hand, and except in egregious cases, let parents (not the state) be the children's guardians. On the other hand, adults should not be viewed as the state's children.

Orientation 5: More generally, favor voluntary cooperation whenever possible. The voluntary cooperation model should always be kept in mind as a possible alternative, even if it cannot all be implemented now. The ideal to keep in mind is that individuals should be equally allowed to take care of their own interests and health according to their own preferences. A presumption of liberty and the goal of minimizing coercion should guide government action.

ABOUT THE AUTHOR

Professor Pierre Lemieux is an economist affiliated with the Department of Management Sciences at the University of Quebec in Outaouais. He holds graduate degrees in economics and philosophy. Besides lecturing at a few Canadian universities, he has been a consultant for a number of private and public organizations in the world. The author of many books, published mainly in America and France, he is contributing editor to *Regulation*. He also blogs at Econlog. His latest book is *What's Wrong with Protectionism: Answering Common Objections to Free Trade* (Rowman & Littlefield, 2018). He lives in Maine.

