HEC Forum (2022) 34:115–138
https://doi.org/10.1007/s10730-020-09430-8

Responsibility Considerations and the Design of Health Care Policies: A Survey Study of the Norwegian Population

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Accepted: 7 November 2020 / Published online: 29 November 2020

Abstract
The objective of this article is to explore people's attitudes toward responsibility in the allocation of public health care resources. Special attention is paid to conceptualizations of responsibility involving blame and sanctions. A representative sample of the Norwegian population was asked about various responsibility mechanisms that have been proposed in the theoretical literature on health care and personal responsibility, from denial of treatment to a tax on unhealthy consumer goods. Survey experiments were employed to study treatment effects, such as whether fairness considerations affect attitudes about responsibility. We find that, overall, a substantial minority of the respondents find it fair to let the health care system sanction people—in one way or another—for voluntary behaviors that increase the risk of becoming ill. Quite surprisingly, we find that people are more prone to report that they should themselves be held responsible for unhealthy lifestyles than others.

Keywords Health · Personal responsibility · Fairness

Introduction

More than 70% of diseases sworldwide are non-communicable (Steel 2017). Smoking, drinking, lack of exercise, and unhealthy eating habits all contribute to the risk of becoming ill and dying prematurely. A highly relevant question arises for any health care system with resource constraints and a call for setting limits to what is

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offered: Is it fair to hold people responsible—in one way or another—for lifestyle choices with potentially adverse health impacts?

Even though some of the highest risk factors for poor health in Norway today are unhealthy nutrition, smoking, and obesity (Norges Offentuge Utreninger 2014), such a discussion was not part of the mandate of the third Norwegian commission on priority settings in health appointed in 2014. The role of personal responsibility in health was thoroughly discussed, and the fairness of involving that kind of consideration in the distribution of health care was dismissed by Norway's first commission on priority setting in 1987 (Norges Offentuge Utreninger 1987). This might explain why it was rejected as a relevant concern almost 30 years later. At the same time, the relevance of personal responsibility in health has been highly debated in the international academic literature; it has also been part of health care policy-making in other countries (Schmidt 2009), and a study by Bringedal and Feiring (2011) suggests that Norwegian physicians do in fact find, to varying degrees, personal responsibility to be relevant for prioritization in cases of scarcity. Against this background, the present article explores the extent to which attitudes of Norwegian citizens toward lifestyle-related diseases and resource allocation and limit-setting are in line with official politics.

A representative sample of the Norwegian population was asked about various responsibility mechanisms that have been proposed in the literature on health care and personal responsibility, from suboptimal treatment to a tax on unhealthy consumer goods. Furthermore, they were asked about what types of health-related risks they assess as relevant for priority setting in health care.

Survey experiments were employed to study different treatment effects, including (a) how fairness considerations affect attitudes toward responsibility in health, (b) how factual information about the causal relationship between lifestyle and illness affects attitudes, and (c) whether people are more (or less) liable to hold *themselves* responsible (compared to holding other people responsible).

Theoretical Background

Economists often appeal to incentive considerations when ascribing responsibility to people for their choices. To illustrate, one can justify that those who work long hours should receive a higher income than those who work short hours by noting that this would increase total work hours and thus the economic pie to be distributed. However, the incentive argument is not the only reason why we would want to hold people accountable for their choices; the fairness argument represents an additional and independent reason. It captures the basic intuition that as long as individuals make free and informed choices, they should be held responsible for the consequences of their choices, such as working long hours rather than short hours (independent of whether this affects total production, as in the incentive argument). The distribution of burdens, as well as benefits, should be linked to how different individuals contributed to the creation of these burdens and benefits (Cappelen and Norheim 2005).

The fairness argument for holding people responsible for the consequences of their choices is particularly well developed in liberal egalitarian (or luck egalitarian) ethics (e.g., Dworkin 1981, 2000; Arneson 1989; Cohen 1989; LeGrand 1991; Nagel 1991; Rakowski 1991; Roemer 1993; Van Parijs 1995; Knight 2009; Lippert-Rasmussen 2016). A common feature of liberal egalitarian theories of justice is that they draw a distinction between factors individuals should be held responsible for, *responsibility factors*, and factors individuals should not be held responsible for, *non-responsibility factors*. For a given cut between these factors, liberal egalitarian theory can be seen to incorporate egalitarian and liberal intuitions: inequalities due to factors for which the agent is not responsible are unjust and should be eliminated (the egalitarian intuition), while inequalities due to factors for which the agent is responsible are just and should be preserved (the liberal intuition).

Applied to health care, this view of responsibility means that it is a morally relevant factor whether (or the extent to which) an individual contributed to the need for treatment by engaging in risky behavior. People should be held responsible for (voluntary) behaviors that increase the risk of health intervention and thus the expected costs of health care.

Holding people responsible for their free and informed choices has been criticized for being too harsh because it can lead to outcomes that would be inhumane to accept. An early version of the harshness argument was presented by Fleurbaey (1995), who makes us consider a biker who takes off his helmet for a minute because he wants to feel the wind in his hair for a while and has an accident at that moment, putting him in need of a very expensive operation that was a result of him not wearing the helmet. According to Fleurbaey, we feel reluctant to let the biker bear the full responsibility in this situation, which may be death in the case that he cannot afford the operation.

Thus, there is often a tension between humanitarian considerations, on the one hand, and responsibility considerations, on the other hand, and so people have to trade off these two considerations. Humanitarian considerations would arguably induce many to help the unlucky motorcyclist, but helping him would not necessarily be justified according to fairness considerations, which holds that people should bear the consequences of their (free and informed) choices. How people make a trade-off between humanitarian considerations and fairness considerations will affect how they think the health care system should treat people whose illness can be linked to lifestyle.

Responsibility in the Provision of health Care

What does it mean to hold somebody responsible in the context of health policy? Different conceptualizations of personal responsibility in a health care context have been discussed in the literature. We focus here on those that can be said to have adverse consequences for people, and we differentiate between three mechanisms: (1) the *risk-sharing* view, (2) the *backward-looking* view, and (3) the *forward-looking* view. These are the three most deliberated ways of holding people responsible

for behaviors that increase the risk of health care intervention. The following relies on a summary of the literature presented in Bærøe and Cappelen (2015).

According to the *risk-sharing* view, a tax should be levied on risky (unhealthy) consumer products—such as alcohol, tobacco, and sugary beverages—so as to make risk takers collectively pay the additional treatment costs associated with their consumption. Ideally, such a health tax should equal the increase in the aggregate treatment costs for any given (voluntary) health risk; for example, the health tax on cigarettes should be set at a level where total revenues equal the cost of treatment associated with smoking. Thus, a person who voluntarily consumes products that are associated with lifestyle diseases pays a tax regardless of whether they contract an associated lifestyle disease, equivalent to a person buying fire insurance yearly without ever seeing their house burn down.

The risk-sharing view has been discussed and defended by, amongst others, Cappelen and Norheim (2005). It holds people responsible by levying a health tax on consumer goods, and therefore, it is not necessary to hold risk takers responsible at the bedside by giving them, for example, suboptimal treatment, since they have by then already paid for the expected and aggregate treatment costs related to their behaviors. Risk takers are effectively forced to pool the risk.

Norway introduced a tobacco tax as early as 1915, which was (and is) intended to reduce the harmful use of tobacco products. It is, however, not explicitly intended as a responsibility mechanism, and revenues do not perfectly match the increased cost of health care resulting from tobacco usage.

Recently, Norway placed a new heavy tax on sugar in order to improve the national diet.[1] Again, the main argument for introducing this substantially increased tax relates to the improved health consequences, and not specifically to responsibility arguments. Still, the policy represents, in effect, a risk-sharing mechanism, forcing sugar consumers to pay higher taxes than other people.

Retrospective studies have shown that tobacco taxation has substantial positive effects on health outcomes (e.g., Moore 1996; Jha and Peto 2014). A recent study by Goodchild et al. (2016) concluded that "Tobacco taxation can prevent millions of smoking-attributable deaths throughout the world and contribute to achieving the sustainable development goals" (p. 250).

The Affordable Care Act (ACA) in the United States illustrates an alternative mechanism through which the risk-sharing view can be implemented. According to the ACA, insurers can charge tobacco users up to 50% more for health insurance premiums than non-tobacco users (Public Health Law Center 2014). Thus, again, those with unhealthy lifestyles (smokers) are not denied treatment or insurance; rather, they are forced to pool the risk they expose themselves to, and in so doing, they pay in to the aggregate increase in the additional treatment costs associated with having an unhealthy lifestyle.

There is a lack of empirical data on whether facing (tobacco) surcharges actually decreases smoking. Freidman et al. (2016), in a recent study on insured smokers within the ACA, concluded that smokers facing medium or high surcharges had

[1] See, e.g., The Norwegian Tax Administration (2020).

significantly reduced coverage but no significant difference in smoking cessation compared to smokers who faced no surcharges. However, this is only one study, and it explored smoking cessation only in the first year of the exchange's implementation. The long-term effects could be different.

Yet, a third way to implement the risk-sharing view is to allow insurers to reduce contributions for members who participate in preventative and health promotion programs, thus effectively increasing out-of-pocket expenses of those who do not participate and who, on average (assumingly), have a greater risk profile. Lower insurance contributions for healthy behavior is implemented by other insurers in Germany, such as the Barmer Ersatzkasse (Schmidt 2007). A previous study in the United States found that the risk-sharing view is perceived as fair by a majority of the US population. It found that 53% of Americans find it fair for people with unhealthy lifestyles to pay higher insurance rates than people with healthy lifestyles (32% said it would be unfair), and 53% also thought it fair to charge higher deductibles or copayments to people with unhealthy lifestyles (30% found this unfair) (Bright 2006).

According to the *backward-looking* view, the risk takers are held responsible the moment they contract a lifestyle-related illness, meaning they are held responsible for something they did in the past that caused the need for health care intervention. In its strictest version, defended by Rakowski (1991), people must bear the full consequences of the risks they engage in, which in a health care context must be interpreted to imply that a publicly financed health care system has no moral obligation to treat a disease traceable solely to an avoidable risk. In weaker versions of the backward-looking view, people must not necessarily bear the full consequences of the risks that they took (no treatment), but rather, personal responsibility is used as a *prioritizing criterion*, meaning that if a patient's need for an organ transplant is caused by lifestyle, they should be given lower priority on the waiting list than patients with the same need but without the associated lifestyle (Albertsen 2016). A third mechanism through which people can be held responsible under the backward-looking view is to introduce increased copayments for patients who are sick due to lifestyle choices (Richardson 1999; Schmidt 2009).

According to the forward-looking view, people are held accountable for the consequences of what they might do in the future (Albertsen 2015). There are different conceptualizations of forward-looking responsibility (e.g., Richardson 1999; Schmidt 2009), but we focus here on Feiring's conceptualization (Feiring 2008), who claims that the first time a person is diagnosed with an illness (x) that might be linked to lifestyle, they should be given the following option: conditional on signing a contract committing to a lifestyle change supported by medical follow-ups, they will be given equal treatment to those who have x but not the associated lifestyle. Alternatively, if the person does not sign the contract, they will be held accountable by being given lower priority. Thus, they can be given a clean slate, so to speak, but a failure to change lifestyle in the future will result in the backward-looking treatment should they again suffer a lifestyle-related illness.

The forward-looking view governs to a large extent the treatment of, among others, patients with alcoholic liver disease (ALD) who need a liver transplant (LT). According to current practices, ALD patients are

> predominately evaluated by their presumed capacity to remain abstinent after transplant. In the selection process, a patient's adhesion to this principle can be considered to be part of a contract with his treatment team. The rule that 6 months of alcohol abstinence is required before acceptance to the LT list is broadly applied worldwide and has two main objectives: First, to challenge a patient's motivation and to identify those that will remain abstinent after LT, and second, to evaluate the possibility for stabilization or improvement of liver function, which may eventually obviate the need for further LT. (Donckier et al. 2014, p. 867)

According to Lim and Keeffe (2004), a "return to alcohol consumption occurs in a significant proportion of patients with ALD and represents a major concern of transplant physicians" (Lim and Keeffe 2004, p. 532). Surprisingly, however, according to the same study, little evidence exists to document a significant detrimental effect on patient survival associated with a resumption of drinking.

According to a (survey) vignette study by Stroh et al. (2015), in the United States, 48.7% of respondents thought that LT should be done for ALD patients, while 13.7% did not think that such patients should receive transplants (the rest were unsure).

All the different responsibility views discussed above can fall victim in varying degrees to four familiar objections: (a) it is too harsh to hold people responsible for the consequences of their choices (Fleurbaey 2001; Segall 2009); (b) it is too intrusive, for example, the process of establishing whether some health disadvantage can be attributed to choice or circumstance may be demeaning for the person under assessment (Wolff 1998); (c) it is too difficult to prove causality between lifestyle and illness (Buyx 2008); and (d) it is often questionable if unhealthy lifestyle choices are really avoidable (e.g., it is not often easy for people to act otherwise) (Resnik 2007).

Expectations

The overall objective of this study was to examine the general population's attitudes toward personal responsibility in a health care setting. First, we were interested in examining people's attitudes toward the three responsibility mechanisms: (1) the risk-sharing view, (2) the backward-looking view, and (3) the forward-looking view. We expected that the extent of agreement with these mechanisms correlates with the extent to which they are subject to the above-listed objections. Therefore, we presumed that people would least agree with the backward-looking view simply because it is open to all the objections (Bærøe and Cappelen 2015). For example, if we give a patient suboptimal treatment because their illness is due to lifestyle, we need to be sure that there is a causal link between illness and lifestyle, but this can be inherently difficult to prove. The process of establishing such a link can also be intrusive, and how do we know that the lifestyle was voluntary and not the result of circumstances beyond the individual's control? Ultimately, for some, it may seem too harsh to give people suboptimal treatment (or no treatment at all). The forward-looking view is less of a victim to the harshness objection because patients are given a second chance if they sign a contract vowing to change their lifestyle; we,

therefore, expect people to agree more with this view than with the backward-looking view. We presumed people would most agree with the risk-sharing view because it is immune to both the harshness objection (since it does not allocate health treatment on the basis of personal responsibility) and the objection of intrusion (it does not involve the process of establishing whether some health disadvantage can be attributed to choice or circumstance) (Bærøe and Cappelen 2015).

Second, we wanted to test whether framing the responsibility questions in terms of fairness affected the results. People can be asked whether they agree with a responsibility mechanism *as such*, or whether they believe it to be *fair*. Framing the question in terms of fairness might yield more or less agreement. We assumed that by introducing the term "fairness," the respondents would be more likely to give attention to the various counterarguments to responsibility. Given the considerable number of such arguments outlined above, we expected fewer respondents in this treatment group would hold people accountable for their health-related actions.

Third, we examined whether informing people about the often dubious causal relationships between lifestyle and illness would affect their views on fairness. Our expectation was that doing so would reduce agreement with the various responsibility mechanisms because the respondents would then have had an important criticism of responsibility highlighted.

Fourth, we studied views on whether some people's health care should be given lower priority than others' if their illness can be linked to various lifestyle choices (e.g., smoking, drug abuse, etc.). According to Ubel et al. (1996), people may wish to give lower priority to some patients than to others if the former are believed to be personally responsible for causing their own illness or if they are seen as having engaged in socially unworthy behavior. We thus expect people to be more in favor of prioritizing if the lifestyle in question is strongly associated with social desirability and/or personal responsibility.

Finally, we examined whether it made a difference if this priority question was asked about people in general (*people's* health care should be given lower priority) or related to the respondent themselves (if *your* need for treatment is linked to an unhealthy lifestyle, should *you* be given lower priority). Our expectation was that support for this type of priority setting would decrease when the question was framed as relating to the respondent. It is reasonable to assume that the burdens of being given lower priority is felt more profoundly when it relates to oneself than when it relates to people in general. Furthermore, to the extent that people always pursue their own material self-interests (the *homo economicus* assumption), it is not unreasonable to speculate that they dislike being given lower priority themselves, but are more agreeable to the view that others should be given lower priority.

A more detailed description of our methods and data follows below.

Methods and Data

The survey experiments were implemented in the sixth wave of the Norwegian Citizen Panel (NCP) during the fall of 2015, with a total of 1160 respondents participating. The NCP is a probability-based general population survey panel

administered by the Digital Social Science Core Facility (DIGSSCORE) at the University of Bergen. It is a research-focused online panel with more than 6000 active participants who were recruited via random sampling from the official national population registry. This registry contains names and contact information for all residents in the country, ensuring that all have an equal probability of being contacted. The panel provides de-identified information about the participants' social backgrounds, such as gender, age, education level, and more, as well as attitudinal variables, such as trust in institutions and political attitudes.

We conducted two experiments, Experiment 1 and Experiment 2, each measuring different dimensions of responsibility. The objective of Experiment 1 was twofold. First, we explored people's attitudes toward responsibility in the allocation of public health care resources with special attention given to the responsibility mechanisms that have been proposed in the theoretical literature and that were presented above. Second, we studied the magnitude of treatment effects on these attitudes: (a) how fairness considerations affected attitudes and (b) how factual information about the causal relationship between lifestyle and illness affected attitudes.

Questions were developed to cover the three different approaches to responsibility in health care that were described above. In the first experiment, the respondents were randomized into a control group and two treatment groups. The control group was presented the following statements, to which they had to indicate their extent of agreement on a seven-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = disagree somewhat; 4 = neither agree nor disagree; 5 = agree somewhat; 6 = agree; 7 = strongly agree):

1. Access to scarce goods, such as organ transplants, should be restricted if the patient can be considered personally responsible for his or her own illness.
2. A patient with an unhealthy lifestyle should pay higher deductibles than a patient with a healthy lifestyle.
3. Consumption of certain products, such as alcohol and tobacco, increases the risk of disease, and consequently, the total health care expenditure. Such products should therefore be taxed.
4. People with unhealthy lifestyles, for example smokers and people who consume too much alcohol, should pay more for health insurance than people with healthy lifestyles.
5. Once one has become ill, continuation of unhealthy lifestyles can destroy the effectiveness of treatment. Therefore, if ill patients with unhealthy lifestyles do not change their lifestyle, they should get lower priority in the future than patients with healthy lifestyles.
6. If a specific agreement has been entered into between a doctor and a patient about changing the patient's lifestyle and the patient fails to comply with the agreement, the future treatment of the patient should be given lower priority than treatment given to patients who comply with such agreements.

Note that the first two statements are representatives of the backward-looking view, statements 3 and 4 are representatives of the risk-sharing view, and statements 5 and 6 are representatives of the forward-looking view.

The first treatment group received the same six statements, except that the statements were reformulated as declarations about *fairness*. To illustrate, statement 1 above was amended to read.

1. It is fair that access to scarce goods, such as organ transplants, should be restricted if the patient can be considered personally responsible for his or her own illness.

Thus, we wanted to examine whether people responded differently to a statement about whether it is *fair* that people are held responsible, compared to a more general statement about responsibility.

The third group responded to the same questions as the second group, except that respondents in this group were given a vignette pointing to the difficulty in determining a causal relationship between illness and lifestyle and whether the lifestyle is really voluntary:

> There is often considerable uncertainty about the determination of whether or not a patient's lifestyle is actually the cause of their state of health. The extent to which the patient concerned is able to avoid his/her unhealthy lifestyle is also often unclear.

The objective of Experiment 2 was also twofold. First, we were interested in people's attitudes toward priority setting. To explore what types of health-related risk the study population assessed as relevant for setting limits in health care, we used a (slightly modified) version of a set of questions developed by Bringedal and Feiring (2011).

The respondents were given the following general question, followed by a list of nine lifestyles (answer categories: yes/no/do not know), which are all among the leading risk factors as percentage causes of disease burden in developed countries, as measured in disability adjusted life years (World Health Organization 2002):

Do you think that a person's health care should be given a lower priority compared to others' health care if his or her condition can be linked to the following lifestyle choices?

1. Overweight/obesity
2. Smoking
3. High alcohol consumption
4. Abuse of medication/drugs
5. Lack of physical activity
6. Hazardous sports that result in illness or injury
7. Poor diet
8. A combination of these
9. Failure to comply with an agreement about changing one's lifestyle

In the treatment group, the respondents were given the same general question and list of lifestyles, except that the question now concerned the respondent:

Do you think that your health care should be given a lower priority compared to others' health care if your condition can be linked to the following lifestyle choices?

Thus, we were interested in whether people are more (or less) likely to hold *themselves* accountable (compared to holding other people accountable).

Results

Experiment 1

Table 1 provides the results for the control group regarding agreement with the six responsibility mechanisms presented above.

Overall, more people disagreed than agreed with the notion that patients should bear (some of) the consequences of their health-related choices, although the extent of disagreement varied between the different responsibility mechanisms. Two exceptions were the response to question 3, where the majority were in favor of taxing unhealthy products. A substantial minority also agreed with statement 4 that people with unhealthy lifestyles should pay more than others for health insurance. Thus, a substantial portion of the population agreed with the risk-sharing view, and overall, more people agreed with that view than the two other views, which were expected. That the fewest people agreed with the backward-looking view was also expected.

What can explain the overall trend that the majority does not agree with the backward-looking view and the forward-looking view? Arguably, many believe that we have an obligation to help people in need regardless of why or how the need occurred, assuming that the help does not impose unacceptable sacrifices on others (Scanlon 2002). It is simply too harsh to deny people treatment only because the illness can be said to be self-inflicted. Such humanitarian concerns, we believe, strongly affect people's attitudes toward the backward-looking and forward-looking views.

Interestingly, though, as emphasized, more people agreed than disagreed with statements 3 and 4, which represent the risk-sharing conceptualization of responsibility (i.e., holding people accountable for their choices through taxes or higher insurance premiums). Note that the harshness objection is less applicable to these mechanisms because no patients are given worse treatments than others (i.e., lower priority). It could, therefore, be argued that this type of responsibility does not violate humanitarian concerns, which arguably makes many skeptical about ascribing responsibility to people. As claimed, the risk-sharing view holds that the distribution of health care costs should be related to people's behavior. Those who increase the expected cost of health care through risky lifestyle choices, such as smoking, should also contribute the most (through taxes or higher insurance), even though they themselves may never be in need of treatment. Risk takers pool the (increased) risk of being in need of treatment, and many respondents agreed with this.

People agreed the least with the backward-looking responsibility view. We noted that this perhaps reflects that the respondents consider this view to be too

Table 1 Different responsibility mechanisms

	Strongly disagree (%)	Disagree (%)	Disagree somewhat (%)	Neither agree or disagree (%)	Agree somewhat (%)	Agree (%)	Strongly agree (%)	Total responses
1. Access to scarce goods, such as organ transplants, should be restricted if the patient can be considered personally responsible for his or her own illness.	15.28 (*N* = 79)	33.46 (*N* = 173)	10.83 (N = 56)	15.47 (*N* = 80)	17.21 (*N* = 89)	5.61 (*N* = 20)	2.13 (*N* = 11)	100 (*N* = 517)
2. A patient with an unhealthy lifestyle should pay higher deductibles than a patient with a healthy lifestyle.	23.69 (*N* = 122)	37.67 (*N* = 194)	11.65 (*N* = 60)	11.46 (*N* = 59)	10.29 (*N* = 53)	3.88 (*N* = 20)	1.36 (*N* = 77)	100 (*N* = 515)

Table 1 (continued)

	Strongly disagree (%)	Disagree (%)	Disagree somewhat (%)	Neither agree or disagree (%)	Agree somewhat (%)	Agree (%)	Strongly agree (%)	Total responses
3. Consumption of certain products, such as alcohol and tobacco, increases the risk of disease and consequently the total health expenditure. Such products should therefore be taxed.	5.43 (*N* = 28)	14.53 (*N* = 75)	8.91 (*N* = 46)	11.05 (*N* = 57)	26.36 (*N* = 136)	20.93 (*N* = 108)	12.79 (*N* = 66)	100 (*N* = 516)
4. People with unhealthy lifestyles, for example, smokers and people who consume too much alcohol, should pay more for health insurance than people with healthy lifestyles.	12.60 (*N* = 65)	25.58 (*N* = 132)	8.91 (*N* = 46)	11.05 (*N* = 57)	22.48 (*N* = 116)	12.98 (*N* = 67)	6.40 (*N* = 33)	100 (*N* = 516)

Table 1 (continued)

	Strongly disagree (%)	Disagree (%)	Disagree somewhat (%)	Neither agree or disagree (%)	Agree somewhat (%)	Agree (%)	Strongly agree (%)	Total responses
5. Once one has become ill, continuation of unhealthy lifestyles can destroy the effectiveness of treatment. Therefore, if ill patients with unhealthy lifestyles do not change their lifestyle, they should get lower priority in the future compared to patients with healthy lifestyles.	14.92 ($N=77$)	22.87 ($N=118$)	12.02 ($N=62$)	10.85 ($N=56$)	26.36 ($N=136$)	10.08 ($N=52$)	2.91 ($N=11$)	100 ($N=516$)

Table 1 (continued)

	Strongly disagree (%)	Disagree (%)	Disagree somewhat (%)	Neither agree or disagree (%)	Agree somewhat (%)	Agree (%)	Strongly agree (%)	Total responses
6. If a specific agreement has been entered into between a doctor and a patient about changing the patient's lifestyle and the patient fails to comply with the agreement, the future treatment of the patient should be given lower priority than treatment given to patients who comply with such agreements.	10.47 ($N=54$)	21.32 ($N=110$)	11.82 ($N=61$)	15.50 ($N=80$)	24.61 ($N=127$)	12.21 ($N=63$)	4.02 ($N=21$)	100 ($N=516$)

harsh. Furthermore, it may reflect the acknowledgment that it is not necessarily clear whether the risky behavior could have been avoided. To illustrate, for someone growing up in a social environment where many people smoke, it is arguably more difficult to avoid ending up as a smoker than for others who have seldom been surrounded by available cigarettes and a social acceptance of smoking. Granted, this concern may also be applicable to the risk-sharing view, but remember that in this view, people are not held responsible for contracting an illness; rather, they are forced to insure the increase in aggregate treatment costs that they contribute to through risky behavior.

A further reason that the respondents tend not to agree with the backward-looking view is that although there is a correlation between particular conditions and certain lifestyles, the latter may not have caused the condition: a genetic disposition can equally have been the cause (e.g., obesity is not necessarily a result of eating sugary or fat foods). This may caution them about ascribing responsibility on the backward-looking view given the harsh consequences. Again, the risk-sharing view does not fall victim to this worry since the risk takers are not held responsible for actually falling ill.

According to the same line of reasoning, it also makes sense that more respondents agreed to hold people responsible according to the two versions of the forward-looking responsibility view (compared to the backward-looking view). In these versions, people get a second chance to alter their lifestyle at the point when they have in fact become ill. In these cases, people's lifestyle choices are weighed against the background of explicit information about causal relationships between behaviors and outcomes and about what can be done and what must be avoided in order to stay healthy. Thus, although the harshness objection is still relevant, the uncertainty related to causation is reduced (and potentially also avoidable if supportive arrangements are put in place, like stop smoking courses), and thereby the strength of an overall argument against holding people responsible for their health-related behavior is also reduced.

We now move on to present the results from the two treatment groups. In the first group, *fairness* was introduced as an additional stimulus, while in the third group, a piece of information emphasizing the uncertainty in establishing a link between lifestyle and health was the extra stimulus.

In Figure 1, the outcome is a scale from 1 (strongly disagree) to 7 (strongly agree), and the experimental variable is whether fairness is introduced (1) or not (0). The squares are regression coefficients, and the lines are 95 percentage intervals. We see that introducing fairness makes the respondents more inclined to hold people accountable for lifestyle choices. All effects are positive (meaning more agreement), and only two effects are not significant at conventional levels. This does not align with our expectations.

In Figure 2, we continue the same exercise, but this time, we compare the effect of the additional information (which, to reiterate, questions the link between lifestyle and health). As the figure clearly suggests, the effect of this additional treatment is nonexistent: all effects are trivial and statistically insignificant. Again, this result does not align with our expectations.

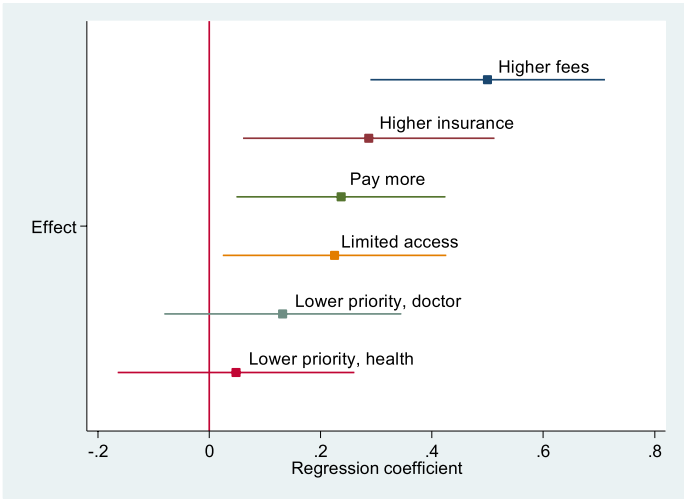

Figure 1 Fairness as stimulus

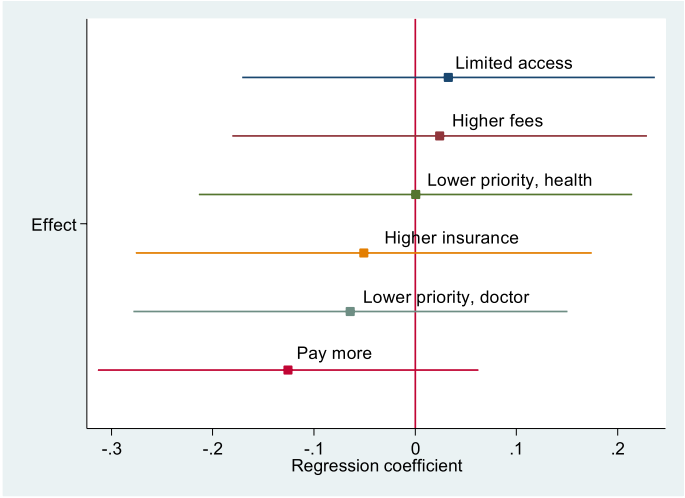

Figure 2 Uncertainty as stimulus

In Table 2, the mean values for all the statements are presented for each of the three groups.

Introducing fairness as a stimulus (Experiment group 1) clearly makes people more willing to ascribe responsibility. In what follows, we explore what might explain this unexpected finding. Incentive considerations, humanitarian considerations, and fairness considerations all affect attitudes toward responsibility. Incentive arguments are concerned not with an individual's previous behaviors but rather with how they will behave in the future (LeGrand 1991). These arguments link the

Table 2 Mean values in the different experimental groups

	Control group	Experiment 1	Experiment 2
Access to scarce goods, such as organ transplants, should be restricted if the patient can be considered personally responsible for his or her own illness.	3.11	3.33	3.37
A patient with an unhealthy lifestyle should pay higher deductibles than a patient with a healthy lifestyle.	2.64	2.87	2.75
Consumption of certain products, such as alcohol and tobacco, increases the risk of disease and consequently the total health expenditure. Such products should therefore be taxed.	4.52	5.02	5.05
People with unhealthy lifestyles, for example, smokers and people who consume too much alcohol, should pay more for health insurance than people with healthy lifestyles.	3.70	3.98	3.93
Once one has become ill, continuation of unhealthy lifestyles can destroy the effectiveness of treatment. Therefore, if ill patients with unhealthy lifestyles do not change their lifestyle, they should get lower priority in the future compared to patients with healthy lifestyles.	3.53	3.58	3.58
If a specific agreement has been entered into between a doctor and a patient about changing the patient's lifestyle and the patient fails to comply with the agreement, the future treatment of the patient should be given lower priority than treatment given to patients who comply with such agreements.	3.75	3.88	3.82

distribution of costs or treatment to behavior because it will affect future conduct by creating incentives or disincentives to certain types of behavior: "Holding individuals responsible for their choices is seen simply as a means to an end" (Cappelen and Norheim 2005, p. 476). Conversely, fairness arguments typically hold people accountable for their choices independent of any fairness considerations (*luck egalitarian* ethics). The extent to which an individual contributed to the need for treatment is *in itself* a morally relevant factor. Note that incentive arguments and fairness arguments often pull in the same direction: people should be held responsible for the consequences of their free and informed choices, either because it is fair or because it produces favorable incentives. Humanitarian arguments, on the other hand, often pull in the opposite direction: people should not be held responsible for their choices in situations where this could be considered too harsh; we have an obligation to help people in dire straits independent of why help is needed and independent of whether this can create disincentives in the future.

In the control group, it is likely that all these different considerations affected the respondents' attitudes in the sense that none of them are specifically alluded to by the respondents; they are all taken into account. In the fairness treatment, however, the focus is uniquely on fairness considerations and not the all-things-considered assessment that the control group was implicitly invited to assess. Since the respondents were explicitly asked to consider the fairness of the suggested policies, humanitarian considerations were less likely to be accounted for; it could be argued that they were crowded out. We conjecture that this is a plausible reason why the respondents overall were more willing to ascribe responsibility in the two treatment groups, where the various responsibility statements emphasized fairness considerations, than in the control group.

The second treatment consisted of emphasizing the uncertainty in establishing a link between lifestyle and health, as well as emphasizing uncertainty about whether lifestyles are really voluntary. Clearly, a pragmatic objection to responsibility in health care rests precisely on establishing a plausible link between behavior and the need for treatment; this link is often uncertain. Holding people responsible for something they are not responsible for is unfair because then people are held responsible for too much. Our initial hypothesis was, therefore, that this second treatment would reduce the inclination to hold people accountable (because it reminded the respondents about the causal uncertainty). However, here, we witnessed no significant treatment effects (i.e., reminding people about the difficulty in establishing a causal relationship between lifestyle and illness and about whether lifestyles are really voluntary did not affect the respondents' attitudes).

Experiment 2

In the second experiment, the respondents were asked whether a health treatment should be given lower priority when it can be linked to unhealthy lifestyle choices. The control group was asked about people in general, while the experiment group was asked specifically about whether they themselves should be given lower priority.

Table 3 Experiment 2. Percentage of responses: yes (no)

	Control	Experiment	*N*
Combination	13.6 (64.8)	22.2 (58.5)	1568
Obesity	8.0 (70.0)	16.2 (68.3)	1568
Alcohol	24.2 (63.6)	32.0 (55.2)	1568
Smoking	25.4 (63.9)	32.6 (55.2)	1568
Poor diet	8.1 (76.7)	15.4 (70.3)	1568
Drugs	26.9 (59.8)	32.1 (53.3)	1568
Inactivity	11.2 (76.1)	16.5 (70.1)	1568
Noncompliance	31.1 (49.1)	34.9 (46.9)	1568
Hazardous sports	24.5 (58.2)	26.6 (57.1)	1568

Table 3 displays the percentage of the respondents—in both the control group and the experiment group—who agreed or disagreed that the various types of risky behavior (nine in all) should lead to lower priority.

Substantial minorities thought that if a person's condition could be linked to alcohol, smoking, drugs, noncompliance, or hazardous sports, then their health care should be given lower priority. Very few thought that poor diet, inactivity, or obesity should lead to lower priority. Arguably, people think of these latter lifestyles as less voluntary and less socially stigmatized than the other lifestyles. High alcohol consumption, smoking, and abuse of medication/drugs are arguably seen by many as socially undesirable lifestyles, and we expect that many view these behaviors as voluntary, which can help explain why so many believe that they should lead to lower priority. Expectations about low treatment compliance (and thereby benefits) in these groups can also explain the results. A large proportion of the population also believed that hazardous sports that result in injury should be given lower priority. Clearly, hazardous sports are not seen by most as socially undesirable, but perhaps as more voluntary than any of the other lifestyles listed. Also, injuries stemming from exaggerated exercise, such as a meniscus tear knee injury, are arguably seen by many as much more voluntary than illness stemming from excessive drinking.

Overall, a majority disagreed with the policy of giving health treatment a lower priority when it can be linked to unhealthy lifestyle choices. This aligns with the results in Experiment 1, where a majority did not agree that access to scarce goods, such as organ transplants, should be restricted if the patient can be considered personally responsible for his or her own illness.

The objective of the treatment group was to examine whether people are more likely to hold themselves accountable (compared to holding others accountable for the same behavior). Figure 3 is based on simple binominal logistic regressions, where the outcome (give a person's health lower priority or not) was related to the two experimental conditions ("others" receiving help or "I" receiving help). The result is presented in terms of probabilities, more specifically, average marginal effects (the squares in the figure) encapsulated by 95% confidence intervals

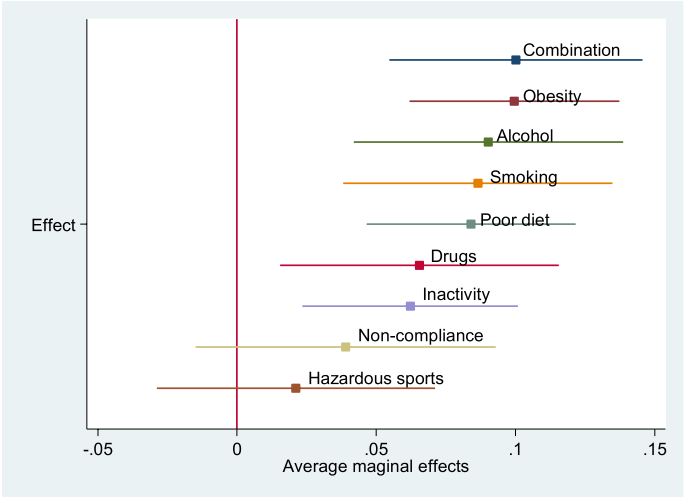

Figure 3 Treatment group—lifestyles

(the lines).[2] As the figure shows, the effect of the treatment (lower priority when the question related to the respondent rather than to people in general) was positive for all the mentioned lifestyles and significant for all but two of them (hazardous sports and noncompliance). The overall conclusion, then, is that a respondent is significantly more likely to hold themselves responsible (i.e., to agree that they should be given lower priority). This goes against our expectations.

What can explain the unexpected finding that people are more liable to hold themselves responsible than to hold other people responsible? Perhaps people feel that they have more control over whether to engage in the various lifestyles than others (e.g., they are themselves non-smokers), and therefore, it does not really matter whether they are held accountable (given lower priority) or not because it is not relevant for them. If people have confidence in their own self-control, this does not necessarily translate into believing that others have the same self-control. Moreover, a lack of knowledge about the circumstances of others (related to causality and avoidability) calls for carefulness to avoid holding others responsible for too much. Therefore, respondents exhibited more prudence in ascribing responsibility to others than to themselves (whose circumstances they are familiar with).

This finding can influence how responsibility arguments in public discourse should be framed to increase the power of persuasion. We know from previous research that welfare attitude preferences are understood to be affected by self-interest (Blekesaune and Quadagno 2003), which entails that people evaluate policies in accordance with how the policies affect them. Arguments in favor of responsibility should appeal to the individual rather than the collective, meaning that *you*

[2] To illustrate, a value of, for example, .1 means that it is 10% more likely that a respondent answered "yes" (agreed to lower priority) in the treatment group than in the control group.

as an individual should exercise responsibility because *you* should have confidence in your self-control. Clearly, this would be a form of rhetorical trickery aimed at increasing the effectiveness of the argument; it does not relate to whether responsibility catering policies are themselves fair or effective. Conversely, opponents of responsibility should appeal more to the general population by emphasizing that, for many, self-control is often difficult.

A study by Aresen et al. (2018) on health campaigns, emphasizing precisely this latter point, found that in order to increase immunization rates and thus achieve herd immunity, public health campaigns should focus more on the collective benefits of vaccination rather than on the individual benefits. The study suggested that people's decisions about whether to vaccinate and thus contribute to herd immunity was influenced by concern for others. Appealing to a concern for others could likewise be an effective instrument for those who oppose responsibility in health.

Conclusion

In contrast to many other Western countries, such as Germany and the UK, personal responsibility has received very little discussion in official Norwegian reports and documents since it was broadly discussed in the report of the first commission on priority setting in 1987.

The results of our survey experiments nonetheless reveal that a substantial proportion of the Norwegian population believes personal responsibility is relevant in a health care setting. A substantial minority believe in some version of the forward-looking view: if ill patients with unhealthy lifestyles do not change their lifestyle, they should get lower priority in the future than patients with healthy lifestyles. Furthermore, a majority agreed with the risk-sharing view, which does not affect priority setting per se but still penalizes those with unhealthy lifestyles. The fewest number agreed with the backward-looking view; still, it is noteworthy that a sizable part of the population thought that a person's health care should be given a lower priority than others' health care if their condition can be linked to smoking, high alcohol consumption, abuse of medication/drugs, or hazardous sports.

We found that people were more liable to hold themselves responsible than to hold others responsible. This is a particularly interesting finding that may indicate people are more willing to accept weakness of will in others (e.g., smoking, heavy drinking) than in themselves. Furthermore, we found that the way questions related to responsibility and health were framed is vitally important. If people are asked about whether they believe it to be *fair* that patients are held responsible for their lifestyles, they are more willing to agree than if they are asked more *generically* about whether people should be held responsible for their lifestyles.

Our findings indicate the following: in particular, the risk-sharing view has substantial legitimacy in the Norwegian population. Furthermore, a quite substantial minority also found the forward-looking view to be fair. Despite this, responsibility considerations are currently not discussed in the Norwegian public sphere. There may be good reasons not to focus on responsibility in relation to health, and as we have emphasized, the literature points out a number of relevant challenges. However,

our results indicate that many favor at least some responsibility mechanisms, and this should not be ignored in the public discourse, where all sides of an argument should be presented. The relevant health authorities should not assume that responsibility catering policies will be met with public hostility and thus suppress arguments in favor of personal responsibility.

According to Wlezien (1995), policies respond to people's preferences, and the substantial support for some responsibility mechanisms revealed in the present article can, in the long run, affect policy outcomes. Our findings indicate that responsibility arguments in a health care context should be welcomed, even though they were not part of the mandate of the third (and most recent) Norwegian commission on priority settings in health. Finally, our results shed light on whether the implementation of responsibility ascribing mechanisms can achieve public support. We argue that in particular risk-sharing responsibility mechanisms, such as taxing unhealthy products, responsibility mechanisms can be implemented without major resistance from the electorate.

We have discussed arguments against ascribing people responsibility for unhealthy lifestyles, namely that it is too harsh, it is too intrusive, the relevant causality between lifestyle and health outcomes is too difficult to prove, and finally, it is often inherently difficult to determine the extent to which unhealthy lifestyles are unavoidable. Most likely, how people view these problematic aspects of responsibility ascription will affect their willingness to hold people responsible, and it might also differ between countries, with different health care systems and different attitudes toward responsibility. To the best of our knowledge, there exists no cross-country study that systematically examines attitudes toward personal responsibility for health. We do know, however, that the US population, much more than populations in European countries, thinks that poverty is caused by laziness and lack of personal effort, while Europeans are more likely to ascribe poverty to bad brute luck (Alesina and Angeletos 2005). It is possible that such cross-cultural beliefs concerning the role of effort versus bad luck in the distribution of income and wealth could also translate into beliefs concerning responsibility in health. Cross-country studies exploring attitudes toward personal responsibility and health would substantially increase our understanding of this social preference phenomenon and are highly welcomed.

References

Albertsen, A. (2015). Feiring's concept of forward-looking responsibility: A dead end for responsibility in healthcare. *Journal of Medical Ethics, 41*(2), 161–164.

Albertsen. A. (2016). Drinking in the last chance saloon: Luck egalitarianism, alcohol consumption, and the organ transplant waiting list. *Medicine, Health Care and Philosophy, 19*(2), 325–338.

Alesina, A., & Angeletos, G. M. (2005). Fairness and redistribution. *American Economic Review, 95*(4), 960–980.

Aresen, S., Bærøe, K., Cappelen, C., & Carlsen, B. (2018). Could information about herd immunity help us achieve herd immunity? Evidence from a population representative survey experiment. *Scandinavian Journal of Public Health, 46*(8), 854–858.

Arneson, R. J. (1989). Equality and equal opportunity for welfare. *Philosophical Studies, 56*(1), 77–93.

Bærøe, K., & Cappelen, C. (2015). Phase-dependent justification: The role of personal responsibility in fair healthcare. *Journal of Medical Ethics, 41*(10), 836–840.
Blekesaune, M., & Quadagno, J. (2003). Public attitudes toward welfare state policies: A comparative analysis of 24 nations. *European Sociological Review, 19*(5), 415–427.
Bright, B. (2006). Many Americans back higher costs for people with unhealthy lifestyles. *The Wall Street Journal*. https://www.wsj.com/articles/SB115324313567509976. Accessed 18 Nov 2020.
Bringedal, B., & Feiring, E. (2011). On the relevance of personal responsibility in priority setting: A cross-sectional survey among Norwegian medical doctors. *Journal of Medical Ethics, 37*(6), 357–361.
Buyx, A. M. (2008). Personal responsibility for health as a rationing criterion: Why we don't like it and why maybe we should. *Journal of Medical Ethics, 34*(12), 871–874.
Cappelen, A. W., & Norheim, O. F. (2005). Responsibility in health care: A liberal egalitarian approach. *Journal of Medical Ethics, 31*(8), 476–480.
Cohen, G. A. (1989). On the currency of egalitarian justice. *Ethics, 99*(4), 906–944.
Donckier, V., Lucidi, V., Gustot, T., & Moreno, C. (2014). Ethical considerations regarding early liver transplantation in patients with severe alcoholic hepatitis not responding to medical therapy. *Journal of Hepatology, 60*(4), 866–871.
Dworkin, R. (1981). What is equality? Part 2: Equality of resources. *Philosophy & Public Affairs, 10*(4), 283–345.
Dworkin, R. (2000). *Sovereign virtue: The theory and practice of equality*. Cambridge, MA: Harvard University Press.
Feiring, E. (2008). Lifestyle, responsibility and justice. *Journal of Medical Ethics, 34*(1), 33–36.
Fleurbaey, M. (1995). Three solutions for the compensation problem. *Journal of Economic Theory, 65*(2), 505–521.
Fleurbaey, M. (2001). Egalitarian opportunities. *Law and Philosophy, 20,* 499–530.
Freidman, A. S., Schpero, W. L., & Busch, S. H. (2016). Evidence suggests that the ACA's tobacco surcharges reduced insurance take-up and did not increase smoking cessation. *Health Affairs, 35*(7), 1176–1183.
Goodchild, M., Perucic, A. M., & Nargis, N. (2016). Modelling the impact of raising tobacco taxes on public health and finance. *Bulletin of the World Health Organization, 94*(4), 250–257.
Jha, P., & Peto, R. (2014). Global effects of smoking, of quitting, and of taxing tobacco. *New England Journal of Medicine, 370*(1), 60–68. https://doi.org/10.1056/NEJMra1308383.
Knight, C. (2009). *Luck egalitarianism: Equality, responsibility, and justice*. Edinburgh: Edinburgh University Press.
LeGrand, J. (1991). *Equity and choice: An essay in economics and applied philosophy*. London: Harper Collins.
Lim, J. K., & Keeffe, E. B. (2004). Liver transplantation for alcoholic liver disease: Current concepts and length of sobriety. *Liver Transplantation, 10*(10 Suppl 2), S31-38.
Lippert-Rasmussen, K. (2016). *Luck egalitarianism*. London: Bloomsbury Academic.
Moore, M. J. (1996). Death and tobacco taxes. *Rand Journal of Economics, 27*(2), 415–428. https://doi.org/10.2307/2555934.
Nagel, T. T. (1991). *Equality and partiality*. New York: Oxford University Press.
Norges Offentuge Utreninger. (1987). *Retningslinjer for prioritering innen norsk helsetjeneste, 23.* Oslo: Universitetsforlaget. https://www.nb.no/statsmaktene/nb/eba24a34a2dd190d925925fc9d902cc4#0. Accessed 18 Nov 2020.
Norges Offentuge Utreninger (2014). *Åpent og rettferdig—prioriteringer i helsetjenesten, 12*. Oslo: Departementenes servicesenter. https://www.regjeringen.no/contentassets/16a0834c9c3e43fab452ae1b6d8cd3f6/no/pdfs/nou201420140012000dddpdfs.pdf. Accessed 18 Nov 2020.
Rakowski, E. (1991). *Equal justice*. Oxford: Clarendon Press.
Resnik, D. B. (2007). Responsibility for health: Personal, social, and environmental. *Journal of Medical Ethics, 33*(8), 444–445.
Richardson, H. S. (1999). Institutionally divided moral responsibility. *Social Philosophy and Policy, 16*(2), 218–249.
Roemer, J. E. (1993). A pragmatic theory of responsibility for the egalitarian planner. *Philosophy & Public Affairs, 22*(2), 146–166.
Scanlon, T. M. (2002). The diversity of objections to inequality. In M. Clayton & A. Williams (Eds.), *The ideal of equality* (pp. 41–59). New York: Palgrave Macmillan.
Schmidt, H. (2009). Just health responsibility. *Journal of Medical Ethics, 35*(1), 21–26.

Schmidt, H. (2007). Personal responsibility for health—Developments under the German Healthcare Reform 2007. *European Journal of Health Law, 14*(3), 241–250.
Segall, S. (2009). *Health, luck, and justice*. Princeton: Princeton University Press.
Steel, N. (2017). Global, regional, and national age-sex specific mortality for 264 causes of death, 1980–2016: A systematic analysis for the Global Burden of Disease Study 2015. *Lancet, 390*(10100), 1151–1210.
Stroh, G., Rosell, T., Dong, F., & Forster, J. (2015). Early liver transplantation for patients with acute alcoholic hepatitis: Public views and the effects on organ donation. *American Journal of Transplantation, 15*(6), 1598–1604.
The Norwegian Tax Administration. (2020). *Sugar tax*. https://www.skatteetaten.no/en/business-and-organisation/vat-and-duties/exciseduties/about-the-excise-duties/sugar/. Available 18 Nov 2020.
The Public Health Law Center. (2014). *How the affordable care act affects tabacco use and control*. https://publichealthlawcenter.org/sites/default/files/tclc-fs-aca-&-tobacco-control-2014_0.pdf
Ubel, P. A., DeKay, M., Baron, J., & Asch, D. A. (1996). Public preferences for efficiency and racial equity in kidney transplant allocation decisions. *Transplantation Proceedings, 28*(5), 2997–3002.
Van Parijs, P. (1995). *Real freedom for all: What (if anything) can justify capitalism?* Oxford: Clarendon Press.
Wlezien, C. (1995). The public as thermostat: Dynamics of preferences for spending. *American Journal of Political Science, 39*(4), 981–1000.
Wolff, J. (1998). Fairness, respect, and the egalitarian ethos. *Philosophy & Public Affairs, 27*(2), 97–122.
World Health Organization. (2002). *The World health report: 2002: Reducing the risks, promoting healthy life*. World Health Organization. https://apps.who.int/iris/handle/10665/42510. Accessed 18 Nov 2020.