Special Section

The Mismarriage of Personal Responsibility and Health

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Abstract: This paper begins with a simple illustration of the choice between individual and population strategies in population health policy. It describes the traditional approach on which the choice is to be made on the relative merits of the two strategies in each case. It continues by identifying two factors—our knowledge of the consequences of the epidemiological transition and the prevalence of responsibility-sensitive theories of distributive justice—that may distort our moral intuitions when we deliberate about the choice of appropriate risk-management strategies in population health. It argues that the confluence of these two factors may lead us to place too much emphasis on personal responsibility in health policy.

Keywords: personal responsibility; individual risk management strategy of public health; population risk management strategy of public health; epidemiological transition; justice in health care; luck egalitarianism; responsibility-sensitivity

Introduction

Consider the left-hand side of Figure 1 (ignore the shaded area for the moment). It illustrates the distribution of some risk factor in the population. The vertical axis shows the number of people, and the horizontal axis shows the magnitude of the risk. The curve shows the number of people at each level of risk. The closer to the origin one goes, the smaller the risk for a person.

I assume the risk has a normal distribution, but this is only for convenience. Thus, in my example, most people are exposed to a moderate level of risk, some people are exposed to a high level of risk, and some others have a low level of risk.

The graph could illustrate the distribution of many different risk factors. It could illustrate some sort of environmental hazard due to people's exposure to a pollutant. It could illustrate the risk of contracting an infectious disease or being affected by natural disasters like floods or wildfires. The graph could also illustrate the distribution of poverty-related risk factors—for example, risks associated with undernutrition, lack of sanitation, or indoor air pollution. Alternatively, it could illustrate the distribution of risk factors related to lifestyle—including risks associated with obesity, physical inactivity, illicit drug use, unsafe sex, or occupational choice.

Suppose you are interested in reducing these risks. How should you go about it? One approach might be to identify those who are the most vulnerable in the population—those who are exposed to the highest level of risk. You could then target and assist these people to reduce or eliminate their risk. This approach is illustrated by the graph on the left-hand side of the figure. The shaded area represents the people whose risk has been eliminated. (I assume, for the sake of
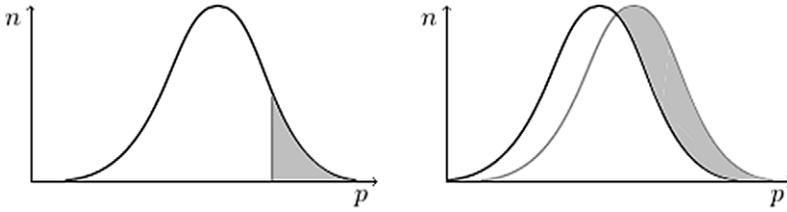
Figure 1. Distribution of some risk factor in the population.

simplicity, that the risk for these people is completely eliminated, hence they disappear from the graph. To be sure, the best you can normally do is to reduce the risk. In that case, these people would be added to other parts of the graph, changing the shape of the curve.)

The approach targeting high-risk individuals can be called the *individual strategy* of risk management. The idea is to identify the most vulnerable individuals and to decrease or eliminate their risk. On the figure, the shaded area can be thought of as the size of the benefits that can be secured by using this strategy.

One advantage of this approach is that it assists those who need help the most. One might think they have the most pressing claim for assistance, hence this approach does best in meeting the demands of justice. But one disadvantage of this strategy is that it does not address the underlying cause that gives rise to the risk. Thus, it is possible that high-risk individuals will continually emerge. In that case, even though you have met the demands of justice, new ones are created.

The graph on the right-hand side of the figure illustrates an alternative approach. Sometimes you may be able to reduce the risk for the whole population. People who were previously at high risk now face only moderate risk. People who were previously at moderate or low risk have their risk further reduced or eliminated completely. This approach can be called the *population strategy* of risk management. Policies that take this approach operate on the risk profile of the whole population.

One advantage of this strategy is that it does not require the identification and monitoring of individuals or high-risk groups. It can also address the underlying cause that gives rise to the risk. On the other hand, this strategy might not reduce the inequalities within the population: even if the overall risk is reduced, the distribution of the risk factor remains unaffected. Even if your strategy is successful, injustice may persist.

The benefits of the population strategy are shown by the shaded area between the original risk profile (represented by the curve on the right of the right-hand graph) and the new risk profile (represented by the curve shifted to the left).

These strategies are part of the traditional approach to risk management in public health.[1] Policymakers concerned with health and environmental risk factors often have to choose between them. They have to weigh the relative advantages and disadvantages of these strategies. When they do that, they have to address ethical questions.[2]

For one, they need to compare the benefits of the individual strategy and the population strategy. How much improvement in wellbeing or health can be realized by the risk reduction that each of these strategies can achieve? That is, is the shaded area on the left-hand side graph greater or smaller than the shaded area on the right-hand side graph? What are the relative costs of these strategies? Costs and benefits,

however, are not the only moral factors that need to be considered. For instance, which strategy in a particular case would respect individual rights and privacy? Which would be less paternalistic? And how should benefit maximization be balanced with the aim of reducing inequalities in exposure to risk (and the loss of wellbeing and health that can be expected as a result of greater exposure)? That is, how much weight should be given to equality?

The traditional approach therefore involves the balancing of different moral considerations: finding the right strategy by using case-by-case ethical analysis, weighing and comparing different values. There is no prior answer to the question of which strategy is preferable in any particular case.

Many familiar public health policies are based on the population strategy. Examples include vaccination and screening programs, sanitation, the regulation of pollutants, and introducing building codes. Other policies use the individual strategy. Screening programs are often targeted at high-risk groups, hazardous jobs are strictly regulated, and illicit drug users are sought out and offered harm reduction programs.

Philosophers, however, sometimes appear to ignore the population strategy. For instance, Jonathan Wolff and Avner de-Shalit write:

> provided we have in mind limited, or at least finite, budgets and financial resources, then all of these views appear to converge on the same general policy prescription in the short to medium term: *identify the worst off and take appropriate steps so that their position can be improved.*[3]

The views Wolff and de-Shalit have in mind are rival theories of distributive justice, including egalitarianism, prioritarianism, and sufficientarianism. They argue that despite all the theoretical disagreements, these views have similar implications for social policy. They seem to claim that all these views give us a reason to prefer individual strategies. If they are right about this, then it seems the most prevalent theories of distributive justice have a blind spot: they ignore population strategies.

The Confluence of Two Factors

The health of populations has undergone massive changes in the last few decades. With socioeconomic development, the most important causes of mortality have shifted from infectious diseases to noncommunicable diseases. An increasing part of the global burden of disease is associated with noncommunicable causes of disability and premature mortality. This phenomenon is known as the *epidemiological transition*: a shift from communicable, maternal, neonatal, and nutritional disorders to chronic and degenerative diseases as the relatively more important causes of the burden of disease.

A recent study attempts to quantify the epidemiological transition by constructing a sociodemographic status index—including data on mean national per capita income, years of schooling after age 15, total fertility rate, and mean age of the population—and comparing the causes of the burden of disease between different regions of the world in terms of the index.[4] The study finds that the five leading causes of disability and premature mortality today are ischemic heart disease, lower respiratory infections, cerebrovascular disease, low back and neck pain, and road injuries. However, there are great variations between countries and regions, and

there is a clear pattern: as sociodemographic status improves, the burden of communicable diseases and maternal, neonatal, and nutritional disorders decrease. At the same time, the prevalence of noncommunicable disorders have been declining only slightly across the world.

Broadly speaking, the most effective measures for preventing communicable diseases and reducing poverty-related risks affect the whole population. They include improved sanitation, control of disease vectors, programs to improve maternal and neonatal care, and reducing poverty to eliminate malnutrition and undernutrition. These measures, by and large, correspond to the population strategy of risk management. Noncommunicable diseases, in contrast, are typically less susceptible to population-based policies. Their prevention is associated with lifestyle modification: regular exercise, avoiding obesity, having a healthy diet, decreasing cholesterol levels and alcohol consumption, quitting smoking. To a considerable extent, these preventive measures correspond to the individual strategy of risk management. Very generally, therefore, it may be claimed that in the early stages of the epidemiological transition population strategies have greater benefits, whereas in later stages individual strategies have greater benefits.

As a result, the epidemiological transition increases the importance of individual strategies of risk management—a point to which I return below.

Health policy, however, is not only a matter of epidemiology. It inevitably raises ethical issues, and questions of distributive justice in particular. And theories of distributive justice have also exhibited a convergence in the last few decades. The convergence is toward *responsibility-sensitive* views.

In Rawls's *Theory of Justice*, with which the contemporary discussion of distributive justice begins, personal responsibility does not play a major role.[5] It becomes central, however, in later works by Ronald Dworkin, Richard J. Arneson, G. A. Cohen, Larry Temkin, John E. Roemer, and others.[6] A responsibility-sensitive view holds that what is owed to individuals as a matter of justice at least in part depends on the degree of responsibility that those individuals have exercised in their choices. One family of such views, which is currently perhaps the most influential theory in distributive ethics, is *luck egalitarianism.*

The core idea of luck egalitarian views is that it is unjust if some people are worse off than others through no fault or choice of their own. When no one can be faulted or held responsible for their bad circumstances, then justice demands equality. People who end up badly off due to their unchosen bad luck or unfortunate circumstances have a claim for assistance. These views are responsibility-sensitive since they insist that no one should end up worse off due to factors over which they have no control.

A responsibility-sensitive view of distributive justice need not be egalitarian, however. Responsibility-sensitivity can be combined, for instance, with a prioritarian view as well.[7] Perhaps even a sufficientarian view can be made responsibility-sensitive: on such a view, everybody is entitled to some minimum level of resources or opportunities, but those who repeatedly and culpably fail to take advantage of them have only a diminished entitlement for assistance.

Responsibility-sensitivity is a central feature of the most influential contemporary theories of distributive justice. Most philosophers accept that being badly off through no fault or choice of one's own gives rise to a claim of justice. But there is more disagreement about bad outcomes that *are* the result of one's own choice or

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fault. What are the demands of justice when you are responsible for being badly off?

If it is unjust if some people are worse off than others through no fault or choice of their own, then it seems that it is *not* unjust if it is *not* the case that some people are worse off than others through no fault or choice of their own. One way that may happen is if everyone is equally well off. But it may also be the case that some people are worse off than others *through their own choice or fault.* In that case, no one is worse off due to factors for which they are not responsible. Everyone who is worse off is worse off because they have made a choice that lead to a worse outcome.

It is possible to take different views about this case. Some responsibility-sensitive views may hold that it is still unjust if some are worse off than others, even if this is through their own fault or choice. Even if those people could have avoided taking a risk, it is still bad luck when they end up with a bad outcome. But I believe that it is fair to say that most responsibility-sensitive views are also *irresponsibility-sensitive*: in one form or another, they agree that people should be held responsible for risks that turn out badly when they have freely chosen to take those risks with all the relevant information in hand.

This appears to follow from the central idea of contemporary theories of distributive justice: no one should suffer from arbitrary disadvantage or lack of opportunity, and people should have the freedom to pursue their life plans—but, at the same time, they should take responsibility for what they make of their lives and they should bear the social costs of their free and informed choices.

In conclusion: there has been a convergence, in the last few decades, on responsibility-sensitive (and irresponsibility-sensitive) views of distributive justice in philosophy. What these views have in common is that they hold that there is a reason to consider people's responsibility when we decide on public policies. This reason may not be decisive, all things considered, but it is relevant: personal responsibility must be taken into account along with other considerations.[8]

What does this have to do with the epidemiological transition and the choice between individual and population strategies of risk management? I propose that the convergence on responsibility-sensitive theories serves as one factor, along with the facts of the epidemiological transition, in focusing our attention on individual strategies of risk management—as evidenced by the passage quoted above from Wolff and de-Shalit. The confluence of these two factors, one from philosophy and one from epidemiology, has been affecting the way we think about ethical issues in population health.

In support of my proposal, consider these two counterfactuals:

1) If the epidemiological transition did not take place, responsibility-sensitivity would be largely irrelevant to theories of justice in population health and to the choice between individual and population strategies of risk management.
2) If the prevalent views of distributive justice were not responsibility-sensitive, the epidemiological transition would be less of a challenge to the traditional approach to risk management.

On the one hand, if the most important causes of the burden of disease continued to be communicable, maternal, neonatal, and nutritional disorders, then the strategies that had the greatest benefits would be, for the most part, population-based. There would be little need to identify high-risk individuals and to target them, given

that the most effective measures to lower the disease burden would be to address the underlying risk factors at the aggregate level. In such circumstances, even if you held that personal responsibility had a role to play in theories of distributive justice, this consideration would have little relevance in population health policies.

On the other hand, if personal responsibility had less emphasis in prevalent views of distributive justice, it is conceivable that we would think of individual strategies in different terms. We would still recognize that the best ways to address the main causes of the disease burden include lifestyle modification like regular exercise, avoiding obesity, decreasing alcohol consumption, quitting smoking, and so on; but we would be less prone to thinking about them as measures that individuals must be put in control of. For instance, in priority setting in health, we would be less inclined to think in terms of who is responsible for what, and how responsibility should be implemented, and more inclined to think in terms of changing the underlying social structure to make lifestyle modification easier for individuals. There would be less emphasis in blaming, faulting, and assigning responsibility, and more on incentives, assistance, and what has been called 'nudging.'[9]

To be sure, these two factors are not the only ones that shape the way those working at the intersection of philosophy and health policy think about population health ethics today. But they do seem to play an important role. Facts about the epidemiological transition and the strong presumption in favor of personal responsibility in distributive ethics can create a kind of 'framing effect': they influence the way questions are asked and answers are sought. It might be argued that they serve as 'primes': we come to our questions with empirical assumptions about the most pressing issues in population health as well as certain preconceptions of what justice demands. Together, these factors make some policy alternatives more salient than others. In particular, they may prime us to treat individual strategies as default options, and population strategies as needing special justification. Again, the quote above from Wolff and de-Shalit may be evidence of this phenomenon.

Here's another way to make the point. By far the most widely used methodology in ethics is *reflective equilibrium*: taking both our considered moral judgments and ethical principles as starting points, moving back and forth between them in order to bring them into agreement by modifying our principles in light of our considered moral judgments and revising or discarding our moral judgments in light of the principles. At the end of the process, we hope to arrive at principles that imply the moral judgments, and moral judgments that fit the principles. But one worry about this method is that our pretheoretical moral judgments may already be unconsciously influenced by moral principles, and the moral principles we choose to start with may already be the result of unarticulated theoretical commitments. In the present context, our principles may already reflect a theoretical commitment to responsibility-sensitivity; and our considered moral judgments may already be influenced by ideas about the more fitting approach or strategy of risk management. As a result, we may end up giving too little consideration to certain policy options.

Discussion

By now, it is widely recognized that risks accumulate at the lower end of the socioeconomic scale: poorer people tend to be exposed to higher levels of health risks, environmental hazards, and lifestyle-related risks.[10] As individual strategies become more prevalent, the burden of complying with these strategies (typically, by

modifying individual lifestyles) may disproportionally fall on the least advantaged; and as responsibility takes a central role, the least advantaged are more likely to be faced with demands to comply with these strategies or else be subjected to further disadvantages.

Some responsibility-sensitive views are aware of these dangers. They do not propose to hold individuals morally responsible for all the outcomes for which they are causally responsible. Instead, they hold that the notion of responsibility they employ should be sensitive to the social context.

For instance, in his application of luck egalitarianism to health, Shlomi Segall argues that people should *not* be held responsible for the outcomes of those choices that "it would have been unreasonable to expect" the individual to avoid.[11] That is, people should be held responsible only for the outcomes of those choices that society could have reasonably expected them to avoid. Matters of responsibility are shifted from the individual, and her causal role, to the normative expectations of society. As a result, if it is unreasonable to expect people to avoid some choice, then it is society's responsibility to assist those who make that choice, or perhaps to remove that option by prohibition or some other means. But if it is reasonable to expect people to avoid a choice, then they remain responsible for bad outcomes if they nevertheless risk that choice.

A similar idea is presented by John Roemer.[12] His proposal is to divide the population into *types,* and to attribute different levels of responsibility by what is 'typical' behavior within a type: the more typical the behavior, the less responsibility should be assigned for the corresponding choices. The type an individual belongs to is determined by that individual's socioeconomic and genetic characteristics. The types themselves, however, are defined by society's views of what should or should not be considered to be within people's control. In one of his examples, Roemer compares two lung cancer victims: a white, female college professor who has smoked for eight years—the median years of smoking for her type—and a black, male steelworker who has smoked for twenty-five years—the median years of smoking for his type. Roemer argues that these two lung cancer victims should be held responsible to the same degree. Thus, a black steelworker who only smoked for eight years would be *less* responsible for his bad health outcome than the white college professor for hers, even though they smoked for the same number of years. The difference is due to the fact that they belong to different types.

Notice that the degree to which a person is held responsible is in part a function of how other people in their type behave. Thus, at least in part, your responsibility depends on what others do, and not what you do. Similarly, in Segall's proposal, your responsibility might vary according to what most members of society find reasonable or unreasonable; people who make unusual choices might find themselves to be held more responsible when they deviate from the prevailing norms and expectations.

Do the proposals that shift the grounds of responsibility from the individual's choices to the views and expectations of society help alleviate the worries that I raised earlier? I think not. Consider again the choice between the individual and population strategies. On the traditional approach to risk management, the choice between them should depend on their relative costs and benefits as well as other moral considerations (including, perhaps, personal responsibility). But if people should be held responsible in the way that Segall's and Roemer's proposals suggest, a threat of circularity is introduced to the choice between the strategies. In any

particular case, what is reasonable for society to expect depends, at least in part, on whether the individual or population strategy should be chosen. In any particular case, what society should consider to be within people's control depends, in part, on whether the individual or population strategy is more appropriate.

In other words, when you consider which strategy to choose, you also decide on matters of responsibility—whether your policy should identify and target high-risk individuals, whether they should be expected to take responsibility for modifying their behavior, the form of accountability that may apply to them, and so on. In some cases, it might be appropriate, all things considered, to choose policies that give personal responsibility a central role. In other cases, alternative policies that give no role to responsibility may be more appropriate. But if you arrive at the choice with predetermined ideas about what is reasonable for society to expect, or some prior social views about individual control, then you might already be predisposed to make the choice one way or another. This is why I say there is a *threat of circularity*: your choice should determine if and when personal responsibility is relevant, rather than the other way around. As a consequence, you may end up with health policy choices that are made in a distorted way, because your decision is framed in a particular way from the start.

For an illustration, consider what has been called the 'obesity epidemic.' According to the OECD, more than one in two adults and almost one in six children are overweight or obese in OECD countries, and obesity rates are expected to further increase at least until 2030.[13] There is, of course, a well-known policy debate on whether obesity should be considered a matter of personal or social responsibility: whether the maintenance of healthy body weight should be matter of lifestyle modification or a matter of changing the social environment in order to empower people to make healthier choices. Opponents of the first complain about abandoning people in a 'toxic food environment'; opponents of the second complain about a paternalistic and intrusive nanny state. The debate has been highly politicized.[14]

But, arguably, the more important debate is taking place on a more general level. On one side, there are those who argue that obesity is not an 'epidemic' in any meaningful sense, and it should not be considered a public health problem.[15] As they point out, whether it is seen as a public or private health issue ultimately depends on the moral justification of the policies that determine who bears the costs of obesity. Therefore, to label obesity a public health problem already presupposes a set of moral judgments and a mix of policies to combat it. On the other side, you have arguments that emphasize that individual responsibility cannot be separated from environmental factors. The environment massively influences the degree to which people can exercise responsibility—for instance, by hijacking biological and psychological systems that regulate eating and weight.[16] This is a debate on what is reasonable or unreasonable for society to expect individuals to avoid, and what should be considered to be within people's control. It is about the way the policy debate about obesity should be framed to begin with.

Conclusion

Population health aims at reducing risks and harms. In this paper, I briefly described its two main strategies—individual and population centered—and their merits and limitations. I argued that the choice between the strategies might not be as neutral as is sometimes claimed, and our preconceptions about responsibility might lead us to

choose one strategy over the other. Further, I showed that there may be too much emphasis on personal responsibility because of two factors: on the one hand, our knowledge of the fact that the global burden of disease is increasingly attributable to chronic and degenerative diseases; and, on the other hand, the prevalence of responsibility-sensitive theories of distributive justice. For population health to be effective, it is important to be cognizant of any biases in the strategies chosen.

Notes

1. See Rose G, Khaw K-T, Marmot M. *Rose's Strategy of Preventive Medicine.* Oxford: Oxford University Press; 2008.
2. Sometimes, of course, only one of these strategies may be available. More often, a mixture of the two approaches may be the most appropriate. For simplicity, I set more complex cases aside. One of the most relevant examples is that of preventing and managing STDs, including HIV/AIDS, in the case of which the choice between individual and population strategies have also been politically controversial. For discussion, see Aral SO, Holmes KK, Padian NS, Cates W Jr. Overview: Individual and population approaches to the epidemiology and prevention of sexually transmitted diseases and Human Immunodeficiency Virus infection. *The Journal of Infectious Diseases* 1996;174 (Suppl.2):8127–33, and the references therein.
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