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Are Indirect Benefits Relevant to Health Care Allocation Decisions?

JESSICA DU TOIT*
National Institutes of Health, Bethesda, Maryland, USA

JOSEPH MILLUM
National Institutes of Health, Bethesda, Maryland, USA

*Address correspondence to: Jessica du Toit, MA, The Department of Bioethics, National Institutes of Health, 10 Center Drive, Building 10, Room 1C118, Bethesda, MD 20892-1156, USA. E-mail: jess.dutoit@gmail.com

When allocating scarce healthcare resources, the expected benefits of alternative allocations matter. But, there are different kinds of benefits. Some are direct benefits to the recipient of the resource such as the health improvements of receiving treatment. Others are indirect benefits to third parties such as the economic gains from having a healthier workforce. This article considers whether only the direct benefits of alternative healthcare resource allocations are relevant to allocation decisions, or whether indirect benefits are relevant too. First, we distinguish different conceptions of direct and indirect benefits and argue that only a recipient conception could be morally relevant. We analyze four arguments for thinking that indirect benefits should not count and argue that none is successful in showing that the indirectness of a benefit is a good reason not to count it. We conclude that direct and indirect benefits should be evaluated in the same way.

Keywords: *direct benefits, indirect benefits, resource allocation*

I. INTRODUCTION

The resources available for healthcare are limited. Whether because of absolute shortages of specific resources, such as organs for transplantation, or insufficient funding for health, in every country there are some patients who need an intervention but do not receive it. Thus, it is crucial that healthcare resources are allocated in an ethically defensible way.

Determining the right way to distribute a scarce resource requires assessment not just of principles of distribution but also of the benefits that are distributed. In "Separate Spheres and Indirect Benefits," Brock (2003) posed two questions about the type of benefit that should count in healthcare resource allocation decisions. One is whether nonhealth as well as health benefits should be taken into consideration. For example, successful surgery for lower back pain might generate the nonhealth benefit of allowing someone to resume playing tennis as well as the health benefit of pain relief. This question has been debated at length.[1] The other concerns whether only the *direct* benefits of alternative resource allocations are relevant to allocation decisions, or whether the *indirect* benefits are relevant too. For example, when assessing the cost-effectiveness of a tuberculosis treatment program, should policy-makers take into account the effects that treating sick workers has on the families who depend on these workers' wages? When deciding how to allocate influenza vaccines in the event of a pandemic, should front-line health care providers get priority because they will then treat others who get influenza? Despite arising in a wide range of contexts, this issue has received much less attention.[2] In this article, we argue that direct and indirect benefits should be evaluated in the same way and provide diagnoses of the cases in which it seems intuitive that there is a morally significant difference between them.

In the first part of the article, we sketch the contrasting attitudes to indirect benefits taken by the Admissions and Policies Committee of the Seattle Artificial Kidney Center at Swedish Hospital allocating renal dialysis in 1962 and the current United Network for Organ Sharing (UNOS) policies for allocating donor organs for transplantation. In order to determine whether indirect benefits should be counted, it is necessary to have a clear conception of indirectness. We distinguish several different conceptions of the direct/indirect benefit distinction in the bioethics literature. We argue that only one conception—a *recipient* conception—can distinguish direct benefits from indirect benefits in a nonarbitrary way. Next, we evaluate four arguments for thinking that indirect benefits should *not* count when weighing the benefits of alternative resource allocations. None of these arguments are successful in showing that the indirectness of a benefit is a good reason not to count it. In those allocation decisions when it seems intuitively that indirect benefits should not count, it is because other factors that provide good reasons for not counting the indirect benefits tend to coincide with indirectness. We conclude that there should be a presumption in favor of counting both direct and indirect benefits. In the final part of the article, we consider and rebut some skeptical considerations about the relevance of our conclusion for policy.

II. INDIRECT BENEFITS IN PRACTICE: THE "GOD COMMITTEE" AND ORGAN ALLOCATION POLICIES

In January 1962, Belding Scribner established the world's first outpatient renal dialysis facility at Swedish Hospital in Seattle. At first, the facility could

handle only 17 patients, and there were, at that time, approximately 10,000 Americans dying from renal failure each year (Satel, 2008). In response to this dire mismatch between the demand for and availability of renal dialysis, the hospital and the county's medical society formed The Admissions and Policies Committee of the Seattle Artificial Kidney Center at Swedish Hospital. All candidate patients would be prescreened by a board of physicians, and then all medically and psychologically suitable candidates would be considered by the committee to decide who would be treated.

As a first step, the committee eliminated all of those who were older than 45 years or could not afford the treatment. It then considered the age, sex, marital status, number of dependents, educational background, income, occupation, past performance, and future capacity to help others of each of the remaining candidates. It favored parents, the educated, the employed, and those with the capacity to help others (Alexander, 1962, 110; Murphy, 2004, 98; Satel, 2008). That is to say, the committee favored those it considered most valuable to society.

In deciding to prioritize those it deemed most valuable to society, the Seattle "God Committee"—as it came to be called—adopted the view that indirect benefits were relevant to allocation decisions. There was much opposition to this view, however. Some charged that prioritizing those deemed most valuable to society was an affront to the ideal of equality. They believed that people should be treated equally and that taking their respective capacities to contribute to society into consideration meant that they were *not* being treated in this way. Others agreed in principle that considerations of social worth were relevant to healthcare resource allocation decisions, but thought that allocating on this basis would do more harm than good.[3]

There is a stark contrast between the considerations that the "God Committee" judged relevant to allocation decisions and those currently judged relevant to the allocation of organs. For example, UNOS, the organization responsible for the distribution of organs for transplantation in the United States, exclusively considers direct benefits. When a potentially transplantable organ becomes available, the blood and tissue types of the donor, the size and condition of the organ, and other relevant data are entered into a database. The database then generates a list of potential organ recipients who are compatible with the organ. In selecting a recipient from that list, the following criteria are taken into account: (1) the prospective recipients's medical condition, that is, the urgency of their need for a transplant and their prognosis with the transplant; (2) the amount of time that the prospective recipients have been waiting for a transplant; and (3) the prospective recipients's proximity to the available organ (US Department of Health and Human Services [HHS], 2014). The organ allocation policies are similar in many other countries, including the United Kingdom, Australia, and New Zealand (National Health Service Blood and Transplant, 2012, 2013a, 2013b; The Transplantation Society of Australia

and New Zealand, 2014). None of these countries appear to consider indirect benefits when deciding how to allocate organs for transplantation.

In fact, the question of the relevance of indirect benefits frequently arises in practice, even if it is not explicitly labeled as such. Indirect benefits are treated very differently in different contexts and by different policies and guidelines. When arguing for greater resources to be devoted to a disease, the economic effects of that disease are often highlighted. For example, in a joint news release from the World Health Organization (WHO), "Stop TB Partnership, and the World Bank", Dr. Margaret Chan, Director-General of the WHO, is quoted saying: "[t]here were already compelling reasons to fight TB, which causes massive human suffering. Now, as a further incentive, there are strong indications that investment in meeting the Millennium Development Goal related to TB carries important economic benefits" (WHO, 2007). More narrowly, the benefits to other patients of treating one patient are frequently considered relevant to allocation decisions, even when other indirect benefits are not. For example, according to the US Department of Health and Human Services' pandemic influenza plan, those involved in the production of therapeutic countermeasures and the delivery of healthcare should be the first to receive an influenza vaccine (HHS, 2005). The rationale behind the selection of these two groups of individuals is very similar: minimizing the impact of a pandemic requires that mass production of the vaccine take place as fast as possible, and that the healthcare system is able to deal with the surge in demand for healthcare services. These priorities are widely endorsed (Emanuel and Wertheimer, 2006, 854; Gostin, 2006, 554; WHO, 2008, 9).

III. CONCEPTIONS OF DIRECT AND INDIRECT BENEFITS

Suppose that we must choose between two patients—A and B—both of whom have contracted a fatal illness. One dose of a curative serum is available and A and B cannot access any other curative agents in time. A and B are similar in all relevant respects except that B is a surgeon who will save the lives of five other patients if he receives the serum. If we give the serum to A, we obviously benefit A. However, if we give the serum to B, we benefit both B and the five other patients. It is generally understood that the benefits to A and B are *direct*, and that the benefits to the five other patients are *indirect*. Assuming, for now, that there is some morally important distinction between direct and indirect benefits, what is it about the relationship between the scarce resource that we are distributing and the five additional beneficiaries that makes these benefits indirect? The bioethics literature suggests several answers to this question.

Functional Conceptions

According to Brock, the direct benefit of allocating a resource is the benefit that corresponds to the purpose of our allocating that resource in the first

place (Brock, 2003, 4–5). On Brock's account, then, since the purpose of our giving the curative serum to someone is to alleviate the burdens of that person's disease, that is the direct benefit of the serum. Whatever other benefits might arise from our giving the serum to B would count as *in*direct benefits. Giving the serum to B saves the lives of the other five patients only indirectly by enabling B to live and to perform life-saving surgery on them.

The problem with Brock's account is that it entails that whether a benefit is direct or indirect is determined by one's conception of the purpose of one's activity. Depending on how broadly or narrowly one conceives of the purpose of the healthcare resource, the same benefit might count as direct or indirect. For example, if we conceive of the purpose of giving B the available serum more narrowly, as alleviating the burdens of his disease so that he could go on to save other lives, then the five other lives that B would save were his life saved, would count as a *direct* benefit of our giving the serum to him. Likewise, if we had conceived of the purpose of giving B the available serum more broadly, as simply saving lives, then the five other lives that B would save were his life saved, would count as a *direct* benefit of giving him the serum. There seems no obvious reason to say that alleviating his disease is our purpose, rather than one of these other two.

If the same benefit can change from being indirect to direct—and vice versa—simply by our reconceptualizing the purpose of the activity from which the benefit arises, then whether a benefit counts as direct or indirect is arbitrary. It is arbitrary because there is no reason why one must describe the benefit one way rather than the other. If that is the case, then there is no (deep) difference between direct and indirect benefits that could be morally relevant. Thus, if we adopted Brock's account of the direct/indirect benefit distinction, then the distinction would not be morally relevant.[4]

Frances Kamm also suggests a *functional* account. According to Kamm, the direct benefit of a resource allocation is the benefit that corresponds to the outcome for which the resource is specifically designed (Kamm, 1993, 108). This account might be thought superior to Brock's because the existence of a designer suggests a definite answer to the question of what the function of the resource is. However, similar concerns to those that we raised about Brock's account arise when we try to apply Kamm's account. First, in the case of natural objects, such as kidneys for transplantation, it does not make sense to ask for what outcome they are specifically designed, since no one designed them. Kidneys are not like medicines that are developed with some particular goal in mind. Second, even in a case where a resource was designed for a purpose, the problem of differing conceptions of purpose can emerge. For example, should one conceive of the purpose for which cetuximab, a cancer drug, was designed as treating head, neck, or colorectal cancer, as saving lives, as prolonging life, or as some combination of these?

We have argued that differing, but plausible, conceptions of an object's purpose are often available, and that this is a problem for functional accounts of

the direct/indirect benefit distinction, since it appears to make an object's function arbitrary. In response, it might be argued that there are objective accounts of function, which can provide a nonarbitrary answer to the question of what something's function is.

The literature on functions in the philosophy of science provides a common framework for analyzing the function of both artifacts and natural objects, like organs. According to Wright's (1973, 156) seminal analysis, the function of some entity is that particular thing it is good for that explains why it exists. For example, the function of the heart is to pump blood rather than to produce a thumping noise or make squiggly lines on electrocardiograms, because the fact that hearts pump blood explains why humans have hearts. Likewise, the function of the airfoils on racing cars is to generate negative lift because their ability to produce negative lift explains why they were put on the racing cars. In general, according to Wright, in saying that the function of some entity, X, is Z, one is saying that X exists *because* it does Z, and Z is a consequence of X existing (where it does) (Wright, 1973, 157).

In the case of artifacts, such as medicines, when we say that the function of some medicine is Z, we are saying that that medicine exists because it does Z. Doing Z is the reason that effort was put into manufacturing the medicine. In the case of natural things, on the other hand, when we say that the function of some entity, say a kidney, is Z, we are saying that Z is the reason that the organ was selected for by natural selection.[5]

In the case of a natural object, like a kidney, this type of analysis seems like it could provide an intuitively plausible distinction between direct and indirect benefits. Suppose that the function of the kidney is correctly described as eliminating wastes from the bloodstream. Then the direct benefit of a kidney is the benefit that results from it eliminating wastes from the bloodstream, that is, the maintenance of the healthy functioning of the person with the kidney. Other benefits, such as the benefits of the person with the kidney helping others, are not direct benefits of the kidney, since they are not benefits in virtue of which people have kidneys.

However, the analysis fares less well for artifacts, which did not result from natural selection. Consider, again, the case of a drug like cetuximab. In order to know its function, we need to know in virtue of what feature the drug exists. We may try to answer this question by looking at why the drug was created (or, more precisely, why it was developed and brought to market in the form it currently takes). It might be because of the effect that it has on certain tumors. It might also be because it extended the lives of certain patients. Or it might be because the drug was expected to be profitable. Depending on the exact history of the drug's development and the reason why the decision to develop it was taken, the function might be to shrink tumors, save lives, or make money. But, these are very different functions, and it looks as though the function of the drug, in Wright's sense, is a matter of historical accident. Though this might be the right way to identify

the function of the drug for certain explanatory uses, it does not look like a promising basis for a normative distinction.[6]

Recipient Conceptions

There is another conception of the direct/indirect benefit distinction to be found in Kamm's work: she also suggests that the *direct* benefit of any given resource allocation is the benefit bestowed on those who need and receive the resource being distributed, and that the *indirect* benefit is the benefit bestowed on a third party as a result of somebody else being directly benefited by a resource and then doing something unrelated to distributing the relevant resource to help the third party.[7] On Kamm's second account, then, the direct/indirect benefit distinction is a matter of whether there is an intervening person, the direct beneficiary, to whom our resource is provided (Kamm, 1993, 107).[8] Thus, on this *recipient* conception, there is a nonarbitrary way to identify the direct and indirect benefits of a resource allocation.

The recipient conception is similar to the way in which the direct/indirect benefit distinction is sometimes drawn in research ethics. In 1979, the United States National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research argued that vulnerable individuals should be enrolled in clinical research only when the risks are low or the research offers them sufficient potential for *direct* benefit (HHS, 1979). Benefits are considered direct only when they accrue to the research participants themselves.[9] Similar risk-benefit statements were subsequently included in many national guidelines for clinical research.

Functional conceptions cannot distinguish between direct and indirect benefits in a nonarbitrary way. It remains possible that a recipient conception could do so and so could be used to defend the moral relevance of the distinction. Consequently, in the rest of this article, we understand direct and indirect benefit according to Kamm's second account and consistent with its use in research ethics. A *direct benefit* is the benefit obtained by those who need and receive a resource (as a result of their needing and receiving that resource), and an *indirect benefit* is a nondirect benefit obtained by a third party as a result of the fact that the resource is given to a direct beneficiary.

IV. ARGUMENTS AGAINST COUNTING INDIRECT BENEFITS

Four main arguments have been proposed against counting indirect benefits when making healthcare resource allocation decisions.[10] In this section, we argue that none of them gives us a reason to treat indirect benefits differently than direct benefits either by weighting them less or discounting them entirely.[11] Without a reason to treat them differently, we should treat both types of benefit in the same way.

The Fairness Argument

Suppose we must choose between providing a scarce healthcare resource to a group of employed patients and a group of unemployed patients. The health needs and prognoses of the members of these groups are the same, so treating one group would be just as effective as treating the other. All else being equal, if only direct benefits counted, then there would be no more reason to choose one group than the other. However, treating the employed patients would also provide economic benefits to other people by returning the patients to the workforce and thereby allowing them to continue being productive. If indirect benefits counted too, this would provide a reason to prioritize the group of employed patients. But, the objection goes, prioritizing the employed patients on these grounds would be unfair (Lippert-Rasmussen and Lauridsen, 2010, 241–2).[12]

There are two reasons why counting indirect benefits in this way might be thought to be unfair. First, in prioritizing the employed over the unemployed for our scarce resource, we would prioritize the group that is already better off. Not only do the employed have jobs and thus a stable source of income, but they are now also receiving a scarce resource *because* of these ways in which they are better off. Conversely, not only are the unemployed not earning an income, but they are now also being denied a scarce resource *because* of this fact. Thus, counting indirect benefits seems to compound existing unfair inequalities. Second, counting indirect benefits and prioritizing the employed might be thought to be unfair because it means giving unequal weight to the equal health needs of the two groups of patients.

While it might be unfair to prefer the group generating more indirect benefits in this case, the crucial question for our purposes is whether the unfairness would be a result of the indirectness of the benefits. Unless it is the case that counting indirect benefits is unfair *because they are indirect*, this objection gives no reason for thinking that indirect benefits *qua* indirect benefits should not count.

Compounding unfair inequalities

Take the objection that counting indirect benefits and thereby prioritizing the employed is unfair because it compounds existing unfair inequalities. Consider, once again, having to choose between A and B for a single dose of serum, where A and B are equal in all relevant respects except that B is a surgeon who will go on to save five other patients if he receives the serum. Would giving B the serum compound existing *unfair* inequalities? It might do so, but it also might not. If A is a poor manual laborer, then counting indirect benefits might well compound existing unfair inequalities. But, if A is a millionaire businessman vacationing in the area, then it strains credulity to think that counting indirect benefits would compound existing unfair inequalities: he is already better off than the surgeon.

Moreover, sometimes only counting *direct* benefits would compound existing unfair inequalities in the same way. Suppose we must decide who gets priority for rehabilitation after road traffic accidents. The direct benefits to (poorer) manual laborers and (richer) office workers are the same. Thus, were we to consider only these benefits, we should be indifferent between the manual laborers and the office workers. But manual laborers will miss out on more work because of physical disability than office workers. The indirect benefits (to society and their families) of rehabilitation would here give a reason to prefer the worse off group. Thus, while counting indirect benefits might compound existing unfair inequalities in the case of the employed and unemployed patients, counting indirect benefits does not always do so.

Unequal priority to equal needs

Turn now to the second version of the unfairness objection, according to which counting indirect benefits and prioritizing the employed is unfair because it involves giving unequal weight to the equal health needs of the two groups of patients. Again, we think that other factors better explain this judgment.

First, the indirect benefit that is derived from prioritizing the employed is an *economic* benefit. Some might think that fairness requires that certain kinds of benefits, including economic benefits, should not count when deciding how to allocate scarce healthcare resources. Others might simply think that fairness requires that when a *healthcare* resource is at stake, only *health* considerations are relevant to the decision. Second, the indirect benefit that is derived from prioritizing the employed is a very small benefit to each member of a very large group of people (it is not even clear that each person in the economy would feel a non-negligible benefit as a result of the employed people's return to productive work). No identifiable individual receives a benefit of comparable size to the loss that would be experienced by a patient who does not receive the resource. The ethical relevance of both of these factors has been the source of a great deal of debate and both clearly stir powerful intuitions.[13] But, neither concerns the direct/indirect benefit distinction.

Consider another case in which these factors are accounted for, that is, a case in which the indirect benefit is a health benefit of comparable size to the direct benefit. Suppose we must choose between two patients—C and D—for a scarce life-saving healthcare resource, where the only difference between them is that D has a dependent and sick child, E. Only D is able to care for E until she recovers, and so E will die if D does not receive the resource. If only direct benefits counted in this case, then there would seem to be no more reason to choose C to be the beneficiary of the resource than there is to choose D.

However, if indirect benefits also counted, then D would likely be prioritized for the scarce resource since by saving D we also save E. Is it unfair to count indirect benefits in this case? Does it amount to giving unequal weight to the equal health needs of C and D? In this case, there are three individuals who will be substantially affected by our choice. Counting the indirect benefits amounts to counting each of the three individuals's equal interests equally since each of them has an equally substantial interest in the same thing: not dying. If we did not count indirect benefits, E's interest in remaining alive would not be counted at all. It seems to us that fairness requires that indirect benefits *are* counted in this case, so that the equal interests of all of those who will be affected by our action should count.

Still, even if one agrees that E's interests should count in this case, one might still think that C is treated unfairly if we automatically prefer the combination of D and E over him. What explains this residual concern? One possibility is that it is related to the indirectness of the benefit to E. Another is that it seems unfair to automatically prefer helping the greater number.[14]

We can evaluate this by comparing our reactions to the previous case to a case in which we must choose between saving one person directly and saving two directly. Suppose, for example, that C can be saved by receiving the only dose of a drug, or the same amount of drug can be used to save both D and E (each of whom requires only half a dose). It seems to us that C has the same complaint, if he has any complaint at all, in this case as in the previous one. The indirectness of the benefit in the first case makes no difference.

The second version of the unfairness objection is therefore equally unsuccessful in showing that the indirectness of certain benefits is a reason not to count them. When it seems that indirect benefits ought not to be counted, it is likely because other factors that do seem to provide reasons for not counting those benefits coincide with the indirectness of the benefit.

The Means-End Argument

Consider again the choice between the employed patients and the unemployed patients. Some have argued that to count the indirect benefits in cases like these, and so to choose to give the resource to the employed patients, would be to treat the unemployed patients as means only and not as ends in themselves (Childress, 1983). This would violate the Kantian Imperative that one should always treat humanity as an end in itself and never merely as a means (Kant, 1998, 88).[15]

Why would the unemployed patients be treated only as means if the employed patients are selected to receive the scarce health resource? According to the means-end argument, they would be treated only as means because they are denied the resource simply because they are *not* means to the economic benefits we could get from giving the resource to the employed patients.[16]

It is plausible that the patients are being treated as means when they are given greater or lower priority according to whether they produce benefits for others. It does not follow that they are being treated *only* as means to these benefits. Compare a clear case in which someone is treated only as a means. Suppose the owner of a sweatshop realizes that his workers are more productive when they are given a break midway through their shift. If he allowed them this break, solely because it meant that the factory made more clothes, he would be treating them only as means, not as ends in themselves, even though he would be benefiting them. Whether or not they are benefited is completely irrelevant to how he treats them.

Our original case is not analogous to the sweatshop example. Benefits to the patients themselves count, whether they are employed or unemployed, and they count independent of whether there are effects on third parties. Counting indirect benefits just means that those benefits to third parties also count. By counting the indirect benefits the patients are treated both as ends in themselves and as means to the welfare of others. But, this does not violate the Kantian imperative.

To see the plausibility of our analysis, consider another example in which the other differences between the potential beneficiaries have been removed. Consider again having to choose between C and D for some scarce health resource. C and D have identical medical needs, and their treatment would be equally effective. The only difference between them is that D has a dependent child, E, who requires parental care to survive. If indirect benefits count in this case, then we would prioritize D for treatment because by treating D we also save E's life. Does prioritizing D over C violate the Kantian imperative by treating C merely as a means and not as an end in himself?

It is certainly not obvious that this is the case. If one ultimately decides to prioritize D, it does not follow that C's interests have not been taken into account. It is just that in this case, there are two other individuals who will also be (substantially) affected by whichever decision we make regarding the allocation of the scarce resource. Thus, their interests also need to be considered when deciding how to allocate the scarce resource. Indeed, the Kantian Imperative surely requires that we afford equal concern and respect to all persons who will be (substantially) affected by the decision we have to make. In order to do this, however, indirect benefits must be taken into account. To omit to take account of indirect benefits in this case is to fail to take E's interests seriously. And, this is not consistent with affording E equal concern and respect, that is, with treating E as an end in herself. In this case, it seems that the Kantian Imperative actually *requires* that we count indirect benefits.

The Function Argument

Unlike the previous two arguments, the function argument does not purport to show that indirect benefits should never count. It reaches the more

modest conclusion that indirect benefits should not count when the function of the scarce resource—curing some disease, for example—is unrelated to the benefit being considered. To illustrate, suppose we are in the early stages of an influenza pandemic and must choose between a group of employed patients and a group of unemployed patients for a scarce influenza vaccine. If the unemployed group of patients were prioritized for treatment, we would obviously benefit this group of patients. If the employed group of patients were prioritized for treatment, we would benefit not only the employed patients themselves but also their families and wider society through their productive work. However, the function of the influenza vaccine is to prevent people from contracting the influenza virus (or, at least, to boost their immunity to it). Thus, the function of the influenza vaccine is unrelated to the economic benefits that vaccinating the employed patients would produce. According to the function argument, then, indirect benefits should not count in this case.

On the other hand, consider choosing between someone who is in the business of manufacturing influenza vaccine and someone who is in the laundry business. If indirect benefits counted in this case, then one would likely prioritize the person who is manufacturing the influenza vaccine because she would then go on to produce more of the influenza vaccine, preventing more people from contracting influenza. Since the function of the influenza vaccine is to prevent people from contracting influenza, it is, so the function argument goes, permissible to count these indirect benefits.[17]

There are a number of ways in which one might respond to this argument. The first is to press its proponents to explain why we should care, morally speaking, about the distinction between benefits that are related to the function of the intervention and benefits that are not related in this way. Why should it make any moral difference that the function of the relevant intervention is related to the reason one would give for one's choice of whom to benefit?

Compare two cases: in the first, one must choose between giving the cure for cystic fibrosis to patient C or patient D, where D has a dependent child, E, who is suffering from a different fatal condition. D will play a crucial role in whether or not E receives curative treatment. In the second case, a variation of the first, one must choose between giving the cure for cystic fibrosis to person C or person D, where D has a dependent child, E, who is also suffering from cystic fibrosis. Again, D will play a crucial role in whether or not E survives long enough to receive curative treatment for his condition. The reason for prioritizing D would be related to the function of the intervention in only the *second* case, because the function is, plausibly, preventing death from cystic fibrosis. Thus, according to the function argument, one would be permitted to count the indirect benefits and save person D in the second case but not the first. But, this does not dovetail with our intuitions about these two cases. Whether the child is suffering from cystic fibrosis or some other fatal condition, it seems equally permissible (or impermissible) to prioritize D

for treatment. Thus, the fact of whether the function of some intervention is related to the reason one gives for choosing whom to benefit seems irrelevant to the question of whether indirect benefits should be counted.

A second way in which one might respond to the function argument parallels the arguments we gave in the third section of this article, "Conceptions of Direct and Indirect Benefits." Whether or not the function of the relevant intervention is related to the reason one gives for one's choice of whom to benefit depends to a large extent on how narrowly one chooses to define the relevant intervention's function. In the first example, if we had defined the function of the cure for cystic fibrosis as saving lives, rather than curing cystic fibrosis, then the function might well have been related to the reason we would give for choosing to prioritize D over C. Similar arguments to those we gave in the third section of this article against functional accounts of the direct/indirect benefits distinction can be mounted against the function argument for only counting a particular subset of indirect benefits.

The Expectations Argument

Like the function argument, the expectations argument does not claim that counting indirect benefits is always impermissible. Rather, it claims that counting these benefits is impermissible when there is an expectation that only direct benefits will be counted. Recall that many countries only count direct benefits when they are deciding how to allocate organs for transplantation. If potential donors are aware of the allocation policies of their country, they might expect that when their organs are distributed only direct benefits would be taken into account. This, it might be argued, would be a reason not to count indirect benefits when deciding how to allocate organs for transplantation.[18]

We agree that if there were a well-founded expectation that only direct benefits would be counted in decisions about to whom to allocate organs for transplantation, then there would be at least some reason not to count indirect benefits when making these decisions. The organ donors might have decided not to be organ donors if they thought that indirect benefits would be counted. However, expectations can be changed. Indeed, if there were good reasons to count indirect benefits in organ allocation decisions, then the relevant authorities could embark on a campaign to inform the public that the organ allocation policy would be changed to take indirect benefits into consideration and ensure that organ donors are aware of the policy when they agree to donate. In this way, counting indirect benefits would not violate the autonomy of (potential) organ donors.

In fact, this objection simply illuminates a broader point. There are various ways in which people can acquire obligations, for example, through promises, through their roles, as reciprocation, and so on. Under the right circumstances, any of these could ground obligations not to consider indirect benefits. For example, someone could promise not to count indirect benefits

and thereby acquire a (defeasible) obligation not to count them. But, this has nothing to do with the indirectness of the benefits per se. An obligation not to consider direct benefits, or not to consider economic benefits, could be grounded in the same way.

It might be countered that the number of donors would drop if indirect benefits were counted. This is possible, but it will depend on exactly which benefits—direct or indirect—are counted. First, our argument has not been that *all* benefits should count equally when making allocation decisions, but that whether a benefit is direct or indirect is not relevant to how far it should count. Thus, for example, it might still be the case that economic benefits or very small benefits should not count. Second, the effects of such a policy change is an empirical issue. If the best justified policy would nevertheless lead to fewer people becoming organ donors, then this might be a reason to rethink the policy. We consider the policy dimension in the next section.

V. POLICY IMPLICATIONS

There is disagreement about whether resource allocation decisions should take into account only the direct benefits of alternative allocations or whether indirect benefits should count too. We have argued that none of the arguments against counting indirect benefits are successful. In cases when it seems that indirect benefits ought not to be counted in allocation decisions, it is because other factors that might well provide good reasons for not counting these benefits tend to coincide with the indirectness of the benefits. Thus, *in principle*, both direct and indirect benefits should count in the same way when deciding how to allocate scarce healthcare resources.

It does not immediately follow that policy-makers should ignore the distinction between direct and indirect benefits in practice. If it is true that morally relevant factors tend to coincide with the directness or indirectness of benefits, then it might be that indirectness could serve as a useful proxy marker for these other factors. In practice, then, it might be thought that excluding indirect benefits would tend to lead policy-makers to make better decisions.

To see the problem with this line of thought, consider two of the factors we identified in earlier cases that plausibly drive people's intuitions about certain cases involving indirect benefits: fairness and the size of the benefits. In both cases, it is straightforward to identify other common situations in which these factors do not co-vary with the indirectness of the benefits.

We noted earlier that counting indirect benefits might exacerbate existing unfair inequalities. For example, if we prioritize employed people over unemployed people on the basis of the indirect economic benefits that result, then it looks like the people who are already worse off lose out because they are worse off. However, this will not be generally true. For example, consider a choice between two patients, A and B, where A and B are similar in all

relevant respects except that A is the sole breadwinner in her household and B is just one of a number of breadwinners in his household. A's household is already worse off. If only direct benefits are counted in this case, then there would be no more reason to prioritize A for treatment than there would be to prioritize B for treatment. However, in failing to prioritize A for treatment, we are condemning A's household to even more severe financial hardship. Here, indifference between A and B on the grounds that they receive the same direct benefits seems to compound existing unfair inequalities.

In discussing the indirect economic benefits of some health care, we suggested that skepticism about counting these benefits might be driven by the view that these benefits are too small to have moral weight. Again, however, it is not legitimate to generalize about the size of indirect benefits. Consider the case of influenza pandemic planning: the indirect benefit of prioritizing healthcare workers for the limited supply of stockpiled vaccine is both sizeable and important. In prioritizing healthcare workers in this way, we secure the benefits of maintaining high quality health care for other patients and the efficient administration of the vaccine to many others.

Second, some might point out that while it is often fairly straightforward to predict what direct benefits some particular resource allocation will bring, it is often much more difficult to predict the *in*direct benefits. What is more, currently there is often little data about the indirect benefits of alternative possible resource allocations. It would be inadvisable to base allocation decisions on speculative projections about the indirect benefits that might result.

While we agree with the general thrust of this point, it is not a good reason to adopt a policy of not counting indirect benefits. If policy-makers treat indirect benefits as relevant to allocation decisions, this will itself incentivize the collection of the data needed to measure them. Given that indirect benefits will sometimes be both sizable and important, policy-makers ought to proactively identify and collect data on all the likely costs and benefits of different resource allocations. Doing so will lead to better decisions.

VI. CONCLUSIONS

We have argued that there is no morally significant difference between direct and indirect benefits when allocating scarce resources for health. This does not imply that there are no morally important differences between types of benefit. For all we have argued here, for example, it might be the case that only health benefits are relevant to the allocation of health care resources or that small benefits cannot always be aggregated for priority-setting decisions. Likewise, our conclusions say nothing about the principles that should be used to allocate these benefits among different individuals. However, qua direct or indirect, the benefits should be evaluated in the same way. Moreover, there are not good practical reasons to discount or ignore indirect

benefits: whether they are a reliable proxy for other factors which are morally relevant can only be assessed on a case by case basis.

NOTES

1. See, for example, Brock (2002, 115–20); Bognar (2008, 97–113); Broome (2002, 91–113); and Hausman (2012).

2. Two notable exceptions that we discuss later in this article are Kamm (1993) and Lippert-Rasmussen and Lauridsen (2010).

3. Veatch (2000, 280) discusses these charges in "Who Empowers Medical Doctors to Make Allocative Decisions?"

4. There is also a danger of circularity here. If we are trying to work out what our purposes should be in allocating a resource, then we cannot derive them from what our purposes already are. Our thanks to Michael Garnett for this point.

5. Ruth Garrett Millikan provides a similar account through the concept of *proper function*. According to Millikan:

> for an item A to have a function F as a "proper function," it is necessary (and close to sufficient) that one of these two conditions should hold. (1) A originated as a "reproduction" . . . of some prior item or items that, *due* in part to possession of the properties reproduced, have actually performed F in the past, and A exists because (causally historically because) of this of these performances. (2) A originated as the product of some prior device that, given its circumstances, had performance of F as a proper function and that, under those circumstances, normally causes F to be performed by *means* of producing an item like A. (Millikan, 1989, 288)

6. The implausibility of drawing normative inferences from these analyses of functions becomes even more obvious if we consider possible implications for the functions of new drugs. Suppose, for example, that the entities that pay for health care start to include the economic effects of interventions in their reimbursement decisions. Then, over time, the developers of new interventions would start to take those economic effects into account when deciding which research and development projects to pursue. But then, economic effects would be among the functions of new interventions since they would exist (in the particular form that they did) partly because of the economic effects that they were expected to have. Distinguishing direct and indirect benefits through their functions then becomes thoroughly circular.

7. Kamm brings up the case of our not being able to get some drug to C, who directly needs it (1993, 107). B needs the drug himself, but is a fast runner and so could, if treated, get some of the drug to C. In this example, since B receives the drug and then does something *related* to distributing the drug to help C, C is a direct beneficiary.

8. Since Kamm provides this conception of the direct/indirect distinction in addition to her functional conception, she provides a *mixed* conception of the relevant distinction. However, given that her functional conception cannot be the right way to conceive of the distinction, her mixed conception of the distinction cannot be correct. Thus, we consider her recipient conception of the direct/indirect distinction as a stand-alone conception.

9. There is consensus in the research ethics literature that benefits are direct only if they accrue to the research subjects themselves. But since certain kinds of benefits—economic benefits, for example—are sometimes deemed inappropriate in the context of clinical research, some argue that benefits are direct just in case they accrue to the research subjects themselves and are of a certain restricted kind. For example, Nancy King argues that direct benefits are those benefits arising from receiving the clinical intervention being studied (King, 2000). Thus, she restricts direct benefits to *clinical* benefits that accrue to the research subjects themselves. This, however, conflates our question about direct and indirect benefits with the question of separate spheres, that is, with the question of whether nonhealth-related as well as health-related benefits are relevant to healthcare resource allocation questions. For the purpose of this article, we have set that issue aside.

10. Three are found in the published literature, and one we encountered in discussion.

11. Throughout we present the conclusions of the arguments as though they entailed not counting indirect benefits at all. The arguments and our replies would apply equally to just weighting them less than direct benefits.

12. They focus on the implications of a specific account of fairness. Here, we develop at greater length the possible arguments that might be marshaled to support the judgment that counting indirect benefits is unfair.

13. On separate spheres see Brock (2003). On the relevance of the size of the benefits being distributed, see (Kamm 1993, 144–64); Dorsey (2009, 36–58); and Norcross (1997, 135–67).

14. Taurek (1977) argues that we should not prefer to save the greater number in certain cases. According to Taurek, in assuming that we should always save the greater number, we are assuming that every human has an objective value that we can combine to get the value of (for example) two against one. But, according to Taurek, this is just not true: humans are not like objects in this way. Indeed, Taurek claims that when we think that the loss of human life matters, it is because the *experience* of that loss matters, and two individuals losing their lives just does not add up to anyone's experiencing a loss twice as great as the loss suffered by any one of the involved parties.

15. For a different analysis of this objection, based on Brock's conception of the direct/indirect distinction, see Lippert-Rasmussen and Lauridsen (2010, 242–4).

16. As Kamm puts it: "In the standard case of *using* as a means merely, we use someone's services without considering his interests. Here we *treat* someone as a means because we consider whether he could be of use to us and reject him because he is not" (Kamm, 1993, 111).

17. This is the majority view about how scarce medical interventions should be distributed in the event of an influenza pandemic.

18. Our thanks to Dave Wendler for suggesting this objection.

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