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Responsibility and rationing in health care

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Responsibility and rationing in health care

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Abstract

Objective: People make different choices about how to live their life and these choices have a significant effect on their health, the risks they face and their need for treatment in the future. The objective of this article is, drawing on normative political theory, to sketch an argument that assigns a limited but significant role to individual responsibility in the design of the health care system

Method: In developing our argument, we proceed in five steps. First, we review the literature on criteria for priority setting. Second, we explore the most prominent contemporary tradition in normative theory, liberal egalitarian ethics, with the aim to clarify the role of responsibility for choice. In particular we discuss where liberal egalitarian theories would draw the “cut” between the responsibility of the state (which is extensive) and the responsibility of the individuals (which is limited but significant). In the third step, we identify a priority setting dilemma where the commonly advocated criteria would assign equal priority. Finally, we develop a simple model in order to examine the implications of introducing a well-defined notion of responsibility for choice in a priority-setting dilemma of this kind.

Results: Liberal egalitarianism holds individuals responsible for choices that affect their health, given that i) the illness is completely or partly a result of individual behaviour and choice; ii) the illness is not life-threatening; iii) the illness does not limit the use of political rights or the exercise of fundamental capabilities; and iv) the cost of treatment is low relative to the income of the patients. The paper shows how this type of considerations can be used to determine an optimal level of co-payments for diseases even when individual choices cannot be observed directly.

Conclusions: It is possible to assigns a limited but significant role to individual responsibility in the rationing of health care resources. The liberal egalitarian argument captures a concern that is not captured by traditional criteria for priorities in health care. It can thus help policy makers in situations where the cost-effectiveness of different

alternatives and the severity of the illnesses are approximately the same, or if the society wants to assign some weight to responsibility for choice. It can easily be linked to a system of graduated co-payments, but need not be.

Introduction

So-called life style diseases, such as obesity, certain types of cancer and cardiovascular disease, constitute an increasing portion of health problems. The probability of acquiring these diseases, and the expected need for treatment, is affected by the choices people make about how to live their life. This paper suggests how considerations of personal responsibility for own choices should enter into the design of the health care system. In particular we ask whether the extent to which a disease is a result of individual choices should be allowed to affect the degree to which it is given priority and the level of co-payments.

The background for this question is the fact that the costs of modern health care are constantly rising, and the menu of possible interventions is steadily increasing. The public is unable and unwilling to pay for all services for which there are documented effects. Doctors and policymakers are therefore required to ration health care services and sort out priorities among new groups of patients. One policy response within publicly funded health care systems, such as the NHS or the Scandinavian welfare systems, is to define ‘core services’ that should be a priority while at the same time allowing for private financing of non-essential services (1-5). Another option is to rank services according to some pre-defined priority criteria, such as cost-effectiveness etc., and introduce co-payment graded according to priority rank (6). Within such a system, core services would receive full public funding, while “low priority” services would be provided, but financed partly through co-payment from the patient or supplementary health insurance. Finally, there would be “no priority” services for which there is a demand, but where society has no obligation to cover the costs. In vitro fertilisation, some forms of plastic surgery or the removal of tatoos are commonly cited examples of this type (7, 8).

A key question is what criteria that should govern the selection of core services and the determination of co-payments. A commonly accepted set of criteria states that the priority of a given condition and its intervention should be assessed in terms of the severity of disease, the benefit from the intervention and the cost-effectiveness of the intervention. The degree to which a disease is a result of factors that people themselves can control, such as their diet and their level of exercise, has not been included in the commonly accepted set of criteria. The medical profession and health politicians have, for good reasons, been reluctant to allow individual responsibility for health affect the extent to which patients should be treated. Nevertheless, we shall in this paper argue that it is possible to assigns a limited but significant role to individual responsibility in the rationing of health care resources.

An example can illustrate the point we are making. In some countries dental care for adults is not, with some exceptions, covered by the public health care system. Caries-related disease for adults can partly be seen as a function of to what degree each person has done an effort to prevent caries. Assume now that the health care budget in a country is increased. Would it be fair to give priority to dental care for caries in adults (i.e. to include it among the public services) as compared to another conditions, say medical treatment for allergic rhinittis, where the severity of the condition, the benefit from treatment and cost of treatment are about the same – but where the disease is attributable to factors solely outside the affected person's control?

A rejection of responsibility in health care would imply that we could not distinguish between these two cases. The aim of this article is, drawing on normative political theory, to sketch an argument that assigns a limited but significant role to individual responsibility. This argument could help to explain how a health policy with graded co-payment according to priority could be formulated in cases of the kind described.

In developing our argument, we proceed in five steps. First, we review the literature on criteria for priority setting. Second, we explore the most prominent contemporary tradition in normative theory, liberal egalitarian ethics, with the aim to clarify the role of responsibility for choice. In particular we discuss where liberal egalitarian theories would draw the “cut” between the responsibility of the state (which is extensive) and the responsibility for choice by individuals (which is limited but significant). In the third step, we identify a priority setting dilemma (dental care versus allergic rhinittis) where the commonly advocated criteria would assign equal priority. We then develop a simple model in order to examine the implications of introducing a well-defined notion of responsibility for choice in a priority-setting dilemma of this kind. Finally, we show how this approach can be used to determine a just level of co-payments for different diseases.

Principles and criteria for rationing

Most authors agree that distributive health policies should be aimed at two goals: efficiency and fairness in the distribution of health care (9-17). Although people disagree about how much weight the different concerns should have, there are some reasons for rationing that almost all theories of resource allocation in health care would recognise (18-22). This set of accepted criteria states that the priority of a given condition and its intervention should be assessed in terms of:

1. The severity of disease, if untreated
2. The benefit from the intervention
3. The cost-effectiveness of the intervention
4. The quality of evidence on 1-3

This information can in concrete rationing cases be formulated in terms of characteristics of the patient, the condition, and the health intervention in question. A common feature of this set of criteria is that they are forward looking and focused on the consequences of interventions. Forward-looking type of arguments are not concerned with what individuals have done but rather what will produce the best state of affairs in the future.

It is also possible to identify a set of criteria that no policy document and no established theory of distributive justice have accepted. The list of unacceptable criteria includes race, ethnicity, religion, sex, social status, sexual orientation and physical or mental disability. Such personal characteristics are considered normatively irrelevant from the perspective of distributive justice (23). These are criteria of rationing that people affected by such decisions would have good reasons to reject (21).

Responsibility for choice of life style is, together with for example age, in a third set of criteria, the set of contested criteria (24-28). Holding individuals accountable for their choices in the context of health care is controversial. The responsibility criterion differs from the criteria in the first set by being backwards looking. It tells us that it is not sufficient to have information about the consequences of possible interventions in order to make priorities. We also need historical information about why there is need for the intervention, in particular whether the need for treatment is a result of choices made by the patient.

In the next section we explore how the so-called liberal egalitarian theories of justice locate the line between the responsibility of the state and the responsibility for choice by individuals and discuss how they might respond to the powerful arguments against using responsibility as a criterion in the rationing of health care.

Liberal egalitarianism and responsibility

People make different choices about how to live their life and these choices have a significant effect on their health, the risks they face and their need for treatment in the future. Important philosophical and political positions argue that a just health policy must take account of such differences. One prominent ethical tradition that has focused on personal responsibility is liberal egalitarianism.

Liberal egalitarianism combines the radical idea that we want a society where we can live as equals with the idea that people should be held responsible for their choices (31-36). A liberal egalitarian approach can thus be seen as consisting of two parts. First, the liberal principle that people should be held accountable for their choices, that has been named the *principle of responsibility*, and secondly the egalitarian principle that individuals who make the same choices also should have the same outcomes, that has been named the *principle of equalisation* (37). On the background of these two principles, liberal egalitarian theories would argue that society should eliminate inequalities in health that arise from factors outside individual control (29), but not inequalities in health that arise from differences in choice (21, 30).

In the context of health policy, there are obviously many good reasons for not accepting the principle of responsibility. Consider the long time smoker who at age 60 develops coronary heart disease. He now suffers from angina pectoris and is at risk for getting a myocardial infarction, or even a stroke. The cardiologist makes further diagnostic tests and tells him he needs a percutanous intervention (PCI). Many think it would be a harsh judgement to deny him the procedure because the disease could be said to be self-inflicted. Such *humanitarian* concerns would be even stronger if we consider the case where a patient already has acquired a myocardial infarction, is suffering great pain and are at high risk of dying. Should acute treatment be denied him? Many would strongly object to this (24).

Perhaps the strongest rejection of holding people accountable for the consequences of their choice is found in the view called complex egalitarianism (38). Securing fair equality of health related opportunities is important for protecting the capabilities of free and equal citizens. Overemphasising choice and responsibility undermine democratic equality, according to this view. A commitment to equality implies a concern for inclusion, not exclusion (39). Any plausible interpretation of liberal egalitarianism in health care must respond to arguments of this type.

One response to this argument is to point out that that liberal egalitarianism does not necessarily hold individuals responsible for the consequences of their choice. In the context of health care this latter principle would imply that individuals should be refused publicly financed treatment if the agent could have avoided the need for treatment by making a better choice. The principle of responsibility states that individuals should be held responsible for their choices, not for the consequences of their choices. For example, this argument supports levying taxes on tobacco instead of having lung cancer victims paying for their treatment (Cappelen and Norheim 2004, unpublished).

However, in this paper we shall avoid the objections against introducing personal responsibility by focusing on a class of priority setting dilemmas that do not involve important and substantial health related opportunities. We ask whether it is possible to define a limited but significant role for individual responsibility in cases that satisfies the following condition:

i) The illness is completely or partly a result of individual behaviour and choice.
ii) The illness is not life-threatening
iii) The illness does not limit the use of political rights or the exercise of fundamental capabilities
iv) The cost of treatment is low relative to the income of the patients

Some elements of dental care for adults might satisfy this condition. In the following, we explore the priority of adult dental care as a realistic policy choice where these concerns play a major role.

Introducing responsibility for choice in a priority setting dilemma: The dental care versus allergic rhinittis case

In some countries dental care for adults is not, with some exceptions, covered by the public health care system. For adults, costs associated with special conditions and where the consequences of non-treatment are substantial, exemption rules typically apply. Consider now that the health authorities want to increase the annual health budget by a given amount money and is contemplating how to allocate these new funds. The choice is between the treatment of caries-related dental diseases and treatment of allergic rhinittis. In the current situation the costs of antihistamines and nasal steroids for seasonal allergic rhinittis is not reimbursed if the treatment period is less than three months per year -- which is often the case. Should the prescription rules be more inclusive?

The increase in the health budget is not sufficient to fully finance the treatment of both these illnesses. The government thus considers the following options:

a) To include treatment for caries-related dental disease for adults in the comprehensive package of core services that is provided for free.
b) To include from day one antihistamines and nasal steroids for allergic rhinittis in the package of core services.
c) To include both (a) and (b), but with differentiated co-payment.

Regardless of which policy is chosen, special dental problems are exempted as it is today, and the reimbursement rule applies for antihistamines and nasal steroids for allergic rhinittis when the treatment period exceeds three months per year.

We make the following not unreasonable assumptions. The severity of both kinds of disease, if untreated, is the same. The benefits from the interventions are the same on average for both options. The relevant treatment costs are the same, and the quality of evidence is equally good. This implies that the traditional criteria for rationing in health care described above give little guidance. Furthermore it seems that these criteria ignores a morally relevant difference between the two diseases: that allergic rhinittis is a condition that arises from factors beyond each person's control, while caries related disease can partly be seen as a function of to what degree each person have done an effort to prevent caries (in saying this we do not deny that there are other factors beyond individual control that partly contribute to caries). We now develop a simple model in order to show how one could take account of this difference in the allocation of funds between the two diseases.

Liberal egalitarian reasoning: A simple model

As in the example above, we consider a situation in which we have two types of diseases, A and B. The severity of both diseases is the same and both diseases can be cured at the same cost, i.e. $C^A = C^B = C$, where C^j is the cost of curing disease *j*. All individuals who get either disease A or B are cured, but the patient might have to finance part of the treatment.

There are *n* individuals and the probability of a person *i* getting the disease A, p_i^A, depends on her behaviour. If a person *i* neglects her self care she will get the disease with certainty. If she does not neglect her self-care she faces a lower probability of getting the disease. The probability of getting disease A is:

$$(1) \qquad p_i^A = \begin{matrix} r^A & if & N_i = 0 \\ 1 & if & N_i = 1 \end{matrix}$$

where r^A is the basic risk of getting A that everybody face independent of their behaviour. N_i indicates whether a person neglects self care or not, with $N_i = 1$ if a person neglects self care and $N_i = 0$ if she does not neglect self care. We assume that choice of N_i is fully under the individual's control. In order to focus on the role of responsibility in the allocation of health care resources, we shall assume that there are no incentive effects. This means that peoples' choice of self-care is unaffected by the way we finance treatment and the level of co-payments. The total number of people with disease A is thus given by $n^A = nr^A + n_N(1 - r^A)$.

The probability of a person *i* getting the disease B is given by

$$(2) \qquad p_i^B = r^B$$

where r^B is the basic that risk everybody face of getting B. The probability of getting B is thus totally outside the control of the individual and the total number of individuals getting disease B is simply given by $n^B = nr^B$.

Let the number of individuals who neglect their self-care be given by n_N. We furthermore assume that all who get the disease A or the disease B seek treatment for their illness, independent of the extent of co-payment for the disease. We thus ignore the possibility that some individuals cannot afford the co-payment.[1] The total (expected) cost of treatment for the population as a whole, $E(n_N)$, is then given by

$$(3) \qquad E(n_N) = (n^A + n^B)C$$

The fact that some individuals neglect their self-care increases the expected costs of treatment by $n_N(1 - r^A)C$.

The health care system is financed partly by a fixed transfer, T, from the government, and partly by co-payments. The co-payments can be differentiated between diseases but not between individuals. The budget constraint can then be written as:

$$(4) \qquad E(n_N) \leq T + n^A t^A + n^B t^B$$

where t^A and t^B is the co-payment for the treatment of disease A and B respectively.

Let us now consider a situation where $T < E(n_N)$. How should t^A and t^B be set so as to balance the budget? The traditional criteria of severity, expected benefit and cost-effectiveness do not help us, since we have assumed that these diseases have

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[1] This is a reasonable assumption in a country like Norway since the social security would pay for the co-payment for those with the lowest incomes.

approximately the same severity and the treatments are equally cost-effective. There is however one important difference between these two types of diseases. All individuals who get disease B get it for reasons outside their control, while a fraction, $\alpha = \frac{(1 - r^A) n_N}{n r^A + (1 - r^A) n_N}$, of those who get the disease A, get it because they have been negligent with their self-care. Should this difference affect the way in which we ration the limited public transfer between different diseases?

To answer this question let us ask how we would have distributed the resources if we had full information about each individual’s behaviour. In particular: if we had information about whether or not a person had neglected self-care, should we then hold them responsible for the increase in expected costs? Above we have argued that a liberal egalitarian theory would want to finance all health care expenditures due to factors outside the individuals’ control, but none of the costs due to differences in choice. In the context of this model this implies that we should finance those who become sick due to the basic risk, but not those who become sick due to lack of self-care. However, the government do not have information about whether or not an individual have neglected self-care. It is therefore not possible to achieve the first-best distribution of resources.

Determining optimal levels of co-payment

To illustrate this problem, let us again return to the dental care versus allergic rhinitis example. Initially the treatment of both diseases is financed fully by the individuals. Assume that the cost of treatment for both diseases is $C = 1000 NOK$ and that the total adult population is $n = 3000"$. The basic risk for carries is $r^A = 0.05$ and the basic risk for allergic rhinitis is $r^B = 0.1$. Finally, assume that five percent of the adult population neglects self-care, e.g. $n_N = 150"$ and that everyone who neglects self-care develops carries.

The health care budget is then increased by 450 million NOK and the health care authorities have to decide how to distribute these resources between dental-care and treatment for allergic rhinitis. Expenditures due to the basic risk are equal 450 million NOK and the first-best distribution is simply to fully finance all those who become sick due to factors outside their control. However, we are not able to distinguish between those who need dental care due to lack of self-care and those who need dental care due to the basic risk. Those who neglect their self-care add costs equal to 142.5 million NOK and the total expenditures are therefore equal to 592.5 million NOK. We thus need to set the two co-payments so as to cover the deficit of 142.5 million NOK.

Given the informational constraint, the policy objective is to determine the level of co-payments so as to get as close as possible to the first-best distribution. We suggest that the policy makers should minimize the following objective function

$$(5) \qquad W(t^A, t^B) = (1-\alpha)n^A(t^A)^\sigma + n^B(t^B)^\sigma ,$$

where $\sigma \geq 1$. In order to interpret this objective function, consider first the case in which $\sigma = 1$. The objective function then has a straight forward interpretation; the policy makers should set the co-payments so as to minimize the total sum of co-payments paid by those who are sick due to factors outside their control. The solution to this policy problem is seen by observing that any co-payment paid by those who need dental care is given less weight than the co-payment for allergic rhinitis. The difference in the two weights is equal to the share of dental patients who need treatment due to lack of self-care. If the policy makers minimize the additive sum of unjust co-payments any positive α will imply that the optimal policy is to set the co-payment for allergic rhinitis equal to zero and finance the whole deficit by the co-payments on dental care (i.e. by setting $t^B = 0$ and $t^A = 487$). This policy will minimize the share received by those who are sick due to factors under their own control and maximize the share of public funds that is spent on people who are sick due to factors outside their own control.

However, the policy makers might want to set $\sigma > 1$. The reason for this is that it could be argued that large deviations from the first-best solution are worse than small deviations. If $\sigma > 1$, then policy makers would prefer to have one thousand people pay one dollar too much to having one person pay one thousand dollars too much. We can view this as an egalitarian consideration, since it captures the idea that we want those who become sick due to the basic risk to pay the same co-payment independent of which disease they have. When $\sigma > 1$, it might be optimal for the government to set a positive co-payment also for those who need treatment for allergic rhinitis in order to avoid large co-payments for those who need dental treatment due to the basic risk. However, it will never be optimal to set the co-payments for dental care lower than those for allergic rhinitis. In the extreme case of inequality aversion, i.e. when $\sigma = \infty$, the policy makers will want to minimize the maximal co-payment for any person who becomes sick due to the basic risk. The co-payments for both dental care and treatment of allergic rhinitis would then be set equal to 240.5 NOK.

Generally, the optimal level of co-payments will depend on the share of people who are sick due to lack of self-care, α, and the degree of inequality aversion, σ. An increase in α will increase the optimal co-payments for dental care, while an increase in σ will increase the optimal co-payments for allergic rhinitis. Clearly, it might be difficult to determine α, but increased knowledge can in principle reduce this uncertainty. The degree of inequality aversion σ, will be a matter for political deliberation.

Concluding remarks

In this paper we have tried to show that it is possible to assigns a limited but significant role to individual responsibility in the rationing of health care resources. We have also argued that this approach captures some morally relevant differences between different alternatives, differences that are not captured by traditional criteria for priorities in health care. It can thus help policy makers in situations where the cost-effectiveness of different alternatives and the severity of the illnesses are approximately the same, or if the society wants to assign some weight to responsibility for choice. It can easily be linked to a system of graduated co-payments, but need not be.

The argument for including individual responsibility in the list of priority criteria developed in this paper is a fairness argument and is not based on incentive considerations. Holding people responsible for their choices with respect to unhealthy life-styles could also be justified by incentive arguments. We have, however, ignored such considerations by assuming that peoples behavior is unaffected by the co-payments in order to focus on the fairness argument.

One important problem with the approach we have proposed has not been discussed in this article. Any theory that attaches importance to individual responsibility presumes that it is possible to identify the factors that are outside the control of the agent and those that are under the control of the agent. However, it is notoriously difficult to draw a precise ‘cut’ between circumstances and choice. In this paper we made the important assumption that people are equally free to make the choice of self-care and that dental self-care requires the same ‘effort’ for all individuals. This assumption could be challenged. There is certainly a correlation between socio-economic factors and dental self-care and this suggests that the choice of negligence is not fully under the individual’s control. Any policy that attempts to take into account individual responsibility must therefore be aware of the possibility that it might actually introduce a hidden discrimination between different socio-economic groups.

Our primary goal in this article is not to argue for or against dental care for caries, but rather to focus on responsibility in health care. We believe this focus is important for two reasons: First, responsibility is seen as a key feature of liberal egalitarian theories of justice, but has recently been neglected in theories of health care distribution. Second, we anticipate that modern health policy – with the development of modern medicine including the new genomics as a driving force – will need a more fine-tuned account of the role of responsibility in health care.

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