# Lifestyle changes for treating diabetes: should we be more strict when it comes to the overweight?

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# Contents

# Chapter 1

# Summary

The past few decades have seen a rise in the number of people who are overweight and obese in the Netherlands, which has resulted in an increase in people who develop diabetes. In light of the rise in healthcare costs that this brings about and the feeling of injustice when a considerable proportion of public resources are being spent to treat self-inflicted -and thus avoidable- disease, this paper discusses whether compulsory lifestyle treatment combined with a policy of having to pay higher health insurance premiums in case of non-compliance with lifestyle treatment, could help to contain these healthcare costs as well as promote health and quality of life in the overweight. Problems with the current diabetes treatment protocol when it comes to the overweight and obeses are discussed, and it is explained how a policy of lifestyle treatment could provide an answer to these problems. Furthermore, the circumstances under which it can be morally defended that people are treated unequally in an (otherwise) egalitarian system are discussed, and this is applied to Dutch health insurance practice. A forward-looking conception of moral responsibility for disease is proposed, which avoids the problems associated with a backward-looking conception of responsibility, such as that people can often not be held fully responsible for their past behaviour. Several problems with the alternative proposal are discussed, such as the risk of undermining the trust between doctor and patient, effective exclusion of health insurance this policy might cause due to high premiums, and the impingement of a person's autonomy by making lifestyle treatment compulsory for overweight diabetes patients. Also, several unresolved issues are explored, such as whether the costs of lifestyle treatment should be covered by public health insurance when lifestyle treatment turns out to be very effective, but not cost-effective; the question of whether to make lifestyle therapy compulsory for other overweight persons who have not yet developed any overweight related disease and might benefit equally; and whether a similar policy should be applied to other patient groups with self-inflicted disease, and if so, what the results should be when someone belongs to more than one of the patient categories to which this policy is applied (especially with respect to higher insurance premiums)?

# Chapter 2

# Introduction

The number of people who are overweight has risen dramatically over the past decades, and with it the number of people who suffer from overweight and obesity related disease. This increase in non-communicable, chronic disease, combined with advancements in medical technology and an ageing population, results in an ever-growing strain on the healthcare budget and a need to set limits to healthcare. In this paper, I shall explore the adequacy of the current treatment protocol for diabetes in light of the rise in overweight and obesity and shall investigate whether moral responsibility can be used as a criterion to set limits to the type of treatment available to this new category of patients, or to treat them differently with respect to health insurance premiums. I shall argue that this group of patients should be recognised as a distinct subgroup, for which different treatment is required. Furthermore, I shall argue that people do not have a compensatory claim on each other for foreseeable (negative) consequences of their freely chosen actions, which serves as further justification for a forward-looking conception of responsibility for health. I shall explore how this forward-looking conception of responsibility is able to tackle some of the problems with assigning moral responsibility for self-inflicted disease that have been described in the past, and in which cases this conception is still inadequate. But I shall begin my discussion by giving an overview of the current state of affairs with respect to overweight and diabetes, to give an impression of the urgency of the present healthcare situation.

# Chapter 3

# Current state of affairs

## 3.1 Overweight and obesity

### 3.1.1 State of affairs in the Netherlands

Nearly half (47%) of the Dutch population of 20 years and older is overweight, which is defined as having a Body Mass Index (BMI) of 25 kg/m$^2$ or more. The percentage of Dutch citizens that is overweight has increased sharply in the past 30 years, from 1 in 3 in 1981 to almost 1 in 2 in 2009. The percentage of people with obesity (defined as a Body Mass Index of 30 kg/m$^2$ or more) has more than doubled in the same period: from 5% of the Dutch population in 1981 to 12% in 2009. The rise in the percentage of the population that is overweight seems to have leveled off since the year 2000, seemingly having reached a steady-state situation with roughly 40% of women and 50% of men suffering from overweight. This is not true for the percentage of men suffering from obesity, however, which is still on the rise. [1]

There has also been a considerable increase in overweight and obesity in the Dutch youth population. In 1980, 6% of of children ages 2-21 years was overweight. In 2009, this percentage had risen to 14%. In contrast to the adult population, no signs of a leveling-off of this increase can yet be seen. Thus, the percentage of overweight children in the Dutch population continues to rise. [1]

### 3.1.2 State of affairs in the world

A similar upward trend in the percentage of overweight people is seen in many other high-income countries, as well as in many middle- and low-income countries. The World Health Organisation (WHO) has estimated that in 2005 approximately 1.6 billion people aged 15 years and older (25% of the world population) were overweight worldwide, of whom more than 400 million were obese. [3] Moreover, it was estimated that worldwide over 20 million children ages 5 years and younger were obese. According to predictions made by the WHO, 2.3

billion individuals worldwide (31% of the estimated world population) will be overweight in 2015, of whom more than 700 million will be obese.

Overweight and obesity are not exclusively a health problem in high income countries. The percentage of overweight and obese people is also on the rise in many low- and middle income countries, especially in rural areas. [3] A remarkable difference between high- and low-income countries in the distribution of overweight and obesity in the population is that in low- and middle-income countries, overweight people tend to be richer than average, whereas there is a high prevalence of overweight among the poorer part of the population in high-income countries. [4] In low- and middle-income countries, this leads to a so-called 'double burden of disease', whereby these countries are, on the one hand, affected by the health consequences of malnutrition of a large part of their population, and, on the other hand, are experiencing the detrimental health care effects of the part of the same population that is overweight. [3]

### 3.1.3 Determinants and correlates of obesity and overweight

Overweight is the result of a disturbed energy balance, whereby energy intake exceeds energy expenditure. [1] There are several factors that play a role in the development of overweight. Without attempting to give a comprehensive overview of all of these factors, I shall describe several of the most important ones: social and physical environmental factors, genetic factors, and psychological factors. Social determinants that contribute to the development of overweight are, for example, the changed social norm with respect to eating behaviour, such as the wide availability of (fast) foods, the increased intake of 'high-caloric foods' containing lots of sugars and fats, and an increased portion size. Physical determinants contributing to the development of overweight are changed ways of transportation (taking the car instead of going by bike, or using the escalator instead of taking the stairs), and work-related changes (e.g. rise in sedentary work and decrease in physical work). Taken together, these social and physical factors form the 'obesogenic environment'. Research has shown that approximately 30-70% of the variance in body weight between individuals is due to genetic factors. However, it is unlikely that the increase in the percentage of overweight people of the past decades is entirely due to genetic factors, because our genes do not change that rapidly. Rather, the rapid increase in overweight and obesity might in part be explained by the interaction of our genes and our (obesogenic) environment. [6] Lastly, psychological factors might be involved in the occurrence of overweight and obesity. An example of such a factor is so-called 'emotional eating', whereby a person's mood is highly predictive of her eating behaviour, e.g. binge eating when feeling sad.

Apart from these causal determinants, there are numerous factors correlated with overweight and obesity. For example, a higher percentage of women than men is overweight, although obesity is more prevalent among men than women. [1] As mentioned before in section 3.1.2, in wealthy countries such as the Netherlands, overweight is more prevalent among people with a lower social-

economic background. Moreover, overweight is more prevalent among certain ethnic groups in the Netherlands, such as the Turkish and Surinamese. [1, 10]

### 3.1.4 Consequences of obesity and overweight

Overweight and obesity are well-established risk factors for a number of diseases, such as:

- cardiovascular disease
- type 2 diabetes mellitus
- diseases of the joints, in particular osteoarthritis
- certain types of malignant neoplasms, such as endometrial, breast, and colon cancer [3]
- certain psychiatric illnesses

The costs of these diseases are high, both in terms of economics as well as in terms of burden of illness, loss of years of life, DALYs[1], and loss of quality of life. [11] The report 'Langer leven' issued by the Dutch Council of Public Health and Care (Raad voor de Volksgezondheid en Zorg) therefore prioritised the prevention and treatment of these diseases. [2] According to this report, the prevention and treatment of overweight, being a risk factor and cause of these diseases, should take an important place in public healthcare.

The economic costs of care for to health problems due to overweight and obesity are currently estimated at 1 to 5% of the total health care budget. [5] The costs of treatment for obesity alone (thus excluding costs of treatment for overweight) are currently 505 million euros per year. [2] As mentioned before, the obese population comprises around 25% of the overweight population, and the percentage of men and children with obesity in the Netherlands is still on the rise. [1] If the Netherlands continues to follow the example of the United States, where obesity is an even larger problem, then these healthcare costs will triple within the next generation. [5] Apart from these *direct* costs for healthcare due to overweight, there are also *indirect* costs of overweight, such as costs related to absenteeism from work and costs related to (social) benefits in case of disability. [5] These costs are currently estimated at 2 billion euro per year. [5] Apart from these financial costs, there are also intangible costs to overweight and obesity, which are difficult, if not impossible, to measure and cannot be expresse in terms of money, such as pain and grief. [5]

Recent research has shown that overweight and obesity, unlike smoking, are not associated with a reduced life expectancy. [7] In fact, overweight, middle-aged men (BMI 25-29.9) even seem to have a slightly *higher* life-expectancy com-

[1]DALY stands for Disability-Adjusted Life Year, which is a measure for overall disease burden and expresses the number of years lost due to illness, disability, or early death.

pared to people with normal low-weight (BMI 18.5-22.9).[2] [9] However, overweight and obesity do increase the number of years lived with disability. [9] So while smoking, a behaviour much stigmatised for being unhealthy, *'compresses'* morbidity, by decreasing the smoker's life expectancy (more than increasing disability), leading to lower *actual* healthcare costs for people who smoke [5], overweight and obesity *increase* healthcare costs by increasing the number of years lived with disability. As Reuser and colleagues have put it: "Smoking kills, obesity disables." [8] Therefore, overweight and obesity are greater threats to the healthcare budget than smoking when it comes to avoidable disease and disability. [9]

### 3.1.5 Type 2 diabetes mellitus as a model for self-inflicted disease

There has been, and still is, much debate about the role of self-infliction and moral responsibility in the allocation of scarce healthcare resources for the treatment of relatively acute, life-threatening conditions. Examples are organ transplants for liver and lung failure in alcoholics/drug addicts and smokers. The ascription of moral responsibility seems to have found its way into daily medical practice in these cases. In this paper I want to explore the role that self-infliction and moral responsibility might play in the allocation of treatment for chronic disease. As I model for chronic disease, I will use the case of diabetes. The self-inflicted, causative, as well as sustaining, factor underlying this disease is overweight and obesity. In this paper, I will argue that overweight and obesity are insufficiently recognised and taken into account as causative and sustaining factor, both for diabetes and other illnesses to which they are related.

## 3.2 Diabetes treatment

In the Dutch healthcare system, general practitioners are the first and main healthcare providers. In recent years, there has been a shift in the treatment of patients with diabetes. In earlier days, these patients were treated under the supervision of hospital-based medical specialists. Nowadays, 70 to 80% of diabetes patients are being treated by their community-based general practitioner, who also follows up on these patients. [13] Only the '(medically) difficult cases' are under treatment of a specialist doctor. [12]

The care and treatment that general practitioners provide is for a large part protocolled by means of the so-called 'NHG-standards' of the Dutch General Practitioners' Society (Nederlands Huisartsen Genootschap). [14] The treatment that general practitioners provide for patients with type 2 diabetes can be found in the NHG-protocol 'M01: Diabetes Mellitus type 2'. [15] In this

[2]This is only true for overweight. People with mild obesity (BMI 30-34.9) have a normal life expectancy, although the numbers of years lived with disability is higher, and people with severe obesity (BMI more than 35) have a decreased life expectancy compared to people of (high) normal weight. [7, 8, 9]

section, I will describe the aspects of this treatment protocol that are relevant to the present discussion.

The goal of treatment as stated in the NHG-protocol 'Diabetes mellitus type 2' is:

> "[...] to prevent or delay complications, such as cardiovascular disease, renal disease, retino- en neuropathy, which determine to a large extent the quality and duration of the patient's life and to reduce any existing symptoms." [15]

The protocol continues:

> "Because of the increased risk for cardiovascular disease, the treatment [of diabetes] does not only focus on decreasing hyperglycemia, which reduces the risk of microvascular and to a lesser extent macrovascular complications, but also focuses on the treatment of other cardiovascular risk factors, such as smoking, hypertension, and lipid spectrum disorders." [15]

How is this goal attained? The protocol distinguishes different steps in the treatment of diabetes, which are sequential in nature. If the results of a previous step are unsatisfactory, the next step will be initiated, etcetera. The first step in the treatment of patients who are newly diagnosed with diabetes, is to determine the cardiovascular risk profile of the patient, which includes the detection of any unhealthy lifestyle factors. At this stage of treatment, the general practitioner also educates the patient about her disease. This includes information about the underlying determinants of the disease and advice on non-pharmacotherapeutic (lifestyle) changes the patient can make to aid treatment of the disease. One of the goals of providing this information to the patient, is to stimulate the patient to come up with attainable goals with respect to a healthy weight, smoking, and physical exercise. [15] The general practitioner tries to stimulate a healthy amount of exercise. She also gives advice on healthy eating habits and refers all patients to a dietician. When the patient's BMI is more than 25 $kg/m^2$, she also advises the patient to lose weight. [15]

When, at a 3-month follow-up visit, the desired blood glucose levels have not been attained by means of the information and lifestyle advice previously given, pharmacotherapeutic therapy, consisting of oral blood glucose lowering agents, is prescribed. However, according to the NHG-protocol, lifestyle changes remain an important part of therapy. All subsequent steps of the treatment protocol involve modifications of this pharmacotherapeutic treatment until satisfactory blood glucose levels are attained.

Although the treatment protocol for diabetes as just described includes some advice on beneficial lifestyle changes, I will argue that these lifestyle changes are not implemented well enough in the treatment of diabetes, and that the advice on lifestyle changes is *too limited and non-committal in the treatment of diabetes, especially in the case of the overweight.* Therefore, I will therefore propose an alternative first step in the treatment of diabetes in the overweight in chapter 5.

But first, I will describe some ethical problems related to the place of lifestyle changes within the current diabetes treatment protocol.

# Chapter 4

# Problems in current diabetes treatment

As we discussed in section 3.2 on page 9, the first three months of diabetes treatment consist of dietary advice, patient education and stimulating an increase in the patient's physical activity. After three months, this course of treatment is evaluated. If the desired blood glucose levels have not been attained by then (or, in practice, if there does not seem to be a trend towards attaining them in the near future), pharmacotherapeutic treatment for hyperglycaemia is started. In this section I shall discuss why the course of action taken in these first three months is problematic and is in many cases doomed to fail. In particular, I will discuss two problems with this initial course of treatment: the loss of motivation to make behavioural changes caused by a follow-up period that is too short and not properly supported (section 4.1), and the retrospective right to pharmacotherapeutic treatment from the time of diagnosis after failing to attain the desired glucose levels after three months of dietary advice alone (section 4.2). In the next chapter, I shall propose an alternative view on the place of lifestyle changes in the treatment of diabetes in the overweight patient.

## 4.1 Losing motivation, but not weight

Making lifestyle changes means that you have to change a lifestyle. Anyone who has ever made any New Year's resolutions can tell you how difficult it is to change a habit, especially without proper support. [16] According to the current treatment protocol, when an overweight patient is diagnosed with diabetes, she is told that she should consult a dietician and lose weight. The dietician can educate her about healthier food choices and help her make them. But as mentioned in section 3.1.3, overweight and obesity are the result of an energy unbalance, whereby the intake of energy exceeds the energy expenditure. Even if our overweight patient is capable of radically changing her eating behaviour

into a normal, healthy eating pattern following her consultation of the dietician[1], weight loss would only occur gradually and normalisation of blood glucose levels can hardly be expected within a three month follow-up period.

Therefore, some form of exercise will also be needed to increase the rate of weight loss and restore the energy balance.[2] Apart from its role in helping to restore energy balance and achieve normal weight, exercise also has benefits which go beyond weight loss alone, such as a positive effect on the heart and vascular system, as well as on the joints. This makes exercise very beneficial, especially for the overweight and obese. However, to implement both dietary changes *and* an increase in physical activity such that at a three month follow-up the positive effects of these two changes combined can be measured, is an almost superhuman thing to ask of anyone. This is especially so, since the patient needs to incorporate these changes into her likely already busy daily life. This not only requires time and quite possibly also money, but doing things that are not our daily routine, and actively monitoring our daily routine for unhealthy habits in order to inhibit them, takes a lot of energy. It is by no means a coincidence that people often fall back into their old, unhealthy habits when they are tired and less vigilant, for instance, during the evening after a day of hard work, or during stressful periods.[3]

If this is not enough to make us lose motivation to change our behaviour, the knowledge that the effects of this behavioural change will be monitored in three months from now, and medication will be given if the results are not as desired, may make us reconsider going through all this change in the first place. Why bother changing your life around, when in three months from now, the desired result can be achieved by taking a daily pill? So long as the emphasis in diabetic treatment is on pharmacotherapy, lifestyle changes will never stand a fair chance.

## 4.2 Pharmacotherapy: right from the start?

There is a second problem with the current diabetes treatment protocol in the case of overweight patients. Because these patients are not adequately supported in making the lifestyle changes that are needed during the first three months after diagnosis (as discussed above), it is unlikely that after three months they will have reached the desired goals. If they have indeed not attained these goals, then pharmacotherapeutic treatment will be initiated at the 3-month follow-up. For the patients whom this concerns, it can be argued that *if* they have an indication for pharmacotherapeutic treatment at the 3-month follow-up visit because blood glucose levels have not improved significantly during these first three months after diagnosis, then they *also* had an indication for

[1] Which is a questionable assumption, because what we eat is largely determined by the food habits we have (what we tend to buy, when we tend to have a snack and what kind of snack, etc) and habits are extremely difficult to change

[2] Of course, for weight loss to occur and to achieve normal weight, a period of negative energy balance is necessary.

[3] This is the so-called 'what the hell'-effect. [17]

pharmacotherapy at the time of diagnosis, three months earlier. However, they did not start to receive this pharmacotherapy until after the 3-month follow-up visit. Thus, these patients have 'lost out' on three months of pharmacotherapy to lower their blood glucose levels which could possibly have benefited them. This is further support for the idea that the implementation of lifestyle changes as the first step in diabetes therapy in the current general practitioning protocol is inadequate.

To summarise, the advice to make lifestyle changes and the referral to a dietician may be a very adequate course of (adjuvant) treatment in normal weight patients, but lifestyle changes do not get the chance and practical support they deserve when treating overweight or obese patients with type 2 diabetes. To send those patients, who by virtue of being overweight have proven themselves to be either uninterested and/or incapable of maintaining a healthy body weight, away with the advice to make the necessary lifestyle changes without proper support seems to be a case of 'blaming the victim'. I propose to regard the group of diabetes patients who are also overweight as a *subgroup* of diabetes patients, for whom a different form of treatment is warranted. In the next chapter, I shall suggest such an alternative approach in which the emphasis is on the *implementation* of lifestyle changes rather than only giving advice about them. In subsequent chapters, I shall investigate whether this alternative approach can be justified, and may even be considered a more appropriate treatment for this subgroup of diabetics?

# Chapter 5

# Lifestyle treatment for the overweight diabetes patient

In this chapter, I shall consider an alternative first step in diabetes treatment for overweight patients, in which the emphasis lies on lifestyle changes as a form of *treatment*, rather than a piece of advice given to the patient. The aim of the current diabetes treatment protocol is to prevent the complications of diabetes that are important causes of a reduced quality of life and lifespan (see section 3.2 on page 9). The emphasis is thus on preventing complications of diabetes and associated cardiovascular disease.

For the subgroup of overweight diabetes patients, whose diabetes is likely to have been caused (at least in part) by their being overweight, I propose a more ambitious treatment goal: to restore normal bodily functioning and promote health (and if that is currently not the case, happiness, too: see below), and prevent future complications of overweight *by means of achieving normal body weight.* By 'future complications' in this alternative treatment goal are meant not just diabetic and cardiovascular complications, but *all* complications of diabetes and overweight, e.g. including musculoskeletal and psychiatric disease caused by overweight. In this sense, the scope of the alternative approach to prevent the complications a diabetes patient is likely to suffer is wider, because it also includes the prevention of those illnesses not caused by diabetes per se, but by the underlying (and causative factor) of being overweight.

## 5.1 The alternative proposal: more emphasis on lifestyle changes

To achieve this goal, I propose to pursue the following course of action for every patient who is diagnosed with diabetes mellitus type 2 and who –at the time

of diagnosis– is overweight, as indicated by a Body Mass Index (BMI[1]) of more than 25 kg/m$^2$:

Every patient who is overweight and diagnosed with diabetes, will, from the time of diagnosis onwards, be expected at the local gym four times a week, where she will exercise for one hour every time, under supervision of a licensed physiotherapist, with whom the patient will draft an exercise plan. If desired by the patient, she will be coupled to a buddy with whom she can go to the gym to exercise together. Furthermore, the patient will visit a dietician as soon as possible after the diagnosis of diabetes has been made, and every week afterwards. The patient will design a meal plan together with the dietician, which specifically determines which food habits that the patient currently has, can be made healthier. If necessary, changing the patient's food habits will be done in multiple phases, allowing the patient ample time to get used to the new diet. It is the aim of the physiotherapist and dietician to design the exercise and meal plans in such a way that the patient needs to make minimal lifestyle changes, while aiming for a maximal effect on health. Therefore, current habits of the patient which are beneficial to health, shall be central. The supervised exercise programme and dietician consultations will be fully covered by the patient's health insurance. Furthermore, the 'Tertiary prevention of disability'-law states that the patient can visit the exercise programme and dietician during their normal work hours (within reason), without consequences regarding their salary.

After three months, the patient will attend a check-up by her general practitioner and the (on-going) lifestyle treatment will be evaluated for the first time. If, despite the lifestyle therapy, blood glucose levels do not show a significant decline, it may be necessary to treat the patient with adjuvant pharmacotherapy according to the already existing protocol (see above). The same goes for adjuvant pharmacotherapy for hypertension and blood lipids. Lifestyle treatment will be continued for as long as the patient remains overweight. When the patient reaches a normal body weight, further actions necessary to maintain this normal body weight shall be discussed.

Furthermore, causative and sustaining factors for overweight and obesity should be identified and treated if possible. These may include depression, low self-esteem and self-efficacy, alcoholism, lack of knowledge about healthy eating behaviours and the need for exercise, and stress due to interpersonal relationships (at work, in the family, etc). Possible treatment options for these conditions include psychotherapy, self-efficacy training, rehabilitation, (psycho)education, and (family, relationship) counselling.

[1]It will be assumed here that Body Mass Index is an appropriate measure to determine whether someone is overweight. This is a questionable assumption for some patient groups, e.g. elderly patients. Other measures for determining obesity exist, such as the hip-waist-ratio. Future developments might involve more physiological measures of overweight, see also page 47.

## 5.2 Consequences of non-compliance

Lifestyle therapy only works if someone is committed to it. The patient is therefore required to be present at at least 85% of dietician consultations as well as at least 85% of the supervised exercise hours that have been scheduled for the patient. The patient will consult the dietician once a week, and attend the exercise programme four times a week, except on school holidays and public holidays (if circumstances make it necessary for the patient to come in during a school holiday and not come in during a school week, then it is possible to arrange this. In this case, the patient will contact her dietician and sports instructor.) The progression of the patient's lifestyle therapy will be monitored every three months by her GP and she will be supported pharmacotherapeutically if this turns out to be necessary (as stated above). There will be an evaluation after 12 months of lifestyle therapy. If at 12 months follow-up, the patient has attended the dietician consultations and exercise classes as required, and has achieved a normal weight, the (intensive) lifestyle treatment will be discontinued and a maintenance treatment will be discussed. If the patient has attended the consultations and exercise classes but this has not (yet) resulted in a normal weight, the patient will engage in another 12 months of lifestyle treatment. If the patient's BMI at the time of diabetes diagnosis was less than 40 $kg/m^2$ and she has attended five rounds of intensive lifestyle treatment, but this has still not resulted in achieving a normal weight, the patient will be offered to discontinue intensive lifestyle treatment and take up maintenance therapy.

If the patient has failed to attend the lifestyle treatment visits as indicated above (allowing for permitted absences), or if the patient refuses lifestyle treatment altogether, she will forfeit the right of protection against differential insurance premiums based on pre-existing conditions. This means that her insurance company can now charge her a higher premium based on her elevated risk of disease due to her overweight/obesity for as long as she continues to be overweight/obese.

Does this alternative approach medicalise the patient more than is the case at present? At first glance, yes. The alternative approach to diabetes treatment in the overweight patient is more far-reaching and intrusive than the current treatment protocol (which does not advocate different treatments for overweight and non-overweight diabetes patients) and is definitely more time consuming than the current pharmacotherapeutic treatment. However, by taking this more holistic approach to the treatment of the overweight diabetic individual, rather than treating individual symptoms, risk factors, and diseases, the future well-being of this patient could turn out to be much more safeguarded in this alternative approach than in the current guideline. In the alternative approach as sketched above, the emphasis is on long-term empowerment and de-medicalisation of the individual, instead of on cardiovascular and diabetic damage control. Perhaps the first question that comes to mind, is whether it is necessary for doctors to want to treat their patients in the way described above. Is he current treatment protocol inadequate? Why should it need to be changed? In the next chapter, I will argue that the alternative treatment described above is what doctors owe

their patients from a perspective of medical professionalism. In chapter 7, I will explore the normative questions that come to mind from a wider societal perspective. In chapter 7, it will also be explained why the consequences of non-compliance with lifestyle therapy –which are non-existent in the current treatment guideline– are necessary and how they can be justified.

# Chapter 6

# What doctors owe to their patients (and patients do not get)

The alternative treatment described in the preceding chapter requires a far more active and involved approach to the treatment of diabetes in the overweight patient, both on the side of the patient as well as the healthcare professional. One of the first questions that can be asked, is: why would this be necessary? Are we not doing the best we can for these patients already? In this chapter, I will argue that it might not be the case that the current treatment is indeed the best we can do for these patients, and why the alternative approach is called for from a medical perspective.

Much of the debate around allocating resources to patients with self-inflicted disease –and the presence or absence of moral responsibility in the case of self-inflicted disease– centers around prioritising health care resources away from people with self-inflicted disease and towards people with non-self-inflicted diseases. It should be clear from the preceding chapter, however, that my alternative approach for the treatment of diabetes in overweight individuals is not a means of prioritising non-overweight diabetics over the overweight, but rather concerns *the recognition of a subgroup of diabetes patients and the need for a different goal and form of treatment for this subgroup.*

If the alternative treatment option aimed at this subgroup fails due to non-compliance (or the patient refuses this type of treatment in the first place), then this group will also be recognised as a subgroup within the health insurance system, and treated accordingly. The next chapter will elaborate on this part of the alternative approach and its justifications. In this chapter, however, I want to argue why doctors owe it to their overweight patients to make lifestyle therapy accessible as a serious treatment option.

## 6.1 Limitations to what doctors provide

If we care about having a public healthcare system in place, then we should be able to answer the following question: why is healthcare important? Norman Daniels gives the following answer to this question:

> "[..] health care preserves for people the ability to participate in the political, social, and economic life of their society. It sustains them as fully participating citizens [..] in all spheres of social life." [21]

Healthcare is thus important, because it preserves the range of opportunities open to an individual. Healthcare can consist not only of curative interventions, but also preventative ones, and can be aimed at the individual, but also at the general public. The goal of healthcare is to preserve normal functioning so that people are not restricted when it comes to the opportunities they could have wanted to pursue.[1]

On the personal and individual level of the doctor-patient relationship, the Dutch doctor has expressed her goal in medicine by means of the (Dutch) medical oath, which states that:

> "I swear/promise that I will practise the art of medicine to my best ability, to serve my fellow human being. I shall care for the sick, encourage health and relieve suffering. I will put the interests of the patient first, and I will respect his beliefs. I will not do damage to the patient. I will listen and inform him adequately. I shall keep a secret what has been entrusted to me. I shall encourage the knowledge of medicine of myself and others. I recognise the limits of my possibilities. I shall have an open and testable attitude, and I know my responsibilities to society. I shall encourage the availability and accessibility of healthcare. I will not abuse my medical knowledge, not even under pressure. In this way, I shall honour the profession of physician. So help me God/That I promise."[2]

[1] Most philosophers immediately note that this range should naturally be restricted by how reasonable it is for someone to pursue a certain opportunity, e.g. when someone is very short because of a growth hormone deficiency, then this is a reason for the healthcare system to compensate her and treat her for her shortness. But when another person of equally short height does not suffer from such a deficiency and is just 'normally' very short, then this person should not be compensated by providing such a growth enhancing therapy, not even if she had her mind set on pursuing a career in basketball, where it is considered a handicap to be short.

[2] Translation from Dutch into English by the author. The original text is: "Ik zweer/beloof dat ik de geneeskunst zo goed als ik kan zal uitoefenen ten dienste van mijn medemens. Ik zal zorgen voor zieken, gezondheid bevorderen en lijden verlichten. Ik stel het belang van de patiënt voorop en eerbiedig zijn opvattingen. Ik zal aan de patiënt geen schade doen. Ik luister en zal hem goed inlichten. Ik zal geheim houden wat mij is toevertrouwd. Ik zal de geneeskundige kennis van mijzelf en anderen bevorderen. Ik erken de grenzen van mijn mogelijkheden. Ik zal mij open en toetsbaar opstellen, en ik ken mijn verantwoordelijkheid voor de samenleving. Ik zal de beschikbaarheid en toegankelijkheid van de gezondheidszorg bevorderen. Ik maak geen misbruik van mijn medische kennis, ook niet onder druk. Ik zal zo het beroep van arts in ere houden. Zo waarlijk helpe mij God almachtig / Dat beloof ik." [19]

But has this up until now also really been the aim of doctors and healthcare researchers in daily practice? Do the current medical protocols and research programmes reflect these goals of healthcare? A few things about this medical oath are noteworthy.

First of all, Dutch doctors express their commitment not only to caring for the sick, but also to promoting health. Furthermore, in this oath she expresses a wish to put the patient's interest first. Since it is believed to be in the individual's interest to remain a 'fully participating citizen in all spheres of social life' (see above), this can be understood to include an ambition on the doctor's side to preserve the range of opportunities open to an individual, i.e. good health for as long as possible. As such, it is a further ascertainment of the commitment to promote health (in general). But as described above in section 3.2, the current diabetes protocol is not aimed at promoting health, but rather at reducing the risk of further complications by means of pharmacotherapy. The complications that the current treatment protocol aims to prevent, whilst covering pretty much all of the risks of diabetes, covers only *some* of the risks associated with overweight. Other health problems for which overweight diabetes patients have an elevated risk, are therefore not addressed. Moreover, the only way that is currently available of mitigating these other risks (i.e. a combination of weight reduction, a healthier diet and regular exercise) is only mentioned as *advice* that should be given to the patient.

Secondly, by taking the medical oath the Dutch doctor promises not to do damage to the patient. Now, damage can be done in lots of different ways. For instance, damage is done when a procedure that needs to be done goes wrong for some reason. Of course, an accident can always happen and this promise should not be taken to mean that the doctor guarantees that accidents will never happen when she practises medicine. Rather, this statement means that the doctor will not *willfully and knowingly* do damage to her patient. But then again, this should not be taken to mean that the only way to do damage is by *doing* something to the patient. Indeed, damage can also be done by *failing to do* something. When the benefits of weight reduction and exercise in the treatment of diabetes (especially in the overweight!) are sufficiently known and accepted in medical practice to make these interventions the first step in diabetes treatment, is the doctor (and perhaps even society as a whole) then not doing harm to her patient by failing to properly (provide) support (for) these interventions?

Thirdly, in the medical oath doctors claim that they know their responsibilities to society. However, I will argue that the current diabetes treatment protocol is not reflective of the development in society in which an increase in the number of people who develop diabetes based on overweight and obesity is seen. On the one hand, I believe that this development asks for a different approach to the treatment of diabetes for those individuals who are overweight. On the other hand, on a macrolevel, this development raises questions about the fair distribution of healthcare resources in a society. Before I go into this latter topic in chapter 7, I will first go into the problems associated with the former topic. In the next two sections, I will explore these problems further by

describing some key characteristics of our current healthcare practice and by explaining why current practices are just not reflective of the goal of healthcare as stated above.

## 6.2 Limitations to the current diabetes protocol

What does our healthcare system currently provide? It provides treatment that is judged to be safe, (cost-)effective, and equally accessible to all, aimed at reaching the goal of healthcare as mentioned in section 6.1. [11] In this section, I will point out that the safety and (cost-)effectiveness of the currently offered diabetes treatment can be questioned in the case of overweight patients. In the next section, I will argue that the current system might provide healthcare that is accessible to all, but that this does not also mean that health is therefore equally accessible to all.

### 6.2.1 Treatment safety

The treatments provided to patients should be safe. This means that the treatment overall should not harm the patient more than that it is expected to benefit her. Now, as described in the previous section, harm can be done in different ways. One way to do harm is by *failing* to do something. In the case of diabetes treatment, the first step in the current protocol consists of lifestyle advice. It is not always safe to follow-up on advice, however, even if the advice given was sound. For example, the advice given by a doctor or dietician runs the risk of being implemented by the patient in a way that is actually detrimental to the patient's health. With respect to advice on exercise it can be said that people usually need guidance in figuring out which exercise levels are safe for them. To complicate matters even further, the safety of exercise levels can change over time as a patient's condition improves or worsens. Also, people need professional long-term guidance in adopting safe and healthy eating habits. The unhealthy phenomenon of 'crash dieting' followed by a yoyo-effect is all too well-known, and is an example of how lifestyle advice on eating habits can be very badly implemented by the patient if not properly supervised, despite the patient's best intentions. Presently, the (mandatory) Dutch basic health insurance package covers a maximum of 4 hours of dietician consultations per year. Supervised exercise programmes are only covered if the patient's particular health insurance company has a programme which stimulates this. It should be self-evident that these provisions can hardly be considered adequate when it comes to the guidance people need to make lifestyle changes safely and for the long-term.

To avoid the risk of 'doing harm by doing nothing', it is necessary that patients have long-term access to healthcare professionals who supervise their exercise programmes and diet changes. Physiotherapists and dieticians have been adequately trained to provide valuable input with respect to exercise and nutrition. General practitioners already have a valuable role in the case-managing of patients, and would be perfectly equipped to fulfill a monitoring role with respect

to the patient's general well-being during the lifestyle treatment programme, as well as providing valuable medical input, e.g. answer patient questions bout the causes and nature of the disease and the (combined) effects of lifestyle and (if necessary) other treatments on the disease.

### 6.2.2 Treatment effectiveness

Apart from being safe, the treatment offered should also have been proven to be effective. This is reflected in the current medical paradigm of practising 'evidence-based medicine'. Here, we already run into a problem, however, because whether a therapy is considered to be effective or not depends first of all on how you define 'effectiveness'. In this section, I will explore problems with respect to the overweight diabetes population in how 'effectiveness of treatment' is defined in the research supporting the current treatment protocol. I will discuss problems with respect to the definition of the research population, the intervention under investigation, the definition of outcome variables and the follow-up period of research projects.

The (pharmacotherapeutic) diabetes treatment that is described in the current protocol has been shown to be effective in a great number of different scientific research projects (see Nathan et al. for an overview [20]). However, it can be questioned whether the results of these research projects can and should be applied to the *overweight* diabetes patient as well. First of all, although it is often recognised that a reasonable number of diabetes patients are overweight, no research projects have been done which focus exclusively on the patient population of people who have developed diabetes because of their overweight or obesity, or for whom this is a sustaining factor of the disease (as far as is known to the author). This, despite the recognition that what was once known as 'diabetes of the elderly' (type 2 diabetes) is nowadays, under the influence of the obesity-epidemic, increasingly diagnosed in much younger patients than before, and even in young infants.

Secondly, research into the effectiveness of therapy focuses strongly on the effects of pharmacotherapy, and often only compares different pharmacotherapeutic treatment regimes. But even when lifestyle changes *are* included in the research paradigm and used as a measure for comparison, these are often only implemented as advice and therefore meet with the difficulties of non-committal (and unsupported) advice as described above. No research has been done into the effect of lifestyle changes as a serious form of diabetes therapy.

Thirdly, research endpoints are (almost without exception) defined in terms of blood glucose levels, cardiovascular incidents and diabetic complications (because the risk factors for these illnesses can be modified pharmacotherapeutically). Obviously, pharmacotherapeutic treatment is very succesful when only these endpoints are used to define success. But overweight (diabetes) patients also run higher risks of musculoskeletal disease, psychiatric illness, and certain types of cancers due to the fact that they are overweight (which is presumably a cause for their diabetes as well). Because the group of patients who have diabetes and are also overweight is not recognised as a particular subgroup of

all diabetes patients, no research has been done that also incorporates measures of musculoskeletal health, psychological well-being and cancer prevention in the definition of 'effectiveness of treatment'. If this had been the case, lifestyle changes and interventions aimed to change lifestyle factors, may suddenly turn out to be much more effective than pharmacotherapy.

Lastly, in most research projects, patients are followed from the time of diagnosis until several years later, sometimes up to 10 or 15 years. However, the negative effects of overweight and obesity, especially the effects on the joints, such as knee and lower back problems, do often not present themselves on such a short term. Similar to the number of 'pack years' in smoking, the number of 'kilogram years' is related to the onset of joint disease. Because this other consequence of being overweight does not happen until much later, this causes a failure of diabetes researchers to recognise overweight as an important distinguishing factor among diabetes patients, and a failure to see that it might be worthwile to investigate wether lifestyle changes would not be a better treatment for both these conditions combined. (Because cardiovascular disease and diabetes complications occur much more in the same time span, these have -deservedly- been investigated together.)

The medical effectiveness criterion for healthcare demands that only therapies that have been proven to have a positive effect on (restoring) the patient's health should be offered. As pointed out before, from a purely physiological perspective, the current guidelines for diabetes treatment (consisting of lifestyle advice and pharmacotherapy) may be very effective in preventing diabetes complications and cardiovascular incidents. If your perspective is a more holistic one (as I am defending should be the case here, i.e. the fact that the patient is not just diabetic but also overweight should be taken into consideration), with an emphasis on the patient as an individual, her life prospects, and her quality of life, then the same course of treatment (lifestyle advice plus pharmacotherapeutic treatment) may prove to be severely inadequate. What is considered an effective form of treatment is thus partially determined by the goal of healthcare that is set by medical (research) professionals, and more indirectly, by society as a whole (e.g. preventing further complications versus actively promoting health).

### 6.2.3 Treatment cost-effectiveness

The third criterion for healthcare is that treatment should be cost-effective. As the name suggests, cost-effectiveness is a measure for the cost of an effect of an intervention. For instance, if there are two treatments A and B available for the same condition (say, two antibiotics for a particular infectious disease) and both treatments are generally equally effective (in getting rid of the infection altogether), but treatment A is twice as expensive as treatment B, then it is wise to spend healthcare resources on treatment B and not (so much) on treatment A. In practice, this could mean that the cost of treatment B is covered by medical insurance, whereas the cost of treatment A is not (or is only covered for those patients for whom treatment B turned out not to be effective). The

cost-effectiveness of a treatment is often expressed as the cost of treatment per QALY, or Quality-Adjusted Life Year. QALYs are a combined measure for number of life years added by a certain treatment and the quality of that life. The threshold of whether a treatment is considered cost-effective (or not) is then arbitrarily chosen. For instance, a 2006 report by the Dutch Council of Public Health and Care proposes an amount of €80.000,00 per QALY as a reasonable (preliminary) limit for coverage of treatment costs out of public funds. [28] There are two problems when it comes to cost-effectiveness for diabetes therapy: the lack of evidence to determine cost-effectiveness of lifestyle treatment versus current treatment for diabetes in the case of overweight individuals, and the fact that cost-effectiveness does not imply that distributive justice is attained. I will now turn to these problems.

First, the cost-effectiveness of a treatment in terms of costs per QALY allows for comparisons of treatment benefits between different diseases, which would otherwise be difficult to compare. Because no comprehensive research has been done to assess the effects of lifestyle treatment (as described above) for diabetes in the overweight (using the wider definition of effectiveness as discussed in the previous section), it is currently impossible to compare the cost-effectiveness of this lifestyle treatment to the current treatment of diabetes in the overweight.

The second problem with the cost-effectiveness measure, is that when only treatments that are considered to be cost-effective are being paid for out of public health care funds, then this does not imply that these resources have been distributed fairly. For instance, the cost-effectiveness of treatment options for two patient groups might be very different. Let us imagine one patient group for whom all treatments are extremely cost-effective, say, treatments for erectile dysfunction (e.g. Viagra), whereas treatments for another patient group are by current standards considered not to be cost-effective, e.g. neurosurgery for malignant brain tumours.[3] We can hardly say that we have attained distributive justice of healthcare resources when we (always) cover treatment for erectile dysfunction out of public funds but not (ever) cover treatment for malignant brain tumours. In practice, when determining which treatments to cover out of public funds, the phase in which decisions are based on cost-effectiveness is therefore followed by a 'critical appraisal phase' in which more consideration is given to e.g. notions of distributive justice and fairness. Likewise, if the group of overweight diabetes patients would be recognised as a distinct subgroup of diabetes patients for whom a different treatment may be needed, not only should the cost-effectiveness of this treatment then be established in research, but the question of whether this treatment should be covered by public health insurance will then also have to be answered (I will return to this in sections 7.1 and 7.3.1).

[3]These examples are based on the calculated cost-effectiveness for these therapies as described in the report 'Volksgezondheid Toekomst Verkenning 2002: Gezondheid op Koers?' by the Dutch National Institute for Public Health and the Environment. [11]

## 6.3 Limitations in access to health(care)

The healthcare system in countries such as the Netherlands is set up to provide equal accessibility to healthcare for all citizens. Indeed, equal accessibility is considered a key feature for a fair healthcare system. [21] When it comes to the lifestyle changes that overweight diabetes patients are advised to make, there may at present be considerable inequality in access to what it takes for these patients to get healthy again. Overweight diabetics have no or only limited access to interventions that might be very beneficial to them, such as intensive dietary counselling and (supervised) exercise programmes. The problem here stems mainly from the fact that these interventions are offered as *advice* and not as a form of *therapy*, and are therefore not or only partially covered by medical insurance (e.g. only 4 hours of consultations with a dietician per year, which is the same amount for everyone and not based on need). Examples of limitations in access within the current healthcare system that overweight diabetes patients may experience are:

- Limitations in what is covered by medical insurance. For example, bariatric surgery has been proven beneficial for (treating diabetes in) the obese, but it is only covered when a patient's BMI is higher than 35 kg/m$^2$ and obesity-related illness, such as diabetes, is present.[4] This leads to examples of people who feel they are unable to lose weight (in the conventional, non-supported way) and who therefore gain weight just to get bariatric surgery covered by their medical insurance. Obviously, this runs counter to what they should be doing to regain their health (and what is the aim of the surgery), i.e. to *lose weight*. Another example is that physiotherapy-supervised sports programmes to lose weight are not covered by medical insurance companies, whereas smoking cessation programmes are. (Some insurance companies have made exercise interventions a special feature that they offer to their customers, but access to these programmes is often not long-term.)

- Lack of integrated knowledge about the lifestyle changes that need to be made. There is lots of information available on healthy behaviour, but how does it apply to the individual patient? An overweight patient receives information on lifestyle changes from different healthcare professionals, but there is no time and/or the system is not set up for combining all that information into a relevant picture and written advice for the individual patient, combined with an easily accessible way to ask questions about the problems that a patient encounters when implementing that advice. This increases the chances of a sub-optimal implementation of the different pieces of advice that are given to the patient.

The fact that overweight and obese people with diabetes are at present not recognised as a distinct patient group with distinct needs for treatment that may

[4] Or higher than 40 when no obesity-related disease is present.

be different from the needs of the non-overweight diabetes patient, as well as the inequality of access to these different forms of treatment, leads to the current practice of postponing the moment at which a person experiences adverse health effects, rather than working towards the reduction or disappearance of these adverse effects altogether.

Lots of discussions focus on equality of access to healthcare, but this can be misleading because equality of access to healthcare is, of course, only a proxy of what really matters here, which is equal access to *health*. As Daniels points out:

> "[. . . ] efforts to ensure greater justice in health outcomes should not focus simply on the traditional health sector. Health is produced not merely by having access to medical prevention and treatment, but also –to a measurably greater extent– by the cumulative experience of social conditions over the course of one's life. By the time a sixty-year-old heart attack victim arrives at the emergency room, bodily insults have accumulated over a lifetime. For such a person, medical care is, figuratively speaking, "the ambulance waiting at the bottom of the cliff." Much contemporary discussion about health inequalities by increasing access to medical care misses this point." [21]

To achieve what we really aim for, which is equal access to health, it may be needed to address other problems that lead to health inequalities and which are unrelated to the provision of healthcare as such. Examples of these include:

- Time. People are expected to make the necessary lifestyle changes in their own time. They are generally not supported by any laws protecting their rights at work to make lifestyle changes with respect to eating habits and exercise, and by doing so prevent any damaging effects of overweight and diabetes.[5] Laws may be needed to secure the facilitation of healthy behaviour and healthy lifestyle changes in the workplace, e.g. time or resources needed at the work place. (Or, as the WHO puts it: "Making the healthy choice the easy choice.") This could include regulation of the following: time and equipment to prepare a healthy lunch, or mandatory provision of healthy, affordable lunch choices in the work canteen and vending machines, the possibility of (moderate) physical activity during work hours, etc. If these facilitating factors are not implemented in the workplace, then extra effort needs to be taken by the patient in her own time (e.g. preparing a healthy lunch at home, going to a sports centre after work). It seems strange that all kinds of provisions in the workplace have been made for other lifestyle choices, such as smoking and breastfeeding, and are legally enforced, but if an overweight patient wants to change her lifestyle, she should do so in her own time.

[5] This is remarkable, since there are many laws about the rights of workers when they become disabled. For instance, the possibility of parttime work, reintegration, retraining, etc.

- Financial capacity. Overweight and obesity (in Westernised countries) is often found in people with low socio-economic status. Subscriptions to sports schools and (adequate supervision for) weight loss (programmes) are expensive, and may therefore not be readily accessible to these patients.

Overweight patients who are suffering from the ill effects of their overweight should therefore be recognised as a distinct group of patients and research should be conducted to investigate which form of treatment is most beneficial for them. This research should take the health and well-being of the person as a whole into account, rather than of any particular organ system, and should be aimed at restoring normal bodily function. Because lifestyle treatment –in the form of dietary changes and an increase in physical activity– aims at taking the causative factor of all of the overweight and obesity related diseases away (as opposed to current pharmacotherapeutic treatments, which only modify some of the ill effects due to overweight and obesity), the effectiveness of this treatment, properly implemented and supported in healthcare, social and legal systems, should be given priority in the search for the best treatment for this patient group.[6] If we truly value health in the sense described at the beginning of this chapter, then this is what we should ask of our health care researchers, policy makers, doctors and other medical professionals.

[6] A case can be made to also include non-symptomatic, overweight individuals in the indication for these lifestyle treatments. See 7.3.2 on page 47 for further discussion.

# Chapter 7

# What we owe to each other

In the preceding chapters, I have proposed a different approach to the treatment of diabetes in the overweight and have argued that a thorough evaluation of the effectiveness of this alternative treatment with respect to a patient's health and general well-being is what doctors and other healthcare workers owe to their patients. If this alternative treatment turns out to be more effective than the current treatments available (where 'effectiveness' should include the effects of the treatment on a much wider range of afflictions and during a much longer follow-up period, as has been discussed above), then this treatment is what patients should be able to claim from their public health insurance.

I have also argued for the recognition of this group of patients as a distinct subgroup of diabetes patients, not only in the treatment options that should be made available, but –in the case of non-compliance with lifestyle therapy– in the general health insurance system, too. To put it in popular terms: if these patients are not committed to taking away the cliff mentioned above, then they cannot expect the general public to bear the costs of their cliff. Both these proposals, of different treatment options and of differential insurance policies, raise a number of moral questions that go beyond the scope of medical professionalism, such as: is it justified to treat this group of patients differently, based on personal rather than disease characteristics? Has our healthcare system not been designed to provide healthcare solely based on need? Is it right to hold people responsible for their own (ill) health? Should our doctors be allowed to pass judgment on their patients and/or to make those demands on society's behalf? Or does that undermine the doctor-patient relationship? As a society, should we be allowed to demand from someone that she makes lifestyle changes, or is that a violation of her autonomy? Is the proposed alternative treatment some sort of punishment of the overweight and obese for a life of gluttony and inactivity?

In section 7.1, I shall discuss the need to set limits to healthcare provision and why moral responsibility for self-inflicted disease is a potential criterion when setting these limits. In this section, I shall also discuss what I believe to be the scope and goal of health insurance in the Dutch healthcare system, by mak-

ing a distinction between unforeseeable and foreseeable consequences. Then, I will discuss how moral responsibility can be ascribed to patients prospctively for foreseeable consequences of voluntary choices. At the end of this section, I will go into the effects of ascribing such moral responsibility on the doctor-patient relationship. Section 7.2 explores whether society can demand their fellow overweight and obese citizens to make the aforementioned lifestyle changes, or whether this is too much of an impingement of a person's autonomous lifestyle choices. This section will also go into the question of whether this treatment is a form punishment for these patients. Lastly, section 7.3 explores some unresolved issues.

## 7.1 Setting limits to healthcare fairly

In a medical resource Utopia, the resources needed to provide healthcare would be sufficient to meet everyone's healthcare needs. [27] The amount of healthcare that people would be able to receive would only be limited by medical technological advances, because the resources for healthcare would be plentiful and no restrictions would have to be made regarding diagnosis and therapy. Needless to say, medical resource Reality is nothing like a medical resource Utopia. In reality, resources are not infinite and decisions need to be made about which needs will be met and in which way, and which will not. In the previous chapter, I have already mentioned two material criteria which aid decisions on which healthcare needs should be met and which should not: (medical) effectiveness and cost-effectiveness. Medical effectiveness demands that resources are only spent on therapies that have been proven to have a positive effect on (restoring) the patient's health, while cost-effectiveness demands that the costs for restoring a patient's health should be reasonable (see section 6.2.3).[1]

Thus, we already make some important distinctions when allocating healthcare resources based on 'value for money'. But sometimes money is not the issue when it comes to scarcity of healthcare resources. This is the case, for example, with the limited number of organs available for transplantation and the long waitinglists of patients needing an organ transplant. In addition to effectiveness of treatment intervention and cost-effectiveness, healthcare planners have therefore turned their attention towards the patient: are there any patient characteristics that may lead us to treat persons not as equals? These decisions will have to be made fairly, taking Aristotle's formal principle of justice into account: "Equals must be treated equally, and unequals must be treated unequally, *according to their relevant inequality.*"[2] [27] So the question in rationing healthcare is: which inequalities can be considered relevant? In the discussion around allocation of scarce organs, the fact that some patients need an organ transplant based on a disease that is self-inflicted may be considered a relevant inequality. In this chapter, I want to investigate whether self-infliction can also

[1] Or, in case of non-cost-effectiveness, should be able to be justified on other principles, such as fairness.

[2] Emphasis given to the last part of the sentence by the author.

be considered a relevant characteristic in the case of diabetes in the overweight, which warrants differential treatment.

Several differences between the case of organ transplantation for self-inflicted organ failure and lifestyle treatment for self-inflicted diabetes need to be pointed out. First, the scarcity in diabetes treatment is not due to a scarcity in organs needed for treatment. Second, the current proposal is not about withholding therapy from the patient group with self-inflicted disease altogether, such as is the case when one organ is available and there are two patients in need of that organ: one with self-inflicted organ failure and one patient with organ failure stemming from other causes. In that situation, a choice needs to be made about who gets the treatment and who ends up empty-handed. Rather, the alternative treatment for diabetes in the overweight proposes a *different form of treatment* for this patient group. In the following sections, I will describe these differences and their implications in more detail.

### 7.1.1 Scarcity of healthcare budget

First, in the treatment of diabetes it is obviously not the scarcity of organs that raises the question of which patients should receive treatment and which should not. Unlike in the case of organ transplantation, where not enough organs are available to meet all patients's needs, the production of pills and insulin used in diabetes treatment, is large enough to provide all patients with the proper treatment (and undoubtedly pharmaceutical companies are very eager to sell them these treatments). The same is true for the extended version of the treatment protocol, whereby cardiovascular risk factors are also (pharmacotherapeutically) treated to prevent cardiovascular incidents in this patient group. Some might think the problem of scarcity, and thus the controversy about access to scarce resources in the case of self-inflicted disease, does not arise until serious (diabetic) complications develop for which organ transplantation is needed, such as renal or cardiac failure. This is not the case, however.

The scarcity problem in the case of diabetes lies not in the availability of antidiabetic treatment, but in the total cost of treatment, relative to the available healthcare budget. If more people become diabetic, then more people will receive this antidiabetic treatment, and the total cost of antidiabetic treatment will take up a larger percentage of the total healthcare budget. Needless to say, money that is spent on treating diabetes, cannot be spent on treating other diseases. An increase in the percentage of overweight people in the population results in an increase in the prevalence of diabetes in the population, since overweight is a risk factor for the development of diabetes.[3] So with an increase in

[3]In the United States, the overweight epidemic was not only followed by an epidemic in diabetes, but subsequently also by an epidemic in cardiovascular disease. In the Netherlands, the overweight epidemic is clearly detectable by the increase in the percentage of overweight people in the past 20 years (see section 3.1.1 on page 5). The diabetes epidemic is starting to show its first signs. If the same holds true for the Netherlands as for the United States, then we have not yet reached the plateau of the diabetes epidemic and we can still expect an epidemic of cardiovascular disease.

the number of diabetics in a population, a higher percentage of the healthcare budget will be allocated to the treatment of diabetics.[4]

At this point one might object that that in itself is not a problem. In fact, do people not pay health insurance premiums to have their need for healthcare met when it occurs? So, if more people become diabetic, it only seems reasonable that more resources are allocated to treating diabetes, since that is a healthcare need that has now presented itself in these people who paid their insurance premiums. But is it true that this is the goal of our health insurance system?

### 7.1.2 Health insurance: brute luck versus option luck

At present, Dutch law requires every person residing in the Netherlands to have (at least) basic health insurance, which also (mandatorily) covers treatment costs for diabetes and diabetic complications. The Dutch healthcare system is based on the principle of (equal) risk sharing. This works as follows: all health risks present in a population are combined in one common risk pool. The costs of covering these risks in the common risk pool are calculated and everyone in the risk pool pays an (approximately) equal share to cover the costs. This principle does therefore not distinguish between people with high risks and people with low risks.

The principle of solidarity underlies this system: people with low health risks who consume less healthcare than what they pay in healthcare premiums compensate people who have high health risks and consume more healthcare then what they pay in health insurance premiums. This principle of solidarity should not be understood as a moral principle, but rather as a prudential way to arrange the healthcare system, which provides the best possible outcomes with respect to access to healthcare given that we are ignorant of how the risks are divided over the population. The solidarity principle is a reciprocal principle: people receive healthcare out of public funds (according to need), but also have to contribute to these public funds (in the Netherlands, according to ability).

In practice, it is not always the case that we do not know in advance how the risks are distributed in a population. For instance, it is common knowledge that people tend to need more healthcare as they age. Because everyone ages (which is, obviously, not to say that everyone reaches the same age) we do not see this as problematical for our solidarity principle: although young people might at present pay more in healthcare premiums than they receive in healthcare (and vice versa for the elderly), this will be compensated when they themselves grow

[4]Of course, the healthcare budget is often changed to match increased costs. For instance, insurance premiums increase together with the increased healthcare costs. The net effect might then be that the percentage of the healthcare budget that is spent on diabetes care stays the same, although the actual amount that is spent increases. In the following section, I will argue that both events (an increase in the percentage of the healthcare budget spent on diabetes treatment, while the healthcare budget remains the same, or an increase in the actual amount spent on diabetes care, while the percentage of the healthcare budget remains the same due to a simultaneouly increased healthcare budget) can be considered unjust in the current system.

older and will presumably need more healthcare.[5]

In some cases, it is even possible to predict which groups of people will violate this principle of (reciprocal) solidarity, by needing healthcare to a much greater extent than what they will be able to contribute to the system. This is the case, for example, when people are at a high risk for developing disease because of their genetic make-up. In this case, we may have principles, other than the (reciprocal) principle of solidarity, that lead us to *not* exclude these groups of people from the public healthcare system (e.g. principles of justice). For instance, we might feel that because people do not get to choose their genes, and we therefore could all have ended up with an 'unfortuitous ticket' in the genetic lottery, a principle of equality of opportunity (for healthcare) demands that we include these (genetic) risks in the common risk pool.

Advancements in medical knowledge and technology have not only allowed us identify those who have a genetic risk for developing a particular disease, but have also provided more insight into the (non-genetic) causes of different diseases. Risk factors for diseases have been identified, and a number of them have turned out to be related to avoidable behaviour. In the case of diabetes, lack of exercise, an unhealthy diet which is low in fibers and high in saturated fats, and overweight and obesity are well-established causative factors (see also section 3.1.3 on page 6). Do the principles of (prudential risk) solidarity and equal opportunity for healthcare require us to include the risks of people who take these risks knowingly, and could have avoided these risks, in the common risk pool?

To answer this question, we must investigate under which circumstances it can be justified to treat people unequally with respect to risks. As stated before, the formal principle of equality, that dates back to Aristotle, states that equals should be treated equally (and unequals unequally, according to the relevant inequality; see section 7.1). But the correct way in which to treat people equally, has been a subject of much egalitarian debate. This debate has typically centred around whether to make people equal by giving them equal shares, or whether to make them equal according to their need. [22] In the following paragraphs, I will consider both these approaches. I will show that, despite the differences in these approaches as to what is the proper object of what people should be equalised in, there is a remarkable similarity when it comes to the circumstances under which people can (and should be) treated *unequally*. I will first describe the approach that states that people should be made equal in the shares of resources they have, based on the work of Ronald Dworkin, and then discuss the approach which says that people should be made equal according to (the opportunity of getting) what they need, by discussing the work of Richard Arneson.

[5] Although this is no problem for our solidarity principle, it *is* a problem for our healthcare budget, however. Especially so, because the post-World War II 'babyboom' generation is currently reaching old age. This remark serves to draw attention to the fact that our healthcare system is already under a budgetary stress, which is expected to further increase in the near future, creating a further urgency to consider the structure of coverage for self-inflicted, and therefore avoidable, disease, as will be discussed shortly.

In 'Equality of what? Part 2: equality of resources' Ronald Dworkin argues that if we care about people being equal, we should care about them having equal resources at their disposal. People should then be allowed to freely use and trade these resources as they please, allowing people to do with the resources what they prefer, and to choose the type of life that they want to lead. However, luck might cause inequality to develop between people, even if they started out with equality of resources. Does this warrant a redistribution of resources to restore equality? According to Dworkin, this depends on the type of luck involved.

Dworkin distinguishes between two types of luck: option luck and brute (bad) luck. [23] He defines option luck "[..] as a matter of how deliberate and calculated gambles turn out." Bad brute luck, by contrast, is "[..] a matter of how risks fall out that are not in that sense deliberate gambles."[6] [23] Insurance, he continues, provides the link between these two types of luck, because "[..] the decision to buy or reject catastrophe insurance is a calculated gamble." By means of insuring against catastrophe, a person is not insuring against the bad brute luck itself, but against the effects of that bad brute luck: he is making sure that *if* he is struck by brute bad luck, his option luck will now be better because of the insurance (at least he will now get some compensation for his bad brute luck). Are differences in outcome due to differences in option luck consistent with equality of resources? Yes, says Dworkin, because: "Our initial principle, that equality of resources requires that people pay the true cost of the lives they lead, warrants rather than condemns these differences."[7] [23] When people gamble (e.g. refuse to insure against a certain event) and lose, this is no cause for redistribution of resources to compensate them for their losses, because "the possibility of loss was part of the life they chose [i.e. a life of gambling], [..] it was the fair price of the possibility of gain." (The same argument can be made for why no redistribution is necessary when it comes to people who won and why they are entitled to keep their winnings.)

According to Dworkin, we may of course have special reasons for forbidding certain forms of gambles, such as gambles which involve people's freedom or political rights. At present in the Netherlands, where health insurance (including coverage of diabetes treatment according to the current protocols) is mandatory for all residents, people are not allowed to gamble with their health prospects. It is not possible to opt out of buying this health insurance.[8] Or, to put it in Dworkinian terms, people residing in the Netherlands are not allowed to take a gamble when it comes to basic healthcare that they might need in the future. In particular, people do not get to choose if and to what extent they want to insure themselves against the risk of needing diabetes treatment. Because everyone *needs* to have health insurance which will cover the costs of treatment in case they get diabetes by law, however, this does not tell us anything about what people would have *wanted* for themselves, if they had been given a choice. Would all Dutch residents have insured themselves against the consequences of

[6] Page 293.

[7] Page 295.

[8] Apart from on religious grounds, but this involves a very small percentage of the population and will not be discussed further here.

getting diabetes, if they could have chosen freely?

Whereas some consider diabetes a stroke of brute bad luck against which they also would have chosen to insure themselves if this had not already been mandatory, others may consider the illness a form of option luck. Perhaps the people who treat overweight- and obesity-related illnesses as option luck prefer to lead a life of indulgence, even if this means they will have to pay the price in terms of illness later on. In the present climate, where the health risks associated with overweight and obesity are widely known (at least in the Netherlands), it can be expected that everyone who is not committed to maintaining a healthy weight, a healthy diet, and healthy levels of exercise to reduce these health risks, can be considered to treat these health risks as a form of option luck.[9]

Also, it has long been acknowledged that "a system of equal access for all alike might induce many to become *more irresponsible* about their health". [40] The fact that some type of compensation, in the form of pharmacotherapeutic treatment to ameliorate the negative effects, is given to those who turn out to be affected, might thus work to increase the number of people who are willing to take this gamble with their health.

Dworkin's insurance scheme presupposes that everyone initially, at the moment of choice to insure or not to insure, has the same risk for some affliction. This is also the assumption of state mandatory insurance schemes, which do not allow differential insurance premiums to be based on the actual risk people run (which may be higher than the average risk, for instance due to genetic factors or personal characteristics such as being overweight).

If overweight people should be allowed to choose to lead a type of life which treats diabetes and other overweight-related illness as option luck, then they should also be allowed choose whether and to what extent to insure themselves against the negative effects or not. In this case, insurance means to insure themselves against the risk they actually run (which is higher than the risk of diabetes in the non-overweight population). When this is considered to be a gamble that people should not be allowed to take (such as Dworkin's theory allows to exist), then people should, in practice, also not be allowed to take this risk. However, this runs counter to the present situation in which every Dutch resident is required by law to have health insurance. Because many people can be considered to take the gamble anyway, the present situation, in which healthcare coverage is provided to ameliorate the negative effects of losing for those who choose to gamble, seems unjustifiable. This will be further explained in section 7.1.3.

Other philosophers, such as Richard Arneson, take welfare and not resources

[9] Of course, the distinction between 'brute luck' and 'option luck' is rarely a distinct one, but is in many cases a matter of degree, which has led some authors to reject using these concepts altogether, see for instance [24]. I do not agree with this strategy. Although the distinction between brute and option luck may be a matter of degree in most cases and it is impossible to precisely determine their relative contributions, it should be clear from the preceding that overweight and obesity *shift the balance* towards a greater portion of option luck in the chances of developing diabetes. Also, a clear distinction of brute luck and option luck is unnecessary for the forward-looking conception of moral responsibility, which will be discussed below.

as the proper equalisandum (i.e. that in which people should be made equal). Arneson demonstrates that welfare should be the proper equalisandum, by demonstrating that equality of resources is an unlikely position to hold for egalitarians. He shows the absurdity of the resourcist position in two steps.

First, he argues that any notion of equality that is worth caring about, should include an account of someone's inborn resources. He shows this by stating that two people can hardly be called equal when they both have the same amount of resources at their disposal, but one needs to use the bulk of his resources to compensate for a handicap whereas the other can use his share of resources to achieve his aims to a far greater extent. [25] Thus, it would seem that a person's natural talents (or handicaps) should be taken into account when dividing resources equally.

Then, Arneson points out that if a person's natural resources are considered to be part of what should be equalised amongst persons, then equality of resources demands that a highly-talented person puts his talents towards compensating (by means of education, or otherwise) those who are less talented. Assuming that every person has an equal desire for ownership over his own time, the highly-talented person would find that the ownership of his time is very expensive to him (because his resources are in high demand), whereas the ownership of his time is cheap for the less talented person. This has been called the 'slavery of the talented'-problem. [23] Because any resourcist account suffers from the slavery of the talented-problem, Arneson argues that, instead of resources, we should look at welfare levels when we aim for equality amonst persons. Specifically, we should look at, and aim to equalise, people's *opportunity* for welfare, since "[..] it is morally fitting to hold individuals responsible for the foreseeable consequences of their voluntary choices, and in particular for that portion of these consequences that involves their own achievement of welfare [...]."[10] [25]

Although Dworkin and Arneson have very different opinions about the way in which people should be made equal, both ways lead to the conclusion that people forfeit their claim to equality by means of compensation, if the inequality they presently suffer and for which they seek compensation is the foreseeable result of a choice they have made in the past (e.g. to take the gamble). People who chose to stay overweight and consequently have now developed diabetes, have taken this gamble and lost. Or, as Arneson would put it, they have freely chosen to remain overweight, despite knowing the health risks involved. Therefore, they can be held responsible for their disease and do not have a compensatory claim on others. The argument which ascribes moral responsibility for self-inflicted illness has two underlying claims: (1) there is a link between unhealthy behaviour ('option luck') and responsibility for ill health, and (2) the logical result of being responsible for illness is a decreased (or no) claim to healthcare resources. [29] However, these assumptions have been questioned. In the next section, I shall explore the validity of the counterarguments for assigning responsibility

[10]Page 88. Note how Arneson also dismisses any egalitarian theory that proposes straight equality of welfare, by claiming that it is morally fitting to hold people responsible for the foreseeable consequences of their voluntary choices, which is a position I endorse.

for disease to a patient based on unhealthy behaviour in the case of diabetes in the overweight. In section 7.1.4, I shall discuss objections to the second claim that responsibility should result in a lower claim to healthcare, or, in this case, differential treatment and insurance premiums. Objections against this claim focus on the trust there should be between a doctor and her patient in order for medicine to function properly.

### 7.1.3 Unhealthy behaviour results in responsibility for subsequent illness

Against the claim that there is a link between unhealthy behaviour and responsibility for subsequent illness, it is often objected that it is impossible to hold people fully responsible for their illness. This is the so-called 'not-responsible' argument. Generally, three reasons are given for why people cannot and should not be held responsible for their disease. I will first describe these reasons and then explain how these relate to the alternative proposal for diabetes treatment in the overweight.

The first reason for why people cannot be held responsible for their illness is that the behaviour that caused the illness is often not under someone's (voluntary) control. Many unhealthy behaviours are at least partly determined by factors that are not under the person's direct control. Examples include the addictiveness of tobacco (nicotine) and alcohol in smoking and drinking behaviour, influences of culture and advertising, and biological or genetic predispositions. [29, 33] As briefly explained in section 3.1.3, overeating, which leads to overweight and obesity, has many different determinants. Some of these can indeed hardly be considered to be under the person's control. For instance, overweight and obesity are correlated with gender, race and (low) socio-economic status. [1, 10] Furthermore, risk of (childhood) obesity increases with particular (restrictive) parental feeding practices [34, 35], and childhood obesity is predictive of metabolic syndrome (including type 2 diabetes) in adulthood [37, 36]. These are all examples of factors that play an important role in the development of overweight and obesity, which are nonetheless not fully under an individual's control.

The second reason for not assigning responsibility for disease is that unhealthy behaviour can seldom be considered the *only* cause of the illness. It seems unjust to assign full responsibility to a patient for her disease when other factors than her unhealthy behaviour could have caused it or contributed to it as well. For instance, a genetic predisposition for diabetes has been known to exist. Therefore, a patient who is both overweight (a changeable factor) and also has a genetic predisposition for diabetes (an unchangeable factor, e.g. diabetes 'runs in the family') may develop diabetes due to her being overweight, or due to her genetic predisposition, or due to a combination of both. Because it can never be determined which of these three scenarios is the case in an individual patient, it seems wrong to ascribe to her the full responsibility for her diabetes based on the changeable factor, i.e. her being overweight. It can be objected, however, that overweight and obesity, if not a causative factor, are in this case

at least a sustaining factor for her diabetes, as well as a risk factor for any of the other overweight and obesity related illnesses. So, regardless of whether her overweight played a part in causing her diabetes, it is an important factor when it comes to her prognosis of this disease. For this reason, it seems justified to ascribe to her a responsibility for how she deals with this risk factor of being overweight, *especially now that she has been diagnosed with diabetes.* This forward-looking conception of a person's responsibility shall shortly be discussed further.

The third reason for questioning the link between unhealthy behaviour and responsibility for illness concerns the positive effects that risk taking behaviour might have when it comes to psychological well-being. This reason is called the 'value reason', because it states that there is a positive value to risk-taking behaviour. Some claim that strict risk-avoidance can cause fear and anxiety, and therefore risk-taking behaviour can help maintain psychological well-being. [39] Others [23, 40] describe the positive value of risk-taking behaviour in terms of the lives people prefer to lead: "Some people enjoy, while others hate, risks." [23]

However, this seems a strange argument to make in favour of equal access to compensatory resources (in this case, equal access to healthcare) if the risk taken turns out badly. Indeed, a risk is always associated with multiple outcomes, otherwise it would not be called a risk, but a certainty. Often, one or more of these outcomes is positive, and one or more is negative. It seems to me that people who genuinely value risk-taking behaviour positively accept both (all) positive and negative outcomes as legitimate outcomes of the risk they took, i.e. both (all) outcomes are fair given the risk they have freely chosen to take.[11] Therefore, if they choose to gamble with their health and consequently suffer from illness, this is a legitimate outcome of the gamble they took. If they nevertheless make a claim to be compensated for this poor outcome (in the form of treatment for the illness), it seems to me that they never valued the risk-taking behaviour as such, but only valued the positive outcome of the gamble and not the negative one with which they ended up. Now it is easy to want to be a winner, but if you choose to be a gambler, you will have to face up to the fact that losing is also part of that. I think that people who gamble but only want to be winners suffer from a lack of self-knowledge when it comes to what they value most. They cannot be said to really ascribe positive value to risk-taking behaviour, because as it turns out, they value their good health more than the gamble they have taken with it. In the case of someone who is overweight and who is diagnosed with diabetes, are we not justified in pointing out this form of cognitive dissonance to someone and assist her in neutralising the effects of the damage she has (as it turns out: unwantedly) already done to her health? Also, in the case of someone who values risk-taking behaviour and is overweight and diagnosed with diabetes, I do not see why the risks associated with this illness (the risk of going blind, the risk of renal failure, the risk of

[11] Assuming that they were aware of these outcomes. For the present discussion, I shall assume that it is commonly known that being overweight or obese is unhealthy, and will not discuss this matter further.

cardiovascular disease) should be mitigated by means of treatment that is paid out of public (health insurance) funds. Does treatment in this case not go against what the patient values in life, i.e. taking risks?

Now how do these reasons for why a patient cannot and should not be held responsible for her disease relate to the alternative treatment for self-inflicted illness as is proposed in this paper? The reasons stated above relate to the ascription of moral responsibility *retrospectively*, which leads to a decreased claim on healthcare. The alternative treatment proposed here recognises that people cannot always be fully held accountable for their past behaviour, because of the reasons stated before (i.e. no control reason, etc.). However, this is not to say that people do not have a responsibility for their *future* behaviour and well-being, that is, *prospectively*. Feiring proposes precisely such a forward-looking conception of individual responsibility when she states that:

> "Several factors may reduce expected benefit of treatment. While the individual has little or no power to influence some of these factors, she may be in a position to improve others. Factors attributed to lifestyle are among the latter. [..] The point is not, then, to assess whether or not it would have been obtainable for one in the patient's circumstances to make greater effort to get a healthy lifestyle in the past. She may or may not have had less opportunity than others not to make bad choices. Rather, the point is that when resources are limited we owe it to each other to do what we can to make medical treatment efficacious." [30]

The alternative treatment proposed here is a reflection of such a forward-looking responsibility for health. As stated before in sections 3.1.3 and 6.3, overweight and obesity are –among other factors– correlated with a low socio-economic status, which may cause all kinds of impediments to maintaining good health that are not under a person's control.[12] Because differences in health that are related to differences in socio-economic status can be considered unjust [21], the current proposal provides an opportunity to compensate -to an extent- these unjust differences in health which are caused by differences in socio-economic status. The current proposal therefore does not seek to blame a person for her past unhealthy behaviour, but takes the status quo as the starting point. Regardless of the causes of the risk factor (overweight) which may have caused the current illness (diabetes), people are offered the chance to get rid of this risk factor altogether. This will not only be beneficial with respect to treatment of the current (diabetic) illness, but is expected to have a positive influence on and/or even prevent future illnesses which are associated with the same risk factor. If we owe it to each other to do what we can to make medical treatment efficacious when resources are limited, then this is what is required.

This forward-looking conception of responsibility is very different from the approach normally taken in assigning responsibility. Often, the point at which an individual becomes responsible for her illness has been located in the past,

[12] As described in section 6.3

before onset of the current illness. For instance, Moss and Siegler hold that an individual became responsible for her current illness at the moment she first began showing symptoms of the risk factor that has caused the current illness. [31] Specifically, they discuss how alcoholics who now need a liver transplant became responsible for their liver disease (and thus the need for liver transplantation) as soon as alcoholism presented itself. The equivalent of that scenario in the current case would be to state that an individual became responsible for her diabetes as soon as she becomes overweight. Others think that the moment at which the agent became responsible lies even further away in the past. For example, Glannon argues that an alcoholic who now needs a liver transplant for alcoholic liver disease already became responsible for this disease at the moment she decided to consume alcohol and thus decided to expose herself to the risk of becoming alcohol dependent in the first place. [32] Glannon views the point at which she decided to drink as the appropriate point in time to locate the start of responsibility, because since that moment the agent had causal control over the factors leading to the present illness. [32] Backward-looking conceptions of responsibility such as these fall prey to the no control-argument stated above, unlike the forward-looking conception of responsibility. A forward-looking conception of responsiblity might indeed be difficult to implement in the case of a patient with alcoholic liver failure in need of a transplant (because the burden of proof lies in the future and who would not promise to better themselves when faced with terminal illness?), but is very well possible in the case of diabetes treatment.

The forward-looking conception of responsibility also explains how it can be justified that insurance companies would be allowed to charge higher health insurance premiums for some people. The point is aptly phrased by Golan:

> "It might be that the intuitive claim that people who could have avoided their illness should be treated differently does not refer to their right to medical treatment, but rather to their right to have the costs of such treatment paid by public resources. As, after all, we can not ignore the truthfulness of the statements that 'one man's freedom in health is another man's shackle in taxes and insurance premiums' and that 'The person who takes risks with his own health gambles with the resources which belong to others.' [..] This question is not one of 'medical justice' but, rather, one of 'societal justice'." [27]

If someone expresses a disinterest in the current alternative treatment by refusing to take this form of lifestyle treatment (and opting for the current pharmacotherapeutic treatment instead), or by not attending the lifestyle treatments meetings with the physiotherapist and dietician as agreed (which is comparable to not living up to the conditions of any other type of contract), then she thereby expresses a wish to 'take the gamble' (with her own health and other people's healthcare resources) and live with the higher risk of disease and disability associated with overweight and diabetes. Insurance companies should then be able to charge her a matching premium for the same insurance package. This higher premium should reflect the average healthcare costs for this group

of patients, much like any other insurance policy for risky behaviour, such as practising extreme sports. It can be expected that this premium will be higher than the premium paid by the general, non-overweight population (or by those undergoing lifestyle treatment), since an increase in BMI brings with it an increase in disability and healthcare expenditure, which will be reflected in the insurance premium. [8]

Note that the coverage provided through this health insurance stays the same; it is only the premium that changes in order to reflect more adequately the real costs of treatment for this group of overweight and obese patients. This differential pricing of the same health insurance coverage should not be seen as passing judgment on the people who are overweight or obese and wish to remain so, even though they are already demonstrating some negative effects of being overweight (because they were diagnosed with diabetes). Rather, it is an attempt to respect their choice of life, whilst at the same time also respecting the healthcare claims that others make, who have perhaps made healthier lifestyle choices in the past but are nonetheless faced with illness. Figuratively speaking, if the pie is not big enough to accomodate both those healthcare claims that emanate from bad brute luck or that are the (unforeseeable) result of involuntary choices made by the patient, as well as those healthcare claims that emanate from option luck that turned out badly or that are the result of foreseeable, voluntary lifestyle choices, then *either* some claims need to be rejected as illegitimate, *or* the pie needs to become bigger. The current proposal opts for the second way to meet healthcare needs.[13]

This is in line with suggestions made by Buyx to introduce a bonus and/or malus system for illnesses that are partly due to personal responsibility. [41] He proposes to change the healthcare system to incorporate personal responsibility in such a way that for, instance, bonuses are given to people who are committed to tackling problematic health behaviours. Likewise, the system could also incorporate maluses as incentives to display healthier behaviour. To honour the solidarity principle which Buyx argues should (remain to) play a prominent role in any (European) healthcare system, he proposes, for example, 'an additional co-payment or a malus on the insurance premium'. [41] Similar to the current alternative proposal, he argues that the solidarity principle requires that the malus should not lead people to be excluded from healthcare. [41] But even though this may be stated as a formal requirement of a policy of differential pricing, when this policy is applied in practice, it may nonetheless lead to effective exclusion of health insurance for some people. For instance, insurance premiums might need to be increased to cover the actual costs for treatment of someone who chooses to remain overweight to such an extent, that it is im-

[13] Again, I would like to emphasise that prevention is better than treatment. This means that it preventing overweight and obesity in future generations should be and remain high on the public health agenda, when it comes to containment of increasing healthcare costs. If properly implemented and effective, future prospects with respect to overweight and obesity may start to look hopeful because of this greater awareness in public health policymaking. However, this still leaves us with the present situation in which overweight and obesity are highly prevalent and pose high demands on the current healthcare system.

possible for an individual to pay them. So while this person would formally not be excluded from access to health insurance based on her higher risk, she nevertheless runs a risk of being excluded in practice from such insurance because she cannot make the payments needed. This poses a serious problem for an insurance system that needs to be accessible to all, yet should be able to charge people different premiums based on risk assessment. To overcome this problem, it might be needed to cap the percentage by which the insurance premiums for people with a higher risk is allowed to increase. I shall discuss some other problems that are related to differential pricing of insurance premiums in section 7.3.3 below.

### 7.1.4 Trust between doctor and patient

While some question the validity of the link between unhealthy behaviour and responsibility for ill health, others question the assumption that responsibility for disease should result in a lower claim to healthcare resources. In the current proposal, moral responsibility for illness is not coupled to a lower claim to healthcare, but instead is coupled to a more stringent form of treatment and/or the duty to pay higher insurance premiums. Nevertheless, the arguments provided to call into question this link might also be valid in the current case and will therefore be explored here. Two arguments are generally provided.

The first argument for *not* assigning lower responsibility/differential treatment for self-inflicted disease concerns the trust there should be between a patient and her physician in order to establish a proper diagnosis and treatment plan. To be able to do so, a patient must be willing to tell her doctor all the relevant facts about her condition. If by disclosing these facts the patient would then have to undergo lifestyle treatment or pay higher insuarnec premiums, then she might be inclined to withhold information that is relevant for treatment. According to Ho [33], this undermines the proper functioning of medicine, because a patient seeks the assistance of her doctor to restore the autonomy that she lost due to ailment. In order to correctly and efficiently restore the patient's health, a doctor must know all the relevant facts about the illness and its causes. If a patient cannot trust her doctor with this relevant information about her illness, due to fear of adverse consequences, she cannot be treated by her doctor appropriately. [33] Can this be a valid counterargument against the alternative treatment proposed here?

In the alternative proposal, it is suggested that there should be a greater emphasis on the risk factor of overweight and its determinants in causing and sustaining diabetes than is currently the case in the NHG-protocol. As such, the alternative proposal actively *seeks* the relevant facts for treating the patient, so that therapy can be aimed at eliminating the causative factors that are relevant for that patient, i.e. treating not just the diabetes, but the factors that led to overweight which resulted in (poorer) diabetes (prognosis). Thus, it seems that this objection hits its target more when it is aimed at the current protocol, in which these causative and sustaining factors are not adequately sought out and treated, than when it is aimed at the alternative proposed here.

There is another important implication regarding trust between doctor and patient, however. The alternative proposal for diabetes treatment in the overweight is not so much based on the information the patient discloses, but is based on observable and measurable facts, i.e. when a patient is diagnosed with diabetes (elevated blood glucose levels) and she is overweight (BMI), then she must undergo lifestyle treatment and/or pay higher premiums. Therefore, the only way for the patient to withhold information (to avoid lifestyle treatment and increased premiums) is to not visit her doctor when she is overweight and has symptoms that she thinks might be caused by undiagnosed diabetes. Of course, if the patient does not seek treatment or there is a considerable delay in seeking treatment, this could create dangerous situations and may result in more complications on the long term.

A second objection to the link between moral responsibility and lower priority states that physicians should not pass judgment on their patients, but should solely be asked to provide healthcare based on need. [29, 33] If doctors are required to pass judgment on their patients based on information that is given to them by the patient himself, then this would lead to unfair practices, where patients who are well aware of this fact might employ self-censorship in the information they give to the doctor, to get access to the desired treatment resources, while patients who are unaware of this fact might tell their doctors self-incriminating facts, which then cause them to receive a lower priority in healthcare. It is easy to understand how this would be the effect of such a policy. At this point, it is interesting to note that this is already the case in the medical practice of organ transplants for alcohol and drug addicts, and smokers (see section 7.2). Indeed, the ethical dilemmas that this policy creates for the healthcare professionals working in transplantation medicine are well described in the literature. [51]

In the alternative proposal, there are two moments at which judgment is passed on the patient: the first time is when a patient is diagnosed with diabetes and is overweight. In this case, the doctor is asked to prescribe lifestyle treatment rather than follow the existing diabetes protocol. As described above, this may lead patients to not seek help or to delay seeking help from their doctors, with all the negative consequences thereof. The second time at which judgment is passed is when the time has come to evaluate the coorporation of the patient and effects of lifestyle therapy. In this case, the judgment should reflect the combined information of physical examination (BMI) and attendance registers of physiotherapists and dieticians. By making the second judgment one that combines information from different healthcare professionals and by having bodies of appeal for this judgment, it might be possible to reach a judgment on the patient's coorporation with treatment and/or need to pay higher premiums, that can be considered fair. However, being able to reach a fair judgment, does not take away the problem of the trust between doctor and patient that might be undermined when the doctor is asked to pass judgment on a patient with respect to the need for lifestyle treatment. Some doctors might face moral dilemmas when the alternative treatment protocol tells them to prescribe lifestyle treatment, while the doctor knows that the patient is an unlikely

candidate to succeed, and is also unable to pay higher insurance premiums.

## 7.2 Societal demands versus patient autonomy

One of the questions that should immediately be raised by the proposal for an alternative treatment for diabetes in the overweight, is whether we should be allowed to demand such lifestyle changes from someone. Does lifestyle not belong to an individual's private domain? Is it not a violation of an individual's autonomy to tell her which changes to make in her life and in which way, or else to suffer the consequence of having to pay higher insurance premiums?

As Buyx notes:

> "Indeed, health-relevant behaviour belongs to the private sphere of individuals. Freedom to exercise the right to make independent choices about diet, fitness activities, the consumption of nicotine or alcohol, or professional and recreational activities is important to most people and is generally regarded as a central right. Much controversy surrounds the question of whether the state or a social institution such as the healthcare system is entitled to interfere with the private life of individuals by demanding personal responsibility for health. Hence, even indirect interference in the private spherefor example, by withholding resources or servicesis in need of well-argued justification." [41]

Buyx argues that this justification can be found in the principle of solidarity. [41] Again, this principle of (risk) solidarity forms the basis of our Dutch healthcare system. Solidarity should not be confused with the concept of charity, in which a particular group gets support, but in which this is not reciprocated. Rather,

> "Solidarity [..] is [..] a dual principle that entails elements of reciprocity: of receiving, but also of giving and contributing. [..] [B]ecause of the commitment to the shared public institution, which solidarity also demands, people should not be only passive recipients of services but should actively contribute to and try to avoid harming the system. This means that they should act responsibly when it comes to their health and that it is justified to expect this to a certain reasonable degree." [41]

Note that in the proposed alternative treatment, people are not even required to 'act responsibly' by choosing to do what can be considered best for their health (i.e. to undergo lietsyle treatment). If they do not want to take this treatment, they can opt out of it by accepting that they will then lose their protection against differential insurance premiums when it comes to health insurance.

In practice, this would leave even more room for leverage and personal decision making than we are willing to give to some patients in other situations. For instance, when a smoker is in need of a lung transplant, the Dutch medical

protocol requires that she has not smoked for 6 months before she is eligible for a screening to determine if she can be put on the waitinglist.[14] Active smoking is an abolute contraindication for lung transplantation, although a systematic review of the medical literature done in 2006 failed to find any data on the prognosis for smokers undergoing lung transplantation, in particular, they failed to find any data on a worse prognosis for smokers.[15] [43] Something similar is true for people who are in need of a liver transplant: active alcohol and/or drug dependency is an absolute contraindication for a liver transplant, even in the absence of any medical evidence that these patients have worse outcomes after a liver transplant than people who are not alcohol dependent. [45, 46, 47, 48, 49, 50] So in these cases, it seems inappropriate to justify the lower priority for organ transplantion by invoking a medical argument that states that scarce medical resources would be used inefficiently if these patients were to have equal access to them. Nevertheless, we demand these lifestyle changes from them before they are allowed access to these resources. Thus, in these cases, when a patient with self-inflicted disease seeks treatment, it seems we already feel that we have the right to overrule a patient's autonomy with respect to the choices she made which led to the disease, and demand that she change these factors, or else be excluded from treatment.

In the case of self-inflicted liver or lung failure, should these demands or exclusion of treatment be understood as a form of punishing the individual for her irresponsible behaviour? Perhaps. In the absence of evidence indicating a worse prognosis for these patients unless they change their behaviour, a forward-looking conception of moral responsibility can hardly be used to justify such a policy.[16] Likewise, despite the best efforts to show otherwise, some people might still consider this proposal for an alternative treatment for overweight diabetes patients and/or a policy of differential insurance premiums a form of punishment. Is this a valid objection to the alternative proposal? I think the answer is no. For punishment to be in order, a person needs to be culpable. As discussed in section 7.1, it is often not the case that a person can be held fully responsible for her illness. Moreover, as Brian Smart points out, self-inflicted harm is not a crime. [40] Thus, the overweight diabetes patient cannot be though of as being culpable for her disease.

Then why would it be necessary to prescribe the patient a treatment that puts such demands on her, and why do there have to be negative consequences to non-compliance? As discussed before, even when the patient cannot be held

[14] Note that a smoker will not be put on the waitinglist *until she has refrained from smoking for at least six months* [42] If she has managed to do this, she then still needs to wait for a new (set of) lung(s) to become available. In the Netherlands, the average time on the waiting list for lung transplants is 1.5-2 years. [42]

[15] It has only been shown in other transplant populations that smoking in combination with immunosuppressive agents needed after transplantation is associated with malignancy, cardiovascular disease and mortality. Remarkably, smoking is not considered a contraindication for, for instance, liver transplantation. [44]

[16] However, other arguments, such as the effect of a policy of allowing (scarce) organ transplants for self-inflicted disease on public opinion and willingness to donate organs might play a part as well.

fully responsible for her overweight and diabetes, from the moment that she is diagnosed with diabetes she has a prospective responsibility for how she chooses to deal with this. If she'd rather not change her lifestyle to reduce her 'option luck' (see above) for getting other overweight-related illness (and complications of diabetes), then the (financial) resources needed to treat these would not be available anymore to pay for the treatment of someone else. She is thus using up healthcare resources that would otherwise have been available to spend on another person's treatment. If our overweight patient had chosen otherwise, these healthcare resources would still have been available for this other person's treatment. By choosing to *not* reduce her 'option luck', our overweight patient thus impairs the chances of health gain or recovery for someone else. By paying for the increased costs of treatment herself through increased insurance premiums, our overweight patient who does not want to change her lifestyle, compensates the other patient for what this patient otherwise would have lost in terms of chances of health gain or recovery. [40] So, rather than punishment, the alternative treatment should be understood as a non-punitive principle (with respect to past choices[17]) to restore the chances of treatment for patients with non-self-inflicted disease (the chances of treatment that these patients would have had, if the healthcare budget had not been spent treating self-inflicted disease) as well as to restore normal levels of health and functioning in patients with self-inflicted disease as much as possible.

## 7.3 Unresolved issues

In the previous sections, I have described some difficulties with assigning moral responsibility for disease and using this to guide policymaking about which treatment options should be made available to a patient. In particular, I have shown how these problems relate to the case of prescribing lifestyle treatment and/or differentiated insurance premiums for overweight diabetes patients. Important issues that pose a problem to the fair implementation of such a policy, and which need to be resolved before such a policy could be implemented, concern the maximum allowed increase of the insurance premiums and the undermining of trust between doctors and patients that is needed for medicine to function properly. In this section, I will describe some other difficult and unresolved issues. Although many practical issues related to the implementation of such a policy may exist, I shall limit myself here to the ethical questions. The ethical considerations that I will discuss are: what if lifestyle treatment proves to be more effective in preventing further disease and complications in overweight diabetes patients, but it is not cost-effective? Why should only overweight patients who have developed diabetes be included in the lifestyle treatment programme; might overweight patients who have not yet developed disease benefit just as much, or even more? Do they not have an equal right to access to health, and therefore lifestyle treatment? Why only assign moral responsi-

[17]Responsibility and consequences will only be related the choices for the future that an overweight patient makes when diagnosed with diabetes.

bility (prospectively) to this patient group; cannot many more patient groups be distinguished to whom moral responsibility could be assigned? And what if the same differential insurance premium policy would be applied to multiple patient categories and someone belongs to more than one patient category?

### 7.3.1 What if lifestyle treatment is not cost-effective?

Thus far, we have assumed that lifestyle treatment will prove to be effective, as well as cost-effective, as a treatment for diabetes in the overweight and in the prevention of further overweight-related illness. This has led us to propose that this lifestyle treatment might be a better treatment for overweight patients than the current diabetes treatment in terms of expected quality of life of the overweight diabetes patient in the long term, (cost-)effectiveness of medical resources, and fairer distribution of healthcare resources. But what if research into the (cost-)effectiveness of this lifestyle treatment shows that this treatment is indeed *more effective* (in terms of quality of life) than the current treatments offered to overweight diabetes patients, but is not *cost-effective*?[18] We would then be faced with a dilemma, because, on the one hand, we might feel compelled to cover this treatment for this group of overweight diabetes patients, because it allows them a better chance of being (and remaining) healthy. On the other hand, however, we might feel that it would be unfair to allocate extra healthcare resources to a group of patients with avoidable disease, because this would mean that there would be less resources available for the group of patients with non-self-inflicted disease.

Which of these two expensive therapies should be covered by health insurance if we want to allocate resources fairly? The therapy for self-inflicted disease, or the therapy for non-self-inflicted disease?[19] As discussed before, ascribing moral responsibility for self-inflicted disease to a patient *retrospectively* is problematic, so this approach can not be used to distinguish which one of the treatments should be paid for out of public (health insurance) funds, and which one should not. I think that the concept of *prospective* moral responsibility might also prove to be inadequate in this case, because the decision to cover treatment determines if, and to which extent, people can be held responsible for their disease *prospectively*. Indeed, we have already established that if people are not adequately supported when making lifestyle changes, they have a small chance of succeeding and run the risk of not implementing them properly and safely for the long-term. [16] Moreover, people can experience all kinds of impediments when it comes to making these changes (see section 6.3). Thus, if research indicates that lifestyle treatment is indeed more effective, but not cost-effective, then the question whether it should nonetheless be covered by medical

[18] Remember from section 6.2.3 that cost-effectiveness is expressed in the cost of a treatment per QALY. The (preliminary) upper limit for cost-effectiveness is set at €80.000. However, sometimes we might have good reasons (for instance, with respect to fairness) to cover treatments which cost more than this.

[19] Let us assume for the moment that the costs per QALY for these therapies are roughly equal, to avoid further difficulties that warrant careful consideration

insurance poses a problem for fair allocation of healthcare resources. This question warrants further investigation, but maybe not until empirical research has shown whether this is indeed an issue or not (by investigating cost-effectiveness of lifestyle therapy further).[20]

### 7.3.2 What about overweight and obese people who are not diagnosed with diabetes?

In the current proposal, overweight patients who have not developed diabetes (yet) would not be compelled to take lifestyle treatment, even though they are overweight. Why not compel these people to undergo lifestyle treatment as well, since to prevent is better than to cure? These people do run a higher risk of developing diabetes as well as any of the other overweight and obesity related illnesses. The lifestyle treatment proposed here may turn out to be very efficacious for this group of people, too. Indeed, research has shown that some form of lifestyle treatment is both effective and cost-effective in the prevention of diabetes in this group. [38]

However, it is well known in clinical practice that a certain percentage of overweight people (up to 20% in some populations) does not show any signs of metabolic syndrome. These people have an increased body weight, but do not show any physiological signs of metabolic syndrome (increased blood gluose levels, hypertension, elevated blood lipids) that are associated with increased risk of diabetes and cardiovascular incidents.[21] This is known as 'healthy obesity'. [53] Because this group does not contribute to higher healthcare costs[22], they do not belong to the population at which lifestyle treatment is aimed. It is currently impossible to tell, however, who belongs to the group of the 'healthy obese' and who does not. Obviously, overweight people who have already developed diabetes, do not belong to this group. Therefore, only this group should presently be included in lifestyle therapy (and/or the health insurance consequences thereof).

In the future, it might be possible to more accurately assess who belongs to the group that runs higher risks and wo does not. The new theoretical framework of 'lipotoxicity' might be of help in this endeavour. [53] This new theory says that it is not the amount of fat stored in the body that is responsible for the damaging effects associated with increased bodyweight, but rather the level of (unstored) free fatty acids in the blood circulation. Storage of these damaging free fatty acids in fat depots in the body, might actually help to *decrease* the amount of damage done by these free fatty acids (FFAs). Therefore, overweight and obesity should not be seen as the cause of illness, but as the body's

[20] To give an approximation of cost-effectiveness of lifestyle treatment: the Dutch National Institute for Public Health and the Environment (RIVM) has investigated different forms of lifestyle treatment/coaching and has found that these are very effective in terms of health gains and that some of those interventions are cost-effective as well. [38]

[21] Again, these findings fail to mention the prognosis for other disease associated with overweight, such as disease of the joint and/or cancer.

[22] Although the truth of this can be questioned, see previous footnote.

adaptive response to neutralise the damaging effects of these FFAs. Rather, illness is only caused when the capacity to store these damaging FFAs runs out. This might explain why some people with obesity seem physiologically healthy (see above): the capacity for storing FFAs has not run out in these patients. On the other hand, it might also explain why some people who are of normal bodyweight, nonetheless show signs of metabolic syndrome: the capacity for storing FFAs is small and has run out quickly (i.e. no additional FFA depots are created so these people do not get fat, but do get damaged). [53] At present, there is no test available to determine a person's residual capacity for FFA storage. If there were such a test, this might prove to be a better predictor of who gets metabolic disease and who does not, and might be better at determining who needs lifestyle treatment (which may then turn out to be needed for some people of normal weight as well). Until this test becomes available, BMI may be our best estimate of the residual capacity for FFA storage, because it can be assumed that the more FFAs are stored (i.e. the more a patient becomes overweight), the smaller the residual storage capacity becomes. [53]

This new theoretical framework may not only allow us to better distinguish people who are at in increased risk for illness from those who are not, but has also already inspired a new approach to treating these patients. At present, drugs are being developed which increase the oxidation (usage) of free fatty acids in fat deposits, thereby increasing the residual storage capacity for FFAs again. [54] These drugs have the additional benefit that they do not require the patient to increase her physical activity, which makes it easier for the patient to comply with therapy. It should be apparent that these new developments in medical technology are essential for the validity of the debate of healthcare rationing, and it improves the quality and efficiency of philosophical debates like the current one if such interdisciplinary information exchange is observed and assured. [29]

### 7.3.3 Precedent effect of differentiated insurance?

In section 7.1.3, I already briefly discussed a problem with differential pricing for (the same) health insurance (package), based on risk. The problem discussed there was that an insurance premium might have to increase to cover the additional costs for healthcare due to the increased risk to such an extent that the individual with the increased risk of overweight related illness is unable to pay the premium. Her rights for equal access to health insurance (and through that: healthcare) may then be guaranteed 'on paper', but, in practice, she is excluded from healthcare because she cannot afford it. One way to circumvent this problem would be to introduce a limit to how much the premiums are allowed to increase. But there are two other problems related to the differential pricing of insurance premiums based on risk, to which I will now turn.

One of the goals of the current proposal is to recognise the group of overweight diabetes patients as a distinct subgroup, which warrants differential treatment, both in medical practice, but (in some cases) also in health insurance practice. But why stop here when there are numerous other patient groups

with self-inflicted disease that may be identified? The universalisation argument against assigning lower priority or access to healthcare for self-inflicted disease states that it would only be fair to introduce such a principle if this would then be applied to *all* self-inflicted disease. [29, 52, 33] According to this argument, it should not be the case that some patient groups who suffer self-inflicted disease should get lower priority while other patient groups with self-inflicted disease do not. In the present discussion, this would mean that not only overweight diabetes patients should be compelled to undergo lifestyle treatment or have to pay higher insurance premiums, but that, for instance, overweight patients who are diagnosed with hypertension or an elevated blood cholesterol level, and who are therefore prone to cardiovascular disease, should also be compelled to undergo lifestyle treatment. Or that people with very stressful jobs or lives who are for *that* reason prone to cardiovascular disease should be compelled to change those factors, too, or be made to pay higher insurance premiums. The idea here is clear: it would be absurd to implement a different-insurance-for-self-inflicted-disease policy universally due to the large variety and number of medically risky behaviour.[23] This is indeed a very powerful argument. But if we choose to only single out this one group of patients and to apply a policy of differential pricing only to them, we are compelled to give good reasons for why this group should be treated differently while other patient groups, in which prospective responsibility for disease may play a similar role are not. Which morally justifying reasons could we have for saying that overweight diabetes patients are held morally responsible for their prognosis, while, for instance, smokers who have developed COPD, are not?

The second problem with differential health insurance premiums based on risk presents itself when differential insurance premiums based on risk are allowed and applied to other self-inflicted illnesses as well, such as the aforementioned smoker who develops COPD. The problem that presents itself then, is that persons can belong to several different classes of diseases to which differential treatment is applied. For instance, our overweight patient who developed diabetes might at the same time be a smoker who developed COPD. In that case, she runs the risk of a double increase in her insurance premium, since she belongs to two patient groups to whom differential insurance premiums are applied. It should be obvious that this meets with new ethical difficulties. This is therefore another issue that needs to be resolved before a policy of differential insurance premiums based on risk could be implemented.

However, it remains awry that some healthcare interventions, such as promising but expensive new drug therapies for cancer, rheumatic disease and genetic disorders, cannot be added to the pool of therapies that are paid for out of the collective healthcare budget, because the treatments provided for a (significant) group of people whose disease was avoidable cannot be excluded from coverage by the public healthcare budget. Although allowing premium differentiation would imply a profound change in the basic principles of our health

[23] Also, people can display various risky behaviours, thus making them eligible for a number of different insurance premium rises, which may then lead to financial distress.

insurance system, I think the emergence of avoidable disease in a large number of the population, warrants a new investigation of the principles and goals that underly our health insurance system. Other possible ways of dealing with this phenomenon nee dto be considered as well. These include a much larger emphasis on the prevention of these avoidable behaviours, so that healthcare costs for self-inflicted diseases (hopefully) decline and e.g. more room for expensive, new, and promising treatments would thereby be created.[24] For this to happen, strong laws are required to limit (effects of) the obesogenic environment, among other things. Another way to circumvent the problem of having to distinguish different patient groups within the insurance system, is to make the causative behaviour much more expensive (e.g. by increasing taxes for the products necessary to display that behaviour, the so-called 'fat-tax') and thus create extra revenue which can then be used to finance the increase in healthcare costs due to the effects of this unhealthy behaviour. These alternatives to the current proposal are worth considering, but are also likely to have their own unwanted upshots.

[24]Perhaps considering the present overweight population as a 'lost generation', because overweight cannot be prevented in them anymore.

# Chapter 8

# Concluding remarks

In this paper, I have pointed out current inequalities in the treatment of diabetes with respect to the overweight, and have proposed the recognition of this group as a distinct patient group, which warrants an alternative approach to treatment of diabetes. I have discussed the need to set limits to which interventions are covered by the healthcare budget, and have argued that a prospective conception of moral responsibility could be useful in setting these limits, by going back to the goal of communal healthcare insurance systems to compensate for brute bad luck. I have discussed objections commonly made against assigning moral responsibility, and have shown that some of these do not seem to be valid in the present discussion. In section 7.3, however, I have discussed some objections that do seem relevant to the present discussion, such as when lifestyle treatment turns out not to be cost-effective, the argument that more people than the current patient group should be included, and the related argument that the distinction of one particular group in the health insurance system might set a precedent for other groups to be distinguished, which may lead to unwarranted social differentiation. I have tried to demonstrate that further empirical research into the (cost-)effectiveness of lifestyle treatment is needed first.

The present discussion has focussed on diabetes as a model for self-inflicted disease caused and sustained by overweight. However, people who are overweight do not just run a higher risk of getting diabetes, but also of getting a range of other diseases. The present discussion might therefore also apply to people who are overweight and are diagnosed with some of these other diseases.[1] If the principle of lifestyle treatment and/or differential treatment with respect to insurance premiums is accepted, then a new investigation into the appropriateness of applying this to these other diseases is called for. Also, this might create new dilemmas in medical ethics and policy-making, since a person can

[1] Section 3.1.4 described how overweight is associated with a higher risk of certain cancers. Perhaps needless to say, but it would be ethically problematic to apply the present discussion to that class of (acutely life-threatening) disease. Moreover, weight loss is one of the most prominent and devastating symptoms of these diseases, making lifestyle changes superfluous or even dangerous.

belong to several different classes of diseases to which differential treatment is applied (see above, section 7.3.3). In this case, other alternative interventions than the one proposed here, maight be more suitable in medical and health insurance practice.

Despite all these unanswered questions and remaining difficulties, I am convinced we are currently experiencing a change in the public opinion about overweight and obesity. Overweight and obesity are becoming less the domain of individual life choices, but are increasingly recognised as a risk factor that greatly influences public health. As such a process of medicalising overweight and obesity is setting in, much like has happened with other risk factors for chronic disease, such as hypertension, high cholesterol, and -to a certain extent- smoking. These risk factors are now often considered diseases in themselves, for which treatment is required. For instance, in 2004, US Medicare changed its earlier ruling that obesity was not an illness, to make treatment of obesity available for coverage by Medicare. [55] A similar trend can be spotted in the Netherlands. For instance, the Dutch Association of Dieticians (Nederlandse Vereniging van Diëtisten, NVD) is busy developing a treatment protocol for overweight patients, as a first step to get treatment for overweight and obesity systematically incorporated in the Dutch healthcare system by means of a recognised Diagnosis-Treatment Combination (Diagnose Behandel Combinatie, or DBC; the basis of the Dutch health insurance system). [56] Some Dutch mental health professionals are attempting something similar, i.e. the recognition and incorporation (as a DBC) of overweight as a form of 'eating regulation disorder', which warrants psychological/psychiatric treatment, for instance, in the form of 'cue exposure therapy (coupled to response prevention)'. [57] All these developments run parallel to -and are greatly influenced by- the increase in the costs for treating overweight and obesity related disease, as well as by new treatments options that become available for the treatment of these diseases. It is the task of the practical philosopher to be aware of these developments and to hold health policies based on them up to the light to determine if they can withstand the test of scrutiny, in terms of equal healthcare access and equal access to health, and fair distribution of healthcare resources.

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