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Age Rationing and the Just Distribution of Health Care: Is There a Duty to Die?

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IN THE FIFTH CENTURY B.C., Euripides addressed "those who patiently endure long illnesses" as follows:

> I hate the men who would prolong their lives
> By foods and drinks and charms of magic art
> Perverting nature's course to keep off death
> They ought, when they no longer serve the land
> To quit this life, and clear the way for youth.[1]

These lines express a view again stirring controversy: that the elderly who are irreversibly ill, whose lives can be continued only with substantial medical support, ought not to be given treatment; instead, their lives should be brought to an end. It should be recognized, as one contemporary political figure is said to have put it, that they "have a duty to die."[2]

Although this controversy achieves a new urgency as pressures for containment of health care costs escalate, the notion is hardly new that there is a time for the ill elderly to die, a time at which they are obligated to bring their lives to an end or allow others to do so. A

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number of conspicuous voices throughout history have advanced such a notion, variously recommending denial of treatment, euthanasia, or socially-assisted "rational" suicide as a means of bringing it about. Plato, for instance, said that the chronically ill or disabled patient ought to refuse medical treatment, and if he cannot return to work, simply die.[3] In Thomas More's *Utopia*, the priests and magistrates are to urge the person who suffers a painful incurable illness "to make the decision not to nourish such a painful disease any longer," and to "deliver himself from the scourge and imprisonment of living or let others release him."[4] Nietzsche claimed that the physician should administer a "fresh dose of disgust," rather than a prescription, to the sick man who "continues to vegetate in a state of cowardly dependence upon doctors" and who thus becomes a "parasite" on society; it is "indecent," he says, "to go on living."[5]

Not only have individual thinkers recommended such practices, but a variety of primitive and historical societies appear to have engaged in them. Although the anthropological data may not be fully reliable, there seems to be evidence of a variety of senicide practices, variously involving abandonment, direct killing, or socially enforced suicide. The Eskimo, for instance, are reported to have practiced suicide in old age "not merely to be rid of a life that is no longer a pleasure, but also to relieve their nearest relations of the trouble they give them."[6] The early Japanese are said to have taken their elderly to a mountaintop to die.[7] Various migratory American Indian tribes abandoned their infirm members by the side of the trail. At least while it was under siege, the Greeks on the island of Ceos required persons reaching the age of sixty-five to commit suicide. Except within the school headed by Hippocrates, Greek physicians apparently made euthanasia or assistance in suicide available to those whose illnesses they could not cure, and there is some evidence that the hemlock was developed for this purpose.[8] Greek and Roman Stoics—most notably Seneca—recommended suicide as the responsible act of the wise man, who ought not assign overly great importance to mere life itself, but rather achieve the disengagement and wisdom required to end his own life at the appropriate time. Of course, not all of these practices have been humane, either in their initial intent or in their final outcome; although the early Nazi euthanasia program known as T4, which practiced active termination of the lives of chronically ill, debilitated, or retarded Aryans, was advertised as a benefit to these persons as well as to the state, it became the training ground for concentration camp personnel.[9] But although practices that range from recommending refusal of medical treatment to encouraging suicide to deliberate, involuntary killing may seem to differ sharply in their ethical characteristics, there is

nevertheless an important, central similarity: they are all the practices of societies that communicate to their members that when they reach advanced old age or become irreversibly ill, it is time to die, and that they have an obligation to acquiesce or cooperate in bringing this about. The question to be explored here, in the light of current issues concerning distributive justice in health care, is whether there is any moral warrant at all to this view, and if so,precisely what consequences this would have for the health care of the aged.

The Economics of Health Care for the Aged

In contemporary society, a discomforting set of economic facts brings this issue into prominence. Health care use by the aged constitutes a major component of medical spending, and exacerbates that scarcity of medical resources that generates distributive dilemmas in the first place. People reaching old age, and especially those entering extreme old age, are people for whom late life dependency has or may become a reality, for whom medical care expenses are likely to escalate, and for whom needs for custodial and nursing care will increase. Three out of four deaths of persons of all ages in the United States occur as a result of degenerative diseases, and the proportion is much higher in old age;[10] the multiple infirmities and extended downhill course characteristic of these diseases greatly elevates the need for medical care. People over 65 use medical services at 3.5 times the rate of those below 65.[11] In 1981, the 11 percent of the population over 65 used 39.3 percent of short-stay hospital days, and the 4.4 percent over 75 used 20.7 percent.[12] There are now about six million octogenarians, and the federal government provides an estimated $51 billion in transfers and services to them.[13] People 80 years of age or older consume, on average, 77 percent more medical benefits than those between 65 and 79.[14] Nursing home residents number about 1.5 million, of whom 90 percent are 65 or over, at an average cost of $20,000 per year.[15] Although only 4.7 percent of persons 65 or over are in nursing homes, rates rise with age. About one percent of persons 65–74 are in nursing homes; of those 75–84, seven percent, and of those 85 and over, about 20 percent are in nursing homes on any given day.[16] Even so, institutionalized persons represent a comparatively small fraction of the elderly suffering chronic illnesses and disabilities, and it is estimated that for every nursing home resident, there are two other people with equivalent disabilities in the community.[17] Even if a person maintains functional independence into old age, the risk of becoming frail for a prolonged period is still high: for independent persons between 65 and 69, one study found, total life expectancy was 16.5 years, but "active life expectancy," or the portion of the

remaining years that were characterized by independence, was only ten years, and the remaining 6.5 years were characterized by major functional impairment. Furthermore, this risk increases with age: persons who were independent at 85 were likely to spend 60 percent of their remaining 7.3 years requiring assistance.[18] Expenditures are particularly large for those who are about to die: for instance, for Medicare enrollees in 1976, the average reimbursement for those in their last year of life was 6.2 times as large as for those who survived at least two years, and although those who died comprised only 5.9 percent of Medicare enrollees, they accounted for 27.9 percent of program expenditures.[19] Thirty percent of all expenses of decedents occurred in the last 30 days of life, 46 percent in the last 60 days, and 77 percent in the last six months of life.[20] While this figure is not confined to deaths among the elderly, a 1983 survey of cancer deaths for Blue Cross/Blue Shield predicted that the average American who died of cancer in that year would incur more than $22,000 of illness-related expenses during the final year of life.[21]

Clearly, contemporary analogues of the practices of the historical and primitive societies mentioned above, ranging from refusal or denial of treatment to outright senicide and societally mandated suicide, would have pronounced impact upon the health care resources available for other persons in society. It is this that gives rise to the painful distributive question to be examined here. If scarcity precludes granting all persons within society all the care they need for all medical conditions that might arise, some persons or some conditions must be reduced or excluded from care. But if so, it is often held, those excluded should be the elderly ill: after all, the medical conditions from which they suffer are often extraordinarily expensive to treat; the prognosis, as age increases, is increasingly poor; and in any case, they have already lived full life spans and had claim to a fair share of societal resources. It is this view, or constellation of views, that seems to underlie and motivate practices suggesting that there is a time for the elderly to die.

Justice and Age Rationing

If societal resources are insufficient to provide all the health care all persons in all medical conditions need, some sort of limiting distributive practice will of necessity emerge. Several recent writers have argued that rather than let the market control the distribution of health care, a rationally defended rationing policy can be developed under accepted principles of justice, and that this policy will justify rationing by age: old people should be the first to be excluded from medical care. However, assuming the underlying formal principle of

justice to require that like cases and groups be treated alike, it is by no means initially clear that plausible material principles of justice will differentiate the elderly from other claimants for care. For instance, if an individual's claim to care were taken to be a function of the contributions society may expect as a return on its investment in him, this might seem to support age rationing, disfavoring those no longer capable of making contributions; but of course the elderly have already made contributions, contributions that are, in fact, more secure than the potential contributions of the young. Alternatively, it might be argued that the elderly have greater claims to care in virtue of their greater vulnerability, in virtue of the respect owed elders, or in virtue of the intrinsic value of old age. This sort of discussion, characteristic of many analyses of distributive justice, involves identifying the possible desert bases of claims to health care, and then considering whether the elderly can satisfy these conditions as well as other age groups. If they can (which I think likely), policies that restrict the access of the elderly to health care must be seen as the product of simple age bias.

But an influential conceptual observation has been made by Norman Daniels.[22] Most analyses of distributive justice, Daniels observes, assume that the elderly constitute one among a variety of age groups, including infants, adolescents, and the middle-aged, all of whom compete for scarce resources in health care. But this, in Daniels' view, is misleading; the elderly should be viewed as the same persons at a later stage of their lives. The mistake lies in considering distributive problems as problems in allocating resources among competing groups and among competing individuals, when they are more correctly understood as problems of allocating resources throughout the duration of lives. Given this conceptual shift, Daniels then employs Rawlsian strategies to determine just allocations of care. He considers what distributive policies prudential savers—the rational, self-interest-maximizing parties of the Rawlsian original position—would adopt if, unable to know their own medical conditions, genetic predispositions, physical susceptibilities, environmental situations, health maintenance habits, or ages, they must decide in advance on a spending plan budgeting a fixed amount of medical care across their whole lives. He quite plausibly conjectures that prudential savers behind the veil of ignorance in this original position would choose, where scarcity obtains, to allocate a greater amount of resources to care and treatment required for conditions that occur earlier in life, from infancy through middle age, but not to underwrite treatment that would prolong life beyond its normal span. By freeing resources that might otherwise have been devoted to prolonging the lives of the elderly, so that they are used instead to treat diseases that cause death

or disability earlier in life, such a policy would maximize one's chances of receiving a reasonable amount of life within the normal species-typical, age-relative opportunity range. (Presumably, such a policy would not allocate extensive care to severely defective neonates, catastrophically and irreversibly damaged accident victims, or other persons whose medical prognoses are so dismal that the prospect of achieving even remotely normal species-typical, age-relative opportunity is extremely poor. Thus, savings resulting from rationing care to the elderly would not be entirely consumed in treating the worst-off newborns or others in similarly hopeless circumstances, and the "black hole" problem would be avoided.) If this is a policy upon which prudential savers would agree, Daniels holds, it will show that—at least under scarcity conditions against a background of just institutions—age-rationing is morally warranted for making allocations of health care.

But this leaves unanswered a crucial issue of application. If, in a situation of scarcity, a rationally defended rationing policy for health care resources is more just than market control, and if the most just form of rationing for health care is rationing by age, this still does not determine what policies and practices for putting age-rationing into effect are themselves just. Arguments for rationing are always morally incomplete without attention to the crucial details of precisely how such policies are to be given effect, since intolerable features of such policies may force reconsideration of the rationing strategy from the start. Thus, employing Daniels's Rawlsian strategy, it is necessary to consider what age-rationing policies rational self-interest maximizers in the original position would accept.

Whatever merits it may have as an application of the Rawlsian conception of justice, Daniels's strategy is intuitively attractive for assessing the moral justifiability of age-rationing in health care. This is because those of us considering this issue—who would be prepared to develop policy requirements on the basis of these considerations and who would be governed by whatever policies might be devised—are effectively behind the "veil of ignorance" with respect to the specific events of our own aging and death. While Rawls claims that we can enter the original position any time simply by reasoning for principles of justice in accordance with the appropriate restrictions on not taking into account one's own specific interests,[23] such self-restriction is hardly necessary: when considering issues of justice with respect to aging and death, we are already there. It is, of course, true that most persons who are reasonably familiar with background medical and genetic information and who have some knowledge of their own ancestry, previous health history, and health maintenance habits are not completely ignorant of the probable circumstances of

their own aging and death. Yet they are able to eliminate with certainty only a very few types and causes of death (e.g., specific hereditary diseases for which one is not at risk), and to assign rough probabilities to the likelihood of contracting the major killer diseases. Even those with early symptoms of a disease syndrome cannot be sure that some other fatal condition will not intervene. What they are not able to do is prospectively identify with certainty the actual cause of their own deaths or the precise events of a future terminal course. By and large, persons still in a position to consider the issue of health care age-rationing for the elderly and to develop policy responses do not yet know when or how they will age and die. But we are all in this position, and we find ourselves obliged to evaluate policies and applications of age-rationing practices without knowing how they will affect our own interests when the time comes. Yet despite the fact that we thus replicate the Rawlsian original position quite naturally, our reluctance to look squarely at death and its often unpleasant circumstances may undermine both the rationality and the justice of the death-related policies we adopt.

If the Rawls/Daniels strategy is employed, then, possible practices and policies for effecting age-rationing, including denial or refusal of treatment, senicide, euthanasia, and socially mandated "rational" suicide, are to be assessed in terms of whether rational self-interest maximizers behind the veil of ignorance would agree to accept such policies or not. However, despite the analogy between the lack of specific knowledge characteristic of parties to the original position and the lack of specific knowledge characteristic of ordinary persons who have not yet reached old age or death, what rational self-interest maximizers in the original position would agree to cannot be determined simply by inspecting the age and death-related choices of ordinary persons now. This is because the kinds of choices we ordinary persons make are very heavily determined by social expectation and custom, legal and religious restrictions, paternalistic practices in medicine, financial limitations, and so on. Furthermore, as ordinary persons, we may fail both to realize what our own self-interests actually are and to choose the most efficient means of satisfying them. Consequently, it is necessary to consider—as far as possible independently of cultural constraints—what policies for putting age-rationing into practice the hypothetical rational, self-interest-maximizing persons in the original position would accept, given that they have antecedently consented to policies assigning enhanced care to the early and middle years, but reducing care to the aged. Parties to the original position have disenfranchised themselves, so to speak; but it remains to be seen what form they would agree this disenfranchisement should take.

Age-Rationing by Denial of Treatment

Although in order to enhance health care available to younger and middle-aged people and thus maximize the possibility of each person's reaching a normal life span at all, parties to the original position will have already agreed to ration health care to the elderly, they must be assumed to have enough general information to see what the consequences of this antecedent agreement will be. First, under an appropriately thin veil of ignorance, they will know that a given measure of health care is not equally effective at all age ranges, but much more effective in younger years, much less effective in old age. Because old persons typically have more complex medical problems, compounded by a decline in the function of many organs and by reduced capacities for healing and homeostasis, tradeoffs between earlier and later years cannot be made on a one-to-one basis: by and large, a unit of medical care consumed late in life will have much less effect in preserving life and maintaining normal species-typical function than a unit of medical care consumed at a younger age. It is this that will have, in part, induced the rational self-interest maximizers of the original position to consent to an age-rationing policy in the first place; but it will also influence how they choose to put an age-rationing policy into effect. Once the multiple infirmities of old age begin to erode an individual's functioning, comparatively larger amounts of health care are likely to be required to raise it again. Therapy that can successfully maintain comfort, or restore functioning, or preserve life may be very much more expensive in older patients, if indeed successful treatment is possible at all.

Parties to the original position will also know that under a rationing scheme it will be necessary, given their antecedent distributive decision, to restrict or eliminate most of the comparatively elaborate kinds of care. Presumably, if care is to be denied, it will be the highest-cost, least-gain varieties of care, including care that does not directly serve to maintain life. Of course, "cheap treatment" such as common antibiotics could be retained for elderly patients, since these are low-cost and, given their potential for saving life, high-gain; but expensive diagnostic procedures and therapies like CAT scans, NMR, dialysis, organ transplants, hip replacements, hydrotherapy, respiratory support, total parenteral nutrition, individualized physical therapy, vascular grafting, major surgery, and high-tech procedures generally would be ruled out.[24] Hospitalization, and the nearly equal expensive inpatient hospice care, might not be permitted, except perhaps briefly; sustained nursing home care (at $20,000 a year) would no doubt also be excluded. When the elderly person over an appropriate age ceiling or exceeding a predetermined level of deterio-

ration begins to show symptoms of a condition more serious than a transitory, easily cured illness, he would simply be considered ineligible for treatment. "I'm sorry, Mr. Smith," we can expect the physician to say, "there is nothing more we can do."

Knowing these things, parties to the original position can then assess the impact of age rationing by denial of treatment. While they will know that age rationing of some of the more expensive, elaborate treatment modalities, like renal dialysis and organ transplantation, is now prevalent in Britain,[25] and is to an uneven extent also evident in the United States,[26] they will also understand that under the general age rationing policy they have agreed to, the frequency and finality of such denials of treatment would be much more severe. Although allocations to the elderly would, of course, be a fluctuating function of scarcity in health care resources as a whole, it is probably fair to estimate that were the degree of scarcity approximately equivalent to what it is now, a just distribution of health care would demand that a very large proportion of all health care expenses now devoted to the elderly be reassigned to younger age groups. The elderly now use nearly one-third of all health care.[27] Were these resources reassigned to the younger and middle-aged groups, the probability would dramatically increase that all, or virtually all, these persons (except the worst-off newborns and those catastrophically injured or killed outright in accidents, homicide, or suicide) would not only reach a normal life span, but reach it in reasonably good health. Although the temporary life expectancy (or average number of years a group of persons at the beginning of an age interval will live during that age interval) is already very high, especially for the intervals 0–20 and 20–45,[28] it is still the case that a sizeable number of people do not reach a normal life span, or reach it only in poor health.[29] Reallocation of substantial health care resources would do a great deal to change this, particularly if the transfers were used for preventive medicine and support programs, such as prenatal nutrition and lifestyle change, as well as direct assaults on specific diseases. But to achieve this effect, if the degree of overall scarcity of medical resources could not be altered, a substantial portion of the care now given the elderly would have to be withdrawn. At most, perhaps, minimal home hospice care and inexpensive pain relief could be routinely granted, together with some superficial care in transient acute illness not related to chronic conditions or interdependent diseases. But treatment for the elderly could not be escalated very much beyond this point if, within a fixed degree of scarcity, a just distribution of resources were still to be achieved: if only a significantly lesser portion of the care now devoted to the elderly were reassigned to younger age groups, there would be no substantial redistributive achievement and no significant increase

in the prospects for persons generally for reaching a normal life span. Minimal and erratic age-rationing of the sort now practiced in the United States would accomplish virtually no redistributive goal at all.

In some cases, to deny the elderly treatment beyond minimal home hospice care and inexpensive pain relief would simply result in earlier deaths. This would, presumably, be the case in many sorts of acute conditions—heart attacks or sudden-onset renal failure, for instance—where emergency medical intervention is clearly lifesaving. But, especially in old age, such starkly life vs. death episodes are less likely to occur in isolation; it is much more likely that an elderly person will already suffer from a number of related or unrelated chronic conditions, each of which could be relieved, at least to some degree, by treatment, but which together make a fairly substantial and expensive list of complaints. Almost half the persons age 65 or older suffer from chronic conditions,[30] of which the most frequently reported for the noninstitutionalized elderly are arthritis, vision and hearing impairments, heart conditions, and hypertension.[31] The elderly over 85 in the community average 3.5 important disabilities per person, and those who are hospitalized 6.[32] Some of these chronic conditions are extremely common, like visual impairment, arthritis, and loss of hearing, but they are not always inexpensive to treat. Many of the conditions associated with increasing age, like Alzheimer's, certain types of arthritis and cancers, osteoporosis, or stroke, may require extended medical, nursing, or rehabilitative care. But extended, substantial medical, nursing, and rehabilitative care is expensive; consequently, these are precisely the conditions in which, in a just health care system under conditions of scarcity, the elderly would be denied care.

Clearly, even hypothetical parties to the original position, under an appropriately thin veil of ignorance, will be dismayed by the consequences of the initial distributive decision they have made. Total hip replacements, for instance, could no longer be offered the elderly; but it will be evident that there is a substantial difference in the character of life for an elderly person who remains ambulatory and one no longer able to walk. It will be evident, too, that the person who needs, but does not receive, a pacemaker or a coronary bypass may lead a very restricted life, seriously limited in his activities; and that life with renal failure, or cardiac arrhythmias, or pulmonary insufficiency can be restrictive, painful, or frightening. Indeed, what may be most dismaying to those peering through this thin veil of ignorance is that elderly persons who are not allocated treatment do not simply die; rather, they suffer their illness and disabilities without adequate aid. Even symptom control in conditions like cancer, if not simply obliterative of consciousness, can be quite expensive, since effective

relief may require constant titration and monitoring; if so, it too would presumably be ruled out. Worse still, common antibiotics and the few other kinds of cheap treatment that would still be available may simply serve to prolong this period of decline, not to reduce its discomforts, while labor-intensive care that might make it tolerable—like physical therapy or psychiatric support and counseling—would also be ruled out. To deny treatment does not always simply bring about earlier deaths that maximal care would postpone; denial of treatment also means denial of expensive palliative measures, both physical and psychological, which maximal care would permit at whatever age death occurs.

Nor can it be supposed that to deny care to the elderly is to simply allow them to die as their fathers and forefathers did; to deny care now is to subject persons to a medically new situation. Not only has it been comparatively unlikely, until quite recently, that a person would reach old age at all (in the United States, life expectancy at birth in 1900 was only 47.3 years, compared to 74.5 in 1982[33]), but in the past, most deaths were caused by parasitic and infectious diseases, many of which were rapidly fatal. Modern sanitation, inoculation, and antibiotic therapy have changed that, and for the first time, the specter of old age as a constellation of various sublethal but severely limiting and discomforting conditions has become the norm. Hence, any notion that denial of treatment to the elderly will simply allow a return to the more "natural" modes of death enjoyed by earlier, simpler generations is a dangerously romanticized misconception. To ration health care by denial of treatment is not simply to abandon the patient to death, but often to abandon him to a prolonged period of morbidity, only later followed by death.

But, of course, this is a prospect that the rational self-interest maximizer, behind the veil of ignorance about whether he himself will succumb quickly in an acute crisis or be consigned without substantial medical assistance to a long-term decline, will be concerned to protect against. Parties to the original position will thus find many reasons to reject policies that ration health care by denying treatment to the aged; the question for them will be whether they can devise better alternative methods.

Squaring the Curve

Since the publication in 1980 of James Fries's provocative article on the compression of morbidity,[34] there has been a good deal of discussion of the end-of-life morbidity characteristic of old age. Although the average life span in the United States has increased more than 26 years between 1900 and the present, Fries points out, the maximum

life span has not increased; there is no greater percentage of centenarians, for instance, and there are no documented cases of survival, he claims, beyond 114 years. The result is an increasingly "rectangularized" mortality curve, as more and more people reach old age but the maximum old age is not extended. Furthermore, since this rectangularization results from postponement of the onset of chronic illness, it means an increasingly rectangularized morbidity curve as well. On this basis, Fries optimistically predicts that the number of extremely old persons will not increase, that the average period of diminished physical vigor or senescence will decrease, that chronic disease will occupy a smaller proportion of the typical life span, and that the need for medical care in late life will decrease. Good health, in short, will extend closer and closer to the ideal average life span of about 85, but life will not be extended much beyond this point.

Fries's conclusions about "squaring the curve," as it is often called, have been vigorously disputed by Schneider and Brody,[35] among others. They see no evidence of declining morbidity and disability in any age group, particularly those just prior to old age, but they do observe that increasing numbers of people are reaching advanced ages, and point out that this fast-growing segment of the population is the one most vulnerable to chronic disease. While some writers set the biologic limit to the human life span at about 100, much higher

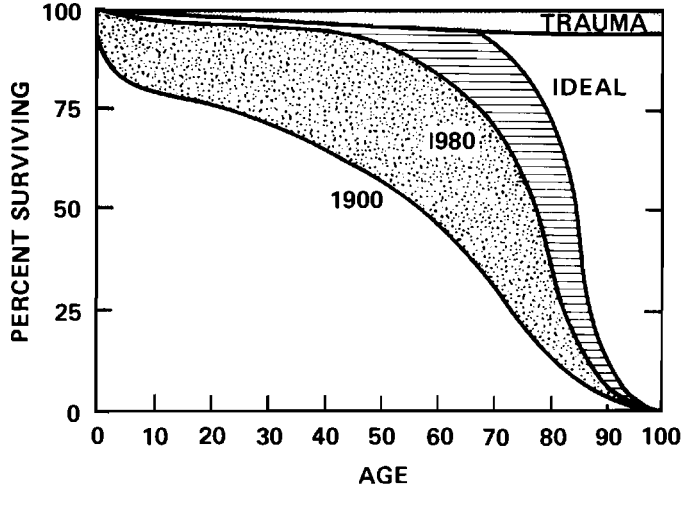

Figure 4.1. Fries Increasingly Rectangular Survival Curve. About 80% (stippled areas) of the difference between the 1900 curve and the ideal curve (stippled area plus hatched area) had been eliminated by 1980. Trauma is now the dominant cause of death in early life. (From Fries, *op. cit.*, p. 131, fig. 2.) Reprinted by courtesy of The New England Journalof Medicine.

than Fries's original estimate of 85, others believe that there is no such limit. In either case, most of these comparatively pessimistic writers fear that a large increase in the number of individuals who reach old age will mean a large increase in persons who spend long proportions of their lives afflicted with chronic disease. Advances in medicine will, they believe, prolong old age rather than delay its onset.

Clearly this issue is one with enormous consequences for health care planning. But it has been debated as an empirical issue only; nowhere has it been recognized that the empirical question cloaks a central moral issue as well. What is crucial to note is that both the optimist and pessimist parties to this dispute agree, or tacitly agree, on one thing: that a squared morbidity curve is a desirable thing. This is by no means surprising: the squared curve represents a situation in which life is, as Fries puts it, "physically, emotionally, and intellectually vigorous until just before its close."[36] Death without illness, or without sustained, long-term illness, rational self-interest maximizers would surely agree, is a desirable thing. But if this is so, the empirical disagreement between the optimists and the pessimists grows irrelevant. For, regardless of whether changes in lifestyle or improvements in medical care would naturally flatten or square the mortality and morbidity curves, these curves can also be deliberately altered by other distributive and policy-based interventions as well—including those that implement age-rationing schemes.

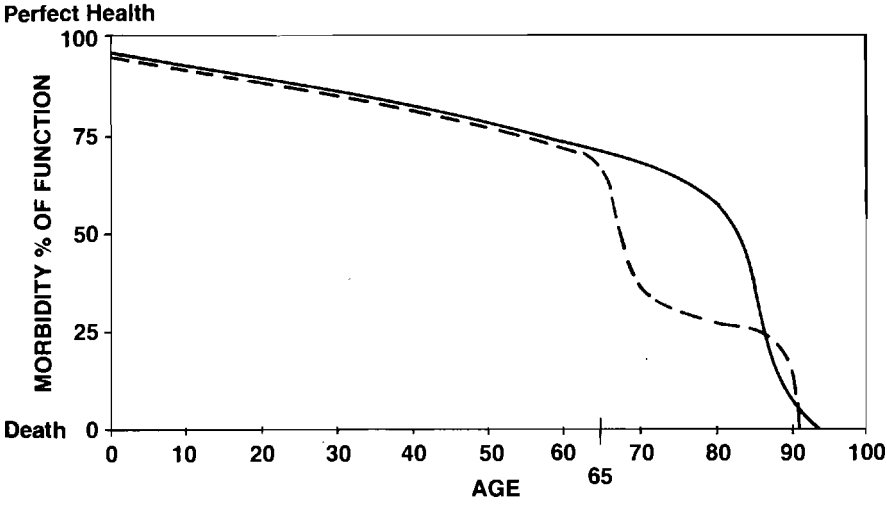

Figure 4.2. The Effect of Denying Treatment in Old Age. The solid line shows the morbidity curve characteristic for a representative individual where treatment is supplied; the dashed line shows the conjectural morbidity curve where treatment is denied after age 65 in sublethal chronic conditions.

As seen in the previous section, rationing that proceeds by denial of treatment may have the effect of not only hastening both the onset and termination of the drop-off or downhill slope of the morbidity curve—patients become impaired earlier and die sooner—but, in many cases, flattening this downslope: the period of senescence, or chronic old-age disability, occupies a longer proportion of life, since it is endured without treatment. The morally significant feature of rationing policies that deny treatment is not simply their effect on mortality rates, but their effect on the ways in which people die.

But the curve can also be artificially squared—by deliberately bringing about death before the onset of serious morbidity, while the quality of life remains comparatively high. This too means that the onset and termination of the drop-off slope are both earlier—the termination a good deal earlier—but the slope itself is now perpendicular, not gradual, and life is terminated with only incipient decline. This is precisely the effect of the primitive and historical practices mentioned earlier: senicide, euthanasia, and socially mandated "rational" suicide, at least where they are practiced early in the downhill course of a long-term degenerative disease. The squared curve will be produced, of course, by denial of treatment in sudden-onset life-threatening conditions, but these are much less characteristic of old age, and the more frequent effect of denying treatment is a flattened,

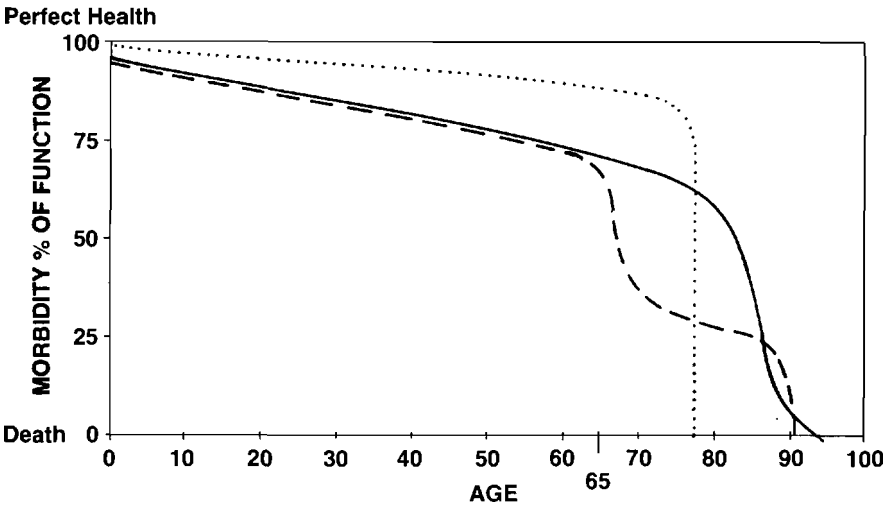

Figure 4.3. Morbidity Curve of Direct-Termination Practices. Solid line shows morbidity curve in old age with treatment, dashed line without treatment, and dotted line shows conjectural morbidity curves in direct-termination practices such as senicide, early euthanasia, and culturally mandated "rational" suicide.

prolonged decline. Practices that guarantee a squared curve, on the other hand, involve direct killing, and, in particular, killing of persons whose quality of life is still comparatively high; nevertheless, these practices do achieve what is agreed by all to be desirable, namely, death without prior sustained, long-term disease.

Under the assumptions employed here, parties to the original position have antecedently contracted for age-rationing policies, even though these will have the effect of reducing the remaining length of life for those who reach old age. In virtue of this initial agreement, these parties are now also in a position to agree upon the sorts of policies by means of which this age rationing will be put into effect. Hence, they must choose between treatment-denying policies and those that impose death; constrained by their earlier decision in favor of age rationing, they no longer have the option of choosing policies that allocate extensive resources to the elderly and thus make possible the extension of life. To put it in the familiar terms of bioethics, they must choose between policies that involve "killing" and those that involve "allowing to die," and their agreement will serve to identify which policy is more just.

For the most part, the age-rationing practices now followed in Britain and the United States, as well as elsewhere, involve denial of treatment, for instance in the form of age ceilings for organ transplants, renal dialysis, or joint replacement. But I wish to argue that rational self-interest maximizers in the original position would prefer the direct-killing practices that are the contemporary analogues of the historical and primitive practices of senicide, early euthanasia, and culturally-encouraged suicide to those that involve allowing to die. Parties to the original position, after all, are fully informed about the possible societal consequences of their choices (except about the impact on themselves) and are not hesitant, as rational persons, to look the circumstances of death squarely in the face. There are, I think, two principal reasons why they would agree on direct-termination policies involving the causing of death, that is, on "squaring the curve."

Avoidance of Suffering

Except for persons who believe, on religious or other grounds, that suffering is of intrinsic merit or is of extrinsic value in attaining salvation or some other valued goal, rational persons eager to maximize their self-interests seek to avoid discomfort, disability, and pain. Of course, a good deal of suffering may willingly be endured by those who hope to survive a critical episode and return to a more normal condition of life; but terminal suffering known to be terminal is not

prized. In medical situations where the prognosis is uncertain and sophisticated techniques are employed to support survival, the risk of suffering is one the rational person may well wish to take, since the odds of survival may be either unknown or large enough to make it worth the risk. But under an age-rationing system that proceeds by denial of treatment, medical support will be minimal, and hence comparatively ineffective in supporting survival; the chance of survival of an episode of illness is thereby drastically reduced. Thus, the possible gains to be achieved by enduring suffering disappear. Willingness to endure suffering may be a prudent, self-interest favoring posture in a medical climate in which support is provided—even if that support is erratic or the chance of success is unknown—but it is not a prudent posture where age rationing precludes nearly all such support across the board.

Maximization of Life

Parties to the original position will also give preference to a policy that involves an overall distributive gain, benefitting all, but giving the greatest benefit to the least advantaged. Since the allocation of resources may affect the overall total of resources available, they will prefer policies that maximize resources in a just distribution, and it is this that "squaring the curve" would accomplish. Of course, individuals surveying the possibility of policies that permit or require the direct termination of the existence of human beings may believe that their lives are to be sacrificed in the interests of other, younger people, and were this the case, they would rightly resist this sort of utilitarian tradeoff. But individuals who view these prospective policies in this way make a fundamental error: they view the effects of these policies from their own immediate perspective only, and fail to see the larger impact these policies have. Quite the contrary, the overall effect of direct-termination policies is to *maximize* the preservation of life, not reduce it. This is a function of the fact, as pointed out earlier, that medical care is less efficient in old age, more efficient at younger ages, and that a unit of medical care consumed late in life will have much less effect in preserving life and maintaining normal species-typical function than a unit of medical care consumed at a younger age. The effect of rationing policies that allocate care away from elderly persons to younger ones is to increase the effectiveness of these resources, and thus greatly increase the chances for younger persons to reach a normal life span. Of course, since mortality in the 0–20 and 20–45 age ranges is already quite low, the increase in temporary life expectancy will be greatest for those 45–65; but, it must be remembered, the veil of ignorance for those in the original position

excludes all but the vaguest knowledge of likelihoods of their own positions,[37] and *any* possibly preventable mortality or morbidity in these younger age ranges will constitute a situation rational self-interest maximizers will work to avoid.

Furthermore, and for the same reasons of efficiency, the reallocation decreases by a much smaller amount the chances for older persons to live beyond a normal life span, since after all those chances were never very great. For example, ten units of medical care given to a 92-year-old man with multiple chronic conditions might make it possible for him to live an additional two years, but ten units of care given to an 8-year-old girl in an acute episode might make it possible for her to live a normal life span, or about 64 additional years. The mistake the disgruntled elderly individual facing a rationing-mandated death makes is in failing to calculate not only the immediate loss he faces, but the benefit he has already gained from policies that have enhanced his chances of reaching his current age: his temporary life expectancy in the ranges 0–20, 20–45, and 45–65 will have been much elevated, even though his total life expectancy may decline. The less the care provided at the end of life, and hence the greater amount of transfer to earlier ages, the greater his gain in life prospects will have been. (Of course, this effect could not be achieved in the first generation of the implementation of such policies.) Furthermore, direct-termination policies are more effective in maximizing overall gains in life saved than denial-of-treatment policies. Since denial-of-treatment practices still always involve some costs as persons with multiple conditions in interrelated degenerative diseases are granted minimal hospice and palliative care during their downhill courses, the proportion of savings is smaller, and less is transferred to earlier age groups.

Consequently, the disgruntled individual also makes a second mistake: he fails to see that because direct termination rather than denial of treatment maximizes the amount of transfer to younger age groups, such a policy will have maximized his own chances (except in the first generation) not just of reaching old age, but of entering it with fewer chronic, preexisting conditions. Furthermore, this policy will have done the same for all other persons as well. But as the number of persons entering old age with chronic conditions decreases, the normal life span will tend to increase (at least to any natural limit there may be), and with it, the chances of any individual's reaching this mark. The long-term effect of such policies—despite the fact that they involve deliberately causing death in people who might continue to live—is to gradually increase the normal life span by delaying the onset of seriously debilitating and eventually fatal disease.

The rational person in the original position, then, who counts among his self-interests both the avoidance of suffering and the preservation of his life, will correctly see that social policies providing for the direct termination of his life at the onset of substantial morbidity in old age will more greatly enhance his prospects in satisfying these self-interests than any alternative open in a scarcity situation. After all, as a party to the original position, he has no knowledge of his own medical condition or age at any given time. Of course, if there were no benefits to older as well as younger persons from this reallocation, but rather merely the sacrifice of the interests of some people for those of others, parties to the original position could not agree to such policies; but this is not the case. Since such policies do provide benefits for all, and indeed the greatest benefits for the least advantaged (i.e., those who would otherwise die young), they will receive the agreement of all rational persons in the original position. This agreement, then, provides the basis for counting such policies just.

Attitudes Toward Direct-Termination Age Rationing

But of course, the rational self-interest maximizer in the original position can consent only to policies that are psychologically benign, and that do not impose lifelong anguish or fear; this is because parties to the original position are rational in the sense that they will not enter into agreements they know they cannot keep, or can do so only with great difficulty.[38] Age-rationing policies that involve direct killing of the elderly may seem to invite just such anguish, as one cowers a lifetime in fear of being brutally extinguished by an unscrupulous physician or the naked power of the state. Certainly some of the primitive and historical policies mentioned earlier have engendered just this sort of fear; the early Nazi "euthanasia" program, although reserved for Aryans and initially performed with relatives' consent, comes to mind.

Nevertheless, whether death in old age is feared or welcomed is very much a product of social beliefs and expectations, and these not only undergo spontaneous transformations, but can be quite readily altered and engineered.[39] Transformations in social practices in earlier historical periods make it evident that beliefs about whether there is such a thing as a time to die can change; transformation can be equally well imagined in the present. Aristotle's dictum notwithstanding, whether death is believed to be the worst of evils, or whether some circumstances—extreme incapacitation, inability to communicate, or continuous pain—are believed to be worse than death is much influenced by the surrounding society. Mary Rose

Barrington speculates about an attitudinal change that, in the contemporary cost-conscious climate, seems an increasingly real possibility: "What if," she writes, "a time came when, no longer able to look after oneself, the decision to live on for the maximum number of years were considered a mark of heedless egoism? What if it were to be thought that *dulce et decorum est pro familia mori?*"[40]

Many sorts of prevailing social expectations serving the interests of society at large, and hence the long-term interests of individuals, are readily cooperated with, even at some immediate and direct cost to the individuals involved: for example, expectations about getting married, pursuing careers, supporting children, and so on. All of these involve a good deal of societal and institutional support. Marriage is encouraged, in part, by elaborate ceremonies and religious services; universities and technical training schools provide not only employment skills but socialize students to want to pursue careers; the support of children is enforced not only by legal penalties for failure to do so, but by extremely strong social sanctions. It is not at all difficult to imagine the development of social expectations that there is a time to die, or, indeed, that it is a matter of virtue or obligation to choose to die.[41] To be effective, these expectations would presumably be coupled with supportive social practices—for instance, predeath counseling, physician assistance in providing the actual means of inducing death, or ceremonial recognition from such institutions as churches. Clearly, societal expectations concerning the time to die need not be dysphoric or condemn the members of an age-rationing society to lifetimes of anguish or fear. Indeed, Daniels suggests that a view very like this characterized Aleut society:

> The elderly, or the enfeebled elderly, are sent off to die, sparing the rest of the community from the burden of sustaining them. From descriptions of the practice, the elderly quite willingly accept this fate, and it is fair that they should.[42]

Nor need direct-termination rationing policies be viewed as a violation of rights. In an age-rationing society, there is no *right* to live maximally on, nor to receive the necessary medical care. Of course, an individual may have rights to many sorts of things even in a society that rations by age—for instance, a right to termination procedures that are dignified and humane. A person will also have rights to freedom from abuse (to be discussed in the next section). And it will also be the case that younger persons have rights to medical care and the prolongation of life. Consequently, direct-termination age-rationing policies, fairly applied, would not violate that Rawlsian principle of justice that stipulates that each person has an equal right to basic rights and liberties compatible with equal

rights and liberties for all, since each person will have had an equal right to medical prolongation of life and equal liberty to live in his younger and middle years, and each person will be equally subject to the expectation that his life will come to an end before sustained terminal morbidity sets in. This policy does not entail that elderly people no longer have rights; they continue to enjoy the rights of persons in society, but the right to extensive medical continuation of their lives is not among them.

The Issue of Abuse

Not only would rational self-interest maximizers in the original position require that any direct-termination rationing policies adopted not be dysphoric in their application nor violate rights, but they will also require that these policies not invite abuse. To abuse a policy includes not only using it to cause harm to individuals, but to alter the practices it permits in such a way as to render the policy itself inherently unstable. Needless to say, virtually any policy can be abused; but some policies invite abuse in a much stronger way, and policies permitting or requiring direct killing may seem to make the strongest possible invitation of all. The issue, then, is whether parties to the original position could devise direct-termination policies that resist abuse or provide adequate protection against it.

Direct-termination age-rationing policies would need to incorporate at least three features as protections against abuse. Without these features, rational self-interest maximizers in the original position could not consent to them.

Preservation of Choice

First, compliance with direct-termination policies would need to be experienced as essentially voluntary at the level of individual choice. This does not mean that individual choice would not be shaped by more general social expectations, but the individual could not be coerced, either legally or socially, into ending his life. Any individual who chose to resist the social expectation that it is time to die, and hence, to endure the disenfranchisement from treatment that would be his lot, would have to be guaranteed the freedom to do so. Hence, in such a world, it could not be said that the ill, elderly individual has a "duty to die"; what he has is a duty to refrain from further use of medical resources. He may then think it prudent to avail himself of the support in direct, painless termination of his life that such a society would offer, instead of finding himself abandoned to die

without substantial medical help; but, of course, conceptions of prudence may vary from one individual to another. Indeed, if social acceptance of direct-termination policies were widespread enough to yield sufficient redistributive savings, this would perhaps permit giving those few persons who chose to tough it out additional medical care; this would underscore the voluntary nature of response to a direct-termination social expectation. Preservation of choice is crucial because state or societal coercion not only causes harm but invites rebellion; it is inherently unstable. Yet, the justice of age-rationing in the first place depends on stable enough functioning of the scheme so that the distributive gains in overall life prospects are actually realized, and a scheme that is clearly unstable enough to make such redistributive effects impossible cannot be said to be just.

Rejection of Fixed Time of Death

Second, the timing of direct-termination rationing policies must be based on expected time before death, not on a fixed cutoff age such as 65 (as on the Greek island of Ceos), 72 (the approximate average life expectancy), or 85 (Fries's conjecture)—or, for that matter, any other fixed age. This is because the underlying purpose of rationing is to enhance the length of life span for all members of society; although it will most greatly benefit those who would otherwise die earliest, it must also benefit the elderly as well. The central mechanism of redistributive age rationing is reallocation of treatment from older years to younger ones, where treatment is more efficacious and where the prospects of a longer life span are enhanced for all, especially for those whose life spans would otherwise be quite short. But if a fixed age cutoff point for the elderly were selected, whereby persons below that cutoff receive full treatment and persons above it were expected to end their lives, the original purpose of rationing would be undermined. Clearly, the use of a fixed-age cutoff point would be extraordinarily inefficient, since it would allocate some resources to persons on a clearly terminal course, where the possibility of extension of life is small, and it would also exterminate life where there was no medical treatment required to sustain it. It is not old age itself that is medically expensive; it is the last month, six months, or year or two of life. Variations in costs and efficacy of treatment are not so much a function of time since birth, but time to death.[43] Many octogenarians are vigorously healthy; so are some people in their nineties and beyond. On the other hand, dying can be expensive and medical efforts futile even for those whose ages are not advanced. Still more importantly, avoidance of a fixed-age cutoff point protects the health care system from political encroachments,

particularly those that seek cost containment or other political objectives by adjusting the cutoff age downward.

Consequently, parties to the original position would not favor a fixed-age rationing policy, but rather one which, depending on the degree of scarcity, encouraged direct termination via senicide, early euthanasia, or rational suicide only during the last month, half-year, or year of life. Of course, the precise ante-mortem period can be identified with certainly only retrospectively. However, even this does not constitute a fully effective counterargument, since it is usually possible for the experienced physician to recognize, with at least a fair degree of accuracy, the onset of what is likely to be a downhill course ending in death—especially in an elderly patient. Nevertheless, even if such predictions are sometimes inaccurate, the rational self-interest maximizer will still prefer reliance on them in order to maximize his opportunities for continuing life and normal functioning, something that would be jeopardized much more severely by a rigid age cutoff.

Furthermore, since some declines are comparatively rapid, even if not instantaneous, and some prolonged, parties to the original position will seek to maximize their overall opportunities not by agreeing to a policy in which a fixed amount of time at the end of life is held ineligible for care and in which direct termination may be practiced, but by supporting a policy in which disenfranchisement begins only at the onset of profound illness or irremediable chronic disease. After all, the precise duration of a downhill course can rarely be predicted with accuracy, although it can typically be accurately predicted that the course will indeed be downhill. Consequently, parties to the original position will consent to policies that impose disenfranchisement not long after the diagnosis and onset of symptoms of an eventually terminal disease, or at least long enough after the onset to confirm the diagnosis and for the need for medical care to have become pronounced. Hence, the curve would, in fact, never be perfectly squared, and individuals would not have their lives discontinued while they remained in full health, but the timing of disenfranchisement from care and the expectation that it is "time to die" would fall just after the onset of a characteristic downhill course. Just how far down this slope the cutoff point might come would be a function, of course, of the scarcity situation itself, but also of individual, voluntary choices mentioned above.

Public Awareness

Third, it is crucial that not only parties to the original position, but actual persons affected by such policies both know the policies and

understand the rationale for them; secretive or propagandistic policies cannot be rationally chosen, nor can ill-founded ones. It is crucial for the stability and, hence, justice of "time to die" policies that persons affected by them understand their own distributive gain; without this understanding, they will remain disgruntled individuals who see only their own loss. But individuals who see only their own losses under a policy constitute a force for change; this renders the policy itself unstable, and an unstable policy cannot operate to produce a just distribution. It is crucial that the man-in-the-street who reaches old age understands that the very fact that he has been able to do so is, in part, the product of his cooperation with policies that have him accept the claim that it is time to die when serious morbidity sets in. The rational person will choose policies that promise both freedom from pain and as long a life as possible; only if the man-in-the-street understands the theory and the operations of the policy will he, too, be able to see that it accomplishes both.

Conclusion: A Warning

This argument, that in an age-rationing system, direct termination of the lives of the elderly more nearly achieves justice than denying them treatment, may seem to be of *reductio ad absurdum* form, but it is not. In a society characterized by substantial scarcity of resources, this contemporary analogue of ancient practices is the only fair response. However, this view does not—*repeat, NOT*—entail that contemporary society should impose age-rationing or exterminate those among its elderly who are in poor health. For one thing, it is by no means clear that rationing, either by denial of treatment or direct termination, is better than providing full medical care for all the elderly who wish it, even at the expense of other social goods. Age rationing is a rationally defensible policy only if the alleged scarcity is real and cannot be relieved without introducing still greater injustices. But it may well be that the very scarcity assumption that gives rise to the issue of justice in health care in the first place is not accurate. Certainly, some of the pressure on resources could be reduced by pruning waste and by greater attention to patients' actual desire for care; a substantial amount of health care expense attributable to the paternalistic imposition of treatment and to "defensive medicine" practices by physicians seeking to protect themselves from legal liability could be avoided. More importantly, the degree of scarcity in health care resources is itself a function of larger distributive choices among various kinds of social goods, including education, art, defense, welfare, and so on; the position of contemporary society does not resemble the economically precarious position of most of the primitive societies in which

direct-termination practices have developed. Consequently, the appropriate response to the apparent cost containment crisis in health care is not necessarily to devise just policies for enacting rationing, by age or in any other way, but to reconsider the societal priorities assigned various social goods. Given a world very much like the present one, it may be asked, what ceiling would parties to the original position assign to health care? This might obviate the necessity for rationing at all.

Second, a redistributive policy cannot be just without adequate guarantees that resources will, in fact, be redistributed as required. To deprive the elderly of health care without reassigning the savings in the form of health care for younger age groups is not just, and ought not to be advertised in this way. Inasmuch as the erratic age rationing practiced in the United States (perhaps unlike that in a closed system, such as the British National Health Service[44]) is not tied directly to redistribution of this care to others, it can hardly be described as just, but rather the product of ordinary, socially entrenched age bias. Furthermore, a just rationing system requires a background of just institutions to ensure its operation, and neither the United States nor Britain can boast a full set of these—nor, for that matter, can any of the primitive or historical societies mentioned at the outset. Consequently, although I believe there is a cogent argument for the moral preferability of age rationing that involves voluntary but socially encouraged killing or self-killing of the elderly as their infirmities overcome them, in preference to the medical abandonment they would otherwise face, this is in no way a recommendation for the introduction of such practices in our present world. As Daniels remarks, if the basic institutions of a given society do not comply with acceptable principles of distributive justice, then rationing by age may make things worse[45]—and surely age rationing by direct-termination practices could make things very much worse indeed. Thus, while I think direct-termination practices would be just in a scarcity-characterized ideal world, I also think we should cast a skeptical eye on the sorts of arbitrary, unthinking age rationing we are toying with now.

Notes

1. Euripides, *Suppliants* 1109, as quoted by [pseudo-]Plutarch in "A Letter of Condolence to Apollonius," 110C, in *Plutarch's Moralia*, tr. Frank Cole Babbitt (London: William Heinemann; Cambridge, Mass.: Harvard University Press, 1928), II, 153.

2. Colorado's Governor Richard D. Lamm was widely (mis)quoted in March 1984 as claiming that the elderly terminally ill "have a duty to die," engendering extremely vigorous controversy. Lamm's own account of what he actually did say appears in *The New Republic* for August 27, 1984, as well as in a variety of speech and press corrections about that time.

3. *Republic* III 406C.

4. Book II, "Their Care of the Sick and Euthanasia," tr. H. V. S. Ogden (Northbrook, Ill.: AHM, 1949), p. 57.

5. Friedrich Nietzsche, *The Twilight of the Idols*. In *The Complete Works of Friedrich Nietzsche*, edited by Oscar Levy, translated by Anthony M. Ludovici. London: George Allen & Unwin, 1927, p. 88.

6. See Alexander H. Leighton and Charles C. Hughes, "Notes on Eskimo Patterns of Suicide," *Southwestern Journal of Anthropology* 11 (1955) pp. 327–38, for a description of suicide practices from Yuit Eskimo informants on St. Lawrence Island, Alaska, and a survey of the literature on Eskimo suicide generally.

7. This practice is movingly depicted in the Imamura film *The Ballad of Narayama*, but there remains considerable controversy concerning whether the practice in fact has historical roots or is the product of legend imported at a later period.

8. The Hippocratic oath reflects the opposition of what was a minority school to this practice. See L. Edelstein, "The Hippocratic Oath: Text, Translation, and Interpretation," in *Supplements to the Bulletin of the History of Medicine* no. 1 (1943), and in *Ancient Medicine: Selected Papers of Ludwig Edelstein*, Oswei Temkin and C. Lillian Temkin, eds. (1967), both Baltimore, Md.: The Johns Hopkins Press. Also see Danielle Gourevitch, "Suicide Among the Sick in Classical Antiquity," *Bulletin of the History of Medicine* 43 (1969), pp. 501–18.

9. See Gitta Sereny, *Into That Darkness: From Mercy Killing to Mass Murder* (New York: McGraw-Hill 1974), for an account of the development of "euthanasia" policies under Hitler and their relationship to the mass extermination programs, and Robert Jay Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York: Basic Books, 1986).

10. S. Jay Olshansky and A. Brian Ault, "The Fourth Stage of the Epidemiologic Transition: The Age of Delayed Degenerative Diseases," this volume.

11. Norman Daniels, "Justice Between Age Groups: Am I My Parents' Keeper?," *Milbank Memorial Fund Quarterly* 61 (1983), p. 515.

12. U.S. Senate Special Committee on Aging, *Aging America, Trends and Projections*, 1984, p. 70.

13. B. B. Torrey, "The Visible Costs of the Invisible Aged: The Fiscal Implications of the Growth in the Very Old," paper presented to the American Association for the Advancement of Science, New York, 1984, p. 1.

14. *Ibid.*, p. 6.

15. J. H. Schultz, *The Economics of Aging* (Belmont, Calif.: Wadsworth 1985), p. 140.

16. *Ibid.*, p. 73.

17. J. W. Rowe, "Health Care of the Elderly," *New England Journal of Medicine* 312 (1985), p. 831.

18. Rowe, *op. cit.*, p. 828, citing Sidney Katz *et al.*, "Active Life Expectancy," *New England Journal of Medicine* 309 (Nov. 17, 1983): 1218–24.

19. James Lubitz and Ronald Prihoda, "The Use and Costs of Medicare Services in the Last Two Years of Life," *Health Care Financing Review* 5 (Spring 1984) 3, p. 119.

20. Anne A. Scitovsky, " 'The High Cost of Dying': What Do the Data Show?", *Milbank Memorial Fund Quarterly/Health and Society* 62 (1984): 591–608, p. 598, using data from Lubitz and Prihoda, *op. cit.*, Fig. 2, p. 124.

21. W. Hines, *Chicago Sun–Times*, Feb. 9, 1983, p. 72.

22. Daniels, *op. cit.*, passim.

23. John Rawls, *A Theory of Justice* (Cambridge, Mass.: Harvard University Press 1971), sec. 24, p. 138.

24. Parties to the original position are not only hypothetical but ahistorical, having no knowledge of what historical period they live in. The parties described here, however, seem to have an extraordinary amount of information about health care costs in the 1980s. But this is simply part of the general information such parties are assumed to have (see Rawls's *A Theory of Justice*, sec. 24, p. 142); it can be assumed that they also have similarly detailed information about health care costs in other historical periods, both before and after the 1980s. Regardless of the degree of technological development of medicine in these historical periods, however, in all periods providing extensive care in end-of-life illness is more costly than denying care or directly terminating life; hence, in all of these periods, the age-rationing problem will look very much like it does now.

25. See H. J. Aaron and W. B. Schwartz, *The Painful Prescription: Rationing Hospital Care* (Washington, D.C.: The Brookings Institution 1984) for an account of age-rationing in Britain.

26. I have in mind non-medically-indicated age ceilings for heart transplants at Stanford, waiting lists in the Veterans' Administration system for hip replacements, Medicaid's reduction of physical therapy for nursing home patients from twice daily to once daily, and the like.

27. Health care expenditures for the elderly are estimated to reach 3.3 percent of the GNP in 1984, or nearly one-third of the 10.5 percent of the GNP that represents all health care. See D. R. Waldo and H. C. Lazenby, "Demographic Characteristics and Health Care Use and Expenditures by the Aged in the United States: 1977–1984," *Health Care Financing Review* 6(1) (Fall 1984), p. 8.

28. Olshansky and Ault, *op. cit.*, pp. 4–5.

29. The "normal life span" is not to be confused with the "average life span," which 50 percent of the people do not reach and 50 percent exceed. The concept of "normal life span" employed by Daniels and others is not defined as a statistical notion, but appears to have to do with the rough boundary between middle and old age or between young old age and old old age.

30. See C. R. Fisher, "Differences by Age Groups in Health Care Spending," *Health Care Financing Review* 2(5) Spring 1980, p. 69, fig. 1.

31. John K. Iglehart, "The Cost of Keeping the Elderly Well," *National Journal* 10(43) (Oct. 28, 1978) p. 1729.

32. Rowe, *op. cit.*, p. 830.

33. See Waldo and Lazenby, *op. cit.*, p. 2.

34. James F. Fries, M.D., "Aging, Natural Death, and the Compression of Morbidity," *New England Journal of Medicine* Vol. 303, No. 3 (July 17, 1980), pp.130–35.

35. Edward L. Schneider and Jacob A. Brody, "Aging, Natural Death, and the Compression of Morbidity: Another View," *New England Journal of Medicine* Vol. 309, No. 14 (October 6, 1983), pp. 854–55.

36. Fries, *op. cit.*, p. 135.

37. Rawls, *Theory of Justice*, sec. 26, p. 155.

38. Rawls, *Theory of Justice*, sec. 25, p. 145.

39. See My "Manipulated Suicide," in *Suicide: The Philosophical Issues*, M. Pabst Battin and David J. Mayo, eds. (New York: St. Martin's Press 1980), pp. 172–73.

40. Barrington, "Apologia for Suicide," in Battin and Mayo, *op. cit.*, p. 97.

41. Battin and Mayo, *op. cit.*, pp. 172–73.

42. Daniels, *op. cit.*, p. 513.

43. Victor Fuchs, " 'Though Much is Taken': Reflections on Aging, Health, and Medical Care," *Milbank Memorial Fund Quarterly* 62 (1984), pp. 151–52.

44. See Daniels, "Why Saying No to Patients in the United States is So Hard: Cost Containment, Justice, and Provider Autonomy," *New England Journal of Medicine* 314(21) (May 22, 1986), pp. 1380–1383.

45. Daniels, "Justice Between Age Groups," *op. cit.*, p. 519.