Insurability and the HIV Epidemic: Ethical Issues in Underwriting

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E LIVE IN A SOCIETY IN WHICH OVER 37 million people do not have insurance coverage for any health-care services. Primarily, these are working people and their dependents, who lack coverage through employee group plans and yet are ineligible for public insurance coverage. Their numbers grew considerably in the 1980s. In the face of rising health-care costs, governments have restricted eligibility for public insurance, and some employers have reduced benefits, especially for dependents. Because of this "insurance gap," many people are urging major reform of our mixed public-private insurance system, and there is growing debate about what we gain and what we lose from a system that relies so heavily on private insurance.

Underwriting and Access to Medical Insurance

In this context, public attention has focused on the underwriting practices of medical insurers. For example, the *New York Times* reports that many private insurers have decided not to underwrite insurance for

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certain small groups and individuals, and their underwriting decisions go beyond mere efforts to protect themselves against those at risk for acquired immunodeficiency syndrome (AIDS) (Freudenheim 1990). AIDS is but one of a multitude of diagnoses that are medically uninsurable.

Nevertheless, it is the human immunodeficiency virus (HIV) epidemic that has most dramatically raised public concern about underwriting practices for medical insurance. Suddenly, a highly visible group of vulnerable people has been forced onto public budgets because they were dropped from insurance coverage when they lost employment, or because they never were insured and cannot obtain it now that they either have AIDS or have been exposed to HIV. In Massachusetts, Washington, D.C., and some other states, there have been vocal, public debates about underwriting practices and their impact on those at risk for AIDS; legislation restricting these practices was ultimately struck down by the courts. Underwriting for AIDS thus serves to illustrate a larger issue.

Standard Underwriting Practices and AIDS

According to a survey by the Office of Technology Assessment (1988), nearly all insurers deny coverage to individuals who have AIDS. The only exceptions are certain "open enrollment" programs of Blue Cross/Blue Shield Associations, some of which have very high AIDS patient loads. These plans are given special reimbursement rates by state regulators (e.g., in New York). Even these plans have exclusion clauses, often for 11 months, for preexisting conditions. Some commercial insurers are treating exposure to HIV. as measured by antibody tests, as a preexisting condition or as an indicator of high risk for developing AIDS and are denying coverage on that basis.

Some commercial insurers and HMOs are insuring only individuals at low risk for AIDS and feel no obligation to insure high-risk individuals. The survey showed that 86 percent of commercial insurers screen for HIV infection, with about 50 percent testing either all or selected applicants: 73 percent of Blue Cross/Blue Shield plans use personal-history questionnaires to screen for HIV, while 60 percent sometimes use an attending physician's statement (APS) to help determine risk for AIDS. None uses tests for HIV. Of responding HMOs, 53 percent

screen for AIDS (20 percent of respondents are prohibited by state law from screening), with 40 percent using APS; 13 percent of HMOs test for HIV. There is clear evidence that some insurers have attempted to determine sexual orientation through indirect indicators (occupation, marital status) as a way of assessing risk (cf. Office of Technology Assessment 1988, 2).

Underwriting for AIDS thus involves these standard underwriting practices: denying coverage, or offering more expensive and substandard coverage, to those who have a disease or are at higher risk of contracting it in the future, as determined by various medical examinations, tests, or records, or other "predictors" of risk. Because it heightens awareness of these practices and their social consequences, the HIV epidemic forces us to consider seldom-discussed ethical issues. What are the obligations of insurers in a mixed system to facilitate access to coverage? Do standard underwriting practices interfere with our social obligations to guarantee access to health care? Is there a sound moral justification for them?

Justifying Standard Underwriting Practices

One justification for these standard underwriting practices is that they are dictated solely by the economic interests of private insurers. In that case, the relevant considerations are clear: We must simply weigh the benefits of a mixed public-private insurance scheme against the costs, including the social costs of an increased insurance gap.

Although the structure of this justification is clear, the conclusions it yields are not. Just what the benefits and costs of a mixed system are remains controversial. People disagree about how to compare the benefits and costs with feasible alternative systems. Even what counts as a politically feasible alternative is controversial. A justification for standard underwriting practices that rested on these inconclusive comparisons would thus constantly be open to challenge. What is worse, disagreement about the relevant facts would quickly turn attention from the standard practices to the justification for a mixed public-private insurance system. Strategically, this line of defense of standard practices is risky for insurers, who want to protect their economic interests. They must show why their interests are worth protecting in the face of complaints about injustice.

A much more promising strategy, from an insurer's point of view, would be to develop an overpowering argument to demonstrate that we are morally required to use standard underwriting practices. The main objection to such practices is that they are unjust because they leave many people without insurance. If it could be shown, however, that it was unjust or unfair not to use these practices—in other words. that iustice requires them-two things would be accomplished: First, defenders of standard underwriting practices could lay claim to the high moral ground with their own argument from fairness. Second. the logic of the justification would prevent detractors from closer examination of the mixed insurance system, thereby halting the controversy. Some insurers have developed just such an argument. They claim it is actuarially unfair, and therefore unfair, to those who are at low medical risk for insurers not to exclude from insurance pools those who are at high risk, such as those at risk for HIV. Thus, the hybrid term, "actuarial fairness," widely used in the literature, expresses the moral judgment that fair underwriting practices must reflect the division of people according to the actuarially accurate determination of their risks.

This argument from actuarial fairness, as I shall refer to it, is an important one and it deserves a careful analysis and reply. In section 1, I show that insurers are wrong to treat actuarial fairness as if it were an obvious requirement of justice or social fairness. Doing so involves presuppositions that are controversial and implausible. Moreover, we often depart from actuarially fair practices for reasons of social justice or for other social purposes, which suggests that we do not treat them as fundamental moral requirements. Indeed, as I argue in section 2, in a just health-care system, whether public or mixed, actuarial fairness disappears as an issue of any fundamental interest to consumers of insurance, playing only a "bookkeeping" role, thus confirming the claim that it has little to do with justice or social fairness after all. Because the argument from actuarial fairness fails, insurers will be forced to defend standard underwriting practices by defending the merits of a mixed insurance system. No such system will be just unless it explicitly divides the responsibility for guaranteeing access between the public and insurers, as we have failed to do. Finally, in section 3, I will discuss some ethical issues in the methods of risk classification used in standard underwriting practices.

1. Is It Unfair to Underwrite High-risk Individuals?

Market Forces and the Descriptive Content of Actuarial Fairness

Let us begin by thinking solely about the risk-management aspect of medical insurance, ignoring for the moment any special moral importance we may attribute to assuring access to health-care services. From this perspective, health insurance, like other insurance, is no more than a way for rational economic agents to manage their risks of serious losses under conditions of uncertainty. There is a market for such insurance because prudent people are willing to face modest losses (premiums) on a regular basis rather than encounter catastrophic losses at unpredictable times. The modest losses are perceived as the cost of security. The absence of information about when losses will occur gives people a common interest in pooling risks. In the general case, we can imagine that there is a symmetry to the lack of information among all parties. Under these conditions, prudent consumers of security will have a common interest in sharing their risks.

An important change takes place when we acquire information that allows us to disaggregate the risk and thus sort people into stratified risk pools rather than a uniform one. For example, in the case of homeowner's fire insurance, we can differentiate risk pools because we acquire actuarially relevant information about the construction, age, density, and location of houses, and information about available fire-fighting facilities and relevant fire-safety codes. In the case of medical insurance, the differentiation can be the result of information about individual medical histories, genetic disposition to disease or genetic disorders (cf. Antonarakis 1989), or lifestyle choices.

Two forces emerge when risk is stratified in this way. First, those purchasing insurance may now see themselves as having distinct rather than common interests. Those at lower risk will see an advantage in premiums priced to reflect their risks. They will want to pool their risks only with those at comparably low risk because buying security will then be less expensive. Why, they ask, should we want to—or have to—subsidize security for those at higher risk? In contrast, those at high risk will seek the security bargain offered by insurance that pools

high- and low-risk individuals (a practice known as adverse selection). If the only constraint or consideration at work in this insurance market is that the insurance be structured to enable consumers to pursue their economic advantage, then it seems reasonable for those at lower risk to pursue a divided pool with premiums that reflect risks. (We should not confuse, however, the rational behavior of people operating within a given institutional arrangement that provides incentives for such behavior with the moral judgments those same people might make about the appropriateness of such an institutional framework. Surveys suggest that a majority of Americans would prefer a system of universal, compulsory health insurance, which puts everyone in the same risk pool [see Blendon and Donelan 1990].)

The second force drives the insurer. At a certain level of abstraction, it does not matter to the insurer what the structure of the risk pool is. There is opportunity to profit from the provision of security in both "community-rated" pools and risk-related pools. Under certain market conditions, however, as when participation in the insurance scheme is not compulsory and information is available to participants about their individual risks, adverse selection and other problems will arise for insurers. Those who suspect that their risks are high will seek out insurance, and those who think their risks are low may avoid insurance or seek cheaper insurance elsewhere. Competition will then drive insurers to keep premiums low by excluding high-risk individuals. The standard underwriting practices we are examining are thus a consequence of providing health insurance in a specific marketing context that involves certain underlying assumptions about its social function (cf. Hammond and Shapiro 1986). Specifically, the assumption is that health insurance is a market for individual security in which consumers must be allowed to pursue their individual interests, as determined by information about their risks. This assumption is far from morally neutral.

The concept of actuarial fairness could be assigned a purely descriptive, as opposed to normative, content in the kind of insurance market we have just been considering. On such a stipulation, saying that a premium is "actuarially fair" would mean no more than that it reflects the actuarial risks the purchaser actually faces or is known to face, that is, it is actuarially accurate. Similarly, saying that the refusal to insure those at high risk is actuarially fair would mean only that such underwriting practices yield insurance markets in which premiums reflect risks. As a result, the cost of insuring some people is simply too high

for standard insurance, and such people may not find insurance available at any price. In an ideal insurance market, market forces would drive premiums in the direction of actuarial fairness for the economic reasons just described.

This purely descriptive notion of actuarial fairness does not carry with it the *moral* claim that such a system of exclusions from coverage and risk-based premiums is a fair one—that we are required by justice to have it. The notion of actuarial fairness that we find in the insurance literature goes beyond this purely descriptive content, however, and carries the implication that actuarially accurate underwriting practices are also fair or just ones. This moral notion is crucial to the argument from actuarial fairness.

The Argument from Actuarial Fairness

Clifford and Iuculano (1987) defend standard underwriting practices, such as permitting HIV testing and denying coverage to those at high risk, with a version of the moral argument I have called the argument from actuarial fairness. Claiming that insurance "is founded on the principle that policyholders with the same expected risk of loss should be treated equally," they conclude that bans on HIV testing "would seriously distort the fair and equitable functioning of the insurance pricing system" (Clifford and Iuculano 1987, 1807). They go on to say: "The primary goal of underwriting is the accurate prediction of future mortality and morbidity costs. An insurance company has the responsibility [emphasis added] to treat all its policyholders fairly by establishing premiums at a level consistent with the risk represented by each individual policyholder" (Clifford and Iuculano 1987, 1809). The authors bolster this appeal to actuarial fairness by citing requirements of the Unfair Trade Practices Act (UTPA), which mandates "fair discrimination," so that individuals are charged premiums in accordance with their risk, but prohibits "unfair discrimination" between individuals who face comparable risks. The authors claim that HIV testing is a fair and valid underwriting tool.

In effect, Clifford and Iuculano argue that it is unfair if insurers fail to deny coverage to those at high risk. Specifically, it will be unfair to those at low risk if they are made to pay the higher premiums necessary to cover the costs of those at high risk. Their remark about the "responsibility" of insurers suggests that it is an obligation to refuse to

underwrite those at high risk for AIDS. The claim that standard underwriting practices are obligatory is a strong claim. The weak claim—that it is (sometimes) permissible to use such practices—is more plausible, but it does not offer insurers the strategic advantages noted in the preceding section. The weak claim provides a defense of standard underwriting practices only if it can also be shown that our mixed system is compatible with our moral obligations to provide access to health care. If standard practices undercut our ability to meet these obligations in a mixed system, then they obstruct justice and are impermissible. The strategic advantage of the strong claim is that it allows insurers to avoid having to make such a defense of the mixed system as a whole and it meets an accusation of unfairness, not only with a denial, but also with a countercharge.

My objection to this argument, simply, is that it confuses actuarial fairness with moral fairness or just distribution. These are different notions: actuarial fairness is neither a necessary nor a sufficient condition for moral fairness or justice in an insurance scheme, especially in a health-insurance scheme. The link forged by Clifford and Iuculano between fairness and actuarial fairness presupposes that individuals are entitled to benefit from any of their individual differences, especially their different risks for disease and disability. This presupposition is highly controversial and, I shall argue, false. (The weak claim, noted earlier, that it is permissible to use standard underwriting practices for medical insurance, has a weaker presupposition, namely, that it is not unfair if information about individual differences in medical risk provides a basis for competitive advantage.)

A Controversial Assumption about Individual Differences

To leave the merely descriptive notion of actuarial fairness, which has no justificatory force, and arrive at a moral claim about fairness, found in the insurer's argument, we need to add some moral assumptions. Specifically, we have to add what I will call the strong assumption, which is the claim that individuals should be free to pursue the economic advantage that derives from any of their individual traits, including their proneness to disease and disability. The strong assumption might be used in an argument that echoes some recent work on distributive justice:

- 1. Individual differences—any individual differences—constitute some of an individual's personal assets.
- 2. People should be free, indeed are entitled, to gain advantages from any of their personal assets.
- 3. Social arrangements will be just only if they respect such liberties and entitlements.
- 4. Specifically, individuals are entitled to have markets, including medical insurance markets, structured in such a way that they can pursue the advantages to be derived from their personal assets.

This skeletal argument might be elaborated, and the strong assumption it contains defended (or attacked), in varying ways within different theories of justice. For example, Nozick's treatment of libertarianism (1974) begins with certain assumptions about property rights and the degree to which certain liberties, such as the liberty to exchange one's marketable abilities or traits for personal advantage, must be respected even in the face of what many take to be overriding social goals. Consequently, actuarially unfair schemes confiscate property without consent. Other political philosophers claim that just arrangements are the result of a bargain made by rational people who want to divide the benefits of mutual cooperation (cf. Gauthier 1986). On this view, bargainers who have initial advantages in assets would only accept social arrangements that retain their relative advantages. As a result, bargainers might argue that just arrangements would preserve the advantages of those at low risk of disease through insurance markets that use standard underwriting practices.

An attractive feature of bargaining theories is that they justify principles of justice through the most straightforward appeal to the interests of each moral agent. Unfortunately, the significant inequalities that such theories justify can be traced back to initial inequalities for which there is little moral justification. Some then object that we must reject the bargaining approach: if bargaining can yield agreement only when unjustified initial advantages are preserved, then bargaining does not tell us what justice requires.

An alternative to the "bargaining" theory of justice avoids incorporating initial inequalities by constructing a "hypothetical" contract in which all participants are treated fairly and impartially. In Rawls's (1971) theory, for example, "free" and "equal" moral agents are kept from knowing anything about their individual traits; they must select

principles of justice that would work to everyone's advantage, including those who are worst off. Just which individual differences should be allowed to yield individual advantage thus becomes a matter for deliberation within the theory of justice, not a starting point for it. Such an approach breaks the grip that initial inequalities have in the "bargaining" approach to justice, but it does so at a cost. We now need an argument to explain why this model for selecting principles is fair to all people and why we should count its outcome as justified (Rawls 1980, 1989).

The debate about the relevance of individual differences to the just distribution of social goods is at the heart of the conflict between alternative approaches to constructing and justifying theories of justice (cf. Barry [1989] for a brilliant discussion of the alternative theories of justice). Clearly, these complex foundational disputes cannot be resolved in the context of this discussion, yet their prominence can be intimidating to those who hope for a simple, straightforward way to distinguish what counts as just. Demonstrating that the strong assumption about individual differences is deeply controversial at the level of the theory of justice is not a refutation of the argument from actuarial fairness, but it does give us good reason not to accept the assumption without a convincing argument.

As it stands, the strong assumption is too strong. Clearly, we do not think that some individual differences should be allowed to yield advantage or disadvantage. In recent legislation in the United States, we have established a legal framework to reinforce these views about justice. For example, we believe that race or sex should not become a basis for advantage or disadvantage in the distribution of rights, liberties, opportunities - or economic gain. Under some conditions, being of a certain race or sex might have - indeed, does have - market advantages. Nevertheless, we believe that justice requires us to sever consideration of race, sex, and handicaps from deliberations about hiring, firing, and reimbursement for services performed, although in practice we fall far short of what justice demands. (What makes affirmative action controversial is the fact that race and sex are allowed to play an explicit role in order to achieve certain social goals.) Thus we reject, in its most general form, the view that all individual differences can be a moral basis for advantage or disadvantage.

Although we agree that race and sex are clearly unacceptable bases for advantage, we do not agree about how to treat some other individ-

ual differences. We allow talents and skills, for example, to play a role in the generation of inequalities, and yet we tax those with the most highly rewarded talents and skills in ways that help those who lack them, at least to some extent (not to the maximal extent, as Rawls [1971] would have it). How much inequality we allow is controversial in practice, just as it is in theory. Some people think that individuals are entitled to derive whatever advantages from their talents and skills that the market allows, and they view income redistribution as an unjustifiable tax on talents and skills (cf. Nozick 1974). Others argue that talents and skills, like intelligence or manual dexterity, are the results of a "natural lottery," not desert, and that it is a matter of luck who enjoys the family and social structures that encourage traits of character, like diligence, necessary to refine one's basic talents. On this view, redistributive schemes are a morally obligatory form of social insurance. which protects us against turning out to be among those whose lack of marketable talents and skills place them in the group that is worst off (cf. Cohen 1989; Dworkin 1982a,b; Rawls 1971, 1989).

Even among philosophers who want to treat talents and skills as individual assets, only the strictest libertarians treat health-status differences merely as "unfortunate" variations, and believe that there is no social obligation to correct for the relative advantages and disadvantages caused by disease or disability (Engelhardt 1986). The design of health-care systems throughout most of the world rests on a rejection of the view that individuals should have the opportunity to gain economic advantage from differences in their health risks. Despite variations in how these societies distribute the premium and tax burdens of financing universal health-care insurance, our mixed system is nearly unique in allowing the degree of risk to play such a role. Moreover, as I noted earlier, surveys show that most Americans would prefer a universal system that abolished that practice. Far from being a self-evident or intuitively obvious moral principle, the strong assumption is widely rejected.

Two Observations about Actuarial Fairness and Insurance Practices

The argument from actuarial fairness rests on a theoretically controversial assumption that fails to match the moral beliefs, not only of most Americans, but of the rest of the world as well. We do not settle moral arguments by a vote, however, and in section 2 I will offer a substan-

tive reason for rejecting the view that health insurance must be structured so that individuals can derive benefits from their differences in medical risks. First, I want to draw lessons from two further observations about the role of actuarial fairness in our insurance practices.

The first observation is that, in both medical and nonmedical contexts, insurers are highly selective about which information they will use to disaggregate risks. This selectivity adds an element of moral arbitrariness to the notion of actuarial fairness. We can accept this arbitrariness only if we believe that insurance markets are a fair procedure for recognizing only appropriate differences among individuals. That is, the need to justify reliance on a market returns to haunt us again, even though the strategic appeal of the argument for actuarial fairness was that it seemed to avoid this messy issue. To see why this is so, consider three interpretations of what actuarial fairness might require for the acquisition and use of information about risks.

First, actuarial fairness might require that we discover or seek out all relevant information about the risks people face. If what really matters for purposes of justice is that individuals have different risks that can be brought into play as individual assets, then it might be thought the fair arrangement is one in which we make a reasonable effort to find out what these differences are. This might mean, for example, that insurers are obliged to support or develop new medical technologies, including genetic tests, that allow us to predict risks for subgroups more accurately. On this interpretation of the requirements of actuarial fairness, insurers might be obliged to commit resources to mapping the human genome and to developing tests relevant to underwriting practices.

Second, actuarial fairness might only require that insurers use all relevant, available information about those risks. This interpretation loosens the connection slightly between individual differences and the distribution of advantages, for people are entitled to derive benefit only from those differences in risks about which information happens to be available. For example, if technologies such as the Elisa test for HIV happen to be available because they were developed to screen blood, then insurers are really obliged to extend their use into insurance contexts because the tests mean that information about HIV risks is obtainable. Similarly, if mapping the human genome leads us to develop diagnostic screening tests for various medical conditions, then insurers would be obliged, on this view of actuarial fairness, to use them

for underwriting purposes. (It is important to anticipate this possible use-actually an abuse, if I am right-of the results of mapping the human genome.)

Third, actuarial fairness might simply allow insurers to use information about risks whenever it is in their economic interest to do so. This interpretation loosens even more dramatically the connection between individual differences and the advantages that result from them within insurance schemes. In effect, we are entitled to benefit from our differences only if the market makes it profitable for insurers to allow us to so benefit.

No one who feels the moral pull of the argument from actuarial fairness, including Clifford and Iuculano (1987), actually presses for the first interpretation: making research obligatory. I do not believe that standard insurance practice endorses the second interpretation either: requiring that all available ways of disaggregating risks be used. Rather, insurance practice seems to follow the third interpretation. When the strong assumption about individual differences becomes operational in insurance markets, it simply says that people are entitled to gain advantage from those differences that insurance markets happen to reward. This no longer sounds like a fundamental or basic principle of distributive justice; rather, it appears somewhat arbitrary.

If we could be persuaded that insurance markets constitute a fair procedure for recognizing just which individual differences should be rewarded, then the arbitrariness would be less troublesome. We would simply be saying that the market is a kind of lottery that determines in an arbitrary but fair way which individual differences will yield advantages to their holders. Without a justification for relying on markets to provide us with such a procedure, the arbitrariness is morally troubling because its consequences for individuals, including the ways in which it magnifies inequalities, are quite serious. To be sure, cost factors are pervasive in markets without making them unfair. My point is not that the market is unfair because such arbitrary factors as information costs play a role in what distinctions it makes. Rather, it is that we need to be shown that the market is at least as good as any alternative procedure for making distinctions among individual differences that society thinks should be rewarded.

My second observation is that society does not in practice trust the insurance market to make just those distinctions it is fair to make among individuals. Instead, we regulate both medical and nonmedical

insurance markets, making explicit social judgments about how insurance companies may draw distinctions among individuals for underwriting purposes. We act as if we do not think insurance markets are procedurally fair. In effect, we allow many considerations, both of justice and of other goals of social policy, to *override* appeals to actuarial fairness, suggesting that we do not treat it as a basic requirement of distributive justice in insurance contexts after all. Some examples will demonstrate this.

Even in insurance markets where no general social obligation is felt to avail everyone of security against loss, for example, in fire or theft insurance, certain underwriting practices are considered unacceptable forms of discrimination. Thus "redlining" whole geographical areas was thought to contribute to the economic decline of neighborhoods, "racial tipping," and "white flight." It was condemned in the late 1970s as an unacceptable underwriting practice. No one questioned, however, the utility of redlining as a (rough) device for allowing insurers to predict their risks of loss. The point is that considerations of justice overruled the advantage to insurers of standard underwriting practices. Similarly, unisex rating is a rejection of an "actuarially fair" and efficient method of underwriting and pricing groups at differential risk. In this case, we override standard underwriting practices because we give more importance to a principle of distributive justice, assuring the equal treatment of groups who traditionally face discrimination. Some states require high-risk drivers to be insured, setting up special insurance pools or rate regulations to make sure that no one has to encounter uninsured drivers. Here, our social interest in guaranteeing a public good (the reduced risk of encountering an uninsured driver) is allowed to overrule otherwise sound (and actuarially fair) underwriting practices.

Turning to medical insurance, we also find examples in which other social goals lead us to override considerations of actuarial fairness. Some states tried to ban the HIV testing of individuals for health insurance, not because of a concern about the accuracy of the screening device, but because of concerns about privacy and the importance of access to treatment. More generally, nine states have established insurance pools that guarantee no one is deemed uninsurable because of prior medical condition or high-risk classification. Where such pools are funded by insurance premiums paid by low-risk individuals, we simply have an enforced "subsidy" from those at low risk to those at high risk, overriding concerns about actuarial fairness. Finally, if we think about our

combined private and public insurance schemes, and the corresponding premiums and taxes, our health-care system is "actuarially unfair" to working adults, who must pay a combined tax-plus-premium that covers the health-care needs of children and the elderly. (The combined scheme looks actuarially fair only if we think about premiums and benefits paid out over the whole life span, assuming it is stable and that benefit ratios remain roughly comparable for different cohorts [see Daniels 1988].)

These examples confirm that we override standard underwriting practices for various reasons and that we do not wholly trust insurance markets to draw what we think are fair or good distinctions among individuals. Our practice suggests that we do not believe actuarial fairness to be a basic requirement of justice. I turn to further reasons to support that belief.

2. What Happens to Actuarial Fairness in a Just System?

Justice and Differences in Health Risk

My argument so far has been negative, challenging a crucial assumption underlying the argument from actuarial fairness by showing that it is controversial at the level of theory and inconsistent with important features of our practice. By briefly sketching an ideal picture of just health-care distribution, I hope to sharpen the contrast between the requirements of justice and the reality of standard underwriting practices for individuals facing actuarially distinct risks. We can then address the question, What happens to actuarial fairness in a just health-care system?

I will begin by sketching very briefly one account of why there are special social obligations to guarantee access to health-care services (cf. Daniels 1985, 1988 for a full development of the view). In societies that tolerate vast inequalities in certain social goods, there is special concern that health-care services be more equally distributed than other goods. Even in the United States, most people think access to health care should not be determined by ability to pay, although in practice it often is. It is necessary to explain and justify this special moral importance we attribute to health care.

Health care does many things for people: it extends life, reduces suffering, provides information and assurance, and in other ways improves quality of life. Nevertheless, it has one general function of overriding importance for purposes of justice. Health care maintains, restores, or compensates for the loss of - in short, protects - functioning that is normal for a member of our species (cf. Daniels 1985: chap. 2-3). Normal functioning is a crucial determinant of the opportunities open to an individual because disease or disability shrinks the range of opportunities that would otherwise have been available to someone with particular talents and skills in a given society. Because justice requires that we protect fair equality of opportunity for individuals in a society, it follows that we must design health-care institutions, including their method of reimbursement, so that they best protect opportunity given reasonable limits on resources. (We are not simply interested in formal equality of opportunity, that is, in eliminating legal or quasilegal barriers to equality of opportunity; we want fair equality of opportunity, which corrects for the ways in which opportunities have been distorted as a result of unjust social practices [cf. Rawls 1971]). Specifically, justice requires, in this view, that there be no financial barriers to access to care and that the system allocate its limited resources so that they work effectively to protect normal functioning and thus fair equality of opportunity. In fact, we arrive at a rough way to assess the importance of particular health-care services, namely, by their effect on the normal opportunity range (see Daniels 1985, 1988).

Any general theory of justice that includes a strong principle protecting fair equality of opportunity will be able to incorporate my account of justice and health care. Rawls (1971) has developed the best general theory to include such a principle. In constructing his account, Rawls makes the simplifying or idealizing assumption that no one is diseased or disabled, that all are fully functional over a normal life span. The idea is that this assumption can be dropped and the theory extended once the basic principles of justice are clear and once we have some idea of the social context in which we are trying to design a just health-care system. My account, although not derived from Rawls's theory, shows how to extend it to the real world of disease and disability. The spirit of the extension is to keep everyone as close as possible, given resource limits, to the ideal of being fully functional. (Rawls [1989] endorses accommodating health care through its relationship to opportunity.)

I should point out that some approaches to justice in general will

not yield a principle protecting fair equality of opportunity. Some theories of justice begin by accepting certain inequalities as a given and then ask what principles of justice such unequal individuals could rationally accept; equality of opportunity might then not be protected. These theories would not be compatible with the special moral importance we ascribe to health care, which is what I have chosen to explain and justify.

The view I have been sketching involves rejecting the argument from actuarial fairness. A health-care system is just insofar as it protects fair equality of opportunity—this is a necessary condition for a health-care system to be just. Our system uses standard underwriting practices, but it fails to protect equal opportunity because access to care depends on ability to pay. Therefore, these underwriting practices are not a sufficient condition for assuring a just system. It will be clear from what follows that these practices are not a necessary condition either.

Actuarial Fairness in Just Insurance Schemes

One common way to try to meet social obligations regarding access to health care is to institute a universal, compulsory health-insurance scheme. It is important to see what happens to standard underwriting practices in such schemes.

Under social insurance schemes, prior medical conditions and risk classification cannot serve as the basis for underwriting or pricing insurance coverage. Rather, because society acts on its obligation to meet all reasonable health-care needs, within limits on resources, there will be subsidies from the well to the ill and from low-risk to high-risk individuals, as well as from the rich to the poor. The social insurance scheme thus requires what a private market for health insurance would condemn as actuarially unfair.

It might be thought that I have confused cause and effect and that social insurance must be mandatory simply because it is actuarially unfair. People who are being treated unfairly would not voluntarily become a member of the scheme (Dan McGill, personal communication 1990). This objection begs the question, assuming that what is actuarially fair is thereby fair. Social insurance keeps individuals from pursuing the economic advantage that might result from having low risks in an actuarially fair system, but what is at issue here is whether it is un-

fair to deny them that chance to pursue their self-interest. If we have social obligations to protect fair equality of opportunity by guaranteeing access to health-care insurance, then it is not unfair to set up a system that is actuarially unfair.

From the perspective of a private insurer in our mixed system, denying coverage to those at high risk seems completely unproblematic ("You can't buy fire insurance once the engines are on the way."). However, this perspective is persuasive only if the important function of health insurance is risk management. Because health insurance has a different social function—protecting equality of opportunity by guaranteeing access to an appropriate array of medical services—then there is a clear mismatch between standard underwriting practices and the social function of health insurance. A just, purely public health-insurance system thus leaves no room for the notion of actuarial fairness.

Ironically, a just, but mixed public and private health-insurance system makes actuarial fairness a largely illusory, perhaps even deceptive, notion. Suppose that high-risk individuals are excluded from private insurance schemes in a mixed insurance system, for the kinds of reasons we have noted earlier. Nevertheless, because the system is just, these people will not be left uninsured, as many are in the United States today. They will be covered by public insurance or by legally mandated high-risk insurance pools subsidized by premiums from private insurance. Those lower-risk individuals left in the private insurance schemes might think that actuarial fairness has protected them from higher premiums. Here is where their savings are largely illusory. The premiums of those in the private insurance schemes will either cross-subsidize to some extent the high-risk individuals who are insured in the special high-risk pools, or their taxes will cover the costs of insuring high-risk individuals through public schemes. Their actual insurance premiums are thus their private ones plus the share of their taxes that goes to public insurance.

Because such a system is intended to protect fair equality of opportunity, I am supposing that the high-risk individuals are not being asked to bear the full burden, or even the major burden, of the higher health-care costs they are likely to incur. Protecting fair equality of opportunity is a societal obligation. It would seem reasonable for those obligations to be financed through the most progressive transfer system in the society, presumably an income-based tax. In contrast, taxing those at high risk through higher insurance premiums would be giving

weight to individual differences that the principle of fair equality of opportunity renders morally irrelevant or unimportant. Retaining standard underwriting practices in a mixed (but just) system would primarily serve a bookkeeping role, helping us to distinguish the costs of insurance to be borne by premiums as opposed to taxes.

Actually, I have slightly overstated the point about illusion. In a mixed system, assuming that publicly financed insurance is more progressively financed than private insurance, there will be some special distributive effects of putting high-risk individuals into public schemes rather than leaving them in private ones. How big these effects are depends on the relative sizes of the two sectors and how progressively financed the public schemes really are. The main point of principle remains, however: in a just system, low-risk individuals still share the burden of financing the health risks of high-risk individuals. Fairness requires that these risks be shared, not, as the argument from actuarial fairness would have it, that they not be.

Actuarial Fairness and Individual Responsibility for Risks

I want to comment briefly on the problem raised by self-imposed risks, for it might be thought to raise problems for my account of justice and health care. In the fair equality-of-opportunity account to which I have appealed, the crucial underlying intuition is that individual differences in risks of disease and disability are the results of a natural lottery. People are not really deserving of the advantages such a lottery offers, and so we have some reason for not magnifying these inequalities into socially approved inequalities if there is a reasonable alternative. If people bring their risks of disease and disability on themselves, however, then we may conclude that social obligations to protect equality of opportunity do not apply because people are responsible for the shortfall of opportunity they bring on themselves. Some clearly feel that they should not have to subsidize in this way the risky behaviors of others, even if they share unavoidable risks of disease. It is striking how much people's attitudes toward different categories of victims of the HIV epidemic turn on whether they seem to be "innocent victims" or culpable because their own behaviors have harmed them. (This attitude persists even though the median interval between HIV infection and AIDS is so long that many current victims, ten years after AIDS was discovered,

could not have known of any connection between their behavior and its risks.)

Serious problems with the notion of responsibility and culpability are at work here. We are untroubled by many lifestyle choices that carry with them significant risks of disease and disability. Rarely do we raise a flag asking that those who like risky sports be specially penalized so that they stop raising our health-care costs. We fall well short of wanting to penalize those whose smoking, alcohol consumption, and eating habits increase their risks, although we might look favorably on some insurance incentives (as in life-insurance schemes) that reward risk-lowering behaviors.

The more we examine the factors that contribute to some groups being more prone to risky behaviors than others, the more cautious we have to be about overemphasizing individual culpability for choosing the risky behavior. Class, educational, and cultural factors are very powerful predictors of behavior. We also do not have a good grasp of the factors that play a role in converting lifestyle choices, like smoking, into real risks of disease: recent studies suggest important genetic factors that may have a major causal role in determining which smokers get cancer (Foreman 1990). In the case of HIV, we must be very suspicious of the vehemence with which people raise the issue of selfimposed risks. It may largely be a smokescreen masking homophobia and social antipathy to drug abusers, as well as racism, rather than some deep, consistent conviction about the importance of the distinction between natural and self-imposed risks. For many reasons, then, I believe a just health-care system must steer clear of penalties and sanctions for self-imposed risks, although it may be important to consider incentives. Clearly, it is important to invest resources in learning how to modify people's behavior, including behaviors that are deeply resistant to intervention, like sex and addiction.

Dividing Responsibilities in a Mixed System

Some people believe that insurers in our mixed system are obligated to share the burden of guaranteeing access to health care. The view is that sharing that burden is part of the "overhead" of doing business in a mixed system, an implicit quid pro quo for being allowed to profit from what otherwise might be a social-insurance scheme. The use of

standard underwriting practices, for example, to exclude those who have been exposed to HIV, is thus criticized as an abrogation of responsibility. Is this criticism fair?

The obligation to assure access to health-care services is primarily a social obligation, not a private or corporate one. This obligation is directly discharged by the state in a compulsory universal healthinsurance system. In a mixed system, however, there must be a division of responsibility between private insurers and the public. The exact terms of that division must be explicit and must lead to assignable legal duties to assure access to care (cf. Buchanan 1989). It must be clear just which categories of people will be eligible for public insurance and therefore fall outside the responsibility of private insurers. Those who are at high risk, for example, would become the responsibility of the public if we set up tax-subsidized insurance pools that cover them (independent of means-tested insurance for those with ordinary risks who cannot afford insurance). Alternatively, they could be made the responsibility of private insurers if states mandated insurers to subsidize such an insurance pool through revenues from premiums paid by those with ordinary risks. Another option is to share the burden: high-risk insurance pools could be jointly subsidized by taxes and premiums provided by private insurers. For example, Medicaid might spread the burdens of guaranteeing access by participating in such insurance pools. The point is that justice requires society to establish an adequate scheme, and the act of establishing one makes it explicit who has what responsibilities. The failure to divide responsibility explicitly ultimately leads to injustice. Insurance gaps will appear because public and private sectors will pass the buck (or, rather, try to hold on to it).

An analogous point can be made about the obligations of physicians and hospitals to provide access to medical care. Our social obligations to provide access to care do not directly translate into the obligations of hospitals or physicians to treat every patient who seeks their care. We can divide responsibility, through legislation or regulation, imposing certain requirements on those who would be licensed to deliver services. These requirements should then be thought of as contractual: physicians or hospitals agree to them as conditions on their practice. Imposing obligations in these ways need violate no basic liberties of providers (cf. Daniels 1985, chap. 6). What we cannot do, however, is infer that every provider must assure access to care simply because there is a social obligation to do so. Just which obligations we want different

providers—or insurers—to undertake must be the result of an explicit division of responsibility in a mixed system.

It should also be obvious that real obligations to underwrite such normally uninsurable individuals should be distinguished from the tactical decision to underwrite some of them in order to reduce social pressures for the redesign of the insurance scheme. Even an informal sense of "mission," or a community-spirited effort to offer open enrollment as long as the competitive market still allows robust crosssubsidies, falls short of being a real obligation to underwrite people with disease conditions or at high risk for them. If there are real obligations, they must be part of the explicit design of the system. Thus the community-oriented mission of some Blue Cross/Blue Shield plans, which offer open enrollment and which "community rate" individual health insurance, is part of a quid pro quo. Special tax status and special discounts on hospital rates (e.g., in New York) constitute a contractual arrangement to depart from standard underwriting practices. As competition and cost-containment measures intensify, however, such quid pro quo arrangements will have to be made more explicit, for there is less chance to offset losses through cross-subsidies.

The current crisis in underwriting for those with HIV exposure requires society to undertake a more explicit division of responsibility for access to care. Those who are not being underwritten through private insurance are falling as burdens on narrowly financed public budgets, such as budgets for local, or at most, state public hospitals. This means that the burden of guaranteeing access to those in medical need is improperly distributed even in the public sphere. It also means that access to care for many is restricted.

The problem of underwriting high-risk individuals and those with prior conditions highlights a failure, not of the private sector, but of the public one. Insurers are simply responding to the incentives that exist in the current system. If we are dissatisfied with the output of that system, it is a public responsibility to modify it. It is hard to fault insurers for narrowly defining their obligations to underwrite health insurance within the limits of "fair" underwriting practices that are conceptually tied to the ways in which private insurance is used to manage many kinds of risks. That is exactly what we should expect of a private insurance system. Insurers can be faulted, however, to the extent that they have also lobbied to obstruct the emergence of an insurance system that would solve the problems of access faced by those at high risk.

To the extent that they have exercised political and economic power to reduce the sphere of public insurance schemes, they cannot simply absolve themselves from the problems of access that result from standard underwriting practices. Culpability, however, is not obligation, even if we feel insurers "owe" something to those whose situation has worsened because insurers have long opposed alternatives to our mixed system. The real moral failure is a public or social one, not a failing of individual insurers or a violation of their business ethic.

When I first introduced the argument from actuarial fairness, I noted its strategic advantage for insurers. It deflected attention from examining carefully the justice of our mixed system and considering alternatives to it. I have not completely ruled out a limited, bookkeeping role for appeals to actuarial fairness or other standard underwriting practices in a just, mixed system. However, there is a strong constraint on that role: standard underwriting practices must not undermine the just distribution of health-care services. They must never lead to gaps in insurance coverage or to significant burdens on those at high risk. Otherwise, fair equality of opportunity will not be protected by the health-care system, and that is what justice requires. What this means is that we must, after all, examine the purported advantages of a mixed public and private insurance scheme, such as its efficiency (but cf. Evans 1989 and Fuchs and Hahn 1990). We must see if those advantages outweigh the risks posed by standard actuarial practices to the just distribution of health care. It is just this examination that the insurers had hoped to avoid. By now it should be clear that actuarial fairness can only play a subsidiary role in a just, mixed system, and we cannot use the notion to avoid answering more basic questions about justice in our health-care system.

3. Techniques of Risk Classification

In this section, I shall briefly consider some of the ethical issues involved in gathering the information necessary to classify risks for underwriting purposes. My discussion will be narrowly focused in one sense because I will concentrate on issues raised by risk classification for AIDS, but the example will again serve to highlight more general ethical issues. The central point developed in this section is consistent with conclusions of the earlier sections: ultimately, considerations of justice

and of other social goals and costs override the interest insurers have in making risk classifications that are actuarially fair. More specifically, considerations of justice rule out attempts to use sexual orientation as a criterion for risk classification, and concerns about discrimination and other social cost weighs against using HIV testing as a method of risk classification.

There is considerable evidence that some insurers have used sexual orientation as a method of risk classification (Office of Technology Assessment 1988; Schatz 1987). Schatz (1987, 1787) notes that one insurance company distributed an "AIDS profile," which urged agents to separate out applications by single males in occupations that require little physical exertion, such as designers, hairdressers, and antique dealers. Other insurers, Schatz also notes, have used information about living arrangements or zip codes to classify risks.

The use in underwriting of stereotyped predictors of sexual orientation, or the use of sexual orientation itself, is morally unacceptable even if they prove to be actuarially accurate. Their use leads to imposing serious harms on a group that is already heavily discriminated against. As a result of insurance policies, employment opportunities may be affected, and access to credit or home mortgages may be limited (Schatz 1987, 1788). Fears about such discrimination may interfere with open communication by gays with physicians, itself a necessary step in combatting the spread of AIDS. Finally, denying a benefit to a large group of individuals because some of its members are at higher risk of disease clearly resembles a form of discrimination that has been found totally unacceptable in the case of race or religious background. For example, some states have prohibited the underwriting use of accurate medical tests for the presence of sickle cell or Tay-Sachs markers, in part because denials of coverage would fall disproportionately on groups who have historically experienced various kinds of discrimination. Indeed, in the case of race, insurers have been explicitly barred from using "economic necessity" arguments to show that risk classification that imposes special burdens on one race is nevertheless justifiable (Schatz 1987, 1791). Where access to important goods and opportunities generally provided by insurance is blocked by racial, sexual, or other forms of stereotyping, the courts have backed growing public sentiment that equality of opportunity must be preserved, even if it costs insurers or other premium payers something to protect that equality.

It is significant that organizations representing insurers of several dif-

ferent types—the Blue Cross/Blue Shield Association, the Health Insurance Association of America (HIAA), and the American Council of Life Insurance (ACLI) have all agreed that the use of sexual orientation in underwriting is not acceptable practice. The "model bulletin" developed by the National Association of Insurance Commissioners (NAIC) may discourage the effort to use sexual orientation for underwriting purposes, but none of the recommendations of these organizations is binding on particular insurers. Nevertheless, the unified organizational stand suggests a wide recognition that considerations of justice constrain the use of sexual orientation for underwriting purposes. As Schatz (1987, 1792) notes, although NAIC strongly rejected the underwriting use of sexual orientation or proxies for it, it could not arrive at an agreement about the use of HIV testing.

The public debate surrounding HIV testing for health-insurance purposes has focused less on its predictive value than on the social costs of permitting its use for underwriting purposes. The argument about social costs weighs the costs to insurers of not permitting HIV testing against the costs to others of permitting it. For example, given the high false-positive rate of HIV testing in low-incidence populations, the ratio of burdens imposed on others to savings to insurers is likely to be high. Protecting insurers through testing thus involves a significant externality. In any case, many critics of HIV testing (including Peter Hiam, the former Massachusetts Insurance Commissioner who resigned in protest against Governor Dukakis's plan to allow some testing for HIV by life-insurance companies), have argued that the economic threat to insurers has been exaggerated. Not only are costs not as high as original estimates suggested, but there are also many steps insurance companies could take to control costs before taking a step as socially problematic as HIV testing.

Testing for HIV would protect medical insurers against only a very small proportion of their AIDS liability. Many who are expected to be infected, like gay men, are employed and are covered by group plans, for which no testing is envisioned. Others presumed to be at high risk, like drug abusers, are not likely to seek out insurance at all. In addition, there are ways for insurers to limit liability for the costs of AIDS other than resorting to testing for HIV. For example, case-management techniques have shown considerable success in limiting the costs and improving the delivery of services to AIDS patients. These tactics are emphasized in the Blue Cross/Blue Shield AIDS Task Force report. Fi-

nally, the burden of costs can be reduced by spreading the risk among insurers, either by setting up voluntary risk-sharing pools or by cross-subsidizing in ways that cut against standard actuarial practices, provided some agreements can be reached among insurers in areas where risk for AIDS is prevalent. In sum, if the burden to insurers is not as great as originally suggested, and the actual burden can be managed and spread so that burdens on particular insurers are minimized, then the argument for testing is seriously undermined.

The argument against testing is in any case quite powerful. As many commentators have pointed out (cf. Schatz 1987, 1795), there are many less objectionable ways of gathering information about AIDS risks than requiring AIDS testing or asking questions about prior test results. The most powerful argument against testing by insurers is the concern that it will lead to other forms of discrimination (see Schatz 1987, 1800), that is, it will impose very high costs on others. Some insurers do not have a good record of protecting confidentiality, despite their claims to the contrary, and in the absence of specific state laws that impose serious sanctions on the abuse of medical information, many opponents of testing believe insurers cannot be trusted with such sensitive information as HIV test results. There is great fear among those at risk for AIDS that confidentiality will be violated.

If insurers add to the demand for compulsory testing, then there will be a serious disincentive to voluntary testing by individuals who ought to know their status, especially because there is not effective drug treatment for those with HIV infection. Even worse, if insurers insist that physicians provide information about prior test results, the dampening effect on educational and preventive programs surrounding AIDS will be dramatically increased. We are likely to see interference with many efforts to persuade people to volunteer for testing, for example, prior to pregnancy, or for research purposes. When we add together the risks of discrimination and the negative effects on efforts to prevent the spread of AIDS, there is a compelling argument against insurer testing. It is noteworthy that the Blue Cross/Blue Shield Association has adopted a policy of avoiding testing in favor of other risk-classification techniques.

I will conclude with one comment about the policy proposed by various insurers, that we should "treat AIDS like any other disease." If this policy is intended to counter the hysteria and discrimination that has accompanied the early phase of the AIDS epidemic, then it is to be applauded as well intentioned. Clearly, however, it is advocated by

some insurers as an argument in favor of permitting HIV testing and the usual underwriting practices that accompany the identification of high-risk individuals or those for whom only substandard coverage is offered. The assumption is that treating AIDS like any other disease would lead to justification for testing because medical tests for some other conditions are standard practice.

The argument we have just reviewed, however, shows that treating AIDS like any other disease would also mean that we should subject underwriting practices and claims about actuarial fairness to careful examination. If AIDS is exceptional, because of the climate of discrimination that surrounds those at high risk for it and because of the need to enlist the cooperation of those at high risk if its spread is to be stopped, then we will have adequate social reasons for not permitting testing or some other forms of risk classification. That is, after all, what we already do for other diseases: actuarial fairness is a principle we readily compromise when there are adequate social reasons to do so. Treating AIDS like any other disease may in fact be a policy that requires us to avoid morally problematic and socially costly methods of risk classification, and it may be a policy that, after analysis, would lead us to require some form of underwriting for those at high risk.

Summary

The HIV epidemic has focused criticism on standard underwriting practices that exclude people with AIDS or at high risk for it from insurance coverage. Insurers have denied the charge that these practices are unfair, claiming instead that whatever is actuarially fair is fair or just. This defense will not work unless we assume that individuals are entitled to gain advantages and deserve losses merely as a result of their health status. That assumption is highly controversial at the level of theory and is inconsistent with many of our moral beliefs and practices, including our insurance practices.

We should reject the insurers' argument. Justice in health care requires that we protect equality of opportunity, and that implies sharing the burden of protecting people against health risks. In a just health-care system, whether mixed or purely public, the insurance scheme is in systematic terms actuarially unfair, for its overall social function must be to guarantee access to appropriate care. This does not mean that in our system insurers are ignoring their obligation to provide ac-

cess to coverage. The obligation to assure access is primarily a social one, and the failures of access in our system are the result of public failures to meet those obligations. In a just but mixed system, there would be an explicit division of responsibility among public and private insurance schemes. In our mixed but unjust system, both legislators and insurers cynically pretend that the uninsured are the responsibility of the other. The attempt to treat actuarial fairness as a moral notion thus disguises what is really at issue, namely, the risk to insurers of adverse selection and the economic advantages of standard underwriting practices. Standard underwriting practices will be fair only if they are part of a just system, not if they simply are actuarially fair.

The failure of the argument from actuarial fairness means that we must face an issue private insurers had hoped to avoid if we are to defend standard underwriting practices at all. In view of the clear risk that a mixed system will fail to assure access to care, the burden falls on defenders of a mixed system. They must show us that its social benefits outweigh its social costs, and that it is possible to have a mixed system that is not only just, but also is superior to a compulsory, universal insurance scheme.

References

- Antonarakis, S.E. 1989. Diagnosis of Genetic Disorders at the DNA Level. New England Journal of Medicine 320:153-61.
- Barry, B. 1989. Theories of Justice. Berkeley: University of California Press.
- Blendon, R.J., and Donelan, K. 1990. The Public and the Emerging Debate over National Health Insurance. New England Journal of Medicine 323(3):208-12.
- Buchanan, A. 1989. Public and Private Responsibilities in the U.S. Health Care System. Blue Cross/Blue Shield Association.
- Clifford, K.A., and Iuculano, R.P. 1987. AIDS and Insurance: The Rationale for AIDS-related Testing. *Harvard Law Review* 100:1806-24.
- Cohen, J. 1989. Democratic Equality. Ethics 99(4):727-51.
- Daniels, N. 1985. Just Health Care. Cambridge: Cambridge University Press.
- the Young and the Old. New York: Oxford University Press.

- Dworkin, R. 1982a. What Is Equality? Part 1: Equality of Welfare. *Philosophy and Public Affairs* 10(3):185-246.
- -----. 1982b. What Is Equality? Part 2: Equality of Resources. Philosophy and Public Affairs 10(4):283-345.
- Engelhardt, R. 1986. The Foundations of Bioethics. New York: Oxford University Press.
- Evans, R. 1989. Controlling Health Expenditures: The Canadian Reality. New England Journal of Medicine 320(9):571-77.
- Foreman, J. 1990. Researchers Say Heredity Plays a Key Role in Lung Cancer. Boston Globe. August 1:11.
- Freudenheim, M. 1990. Health Insurers, to Reduce Losses, Blacklist Dozens of Occupations. New York Times February 5:1,D5.
- Fuchs, V., and Hahn, J. 1990. How Does Canada Do It?: A Comparison of Expenditures for Physician Services in the United States and Canada. New England Journal of Medicine 323(13):884-90.
- Gauthier, D. 1986. Morals by Agreement. Oxford: Oxford University Press.
- Hammond, J.D., and Shapiro, A.F. 1986. AIDS and the Limits of Insurability. *Milbank Quarterly* 64(suppl. 1):143-67.
- Nozick, R. 1974. Anarchy, State, and Utopia. New York: Basic Books.
- Office of Technology Assessment, U.S. Congress. 1988. AIDS and Health Insurance: An OTA Survey. Washington.
- Rawls, J. 1971. A Theory of Justice. Cambridge: Harvard University Press.
- ——. 1980. Kantian Constructivism in Moral Theory. *Journal of Philosophy* 77(9):515–72.
- . 1989. Justice as Fairness: A Briefer Description. (Unpublished.)
 Scharz B. 1987. The AIDS Insurance Crisis: Underwriting or Over-
- Schatz, B. 1987. The AIDS Insurance Crisis: Underwriting or Over-reaching? *Harvard Law Review* 100:1782-1805.

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