How and when we die is partly determined by decisions made by the courts, elected officials, and administrative agencies. Though we are far from having a coherent public policy towards saving lives, there can be no question that this objective has large and increasing influence in policy formulation. Traditional public programs, such as investing in public health measures, licensing physicians, sponsoring biomedical research, setting and enforcing highway speed limits, and deterring negligence on the part of employers and others through the law of torts, have been supplemented during the last decade by a variety of important new initiatives which are at least in part justified by the objective of prolonging life. Consider, for example, the establishment of public financing of health care through Medicare and Medicaid, the imposition of federal regulation to reduce air pollution, the establishment of regulatory agencies to enhance the safety of consumer goods (the Consumer Product Safety Administration) and the safety of the workplace (the Occupational Health and Safety Administration), and the increasingly stringent auto safety regulations imposed on manufacturers.

While much is currently being done to avert deaths, we have by no means exhausted the possibilities for public action. Besides increasing the intensity of effort in each of the existing arenas, we could move on to limiting the carcinogen content of cigarettes, requiring auto passengers to wear seat belts, imposing strict regulations on the private ownership of handguns, and banning dangerous sports. Clearly, we are not doing everything possible to extend lives, and the principal explanation is equally clear: The policy objective of saving lives is in conflict with other important policy objectives. Public programs to reduce mortal risks are costly, either in terms of the economic resources they consume—resources which could be allocated to improve education, say, or increase private consumption—or in terms of infringing on individual liberty. There is in effect a tradeoff between the quantity and quality of life. This tradeoff facing public decision makers has its parallel in household decisions: Most people would surely acknowledge that they could find ways to reduce the health and safety hazards which endanger their lives, but only by incurring unacceptable costs of pleasures foregone. It is perhaps more troublesome to acknowledge this tradeoff in the public arena, and few public officials would openly admit their willingness to sacrifice lives for the sake of other valued objectives. But this symposium is motivated by the belief that the
policy tradeoff between the quantity and quality of life should be openly acknowledged, at least in discussions about public policy. In some circumstances public policy decisions will and should have the effect of eschewing opportunities to save some lives if the cost is too great. We could lower the national speed limit to forty, require all new houses to be made fireproof, and order everyone out to jog before breakfast, but common sense indicates otherwise.

If lifesaving is not to be given absolute priority over all other policy objectives, then what procedures should be used to identify those lifesaving projects which are worthwhile? What program areas have the greatest potential for worthwhile expansion of public efforts to save lives? How are Congress and the courts likely to deal with the central issue of providing public financing for medical treatment in the case of catastrophic diseases, and how can the competing objectives which impinge on this issue be reconciled? The six articles in this symposium represent path-breaking research on these and related questions. Rather than summarize the articles, a task better left to the authors themselves, we limit ourselves here to highlighting some of the common strands of thought which cut across the articles.

To determine whether some lifesaving program is worthwhile the costs have to be weighed, in some fashion, against the benefits. Two articles—Zeckhauser and Shepard's¹ and Acton's²—address this problem and complement each other nicely. Zeckhauser and Shepard divide the major questions concerning cost/benefit analysis of lifesaving programs into four areas: (1) prediction, (2) valuation, (3) accounting, and (4) the role of incentives and information.³ Acton, dealing with the second issue, critiques the two dominant schools of thought on how lives should be valued in public policy analysis and makes a strong case that the procedure actually used in government cost-benefit analyses is conceptually inferior to the alternative procedure. Zeckhauser and Shepard focus on the remaining three areas. They too are critical of current practices for evaluating lifesaving programs and suggest a number of analytical improvements that should prove to be of considerable value.

One of the several conclusions reached by Zeckhauser and Shepard is that the most common measure of the benefits of a lifesaving program—the number of lives it can be expected to save—is an inadequate measure as lives are never permanently "saved," but only prolonged. A program which delays the death of one hundred terminally ill cancer patients by one year is surely not worth as much as a program which saves one hundred youths from dying in auto accidents. Furthermore, it may be desirable to make some adjustment for the quality of the lives which are prolonged—a year of life for a person who is

³. Zeckhauser & Shepard, supra note 1, at 5-6.
severely disabled and in pain is surely not worth as much as a year of health. Zeckhauser and Shepard thus suggest that the benefit is to be measured in "quality-adjusted life-years saved." Vaupel uses this important insight to analyze the basic nature of the "death problem" in the United States. Vaupel argues that there should be greater emphasis in public policy towards prolonging life on reducing the incidence of early death—death before age sixty-five. While most people die after age sixty-five, most of the quality adjusted life years lost are due to deaths before this age. Under reasonable assumptions it can be demonstrated that it would be worth many billions of dollars to reduce the incidence of early death by even a few percentage points. Furthermore, there is considerable evidence that a substantial reduction in the incidence of early death is feasible. Early death differs in both causes and effects from the problems of late death, and the analytical distinction between the two appears to be a very helpful framework within which to evaluate public policy in this area.

Three papers in the symposium are focused on one particularly difficult policy arena—government programs to finance life-prolonging medical care. If such programs have any limitations or exclusions, then some people will die sooner than necessary simply for lack of necessary financial means. There are two troublesome aspects to this problem which do not arise from public decisions to economize on, say, road safety or biomedical research. First, to withhold life-sustaining medical care for financial reasons is an overt and painful contradiction of the important myth that life is priceless. Second, anything less than unlimited public financing of medical care may result in wealthy patients being provided with treatment which is at the same time denied to others. The inequity of this arrangement reinforces the impetus for unlimited public financing.

The response to these arguments, developed in the article by Havighurst, Blumstein, and Bovbjerg, is that a program to provide unlimited public financing for treatment of catastrophic disease would probably result in a considerable and accelerating increase in the fraction of Gross National Product devoted to medical expenditures, thereby reducing our ability to pursue other national objectives—including, perhaps, our ability to invest in more cost-effective programs to avert deaths. Havighurst, Blumstein, and Bovbjerg make a number of suggestions for designing catastrophic medical care financing schemes which would produce incentives for providers to economize while not seriously violating either the myth that life is beyond price or fundamental notions of equity. But these authors are not optimistic that Congress will

4. *Id.* at 11.
be able to resist effectively what they call the "lifesaving imperative" in designing institutions to ration medical care.  

Rettig's article provides a fascinating account of the politics of catastrophic disease financing. He recounts the ten year national debate which resulted in a congressional decision in 1972 to extend Medicare financing to all kidney patients in need of renal dialysis. Dialysis is an expensive procedure for extending the lives of kidney patients a few years; typically the patient is in poor health and largely incapacitated. The lack of consensus in the medical community, and the long delay in Congress before extending Medicare coverage, may suggest that the "lifesaving imperative" is not irresistible.

Blumstein argues in his article that the ultimate form taken by catastrophic disease programs may be dictated at least in part by the courts. The major questions yet to be resolved are (1) whether the Constitution requires the extension of public financing for catastrophic disease treatment, either because of an equal protection argument (why should hemophiliacs be denied the public assistance currently provided to renal patients?) or a more sweeping "right to life" type argument; (2) whether the Constitution places restrictions on the process by which a decision is made to discontinue treatment for a terminally ill patient. Blumstein argues, both here and in the Havighurst, Blumstein, and Bovbjerg article, that the courts should adopt a low profile with respect to such issues precisely because they are not an appropriate institution for balancing the claims of catastrophically ill patients against other claims against the nation's economic resources.

The papers in this symposium were originally presented at a conference sponsored by the Rockefeller Foundation. The twenty-two participants in this conference represented a variety of disciplines, including law, economics, political science, applied mathematics, public policy, medicine, ethics, business, and chemistry. Despite this diversity in background, there was a consensus that in many policy areas efforts to save lives conflict with other valued objectives, and that while life is precious it is not beyond price. Establishing intellectual and institutional frameworks for making such vital decisions which are sensitive to the claims of these competing objectives is a task of great difficulty and importance. We believe that this symposium is a substantial contribution to this endeavor.

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