The U.S. Health Delivery System: Inefficient and Unfair to Children

Loretta M. Kopelman† and Michael G. Palumbo‡

I. INTRODUCTION

What proportion of health care resources should go to programs likely to benefit older citizens, such as treatments for Alzheimer's disease and hip replacements, and what share should be given to programs likely to benefit the young, such as prenatal and neonatal care? What proportion should go to rare but severe diseases that plague the few, or to common, easily correctable illnesses that afflict the many? What percentage of funds should go to research, rehabilitation or to intensive care? Many nations have made such hard choices about how to use their limited funds for health care by explicitly setting priorities based on their social commitments.1 In the United States, however, allocation of health care resources has largely been left to personal choice and market forces.2 Although the United States spends around 14% of its gross national product (GNP) on health care,3 the United States and South Africa are the only two industrialized countries that fail to provide citizens with universal access.4 In contrast, the United Kingdom spends about 7% of its GNP on health care to give all citizens universal access to basic services5 and Canada uses around

† Ph.D., Professor and Chair, Department of Medical Humanities, East Carolina University, Greenville, N.C. 27858.
‡ Ph.D., Assistant Professor of Economics, Department of Economics, University of Houston, Houston, Texas, 77204-5882.
2 See Kilner, supra note 1, at 1067 (stating that the U.S.'s allocation decisions result from millions of individual clinical decisions and various market forces).
3 See Alan Maynard & Karen Bloor, Introducing a Market to the United Kingdom's National Health Service, 334 NEW ENG. J. MED. 604, 604 (1996) (displaying bar chart showing that United States spends 13.8% of GNP on health care).
4 See Brock, supra note 1, at 216.
5 See Maynard & Bloor, supra note 3, at 604 (stating that the United Kingdom's health care system "provides universal access" and displaying bar chart showing that the United Kingdom spends 7.1% of GNP on health care).
11% of its GNP to provide all citizens a single-tiered system of health care coverage.\(^6\)

Despite this great expenditure of funds, 15% of the U.S. population is uninsured (40 million),\(^7\) with 25% of them children (10 million);\(^8\) many of the children are less than three years of age.\(^9\) An estimated 14.2% of the children in this country are uninsured, a proportion that has steadily grown over the last decade.\(^10\) Moreover, many commentators do not expect insurance for children to improve as U.S. health delivery systems turn to market forces to solve problems of cost containment and limiting access.\(^11\) Children, as well as poor women, will likely bear the greatest share of cost-cutting efforts as, for example, more employers seek savings by providing health care insurance for employees but not their family members.\(^12\)

Reliance on choice and market forces has already left many children in the United States without basic health services.\(^13\) U.S. female children have the highest death rate among the world’s affluent countries.\(^14\) U.S. infant mortality, an indication of general health, stands eighteenth among the industrialized countries.\(^15\) In particular, children from poor and working poor families bear the worst of such inequalities.\(^16\) These children also suffer lost well-being and opportunities from poor health care.\(^17\) American children living in low-income homes get sicker more and stay sicker longer.\(^18\) They are two to three times more likely than children in high-income homes to be of low birth weight, to get asthma and bacterial meningitis, to lack immunizations and to suffer from lead poisoning; poor children are also three to four times as likely as other children to become seriously ill and get multiple ill-

---

\(^6\) See id. (displaying Canada’s percentage of GNP spent on health care). Maynard and Bloor also point out that Australia and Germany spend approximately 8.5% of their respective GNPs on health care. See id. France spends just over nine percent of its GNP on health care. See id.

\(^7\) See John E. McDonough et al., Health Care Reform Stages a Comeback in Massachusetts, 336 NEW ENG. J. MED. 148, 148 (1997) (stating that over 40 million Americans lack health insurance).

\(^8\) See Michael D. Kogan et al., The Effect of Gaps in Health Insurance on Continuity of a Regular Source of Care Among Preschool-Aged Children in the United States, 274 JAMA 1429, 1429 (1995) (stating that “between 9 million and 10 million” children under 18 years of age are uninsured).

\(^9\) See id. (stating that roughly one quarter of U.S. children under three years old were without health insurance for at least one month).

\(^10\) See McDonough et al., supra note 7, at 149.


\(^12\) See Standing up for Children, CONSUMER REP., JUNE 1996, at 9, 9.

\(^13\) See Steven Berman, An Unintended Consequence of Health Care System Reform Efforts, 274 JAMA 1472, 1472 (stating that over three million children lost private insurance coverage between 1991 and 1993); Kogan et al., supra note 8, at 1429 (stating that between nine and ten million children under 18 years of age have no insurance).

\(^14\) See Barbara Starfield, Childhood Morbidity: Comparisons, Clusters, and Trends, 88 PEDIATRICS 519, 522 (1991) (citing statistics that the United States has the highest rate of deaths in female children among Australia, Canada, Great Britain, Japan, Netherlands and Sweden).

\(^15\) See Standing up for Children, supra note 12, at 9.

\(^16\) See Starfield, supra note 14, at 521 (stating that low-income children are two to three times more likely to be of low birth weight).

\(^17\) See Berman, supra note 13, at 1472-73 (explaining that having a gap in insurance coverage affects access to and quality of needed medical care).

\(^18\) See id. (stating that children without a regular source of care, presumably caused by lack of health insurance, have higher rates for illness care).
nesses when they become sick.\textsuperscript{19} Moreover, the main health problems of children in
the U.S. arise from a failure to provide basic and inexpensive care for children, including their
allergies, asthma, dental pathology, hearing loss, vision impairments and many chronic
disorders.\textsuperscript{20}

Because the electorate generally perceives that children do not need more services, senior U.S. congressional staff and administrators predict health care entitlements for children will not change any time soon.\textsuperscript{21} The poorest people in our society, they note, have health-care insurance; by the year 2001, all children up to nineteen years of age living below the poverty level will be eligible for Medicaid, and under 1997 laws children up to fourteen years of age are covered.\textsuperscript{22}

Nevertheless, families earning more than the poverty level (currently around $14,000 for a family of four) do not generally qualify for assistance; many of the working poor cannot afford insurance.\textsuperscript{23} Explaining congressional reluctance to protect the millions of uninsured U.S. children, pundits note, "the maxim that has always been the bane of child health advocates was heard repeatedly [from congressional staff and administrators] as the central reason little more will be done for children's coverage: 'Kids don't vote.'"\textsuperscript{24}

In what follows, we argue that the U.S. health-delivery system's neglect of so many children is both unfair and economically inefficient. In Parts II and III, we show that it is unfair to children based on any of four important theories of justice: utilitarianism, egalitarianism, libertarianism and contractarianism. Agreement from such diverse approaches shows that when a society can afford to do so, it is unjust not to provide access to basic health care to all its children. In Part IV, we point out that because these four popular theories of justice offer conflicting strategies for allocation of resources, it may seem tempting to avoid difficult choices by relying on personal choice and market forces to solve allocation problems. However, Part V demonstrates that this market-based approach not only treats children unfairly, but also seems economically inefficient. A market system of allocation can be a highly efficient mechanism where the following three necessary conditions exist: first, competitive forces determine prices; second, information about product quality is easily available; and third, all benefits and costs of purchases accrue to buyers. Because these conditions do not exist in the context of health care generally, and especially for children's health care, strict market allocation will create inefficiencies in child health care. We discuss how certain characteristics of children's health care—external effects due to such factors as disease contagion and our imperfect information about medical needs, diagnoses and treatments—create inefficient medical outcomes according to a strict market allocation.

\textsuperscript{19} See Barbara Starfield, Child Health and Public Policy, in CHILDREN AND HEALTH CARE:
MORAL AND SOCIAL ISSUES 7, 9 (Loretta M. Kopelman & John C. Moskop eds., 1989); Starfield,
supra note 14, at 521.
\textsuperscript{20} See Starfield, supra note 14, at 519–22.
\textsuperscript{21} See Budetti, supra note 11, at 193.
\textsuperscript{22} See id. at 194.
\textsuperscript{23} See McDonough et al., supra note 7, at 149.
\textsuperscript{24} Budetti, supra note 11, at 194.
II. DISTRIBUTIVE JUSTICE

Philosopher David Hume identified two necessary, though not sufficient, conditions of a just distribution of resources. First, he argued that just allocation schemes require conditions of moderate scarcity. If a society enjoys great abundance, he argued, it does not need allocation schemes; with too little, allocation schemes become useless. With health care costs devouring increasingly greater chunks of the U.S. GNP, this precondition for a just allocation scheme articulated by Hume seems fulfilled. We cannot provide all potentially useful health care services to everyone who wants them.

Second, Hume argues that a just distribution of resources presupposes people to have limited benevolence for others. Hume based his moral theory on the assumption that most humans, when they are disinterested, had some limited concern for others. According to Hume, justice and compassion are not opposite, but interwoven. Hume observed that people generally respond compassionately to the plight, not only of our family and friends, but also of strangers caught in the web of disease, tyranny, war or famine. Our sentiments that something ought to be done to help them, argued Hume, create the possibility of systems of justice or moral communities. Hume did not think we could rely too heavily on our benevolence for strangers, and therefore regarded this benevolence as limited. For example, most people might willingly make room at the table for those who are hungry if they themselves are not deprived too much, but balk at having most taken from them. Hume argued that just allocation schemes need social support about people’s fair shares, and that these are not gained by people simply pursuing their individual self-interests.

This second condition also seems fulfilled, because most adults exhibit a degree of benevolence toward children and accept some responsibilities to help them. For example, the United Nations Declaration of the Rights of Children enshrined these sentiments and beliefs, endorsing these basic values, and underscoring their wide acceptance. These values also promote stability by helping to address inequalities of the “natural lottery” (the inequalities caused by nature such as health status) and of the “social lottery” (inequalities caused by social factors such as wealth, schooling or family). Children are not responsible for such inequalities affecting how they thrive and flourish. In many industrial countries, basic health care is regarded as important as basic education, necessary for children’s well being and opportunities. Adequate health-care services enhance children’s well-being

---

25 David Hume, Enquiries Concerning the Human Understanding and Concerning the Principles of Morals 183–92 (L.A. Selby-Bigge ed., 2d ed. 1966). These two conditions are not sufficient, but only necessary, because any just scheme must take into account such contingent features as social resources and priorities.
26 See id.
27 See id.
28 See id. at 188. Hume called Justice the cautious, jealous virtue because it was not based solely on the good heart, but concerns that all are treated impartially. See id. at 183–84. As we get to know the parties involved, and become interested rather than disinterested, we tend to lose our impartiality. See id. at 185–86.
29 See id. at 192–204.
32 There are, of course, other important moral and social values that affect the quality of children’s well-being or opportunities, such as guardians’ duties, rights and choices. Guardians’
and opportunities by treating diseases, in some cases returning children from the brink of death or permanent disability, to full and healthy lives. For example, without antibiotics, children often die of pneumonia, diphtheria and other common childhood diseases. These services also restore or maintain compromised function, avert or ameliorate suffering, and prevent disease or disabilities through interventions or counseling. Basic prevention, diagnosis, treatment, rehabilitation and emergency services not only make children's lives better, but profit society with healthier and more productive citizens.

III. A CONSENSUS FROM FOUR THEORIES OF JUSTICE

Current allocation of health services in the United States is unfair to children based on any one of four major theories of justice: utilitarianism, egalitarianism, libertarianism and contractarianism. We discuss how versions of each theory support provision of basic health care for children when a society can afford such services.33 This agreement shows that the failure to provide all children with basic services is unjust when a society can afford to do so. As a matter of justice, we should redistribute goods, services, and benefits more fairly to children in order to provide them with basic health services. Basic health care services promote children's well-being, enhance their opportunities in fundamental ways and correct some inequities due to the natural and social lotteries. Children who are sick cannot compete as equals and thus are denied equality of opportunity with other children.

Theories of justice offer different guidance about how to allocate goods, services and benefits. Proponents have used these theories to determine children's fair share of health care funding in relation to adults (intergenerational allocation) and to set priorities for funding within children's health care programs (intragenerational allocation).34 Each theory addresses problems concerning the kinds of goods and services that should be provided as a matter of justice and how to choose from among programs when not all can be funded.

We should make some caveats regarding our discussion of these theories, however. First, there are many variations and we focus briefly on a few important representatives of these positions. Second, a theory of justice offers general guidance, but other factors affect actual distributions, including the amount a society can afford to allocate for health care in relation to other social commitments, such as education. Additionally, competing societal values affect actual allocation. For example, society must weigh the importance of ensuring universal access against the values of personal responsibility and freedom of choice. Third, difficulties arise in defining what services are basic.35 A broad consensus exists, however, that this encompasses immunization for common diseases, emergency care and treatments for allergies, asthma, dental pathology, hearing loss, vision impairments and many chronic disorders.36 These conditions are often easily preventable or correctable at

33 See id. at 363–67. Portions of this section were adapted from this work.
34 See id.
35 For fuller discussion see generally Brock, supra note 1 (discussing ethical issues in mental health care priority setting); Norman Daniels, Rationing Fairly: Programmatic Considerations, 7 BIOETHICS 224 (discussing four fairness problems associated with rationing).
36 See, e.g., Brock, supra note 1, at 216; Kopelman, supra note 31, at 357, 363 (citing Starfield, supra note 19).
low cost, making profound differences in the well-being and opportunities of children.\textsuperscript{37}

A. UTILITARIANISM

In one well known version of utilitarianism, philosopher John Stuart Mill\textsuperscript{38} argued that a just allocation provides the greatest good to the greatest number of people; the utility of justice was so great, he held, that it is among the most fundamental moral principles. According to Mill, we should not just consider the utility of isolated acts, but also the rules of conduct that, if adopted and adhered to, maximize utility. Actions are right insofar as they fall under such a rule.

In their efforts to maximize utility for the greatest number in accordance with just rules, utilitarians should seek to prevent or cure the most common illnesses; they adopt programs that help many rather than few persons, and generally use funds where it will have the greatest impact for most people. For example, utilitarians should resist funding expensive organ transplantations that help relatively few persons for a short time if such transplantations sidetrack programs that could help many people.

Relatively inexpensive interventions can treat many common pediatric problems, including vision impairments, hearing loss, dental pathology, allergies and asthma as well as the variety of chronic disorders that come in the aggregate and cause considerable, functional impairment.\textsuperscript{39} Education provides one of the least expensive and most beneficial interventions. Children can learn the benefits of exercise, a good diet, prevention of teenage pregnancy and avoidance of alcohol, tobacco and harmful drugs.\textsuperscript{40} Utilitarians, therefore, should favor providing such health care for children because it greatly increases their well-being and opportunities. Education is socially useful and cost-effective because it can prevent later costly illnesses and benefit the current generation of adults who, when aged, will need to be supported by a healthy, stable and productive work force.

Utilitarian theory may justify preferential consideration to children. Interventions that benefit both children and adults in similar ways generally offer children the most years of benefit. These added years of benefit increase the net good, and thus, utilitarian theories may justify some preference toward children. For example, Daniel Callahan believes that the young have a stronger claim to health care than the old and that the young should be given priority; the health care system should see as its first task helping young people become old people, and then only if money is available, helping older people to become older still.\textsuperscript{41} According to his view, medicine should give its highest priority to the relief of suffering rather than the conquest of death.

Both cost-benefit analyses (where costs and benefits are reduced to monetary considerations) and cost-effectiveness analyses (which consider in addition to

\textsuperscript{37} See Kopelman, \textit{supra} note 31, at 363 (discussing resource allocation for children's health).

\textsuperscript{38} See JOHN STUART MILL, UTILITARIANISM 22 (Oskar Post ed., 1957) (1863). The following is a summary of points made in this work, especially Chapter II, \textit{What Utilitarianism Is}.

\textsuperscript{39} See Starfield, \textit{supra} note 14, at 525.

\textsuperscript{40} U.S. DEP'T HEALTH \& HUMAN SERVS., PUB. NO. 91-50212, HEALTHY PEOPLE 2000: NATIONAL HEALTH PROMOTION AND DISEASE PREVENTION OBJECTIVES 251 (1994).

monetary costs, the person’s qualify of life and number of healthy years) generally favor children.42 Advocates have attempted to assess cost-benefit standards by setting priorities through quality-adjusted life years (QALYs) to measure the number of years someone will likely live after the intervention multiplied by a percentage reflecting the quality of life to be experienced during those years;43 when children benefit longer than adults from an intervention, they have greater claims to that intervention.

Choosing among children’s programs for funding, utilitarians should assess net benefit for the community of children. Utilitarians should favor funding routine care, mass screening and prevention programs that help many children rather than the development of costly therapies that help few children. Consequently, utilitarians would likely resist using state funds to give otherwise normal, short children growth hormone for many years, at a cost of many thousands of dollars a year, to add several centimeters or inches to their adult height. Utilitarians, however, might permit private insurance or payment (in a multi-tiered health care system) for these and other services if it increased or did not diminish the net good.

Critics question utilitarianism’s presumption that society can accurately calculate what is best for the greatest number.44 Moreover, critics argue that whole groups could be excluded from beneficial health care for the sake of the common good; people with expensive or rare conditions, and those with illnesses that are stigmatizing, might be excluded from care.45 Utilitarians might respond that we would suffer from such exclusions, thus showing that this is not a good option even using utilitarian calculations. This assumes, however, that enough people would know about the exclusions and be distressed enough to alter the calculation. Sympathy for utilitarianism may depend on beliefs about whether we can make utility calculations, and whether a theory is acceptable if it permits us to exclude some groups for the common good regardless of the results of the utility calculation.46

Rule utilitarians defend a version of utilitarianism clarifying the role of rules in assessing utility and arguing that, properly understood, utility prohibits such unfair exclusions of individuals or groups; we should adopt rights and justice principles because they are useful, and unjust exclusions undercut the utility of these rights and principles for all.47 Even if it is cost-effective or politically expedient in the short run to exclude a particular person or group, such an exclusion undercuts something more important: fair rules. According to rule utilitarians, a rule requiring the provision of basic, affordable health care for all children is just because of the utility to them. For example, excluding certain children, such as infants with AIDS, from health care services may save some money in the short run. However, defenders of rule utilitarianism would probably respond that excluding them is neither a useful nor just rule. That is, adapting and adhering to the rule that all children should receive basic services is more useful to society, and thus more just, in the long run than

---

42 For a fuller discussion see John Mickle et al., Allocating Healthcare by QALYs: The Relevance of Age, 5 CAMBRIDGE Q. OF HEALTHCARE ETHICS 534, 535 (1996).
43 See Kilner, supra note 1, at 1073.
44 See Dan W. Brock, Utilitarianism, in AND JUSTICE FOR ALL 217, 219 (Tom Regan & Donald VanDeVeer eds., 1982).
45 See Brock, supra note 1, at 221–23; Kopelman, supra note 31, at 363–64.
46 See Brock, supra note 44, at 219–20.
adopting the rule to exclude a few children to save money. Accordingly, the rule that all children should receive basic care is vindicated because the rule is useful and making exceptions is less useful.

B. Egalitarianism

Egalitarians attempt to resolve allocation problems through giving similar benefits, goods, and services to all on the same basis. When employed as a theory of justice, egalitarianism directs us to equalize, as much as possible, everyone's objective, net well-being up to a certain minimum level. Most of us do not want dialysis treatments because we do not have kidney disease, but we would want access to it if we needed it. As a condition of justice, egalitarians do not require similar treatment for everyone, but equal access for all under similar conditions. Accordingly, using their theory, egalitarians would judge it to be unfair—for example, if all citizens over sixty-five in the United States received free diabetes and asthma treatments, but children did not. On this view, health care providers can sometimes use age to determine who gets services when age affects outcomes. People over eighty or under three years of age, for example, might be excluded from consideration for some surgery because they are unlikely to survive.

According to egalitarians, all similarly situated persons should be able to receive similar goods, benefits, or services. In fairness, the advantages of good health care should be distributed on an equal a basis as possible. If we allow some normal, short children to have growth hormone for many years at a cost of many thousands of dollars a year, then all who are similarly situated should have access to similar services. For expensive or scarce resources, egalitarians, such as James Childress and Robert Veatch, favor lotteries so all those similarly situated have an equal opportunity and are recognized as having equal worth. Egalitarians favor lotteries among persons who meet impartial standards because it acknowledges the value of each person to gain fair access to costly or scarce benefits, goods, or services.

Currently, children do not have the same access to health care in the United States as other age groups; many programs—such as Medicare—are set up to favor older groups. According to egalitarians, this preferential treatment is unjust. Unlike utilitarians, egalitarians would probably not support an overall preferential consideration of certain age groups, given their principle of equality. However, egalitarians may favor a particular age group who is likely to benefit more from an intervention based on impartial considerations. For example, interventions benefiting both children and adults may offer children the most years of benefit and thus justify giving it to those who can benefit longer. This preference stems from equal consideration of everyone's anticipated needs and benefits, however, and not, as in utilitarianism, to increase the net good.

Egalitarians struggle with the problem of the "bottomless pit"—some people's needs are so great they could consume most of the resources of our health care sys-

---

49 See Kopelman, supra note 31, at 364.
50 See id. (citing Robert M. Veatch, The Foundations of Justice: Why the Retarded and the Rest of Us Have Claims to Equality 123-36 (1986); Childress, supra note 48, at 347-54).
51 See Kopelman, supra note 31, at 364-65.
tem to try to make them equal to others in some way. Veatch tries to defend a commitment to those who are so disadvantaged they could use endless resources, while placing limits on their claims.52

Another problem for egalitarianism is clarifying what kind of equality is important. In what way are we supposed to make people equal? On the one hand, if egalitarians emphasize access to the same benefits, goods and services, age bias and discrimination could emerge through favoring a particular age group's need or preference for certain health care. For example, treatment for prostatic hyperplasia only helps adults; other care helps adults much more than children, such as treatments for heart disease, lung cancer or terminal care because children rarely get these diseases. Some funding choices could unfairly exclude or restrict access to groups, especially for people afflicted with stigmatizing conditions, such as sexually transmitted diseases. As with utilitarianism, whole groups could be unfairly excluded if, in the interests of costs or popular prejudices, policy makers decide that none will have treatments for certain conditions.

On the other hand, if equality is understood in terms of outcomes, age bias and discrimination can be introduced through the method of collecting and presenting data.53 Barbara Starfield has shown how this can happen. In the United States, data collection, she notes, focuses on life-threatening illnesses and death to determine the health of different populations. Because relatively few children have such morbidity or mortality in comparison to adults, the data gives an impression that children are generally healthy. This impression, however, is a consequence of how the data are collected. Most children's needs stem from problems that are not life-threatening illnesses, she argues, but nevertheless have a profound effect on health (dental problems, vision impairments, allergies and asthma.) Moreover, although the death rate for children in the United States is low when compared with adults, American children have the highest death rate relative to other affluent countries.54 Looking at certain outcomes promotes an unfair view of childhood health and morbidity. Programs based on such data can create unjust age bias against children. Thus, treating everyone as equals creates problems if the measures of equality favor certain groups.

The willingness to defend egalitarianism depends, in part, on whether people believe it is fair to restrict people's choices by insisting that no one can have health care that cannot be provided to all on the same basis. If people can squander their assets on frivolous entertainment and flashy clothes, it seems strange to insist that they cannot spend it on marginally beneficial, exotic or expensive health care for their families. Some egalitarians want single-tiered systems and note that rich people dread single-tiered systems, because it means that they cannot have their usual advantages. Other egalitarians, however, modify their view to permit people to use their discretionary resources as they wish for additional, exotic or even marginally beneficial care.

C. LIBERTARIANISM

Libertarians generally agree that the state should not limit the liberty of competent adults except to prevent harm to third parties. Libertarians permit state coercion

---

52 For further discussion on how they try to do this and criticisms see Veatch, supra note 50, at 189; Brock, supra note 1, at 221.
53 See Starfield, supra note 14, at 520.
54 See id. at 520–21.
to prevent theft, murder, physical abuse and fraud, to enforce contracts, or to punish competent people for harming others. The well-known defender of this position, Robert Nozick, follows the 18th-century philosopher John Locke in maintaining that people's right to their fairly obtained property is so fundamental it sets both the proper functions of the state and the moral interactions among individuals; according to Nozick, people are entitled to their holdings and may dispose of them as they wish. States should not use coercive measures to take or redistribute people's wealth in accordance with some pattern of distribution that examines outcomes (such as utilitarianism or egalitarianism). Libertarian philosopher H. Tristam Engelhardt argues that adults should be free to fashion social arrangements from their ideas of compassion, justice and solidarity. People are not legally obligated to be charitable, he argues, but acts of charity are praiseworthy and should be encouraged.

Libertarians view children's health care as the responsibility of their guardians, not the state. Under a libertarian model, market forces and choices about how to use their own money, should shape the kind of health care people select for themselves and their children. If parents want to pay for special services, such as growth hormone or repeated organ transplants, on this view, they should be permitted to do so. Engelhardt argues further that societies have limited moral authority to restrict people's choices, including who is entitled to health care of a certain kind. The government does not, for example, have "the moral authority to forbid consensual acts among agreeing adults, such as agreement to sell an organ." Sympathy for libertarianism depends on whether one believes libertarianism offers enough protection for people, especially for children and impoverished or incompetent adults. Arguably, libertarianism disproportionately benefits the wealthy and powerful; because most children are neither, it might create an age bias against children. Libertarians argue that competent adults should pay their own way, but this presupposes that we know when people really pay their own way. Typically, health care insurance gives people access to institutions heavily subsidized with public money. People who "pay their own way" may pay just a bit more for a great deal more in the way of services. Those who cannot pay more are unfairly closed out. Libertarians might agree that separate institutions should be set up where people truly pay their full share, even if that would mean few could afford such added care.

Some libertarians hold the line and insist that guardians are responsible for children, but others permit state intervention in limited circumstances. For example, such libertarians usually favor special state protection for children who have irresponsible guardians or where parents endanger, neglect or harm their children. Un-

55 See Buchanan, supra note 47, at 10–13.
56 See Kopelman, supra note 31, at 365; see also John Locke, TREATISE OF CIVIL GOVERNMENT 18–33 (C.L. Sherman ed., 1937) (1689); Robert Nozick, ANARCHY, STATE AND UTOPIA 120–46 (1974).
58 See Engelhardt, supra note 57, at 10.
59 See Kopelman, supra note 31, at 365.
60 For example, Part B of Medicare is optional, yet is heavily subsidized with public funds for those who can afford it.

der these circumstances, the state provides children with a “safety net” of basic health care and social services.61

At the same time, libertarians oppose as unjust redistributing wealth and benefits to competent adults. Hence, libertarians would disapprove of a system like the U.S. Medicare program, providing many social and health benefits to competent—even wealthy—adults but not to children.

D. CONTRACTARIANISM

According to contractarians, fair distributions of social goods occur when informed and impartial people agree on the procedures used for distribution. The well-known contractarian philosopher, John Rawls, defends contractarianism in A Theory of Justice62 and Political Liberalism.63 Rawls contends that to form stable and just societies, citizens must build a consensus that merits endorsement by rational and informed people of good will.64 Rawls argues that this entails commitment to three principles of justice.65 First, each person is to have an equal right to the most extensive system of equal basic liberties compatible with a similar system of liberties for all. Second, offices and positions are to be open to all under conditions of equality of fair opportunity; persons with similar abilities and skills are to have equal access to offices and positions. Finally, social and economic institutions are to be arranged so as to maximize benefits for the worst off. These principles are ordered lexically such that the first, or greatest equal-liberty principle, takes precedence over the others when they conflict; and the second, the principle of fair equality of opportunity, takes precedence over the third, the difference principle. Rawls does not specifically address health care as a right in his articulation of the basic structure of a just society. This may be because Rawls’s society did not have any health care benefits to distribute.

Building on Rawls’s work, Norman Daniels argues that a just society should provide basic health care to all, but redistribute health care goods and services more favorably to children.66 The moral justification for giving children access to basic health care, argues Daniels, rests on social commitments to what he and Rawls call “fair equality of opportunity” (or affirmative action). Health care needs are basic insofar as they promote fair equality of opportunity.67 In relation to other social goods, children’s health care is especially important because diseases and disabilities inhibit children’s capacity to use and develop their talents, thereby curtailing their opportunities. For example, children cannot compete equally with their peers if they are sick or cannot see or hear the teacher. Thus, a society committed to a fair equality of opportunity for children should provide adequate health care. According to Daniels, assessing whose needs are greatest requires objective ways of characterizing medical and social needs;68 the ranking of needs helps determine what is basic and who profits most from certain services. Using the difference principle—maximizing

---

61 See Kopelman, supra note 31, at 366.
63 JOHN RAWL, POLITICAL LIBERALIS (1993) [hereinafter RAWL, POLITICAL LIBERALIS].
64 See RAWL, A THEORY OF JUSTICE, supra note 62, at 11–12.
65 See RAWL, POLITICAL LIBERALIS, supra note 63, at 291.
67 See id. at 41–42 (distinguishing "positive" and "negative" notions of equal opportunity).
68 See id. at 24–26.
benefits for the worst off—free, additional service might be provided to the poorest children so they could compete more effectively with those from more affluent homes. Unlike utilitarians, who advocate allocating resources based on the greatest overall benefit to the health of the greatest number of children, contractarians try to give children with similar talents the same opportunities to flourish so they can compete as equals.69 The current U.S. system fails to do this, and even fails to provide millions of children with basic health care.

Some question whether contractarianism is a genuine theory of justice, regarding it only as a method for arriving at ethical principles, and not as an alternative to utilitarianism, egalitarianism or libertarianism.70 Accordingly, those who think it generates a unique theory need to clarify how it has a distinct content. In addition, it is hard to specify what is meant by people’s normal opportunity range, or how to apply the fair equality of opportunity rule. It seems to suggest the unsatisfactory consequence that we should fund treatments, however exotic and costly, offering a chance for the most disadvantaged to improve their normal opportunity range irrespective of the needs of the many. (This is a problem similar to egalitarianism’s bottomless pit problem.) It would be a problem if, on this view, gifted children could be denied opportunities to excel, so others can enhance their normal opportunity range or be brought to roughly the same level of well-being and opportunities of average children. Another problem is that contractarianism presupposes, like utilitarianism, that we have a fair and objective system for ranking which medical and social needs are greatest and who benefits most from given services.71 It is unclear if such a comprehensive and objective ranking is possible. Such “objective” choices about appropriate or useful programs might be heavily mixed with social and personal biases.

IV. DIFFERENT THEORIES CREATE HARD CHOICES

Based on these four important theories of justice, the U.S. health delivery system is unfair to children. Some formulations of each of these theories, moreover, support the claim that when a society can afford to do so, it should provide children with basic health care services to promote their well-being and opportunities. Agreement from such widely divergent positions serves as a powerful indictment and proof that, as a matter of justice, the U.S. health care system should redistribute benefits more fairly to children to provide them with basic health care services.

As we have reviewed, these theories differ substantially in how to set priorities in the allocation of health care. Although each theory has intuitively plausible features, they compete, making it difficult to use them all to steer policy. Part of the problem with health care reform is that these entrenched and important theories of justice offer different guidance in our pluralistic society. Generally, utilitarians seek to do what is best for the greatest number; egalitarians, what promotes equality; libertarians, what maximizes liberty; and contractarians, what supports an impartial, procedural consensus. Each theory ranks important values differently, making it hard to choose among them. Politicians may rely on market forces and personal

69 See Kopelman, supra note 31, at 366; see also Daniels, supra note 66, at 32–35 (discussing disease and opportunity).
70 See Vecht, supra note 50, at 14.
71 See Rawls, POLITICAL LIBERALISM, supra note 63, at 126. For further discussion in the utilitarian context, see Brock, supra note 1, at 219–21.
choice as a means to avoid such difficult choices. They can step in as the compassionate and responsible regulators, when needed, rather than upset some groups by setting priorities between these values.\textsuperscript{72}

Among the most difficult issues are how should we understand benefits, and whether we seek larger benefits for a few, or smaller benefits to many. What should be prioritized and how? Should we favor primary, secondary or tertiary treatments, and how should we apportion resources to preventative, primary or emergency care, and so on? What priority should other things affecting health have, such as food, shelter and clean water? What priority should be given to the low costs or ease of treatments or to the severity of a disease? If the worse-off are always favored, then the resources could be totally consumed by the most ill and worst off (the bottomless pit problem) and people with mild, easily treatable conditions may get little attention. Furthermore, if we rush to rescue the most ill, others may have to wait until their condition becomes desperate before they receive treatment. It is difficult, moreover, to decide who is the worse-off and what is owed to them. Finally, disputes arise over the ranking and role of important values such as the relief of pain and suffering, the preservation of life, extension of life and provisions for the comfort and dignity of the dying.\textsuperscript{73}

If society agreed on a tenable theory of justice, it could help resolve these problems. Any one of the four theories of justice discussed above results in a system more favorable to children. Solving these disagreements over health care allocation entails a social ranking of the values embodied in these theories. Partly to avoid these choices, and a contentious public debate, the United States has relied heavily on personal choice and market forces.\textsuperscript{74} We believe that this solution is not only unfair to children but likely to be economically inefficient.

V. EFFICIENCY AND MARKET FORCES

The conditions under which markets are efficient are well understood. They were outlined by Adam Smith\textsuperscript{75} and formalized by Paul Samuelson.\textsuperscript{76} First, efficient markets require that the prices of goods be determined by competitive market forces. Second, all consumers must have access to all relevant information about the quality of available items. Third, all costs and benefits of purchased goods must accrue to their consumers.\textsuperscript{77} These requirements are probably never perfectly fulfilled, but the

\textsuperscript{72} See DANIELS, supra note 66, at 221-29; Brock, supra note 1, at 217; Daniels, supra note 35, at 228-29.
\textsuperscript{73} See DANIELS, supra note 66, at 14-15; Brock, supra note 1, at 219-21; Daniels, supra note 35, at 228-29.
\textsuperscript{74} See Brock, supra note 1, at 218-19; Kilner, supra note 1, at 1073.
\textsuperscript{76} See PAUL A. SAMUELSON, FOUNDATIONS OF ECONOMIC ANALYSIS (1947).
\textsuperscript{77} Indeed, this proposition, commonly referred to as "The Fundamental Theorem of Welfare Economics," is one of the basic tenets of neoclassical economic theory. The allocation of resources is said to be (Pareto) efficient if (and only if) improving any member's welfare necessarily reduces the welfare of any other member of society. Thus, by definition, there does not exist a unanimously preferred allocation to an efficient allocation of resources. See generally id. at 212-17.

This section of the article draws heavily on the seminal work of Kenneth J. Arrow, Uncertainty and the Welfare Economics of Medical Care, 53 AM. ECONOMIC REV. 941 (1963). We wish to acknowledge Andrew Austin and Chinhui Juhn for valuable comments on a previous draft of this sec-
more each is met, the more efficient the market; the less any one of them is met, the less efficient the market. For example, the less relevant knowledge buyers and sellers have, the less they can make prudent decisions about the costs and benefits to them of certain exchanges.

In a now classic economics paper, Kenneth Arrow applies these fundamentals of economic theory about market efficiency to health care. Because the market for health care is unlikely to satisfy these conditions, Arrow concludes that market allocation of health care resources will not be economically efficient, in general. In this section, we apply Arrow's general analysis to the context of children's health care. We argue that a market based approach cannot operate efficiently because of external effects and imperfect information in the provision of health care generally, and in pediatric care particularly.

A. EXTERNAL EFFECTS

An activity exhibits external effects when its benefits or costs accrue to uninvolved third parties. In many cases, the actions or omissions of others affect our health status so we are not responsible for our illnesses and disabilities. Contagion of disease or other people's choices affect an individual's health status. Thus, even people who make responsible choices for their children and themselves can become ill through contact with others who do not. Irresponsible parents who let their sick children attend school may infect the children of responsible parents. The gradual acceptance of the germ theory in the nineteenth century, and subsequent awareness of the external effects regarding diseases, resulted in the public health movement at the turn of the twentieth century. Society ceased viewing epidemics of deadly or inconvenient maladies as punishment of irresponsible or ignorant people who failed to take certain precautions. Doctors learned that germs crossed from one neighbor to another causing illnesses by means of mosquitoes, water supplies and casual social contacts.

Enlightened self-interest, therefore, prompted nonmarket measures to ensure some health care for all persons because of the inability of market forces to do so. The inefficiency of the market allocation of health care, then, arises because society has a compelling interest in both protecting free choice and in keeping everyone healthy. Because people have free choice, they can send their sick children into public places and make others ill. Contagious people are more likely to make others ill. An irresponsible individual may not care if he or his child are immunized against

78 See Arrow, supra note 77, at 941-42.
79 See Rosen, supra note 77, at 90-91.
80 See Arrow, supra note 77, at 944.
82 See id. at 189-90.
83 See id. at 59.
84 For further discussion of these points, see Hudson, supra note 81, at 63.
85 See id. at 169-92 (describing how society's conception of disease dictates public health disease prevention measures). "[The] idea developed that society collectively had a special responsibility ... in the protection of the common health." Id. at 170-71.
86 See id. "[A] proper blend of governmental intervention and restraint could lead human beings to do what was best for themselves, individually and collectively." Id. at 178.
a contagious disease; but the rest of us want them protected for our own safety. Self-interested individuals respond to personal, rather than social, costs and benefits when deciding whether to immunize. Individual choice and market forces, then, do not produce efficiency in health care. As a consequence, society reaches less than the efficient level of contagious disease prevention.

Children are particularly susceptible to contagious infections and, thus, are especially prone to contract casually communicable diseases that could be (virtually) eliminated through mandatory immunization. As an alternative strategy, parents may try to protect their children by limiting access to other (potentially nonimmunized) children. However, restricting peer interaction also is likely to be inefficient (and thus a loss) relative to allowing greater social access to immunized peers. The efficient allocation of health resources involves vaccinating all children for whom the social benefits exceed the immunization costs. Both the social benefits and costs of potential vaccines will vary by disease and, perhaps, factors specific to different groups of children. Thus, economic efficiency does not necessarily involve vaccinating all children against all communicable diseases (even if vaccines exist). Rather, the third condition for market efficiency fails to be satisfied when some diseases are passively contagious. As a consequence, pure market-based immunization policies result in greater than the efficient level of infections in society. If enlightened self-interest sets the best source for disease protection, we will not rely solely on individual choice and market forces. Alternative social policies, such as mandatory vaccinations for school attendance, evolved to overcome market failures in the presence of external effects due to communicable diseases.

B. IMPERFECT INFORMATION AND UNCERTAINTY

As we noted earlier, a necessary condition of an efficient market is the free flow of all salient information so that buyers and sellers can assess benefits and costs to them of their choices. Efficient operation of markets and the competitive price system requires the availability of all relevant information to potential consumers and sellers of a product. Arrow identified two different types of information problems that cause inefficiency in health care markets. We discuss each of these in turn.

I. Product Uncertainty

Arrow argues that, from a consumer's—or patient's—perspective, "uncertainty as to the quality of the [health care] product is perhaps more intense than in any other important commodity." Most consumers cannot grasp the highly sophisticated and specific nature of medical knowledge, thus creating this uncertainty. Though consumers often purchase items for which quality is somewhat random, they usually can learn from their past experiences or seek expert and impartial advice. Although personal experience mitigates the problem to a large extent for purchases of cars, for example, it cannot be routinely used to evaluate health care needs or services. Unable to predict the future, people generally do not know what accidents

87 See ROSEN, supra note 77, at 94.
88 See id. at 52.
89 Information imperfections and health uncertainties seem equally relevant for the consideration of child or adult patients, though the rest of our paper focuses on the former group.
90 Arrow, supra note 77, at 951.
or illnesses will befall them or their children, so they cannot be prudent purchasers. They do not know what services they will need, or what information will be relevant. Parents do not know if children will need extensive and expensive surgeries, or none at all. Moreover, even when people know what information is relevant about a given condition, they have difficulties getting reliable data about the benefits of alternative therapies or the quality of care. Even physicians may have difficulty getting the information they need. Obviously, people do not want to make mistakes based on poor information, because errors can result in disease, disability or even death. Thus, patients cannot be expected to gain the sort of knowledge that will ensure prudent purchases; they cannot fully protect themselves from receiving inappropriate medical treatments or even from receiving treatments from insufficiently trained medical personnel.

The patient-physician relationship, therefore, bears almost no resemblance to the typical buyer-seller relationship, such as that governing the purchase of a tricycle. According to Arrow, professional ethical standards of conduct governing the patient-physician relationship evolved partially to compensate for a market failure resulting directly from the inability of consumers to guard themselves from receiving inappropriate medical services or treatments due to the complex nature of medical knowledge. When all relevant information is readily available to consumers, sellers need only consider their own interests (profit motives) when negotiating business. However, patients’ inability to obtain good information undercuts a fundamental condition needed for market efficiency in the provision of health care: the patient-consumer does not have the relevant information.

Most important, Arrow argues that a patient’s expectations concerning professional conduct stem from the fundamental information problems facing consumers in the health care market. Thus, Arrow identified from a purely economic perspective what is unique about professional relationships, such as those between lawyers and clients or physicians and patients. Professionals profess they will serve as advocates, and are morally bound by their commitments. For example, pediatricians commit themselves to taking good care of children whether or not the children’s parents are rich or knowledgeable. Thus, professional associations, which serve to guarantee the limited self-interest of their members, evolved as a solution to market failure in the presence of information asymmetries between specialists and their clients. “Professionals” recognize the complex nature of medical decisions and the implication that patients cannot be expected to shop for the most appropriate treatments undertaken by the most qualified doctors. According to Arrow’s economic analysis, however, pediatricians could (in fact, should) cease to act as patient advocates if parents could access and apply all information relevant to decisions about their children’s health.

Thus, according to this neoclassical economic analysis, contemporary changes in the traditional patient-physician relationship, which weaken doctors' roles as patient advocates, do not necessarily improve the efficiency of health care allocations. Nonetheless, some libertarian commentators, such as E. Haavi Morreim, infer that

---

91 See id.
92 See id. at 940.
93 For further discussion, see EDWARD D. Pellegrino & DAVID C. THOMASMA, THE VIRTUES OF MEDICAL PRACTICE 31-48 (1993).
changing economic realities have altered the moral and professional commitments owed by physicians to patients.\textsuperscript{94} She writes:

In some respects, physicians' duties must be conceived much more modestly than in the past . . . . [P]hysicians are not obligated to commandeer others' resources, to sacrifice their own interests without limit, or to take upon themselves all their patients' difficult decisions . . . . In other respects, however, physicians' responsibilities must grow . . . [to include] economic advocacy, economic disclosure and a close scrutiny of the institutions and economic structures with which they affiliate.\textsuperscript{95}

Noting other changes for the doctor-patient relationship, Morreim states, "It is now time to expect [competent] patients to exercise responsibility for his own choices not only over individual medical decisions, but also over other matters, such as lifestyle choices and selection of his health care coverage."\textsuperscript{96} Holding patients responsible for choices about their medical care and health care plan is, she writes, the most "acceptable way to bring rationing into the clinical setting."\textsuperscript{97}

However, Morreim ignores some distinctive features of efficient markets, and minimizes the differences between health care and other goods. Specifically, she overlooks important information obstacles that prevent patients from reaching efficient outcomes. Arrow's economic analysis, however, suggests that fundamental changes in the flows of information to consumers, which would give them the freedom to make their best choices without relying heavily on professional advice, is required for physicians to accept a lighter advocacy role. For example, if parents are as well informed as pediatricians about how to treat their children's illnesses, pediatricians would have few duties to inform them about their options. It is not because lollipops are cheap and surgery is expensive that grocers have weaker professional responsibilities than physicians; it is because consumers can fully be expected to learn how to purchase the right quantity and quality of lollipops easily. In contrast, given the state of medical information transmission, patients have a harder time deciding whether, or what type, of surgical procedure is most appropriate in their particular cases. Perhaps the most important deviation of the health care market from efficient market conditions is that "information, in the form of skilled care, is precisely what is being bought from most physicians."\textsuperscript{98} In this case, market inefficiency arises from the "nonmarketability" of medical information.\textsuperscript{99} Parents want physicians to help them decide, for example, what kind of treatments are best for their child's infection. Morreim's analysis, however, merely presupposes personal choice and market forces will lead to efficiency because consumers will have enough information to make prudent choices. Professionalism with its moral duties of advocacy, however, arises because consumers need the benefits of knowledge they cannot normally attain.

\textsuperscript{94} See Morreim, supra note 57, at 148.
\textsuperscript{95} Id.
\textsuperscript{96} See id. at 2.
\textsuperscript{97} Id. at 144.
\textsuperscript{98} See Arrow, supra note 77, at 946.
\textsuperscript{99} See id.
2. Uncertain Incidence of Illness

Another informational problem causing market inefficiency in health care concerns people’s inability to predict the medical services they will need. The unpredictable character of our disabilities, maladies and other health needs weakens market efficiency in the provision of health care. Unlike routine purchases, such as tricycles, donuts and lollipops, people cannot predict what health services they will need, perhaps, with the exception of preventive services. Health care services of no use to an individual yesterday, may be of life and death importance to her today. Insurance policies represent a market response to individual risk-bearing. In principle but not in practice, this market response could achieve economic efficiency. Risk-averse individuals clearly prefer paying a fixed insurance premium in return for coverage of all necessary (and randomly occurring) medical expenditures in the future (perhaps, above a deductible amount). Furthermore, if, and only if, insurance providers calculate exactly the correct distribution of medical expenditures for each individual customer, then they could offer the right policy to her at the right price.

In an ideal world, Arrow argues, insurance markets can solve this particular type of informational problem to attain an efficient outcome, ignoring all other market imperfections. For example, families with children who have cancer or other costly, chronic disease could be asked to pay higher premiums because they are more costly to insure. However, Arrow recognizes that insurance markets do not operate efficiently in the real world for a number of reasons. For example, if health risks vary among individual consumers—say, due to genetic disposition to some illnesses—and if individuals know more about their susceptibility to illness than insurers can know about them, then individuals facing the worst health risks always try to purchase the most insurance. This is “the adverse selection problem.” Insurance companies, of course, recognize these individual incentives and respond with a reluctance to issue policies relative to the efficient level. Indeed, insurance providers attempt to obtain as much information as possible about their policyholders and to control treatment regimes as much as possible to mitigate these problems of information asymmetry.

Unless insurers can completely gather the requisite information on each potential policyholder at low cost, the market will not reach an efficient level of coverage or health care. Note that greater information through innovations in genetic screening probably will not remove the adverse selection problem from the market. If obtaining all relevant genetic or other relevant information is costly to insurers, then the policies they offer customers, which must cover all their costs to be profitable, will be too expensive for many to purchase. In this case, the insurance market would still be inefficient.

To summarize, the distinctive nature of health care compared to markets for other goods shows patients face important information obstacles that prevent efficient outcomes, even if competitive market forces determine health care prices and

100 See id. at 948–49.
101 The “right price” would be just high enough to earn a competitive profit level for the insurer and just low enough to be a good deal for the consumer. See id. at 969–73 app. (for a proof).
102 Arrow’s analysis actually is much more general than we imply here. See generally id. at 961–64. He describes several additional reasons asymmetric information between insurance providers and customers leads to inefficient levels of coverage in equilibrium by recognizing how complex (and, ultimately, infeasible) optimally written policies must be. Here, we simply describe the simplest case, adverse selection, as an example of asymmetric information in health insurance markets.
insurance premiums.\textsuperscript{103} Insurance policies ideally might provide efficient solutions in the market, but further information asymmetries between insurers and policyholders actually prevent efficient outcomes. Finally, we agree people could devise even worse nonmarket mechanisms for health delivery than a system of the sort we have discussed. In this section, we provide a modest reminder that competitive markets are not always economically efficient, and why we should not expect efficiency in the market for health care.

VI. CONCLUSION

The United States allots more of its GNP than any other nation to health care, yet leaves millions of children uninsured and without basic care. As a result of this inadequate care, children suffer significant loss of well-being and opportunities. Strict market allocation leads to unfair allocation of health care for children based on any of several major theories of justice: utilitarianism, egalitarianism, libertarianism, and contractarianism. Consensus among such diverse and important theories of justice underscores the injustice of the failure of the world’s richest country to provide all its children with access to basic health services. These different theories of justice, however, compete in our system. When applied to problems of health care allocation, they function as lighthouses, serving as beacons for us to set alternative courses. Rather than make difficult choices among them, our political representatives seem tempted to let the ship of state drift on market forces to escape offending any (voting) interest group.

Although market-based allocations can be very efficient for many items, they create inefficiencies in the provision of health care, especially to children. We base our arguments on fundamental tenets of neoclassical economic theory about market efficiency. Inefficiency in health care allocations arise from several sources, including external effects and imperfect information. These factors subvert the three conditions necessary for market efficiency: competitive forces determine prices, information about product quality is easily available, and all benefits and costs of purchases accrue to buyers. Therefore, market efficiency cannot be realized in health care markets, even in an approximate form. We conclude that the current U.S. health care system treats many children unfairly and that further reliance on market forces to solve current health allocation problems will tend to worsen this inequity and inefficiency.

\textsuperscript{103} Additionally, it should be noted, Arrow describes why it is not surprising that the market for health care cannot be considered perfectly competitive. See \textit{id.} at 947. According to the fundamental welfare theorem, competition is a necessary condition for markets to operate efficiently. See \textit{id.} at 944.