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Interdisciplinary Perspectives

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CHAPTER 16

Family-Centered Health Policy Analysis

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A common feature of much public policy analysis is methodological individualism, meaning that individuals are the primary unit of analysis. Health policy analysis, in particular, focuses on individuals because so many health variables—blood pressure, life expectancy, disease status, body mass, smoking history, and so on—are intrinsically characteristics of individuals.

However, even though we cannot (and would not want to) purge the individual from our analyses, the premise of this chapter is that public policies related to health are best analyzed within a family context, since families both shape and are shaped by the health of individuals within the family.

Although the centrality of the family seems obvious, the concept of family is virtually nonexistent in the scientific literature used to support health policy analysis. Family scholars often study health, but other social science literature on health, the biomedical literature, and the health policy literature have largely ignored families. For example, the American Psychological Association recently published an important handbook titled *Integrating Behavioral and Social Sciences With Public Health* (Schneiderman, 2001). This volume contains no articles on families, nor does it contain even a single reference to marriage or family in the cumulative index. A search of texts on health policy reveals a similar neglect of the family (see Litman & Robins, 1997; Longest, 2002; Patel & Rushefsky, 1999).

What might family-centered health policy look like and how will family-centered proposals fare in the policy arena? What follows is a first step in crafting an analytical framework for policy analysis that integrates family into the standard techniques of policy analysis, including the fundamental role of normative criteria and attention to the politics of policy making. The nascent nature of this inquiry will, it is hoped, spur scholars from a wide variety of disciplines to incorporate the health-family nexus into future analyses.

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ANALYTICAL FRAMEWORK

Public policy analysis is a multidisciplinary and comprehensive approach to understanding and addressing a variety of social problems. Policy analysis begins with the definition of a social problem, proceeds to the specification of possible policy alternatives to address the problem, and then compares each policy alternative in light of normative criteria that encompass the goals of the alternatives. Health policy analysis relies on empirical research from many different disciplines, such as medicine, epidemiology, sociology, social work, economics, politics, and demography.

Preliminaries

Defining the term "family" is a highly controversial endeavor, particularly given the politics of our time. Cherlin (1999) argued that no single definition is satisfactory for all purposes, and many of the analytical issues presented here are equally applicable to alternative definitions and theoretical constructs. This chapter will use the term in the following two ways.

First, a family is a social unit composed of individuals sharing the same household and linked together by blood relation or marriage. The second, more important usage treats family not as a noun but as an adjective: family relationships are pieces of a larger social network. The concept of a family network emphasizes that individual families (and individuals within families) are connected to each other in far-reaching ways. Family networks are usually distinguished from other social networks (consisting of friends, coworkers, neighbors, schoolmates, etc.) by the intimacy and permanence of the connecting bonds. These connections are reinforced by genetic ties, public and private commitments such as marriage, and by family history.

Rather than focusing on what a family is, or how families differ from one another, the purpose here is to concentrate on how families function. Three roles are prominent. These roles could be used to discuss families in other domains, but the focus here will be on health. First, the protective role of families is to provide for children or adults who cannot live independently, and an important part of this protective role is to preserve and promote the health of dependent family members. The family's protective role can be supported, replaced, or diminished by public policy, such as when family income is supplemented by Title XVI Supplemental Security Income Disability (SSID) payments or when Medicaid pays for nursing home care, allowing an elderly adult to live independently from his or her family.

Second, family networks play a mediating role. Policies to promote health must recognize that families influence all aspects of individuals' health: what they eat, where they live, the type of insurance coverage they have, how much they exercise, how hard they work, how much disposable income they have, which physicians they choose, how well they follow doctors' orders, the medical options they choose during a health crisis, who cares for them when they are disabled, and so forth. The mediating role differs from the protective role because individuals are not dependent on other family members, but the choices they make are shaped fundamentally by family networks. For example, use of Medicare services by independent seniors may interact in important ways with the family networks the seniors participate in.

Third, families create, preserve, and transmit values—the instrumental-normative role of the family. Families are a storehouse of values, norms, and customs that are transmitted across space and time by family networks. How family members treat one another and what they view as obligations to one another changes over time within a family network. Public policy can alter the ability of the families to fulfill their obligations to dependent members; shape the values taught to children; and influence the flow of information and values across family networks.

Public policy analysis that is effective in the long run must look at how the policies of today will shape the structure and function of families in the future. When policy has long-term effects on the concept of the family, it changes, for instance, the way that families fulfill their protective and mediating roles as discussed above.

The recent decade has seen an explosion in scholarly attention to social capital (e.g., Baron, Field, & Schuller, 2001; Fukuyama, 1995; Putnam, 2000), which is the idea that social networks embody a productive capacity that is greater than the sum of the capacities of individual members of the network. Similarly, family networks embody a similar capacity, what I call "family capital," which is a prominent aspect of the instrumental-normative function of families. A well-functioning marriage, for instance, can (possibly) generate happiness, good health, and material well-being for the spouses involved that goes far beyond what they could create for themselves living alone. Knowledge about maintaining and exploiting family capital (economists might call such knowledge family technology) is also a value transmitted across family networks.

Given these preliminaries, a useful question is, "What is a pro-family public policy?" Three answers seem possible. First, pro-family policies directly promote the welfare of dependent family members. Second, pro-family policies create a social environment (legal, institutional, cultural) that raises the incentives for family units to form and persist. Third, pro-family policies strengthen the connections within family networks—both within a family unit and across extended family pathways. In other words, they augment family capital.

Health-Related Characteristics of Families

Kamerman and Kahn (1978) made a distinction between explicit and implicit family policies. Explicit policies have a stated goal of being pro-family while implicit policies affect families in important ways but have another stated intention, such as promoting health. Most implicit family policy in the health area addresses the protective role of the family. Relevant policy variables may include the availability of insurance; access to medical care; and specific federal programs such as Medicaid or CHIP, welfare reform, pharmaceutical testing, or accident prevention programs. A common emphasis for study in this area is the health of children.

Policy variables related to children include such things as divorce and single parenthood, low birth weight, secondhand smoke, nutrition, immunizations, and access to pediatric care. It is logical, therefore, to think of health policy as implicit family policy (and vice versa).

An immediate objective, therefore, is to identify key characteristics of the health-family nexus that will generate a new, family-centered analysis of health policy. To this end, seven prominent and policy-relevant characteristics of families are enumerated and discussed below.

Genetic Ties. Genetic risk factors play an increasingly important role in identifying the causes of disease. Research designs in genetic epidemiology incorporate this fact, but it is often neglected when it comes to policy. For instance, disease screening programs should be explicitly designed to reach related family members when positive test results are obtained. Similarly, treatment programs (such as changes in diet recommended to diabetics) may be more effective if implemented on the family level, since family members may face high risks for the same disease.

Common Environmental Risks. To the extent that environmental factors affect health, family members will face many of the same types of health problems. For instance, recent research has shown the effects of neighborhood on health (Chandola, 2001; Kawachi & Berkman, 2003; Pickett & Pearl, 2001; Robert, 1999; Ross & Mirowsky, 2001). Since family members who live together share a common neighborhood, the problems associated with unhealthy neighborhoods will be highly concentrated among the families who live in those neighborhoods, rather than randomly distributed through the population.

Behavioral Coordination. Family members often pursue a set of common objectives and face common constraints, which leads to coordinated behavior. In the area of family finances, coordination is readily apparent in the way families purchase health insurance and medical care.

In the area of health behavior, many behavioral risk factors, such as diet, exercise, or smoking, are best thought of as behaviors of the family group, not just behaviors of individuals. Although research indicates the dangers of secondhand smoke (Asbridge, 2004; Green, Courage, & Rushton, 2003; Kmietowicz, 2003; Li et al., 2003), a quantitatively more important effect is the strong positive association in smoking behavior among members of families. For instance, people are much more likely to smoke if they have a spouse who smokes (Lau, Lee, Lynn, Sham, & Woo, 2003; Monden, de Graaf, & Kraaykamp, 2003). The same pattern holds for physical exercise and diet (Wilson, 2002). In general, health promotion programs will be much more likely to succeed if they are focused on family behaviors, rather than behaviors of individuals.

Hierarchical Structures. Internal family networks are often hierarchical, which can cause resources to be allocated in ways not intended by the policymaker. For instance, when health coverage is extended to children, the decision makers can divert the funds previously allocated to children's health to other ends that may not benefit children at all, thereby mitigating the total effect of the subsidized coverage (Blumberg, Dubay, & Norton, 2000).

Common Pool of Information. Social networks shape the flow of information, and families are a critical part of any extended social network. Communities with stronger extended families are likely to have a faster and more extensive flow of health information (and misinformation) than families where extended kin networks are weaker, holding other factors constant. The success of health education programs, therefore, will depend on the strength of family networks.

Shared History. The health of an individual depends not only upon current contextual variables, but on a variety of historical behaviors and events. Genetics are not the only rationale for paying attention to family health histories because a shared history may lead to the same types of diseases among family members. Even spouses, who are typically not closely related, share a history that can shape their health. Recent research has even shown that spouses tend to get the same types of chronic illnesses as their partners (Hippisley-Cox, Coupland, Pringle, Crown, & Hammersley, 2002), and the overall level of general health and disability is strongly correlated between spouses (Wilson, 2001). The ill health of an individual may be an important warning sign of undetected health problems in his or her spouse, which implies a need for health care providers to treat couples and families, not just individuals. It may turn out that the treatment of women's health issues (a very popular topic in the past decade) is less important than the treatment of *couple's* health.

Commitment. Hardship for one individual in a family is likely to be shared voluntarily by other members of the family. Even in wealthy countries with very extensive health care systems, family members provide informally much of the most important health care. This can include something as small as reminding a spouse to take a medication or as large as providing round-the-clock nursing care, as happens in numerous families with a disabled person. The delivery of this care depends fundamentally on commitment. Social policies that weaken commitment between family members will, in turn, weaken the delivery of informal care. The legacy of high divorce rates and low fertility rates is certain to be a weaker informal health care sector in the coming years, since committed family members provide the bulk of informal care.

Families and Epidemiology

A critical component of health policy analysis is the epidemiological model that is used to understand and explain health processes in the population. The standard public health approach uses the traditional epidemiologic triangle, which is the idea that risk factors can be categorized in three ways: factors that affect (1) the host, (2) the disease agent, and (3) the environment.

> Host factors represent intrinsic characteristics that influence an individual's susceptibility to disease. These include immune status, general health status, genetic makeup, lifestyle practices, age, sex, and socioeconomic status. Agents consist of biological, chemical, and physical hazards that can induce disease. . . . Environmental factors are extrinsic characteristics that can affect exposure to the agent, effectiveness or virulence of the agent, or susceptibility of the host. Examples include weather conditions, adequacy of living conditions, general levels of sanitation, population density, and access to health care. (Oleckno, 2002, p. 24)

The reader should note the individualistic formulation inherent in this description. A large literature has blossomed in recent years on what is often called "social epidemiology," which has been conducted both by sociologists and demographers interested in health and epidemiologists interested in the social aspects of disease. The concept of family has played an important role in this literature, giving rise to numerous studies exploring the health benefits of marriage for both adults and children. Cassell (1976) and Cobb (1976) were important early proponents of the idea that social support had important influences on health, and marriage and family were seen as the primary components of an individual's social support network. Waite and Gallagher (2000) and Ribar (2004) provide extensive reviews of this literature. In the past decade, however, social inequalities have dominated the field of social epidemiology and have displaced the emphasis on the family. Controversial work by Wilkinson (1996) and others point to population-level inequality measures as determinants of individual-level health outcomes. They argue that low social status leads to poor health, even after controlling for the individual level characteristics (education, income, smoking behavior, etc.) that affect health.

The economic critique (or economic epidemiology) of the public health approach is that many risk factors are determined by choices made by individuals. To a large extent people choose their environment, including their sexual partners, spouses, number of children, education, employment, and place of residence. The public health approach assumes that extrinsic risk factors (using Oleckno's terminology from above) can be altered by policy, whereas the economic model assumes that people will respond to changes in their behavior, so effective policy must anticipate the behavioral responses. For instance, the economic model predicts that the spread of diseases such as HIV/AIDS are

self-limiting as individuals adapt their behavior in response to changes in the costs and benefits of risky sexual behaviors (Philipson & Posner, 1993). The economic critique demands that policy analysis incorporate a model of individual health behavior when examining public health programs that seek to alter environmental variables because environmental risk factors are determined in part by individual choice.

The family-relevant characteristics of the economic model are many, though economists have done very little work in bringing the family into the study of health behavior (Bolin, Jacobson, & Lindgren, 2001, 2002 and Wilson, 2002 are recent exceptions). Family and social networks constrain the flow of disease and influence the expected costs and benefits of a variety of behaviors, with HIV/AIDS and other STDs being an important case in point. Other examples are smoking and other unhealthy behaviors that are more common among single people than married people. Moreover, for a variety of reasons, marriage and family formation shape behavior by changing incentives. Family commitments can fundamentally alter the expected costs and benefits of a variety of behaviors and account for the stark behavioral changes (particularly among young men) that often occur at marriage (Miller-Tutzauer, Leonard, & Windle, 1991; Waite & Gallagher, 2000).

Although family variables are part of social and economic epidemiology, a family-centric epidemiology is yet to be fully developed. In such an approach the host's membership in a family network would be central. Lifestyle practices and socioeconomic status would be seen as family characteristics, and the fundamental environmental conditions, such as the sanitation of the home and choice of residence, would be determined by the family. Family members would also share environmental risk factors such as population density and air quality. Likewise, many disease agents interact with the family structure. Family members often come into more direct and intimate contact than individuals in the larger environment, which may facilitate the spread of disease (with sexually transmitted diseases being a salient example).

Stages of Policy Analysis

The result of policy analysis is a recommendation for some kind of action (or, if the analysis warrants, inaction). To arrive at such a recommendation, the analyst needs to carefully work through a process that melds the positive and normative dimensions of policy choice into a coherent whole. A suitable descriptive model has the following four stages: (1) problem definition, (2) specification of policy alternatives, (3) identification of policy effects, and (4) policy choice. Several excellent texts describe this analytical model in considerable detail (Bardach, 2000; Patton & Sawicki, 1993). This section illustrates briefly how family affects the nature of the analysis at every stage.

Problem Definition. The first stage of analysis is the identification of the problem: what is wrong, who is being hurt, and what are the likely causes? For the task of problem definition, a family-centered approach can significantly alter the scope of the analysis. Family-centered analysis will bring the problems associated with families—divorce, single parenthood, child poverty, domestic abuse, and so on—into the forefront. For example, poor health may raise the likelihood of divorce, and divorce may lead to poor health. At a fundamental level, it is impossible to separate family problems from health problems.

Specification of Policy Alternatives. Families are not only an integral part of health problems; they also may be an integral part of policy solutions. For example, recently family therapy has been shown to improve not only the effectiveness of therapy for an individual with mental illness but the physical health of family members, and to lower the use of medical services by the family (Law, Crane, & Mohlman-Berge, 2003). Furthermore, if strong families promote health, as the previously cited literature suggests, then mechanisms to strengthen the family should be part of the policy alternatives considered by a policy analysis.

Identification of Policy Effects. This step usually constitutes the largest part of an analysis. It includes a specification of who has "standing," meaning who gets counted in the analysis. The process also includes mapping out the complex pathways by which each policy alternative may affect the lives of individuals and the vitality of institutions and communities. In some cases, the effects are easily quantifiable, such as dollars spent on hospitalization, but they are often difficult to measure, such as the pain from medical treatment or the grief suffered with the loss of a loved one. Many other outcomes can be measured, such as number of deaths from cancer, but cannot easily be assigned a monetary value.

Family-centered analysis starts with the assumption that anything that affects an individual is likely to affect members of the individual's family. Because the family is the first line of defense against the burdens of poor health, the magnitude of those burdens is in direct proportion to the ability of the family to cope with them. Also, when two or more people in the same family are facing severe health problems, the total cost of disease may be called super-additive, meaning that the sum is greater than what the two individuals would bear if they were sick within otherwise healthy families. When, for instance, a husband and wife are both disabled, both individuals must cope with their own disability and do it without a healthy partner to provide assistance. This is a serious public health concern because the occurrence of multiple health problems is much more likely in families of low socioeconomic status (Wilson, 2001).

The family may also play an important role in the way public programs actually function. The family may augment the effectiveness of those programs by, for example, providing informal health care or providing useful information to family members. Or the family may mitigate its effectiveness, such as when parents respond to health insurance subsidies by diverting funds to other uses not anticipated by the policy (another way of saying this is the public support of health care can "crowd out" private support).

A complete policy analysis addresses the instrumental-normative role of the family, as discussed earlier. Whenever the state steps in to address a role previously undertaken by families, there is the potential that the family will be weakened in the process. On the other hand, the state may provide knowledge and assistance to families that relieve stressors and add to the family's ability to cope with health issues—in other words, increase family capital. Some would argue government policies such as child care credits, Medicaid, and children's health insurance lower the financial risks associated with having children, which may make couples more willing to become parents and provide future generations to perform the work of society. Others would point out that these same assistance programs may reduce the need for fathers to be in the home, leading to increases in single motherhood, which is a strong correlate of a host of negative indicators for child well-being. (Biblarz & Raftery, 1999; Haveman & Wolfe, 1995; Jonsson & Gahler, 1997; Wallerstein, Lewis, & Blakesee, 2000). While passions run high

on these types of issues, very little is known about how public policies affect the long-term status and function of families in society.

Policy Choice. There are three important subparts to this stage of the analysis. The first is an identification of criteria used to evaluate each policy alternative. While there are several commonsense criteria that analysts may apply (fairness to different groups, efficiency, etc.), ultimately the criteria are derived from normative theories discussed in the next section. The second subpart is an evaluation and ranking of the alternatives based on the normative criteria. The third subpart is an analysis of the prospects of each alternative given the political landscape. Some alternatives make great sense from the position of an "objective" observer but may be entirely infeasible from a political perspective. These issues are discussed in more detail in the section on politics of families and health.

NORMATIVE CRITERIA IN POLICY ANALYSIS

The normative component of policy analysis addresses the fundamental question of what governments should (and should not) do. In modern life, social policy is pulled by a variety of normative claims that often come into conflict in both the academic and political spheres. This conflict can be characterized as the tension between four fundamental social values: individual liberty, equality, utility, and community. The general polity tends to believe in all four of these values, but it is useful to characterize different normative traditions in terms of the weight they give to each value in defining the role of the state.

The libertarian school of thought places paramount value on individual liberty and argues for minimal government intrusion in both economic and social life. For example, Nozick (1974) and Barnett (1998) are modern articulations of libertarian or "classical liberal" thought.

Unfortunately, libertarian scholars have seldom paid attention to the family as a fundamental social institution that produces adults who are (according to the libertarian tradition) both entitled to their freedom and responsible for their actions. Although libertarians view family affairs as largely outside the appropriate scope of government, they have not developed a theoretical apparatus to determine the way in which the state should treat children differently from adults.

Children require support from adults and, sometimes, protection from adults—even from adults in their own family. Indeed, promoting the health and welfare of children is an area of government involvement that many libertarians would accept as necessary in a free society, though it is very difficult in practice to draw the line between the right of children to be protected by the state and the right of parents to raise children as they see fit.

The nature and role of marriage also poses challenges to theories about individual rights. Currently, American society is embroiled in a debate about the definition of marriage, particularly as it relates to same-sex relationships. While almost all libertarians would allow consenting adults the right to form whatever type of intimate relationships they see fit, it is unclear whether the state should sanction such relationships (or any relationships, for that matter).

Currently married persons have rights under the law not afforded to non-married partners. These include the right to be the "next of kin," which can be important in making critical health care decisions in times of crisis. Non-married partners also have no claim to custody of dependent children when their partner dies, which can have consequences for the health of these children.

The second political value is equality. From a political perspective, egalitarians believe the fundamental role of the state is to remove, or at least diminish, the inequalities between people that are caused by an unequal position at birth, differences in native abilities, fortune, and the self-interest of others. In recent decades, theories of policy analysis have been enriched by the influential work of John Rawls (1971). His analysis argues for strong forms of egalitarianism that are derived (in part) from notions of individual liberty, thus encroaching to a degree on the territory claimed by libertarians.

As is the case with any political ideology, egalitarianism takes many forms and is mingled, in practice, with other political values. Many egalitarians, for instance, hold a belief in individual liberty and even limited property rights, but they would still allow the state to confiscate significant resources from citizens in order to promote economic equality.

Egalitarianism in its most extreme form abandons economic and even political liberties altogether and allows the state to collect and redistribute virtually all of the material resources of the society. A practical middle ground between libertarian and egalitarian views is occupied by those who hold that while the state must do more than just protect basic liberties—à la libertarianism—it need not go so far as to ensure more equitable socioeconomic outcomes. Rather, it is an "equality of opportunity" that is favored. How one separates providing opportunities from ensuring outcomes is not always clear, but the debate here is vigorous.

In the case of health policy, egalitarianism has been enormously successful over the past several decades, though less so in the United States than in other industrialized countries. The great majority of public health advocacy groups have policy agendas firmly rooted in egalitarian ground. Examples include probably the two most prominent goals of the modern public health profession: (1) to provide universal health care and (2) to eliminate inequalities in health that exist between different racial, ethnic, and economic groups. Furthermore, egalitarians have recast the drive for health equity in the language of civil rights. For many, this "right" to health care extends not only to life-preserving care, but to care that only promotes the quality of life.

As is the case with libertarianism, the concept of family plays no central role in egalitarian thought. Because children are relatively powerless, some egalitarians are vocal advocates for child welfare, though a concern for families, per se, is only of indirect concern.

Similarly, egalitarianism is a foundation for the feminist assault on gender inequalities within social institutions, including families. Radical egalitarians are willing to attack any institution seen as limiting the equality of individuals. For instance, under a strict egalitarian norm, parents have no special claim to authority over children. In sum, the value of family to egalitarians is essentially an empirical question—it has value only if, in practice, it tends to diminish inequalities.

While liberty and equality remain important political values for the general public, the most prominent normative foundation of policy analysis today is utilitarianism. The utilitarian objective of "the greatest good for the greatest number" is reached by undertaking policies that maximize total utility (well-being or happiness) in society. In policy analysis, utilitarianism takes the form of cost-benefit analysis (CBA), which consists of assigning monetary values to the costs and benefits associated with different policy alternatives and then comparing alternatives based on their net benefits (benefits minus costs).

The goal of CBA is to assign values for social costs and benefits that are a direct function of valuations made by the people affected by policy (rather than values held by, say, the policy analyst). In practice, however, CBA has numerous problems that hinder the reliability of the enterprise, including difficulty in identifying those who are affected by policy and measuring those

effects. The family is implicitly included in the calculations to the extent that individuals value families, but a typical CBA study would not consider the potential long-term effects when policies strengthen or weaken the institution of the family (though it is a false critique to say that CBA cannot be used to value future generations).

A fundamental characteristic of CBA is that the willingness-to-pay estimates that CBA relies upon are a function of ability to pay. CBA estimates are based on individuals' demand for goods and services, and demand usually increases with income and wealth. CBA, therefore, automatically assigns greater weight to the rich than to the poor. This tendency is mitigated, however, by the fact that CBA also accounts for the number of people affected, meaning that narrow elites typically do not do well under CBA because of their small numbers.

Applying CBA on a routine basis, therefore, can have serious distributional consequences. Because marriage typically improves the economic standing of individuals, choosing policies based on CBA will tend to favor the married over the unmarried. Similarly, children in single-parent families (who are often among the poorest parts of society) come out very poorly under CBA. CBA would also tend to favor the interests of the elderly over the interests of children since the elderly, as a group, are much wealthier than children. Whether or not families are routinely better off under CBA depends to a large extent on what type of families we are talking about. Any group that has both low income and low numbers of people will fare very poorly.

The final political value to be discussed here is community—a very popular word in modern discourse, but very difficult to define. Most challenges to the dominant economic/CBA mode of thinking in policy analysis undertake an appeal to communitarian values. In particular, they argue that communities embody values that are distinct from those derived from the preferences or values of individuals within the community—in other words, the whole is greater than the sum of its parts. Scholars such as Barry (1990, p. 192) argue that there are "nonassignable interests" that people share in common that are distinct from their individual interests and that it is the role of government to promote these interests. Similarly, Deborah Stone (1997, p. 18) has argued that public policy is about "communities trying to achieve something as communities," not about satisfying individual interests. Indeed, many contentious political debates in a highly pluralistic society such as the United States are not as much about the interests of individuals as they are about who gets to set community goals and standards.

From a communitarian perspective, the family is a problematic concept. To a degree, a family is the smallest communitarian structure, and the same arguments that apply to promoting communities can be applied to promoting families and extended families. For instance, family members are able to pool resources, thereby lowering risks faced by individual members, and pass on education and other valuable resources between family members.

However, families tend to care much more about the welfare of individuals within the family than about those outside it, which may obstruct more general communitarian aims. Family networks create and preserve family capital and other resources, but they also keep resources from flowing to community members outside of the family network.

Although CBA can be extremely flexible, as a practical concern most cost-benefit studies ignore communitarian concerns. In particular, CBA seldom addresses the impact of policy on social institutions. Because the family is a fundamental social institution, a natural starting point for bringing in communitarian values is to address the instrumental-normative role of family networks. For instance, as social insurance programs are introduced, the incentives for extended family to support dependent members are weakened. This may, in turn, weaken family bonds between generations, resulting in additional consequences, such as lessening of the emotional support useful to maintaining strong emotional and physical health.

THE POLITICS OF FAMILIES AND HEALTH

Assessing the political prospects of each policy alternative under consideration is an essential component of policy analysis. The political process will influence the likelihood of the recommendation being turned into policy, the chance that policymakers will change the recommendation in important ways (and thereby possibly undermine the rationale for the recommendation), and the tendency of administrative agencies to implement the policy in a fashion that might not be consistent with either the recommendation of the analyst or the aim of the policymaker. This section discusses the politics of families and health as they relate to electoral politics. (Space does not allow an analysis of judicial and bureaucratic politics.)

The Electoral Connection

Before they can pursue any policy agenda, politicians must get elected. Even though politicians will lose very few votes by claiming to be pro-family, election slogans do not necessarily translate into policy. The success of a policy proposal depends on the interaction between voter preferences and institutional features of the political system. Winner-take-all electoral systems with single-member districts are predominant in the United States. Given this institutional context, voters tend to elect candidates with policy positions at the center of the distribution of voter preferences, a powerful result known as the median voter theorem (Black, 1958). Although the rhetoric in political primaries may be more extreme (as candidates try to appeal to the median position of party members), positions tend to moderate in the general election (as candidates must appeal to the median position in the general electorate). Because the United States is a federal system, policies can differ quite sharply across states because the median voter's political preferences differ from state to state. However, state variation in policy is tempered by policies instituted at the national level, and many of the funds to run state-level programs come from the federal government. While significant distinctions between party positions persist (for reasons that cannot be explained here), policy change in America will almost always be incremental, regardless of the party in power.

The ideological allegiances of the electorate ebb and flow, but one fact remains paramount: the median American voter is getting older. The demographer Sam Preston noted in 1984 that during the 1960s and 1970s, even though the number of children fell and the number of elderly rose, the well-being of children deteriorated while the well-being of the elderly improved dramatically. This suggests an impact on health and welfare as a result of the dramatic increases in public support to the elderly relative to children. More recent evidence also points to large income transfers to the elderly and relatively few to children (Lee, 1994; Stecklov, 1997) even though the elderly are, as a group, much wealthier than children. And as the median voter ages, politicians will be more and more likely to pay attention to the political demands of seniors. The elderly have distinct political advantages over children and younger adults. The elderly vote at higher rates than younger adults (Leighley & Nagler, 1992); they are more likely to be single-issue voters (Bernstein, 1995); and their numbers are growing rapidly.

Elderly people, of course, are part of family networks; thus this demographic shift is not necessarily anti-family. Indeed, one could argue that assisting the elderly to live independently is a pro-family policy because it protects families from the burden of having to support and care for aged relatives. Three arguments speak against the claim, however. First, if transfers from the state crowd out transfers from extended family members, then the independence of the elderly may come at the expense of weakening family and other social networks that have traditionally provided elder care. Second, the elderly are likely to have fewer people dependent upon them for support than younger adults, who often have children. Third, and most important, a large portion of government transfers to the elderly are going to provide benefits to the wealthy (wealthy individuals pay the same Medicare premiums as do the poor, for instance). Even though a relatively large percentage of the elderly are wealthy, means testing (tying benefits to financial need) of Medicare or Social Security is not on the agenda of either dominant political party in the United States. Conservative Republicans generally favor means testing, but it is strongly opposed by most Democrats, who view means testing as a slippery-slope threat to the universality of social insurance. For instance, in the passage of the recent Medicare bill in 2003, most Democrats and a significant number of moderate Republicans killed an effort to means-test Medicare benefits in spite of (1) support for means testing by traditionally left-leaning groups such as the Urban Institute and the Center on Budget and Policy priorities (Pear, 2003) and (2) the increase in dollars that means testing would make available for benefits to the non-wealthy.

The Power of Concentrated Interests

Traditional, pluralistic models of politics predict success for those policies that are supported by large interests (the number of people weighted by the intensity of their preferences). If this were true, pro-family policy would be central, given that families are ubiquitous. Tax deductions for interest on home mortgages, federally funded child health insurance (CHIP), and large percentage increases in child tax credits in recent years provide some evidence for this view. Policies to promote child health generally have strong bipartisan support (Longest, 2002), though many would say U.S. child welfare policies, in general, lag far behind other industrialized nations (for example, the U.S. is the only economically advanced nation not to mandate paid maternity leave, which is arguably a child health issue).

The influence of the American Association of Retired Persons (AARP) is an example of a case in which a large group of individuals is represented by a highly effective association. But this case is relatively anomalous, and is due to the relatively narrow, intense interests of the elderly and their willingness to go to the polls. More often than not, successful associations represent small, narrow interests, not the diverse interests of large groups such as, say, women, Hispanics, or employed persons. For instance, producers of mohair and honey are able to maintain large federal subsidies year after year even though their numbers are small and they are far outside public consciousness. Small groups (beekeepers) can have a much larger influence than do large groups (honey eaters), holding other variables constant. Narrow interests have lobbying power that often runs directly in contrast to the electoral power of the median voter. Many social policy issues generate intense lobbying but lack enough salience at the ballot box to sufficiently counter the efforts of narrow interests.

Public choice theorists argue that the advantages faced by small groups are twofold. First, small groups can solve the internal collective action problem of getting members of the group to participate actively in the cause (Olson, 1971). Second, because small groups have relatively few people among whom to divide the rewards of policy success, members of the group may each get thousands or even millions of dollars in benefit from government spending or regulation; this gives them powerful incentives to lobby and to influence elections through campaign contributions and direct advertising. On the other hand, the costs to the taxpayers of any particular program are typically only pennies per person, which means that no one has the financial incentive to work against them. By the same logic, initiatives where costs are concentrated among the few are unlikely to succeed if the benefits are widely distributed—even if the aggregate benefits are much larger than the aggregate costs.

So, how are these arguments related to families and health policy, particularly since both the benefits and the costs of health care are widely distributed? Even though health care is very broad-based, many interest groups in the health area face either highly concentrated benefits or costs associated with different policy initiatives. For instance, the demise of the Clinton administration's Health Security Act was seen by many to be the result of an effective advertising campaign by private health insurance companies. Another example is the American Medical Association (AMA), who for decades dictated policy on medical education, licensing, and treatment (Barzansky & Etzel, 2002; Gonzales, 2000; Jaklevic, 1997; Pearson, 2002). With the help of regulatory policy that suppressed competition from other types of providers and sharply limited the number of medical school slots in the country, physicians became the highest paid professionals in the country, and American families ended up footing the bill. Finally, since the overwhelming success of AIDS activists in dramatically increasing federal support for AIDS research, interest groups related to specific diseases have been increasingly successful at appealing directly to Congress for "earmarked" funds for particular disease initiatives, thereby circumventing the priority-setting role of the National Institutes of Health.

In sum, a central political problem for families is that there are too many of them. Policies that have a family component to them are going to be characterized by small, incremental benefits to a wide swath of people—not large benefits to a few. For reasons discussed earlier, the large numbers of people interested in family well-being may give some power at the ballot box, but if the policy initiatives supported by families run counter to the concentrated interests of insurers, providers, or hospitals, they will likely fail. Furthermore, health policy initiatives have to compete not only with the organized interests in health care, but with all the policy initiatives in other areas as well, including education, the environment, agriculture, national defense, and a host of others.

The Conflict of Ideologies

In addition to battling concentrated interests, advocates for a pro-family policy agenda are far from unified in their policy objectives. Underneath the rhetorical, pro-family veneer lie some of the deepest ideological divisions in American politics. On the right, a variety of associations exist that extol the traditional norms regarding the family. They define themselves as pro-family because they want strong marriages that promote the welfare of children. Their policy agenda grows out of a reaction to the social upheaval of the 1960s and 1970s and is best described by what they are opposed to: legalized abortion, pornography, nonmarital sexual activities, gay rights, forced racial integration of schools, and nonparental day care for children.

The left, on the other hand, has a family policy agenda that seeks to sanction and validate the feminist, egalitarian goals underlying

the same social upheaval the right condemns. They see the family values of the right as exclusive, hierarchical, and discriminatory.

Given the easy rhetoric of protecting the welfare of children and dependent adults that is present in both major U.S. political parties, one might hope for significant common ground to emerge in the debate on families. Indeed, the area of child health and welfare is one that can be defended from libertarian, egalitarian, and communitarian value systems. Conservatives are more likely than liberals to pay homage to "traditional" families, but (in America, at least) many liberals want to support traditional families through government policies, such as health insurance for children or subsidized health care. In general, liberals will support a greater role for government programs than conservatives, but disagreements over the appropriate size and scope of government are less of a challenge when it comes to dependent family members. The conflict is not over whether children or dependent adults should have important standing in policy evaluation or even over whether parents should have special privilege in making decisions for their children. The fight is about how to address nontraditional family structures and departures from conservative sexual mores and other traditional values. The concept of family is tightly interwoven with sexuality, gender, and religion. Analyzing health policy in the context of the family, therefore, attaches these highly divisive issues to the health-family nexus. Should we allow adoption by homosexual couples? Should cohabiting parents receive the same benefits for their children as married parents? Should abortion be available to minors? Should stay-at-home parents receive the same kinds of day care subsidies as working parents?

Thus far, the public debate over health policy typically neglects discussion of the relationship between families and health, though the easy rhetoric of protecting the welfare of children and dependent adults is evident. Analyzing health policy in the context of the family will interweave issues related to sexuality, gender, religion, parenting practices, and child welfare into the already complex array of issues related to health, which makes enacting any policy that touches on issues of family even more difficult.

One might hope that the public health profession, particularly academics, might provide the impetus for integrating the family into health policy. However, the public health community is significantly left of center, at least in terms of the American political scene, and the activist approach they take to family issues polarizes the debate. As Cole, Delzell, and Rodu (2000) argue, "we have nearly converted the school of public health from an institution committed to developing the scientific bases for disease prevention into one of the many arenas for advancing social justice, or some people's idea of social justice," (p. 87) where social justice involves radically restructuring the market economy to eliminate poverty, racial and gender discrimination, and any remnants of social class. Conservatives and moderates will find little common ground with the public health community when it comes to the family.

Interestingly, the social justice movement relies critically on social epidemiological studies that have documented large disparities in health according to race, ethnicity, education, income, and social class. Scholar-activists have used these studies to fundamentally reshape epidemiological research and to propose radical structural changes to all aspects of society.

However, the very same types of studies have shown the widespread benefits of marriage to children and adults (both male and female). But no equivalent response to strengthen marriage has come from the public health community in general. Indeed, quite the opposite has occurred. Timmreck (2002) recently noted, "For the past decade or so the field of public health and epidemiology has slowly and continually excluded and diminished the role of marital status and family status in overall implications on health status of individuals and society" (p. 326).

FAMILIES AND THE FUTURE OF HEALTH POLICY

The political issues discussed in the previous section are highly fluid. Interest groups come and go; elections shift the partisan composition of Congress, and the attention of the media and the public swings from one issue to another. However, certain deep-seated social trends deserve discussion, particularly as they relate to the goal of family-centered policy.

Demographics

In the coming decades, one social force will come to dominate all others—the graying of the population. In 1950, 8.1% of the population was over age 65. In 2000 it was 12.4%, and it will be 20.3% in 2050 (Hobbs & Stoops, 2000; U.S. Census Bureau, 2000). Population aging in other industrialized countries is even more pronounced due to the relatively high birth rate in the United States and the continual inflow of immigrants. Kotlikoff and Burns (2004) refer to the policy showdowns that are brewing as the "coming generational storm." It is unclear what types of adjustments in taxes or benefits will occur, but ending or seriously weakening these programs is a political impossibility, regardless of the political party in power. Questions such as "Can Medicare be saved?" hardly deserve discussion. A better question is this: "To what extent will we continue to transfer billions of dollars from working families (many of whom are financially strapped) to finance the health care and income needs of the elderly (many of whom are wealthy)?" The demographic forces are so intense that eventually a new public conception of social insurance must emerge. The current deceit—the accounting fallacy that Medicare and Social Security "trust funds" exist that contributors will draw upon in later life—must eventually give way to a more realistic conception of these programs as public welfare programs, and (barring some phenomenal and unlikely increase in worker productivity) the size and nature of these entitlements must change, either through means testing or through other changes to the tax and benefit structure.

Even though the financing of formal health care receives most of the public attention, the crisis in informal care is equally daunting, but the recognition of the importance of informal care is not yet widespread. The crisis—which is an increasing risk of institutional care because of the lack of a family caregiver—is due to three demographic forces. First, the boom in divorce that began in the1960s means that an increased percentage of seniors, particularly women, will lack a healthy spouse to provide care for them. Second, because of sharply declining fertility after the baby boom, the next generation of elderly will have far fewer middle-aged children to provide care for them. And third, daughters and daughters-in-law (who have typically been the primary caregivers of elderly parents) are in the labor force at higher rates than ever before. These working women will be less likely to provide significant care to their parents and in-laws.

Longer life spans have led demographers and chronic disease epidemiologists to question whether longer life means worsening health (Gruenberg, 1977; Verbrugge, 1984). But most evidence over the past two decades points to falling, or at least stable, rates of disease and disability at all ages (Manton, Corder, & Stallard, 1997). However, Freedman, Martin, and Schoeni (2002) recently conducted an extensive review of the literature and found that decreases in disability are largely concentrated among less severe

indicators of disability and that the most thorough studies show very mixed (and generally negative) results for severe disability.

Furthermore, Crimmins and Saito (2000) find that the prevalence of most chronic diseases has also been rising among the elderly in the past decade. The consensus view is that in general, the elderly are becoming healthier over time, which is good news. But even if the average person becomes healthier, this does not mean that national medical expenditures will fall. Indeed, a major reason for improving health is the high levels of medical care utilization (at ever-increasing prices). Because there is no evidence that per capita demand for medical care will decline in the future, the inevitable swelling of Medicare costs will not be avoided unless Medicare benefit levels decline significantly.

The Industrialization of Medical Care

Managed care involves bringing costs and benefits explicitly into the medical decision-making process. Whereas most public policy analysts are trained to make policy recommendations based on the social consequences of policy, executives of health care companies typically consider neither the broader social consequences of their decisions nor consequences borne by families of patients. For example, an important part of controlling health care costs for a managed care organization is keeping expensive hospital stays to a minimum.

While this objective may save on hospital costs faced by the health care company, it also may drastically increase the costs borne by family members when patients come home still in need of significant care.

Competitive forces in health care markets constrain prices and promote quality improvements. Indeed, health care companies compete for customers just as firms do in other industries. However, because most health care in the U.S. is paid for by third parties (government and employers, primarily), patients end up sharing the benefits of cost-containment with the third-party payers. For instance, when an employer gets a better deal on a health plan, some of the benefits are passed on to workers, but some accrue to the firm's shareholders. Furthermore, because individuals with high expected medical costs are the most eager to buy medical insurance and because insurers often cannot distinguish high-risk enrollees from low-risk ones (a type of market failure known as "adverse selection"), the prices of individual insurance policies are often so high that they are unattainable for many families. This leaves low-income families who lack employer-provided benefits with no option other than government programs (such as Medicaid or CHIP) or to go without health insurance.

In addition to the growth of managed care, a second important trend in medicine is the ever-increasing pace of technological advancement. Medical technology (including knowledge, equipment, and drugs) has surely contributed to longer and healthier lives among many. It has also surely increased the cost of medical care. While some new technologies will have widespread beneficial effects, many others will bring only incremental improvements to quality or length of life, but at a high price tag. If medical decisions were made solely on the basis of an individual's willingness to pay, then new technology would not be a problem, but because of the strong egalitarian norms many people hold about access to health care, our society has chosen to publicly fund a large amount of our health care costs. So the question becomes, which new technologies should governments employ, and what kinds of research and development should government fund through the allocation of medical research grants? Most government programs are forced to ration in some way the use of expensive technologies—either by not providing the technology at all or by creating long waiting times to use particular services.

Like other decisions, technology decisions should take into account that individuals live in families who share in the health-related decisions of the individual. The benefits of reducing disability, for instance, accrue to the members of the disabled person's family and should, therefore, be considered part of the decision calculus. Private firms are likely to invest in those technologies that have high potential profits. These will be technologies that can be restricted in their distribution and sold to people who are willing to pay for them. It is important for the state to promote the development of technologies where potential profits are low, but where gains to society are high. Improved knowledge about disease prevention would be but one example.

CONCLUSION

The rationale for considering the family in health policy analysis is compelling. Health decisions of individuals—from questions of diet to choice of health care plan—are made in a family context, and family networks, in turn, shape society and determine the effectiveness of public health programs. It is somewhat surprising, therefore, that families are not a bigger part of the scholarly and public discussion of health policy. In this chapter, I have attempted to begin a discussion of how the highly integrated nature of health and family life can be reflected in the types of analyses we conduct in the area of health policy.

Despite the obvious importance of these issues, the immediate political future for family-centered health policy is not particularly bright. Organized interests are not promoting a pro-family agenda; there is considerable discord on what types of "family values" we, as a research community, really want to support; and the nature of representative democracy is such that narrow, concentrated interests are much more likely to be protected than broad interests, such as the welfare of families. The ray of hope is the power of good ideas. It is up to those interested in the health of our families to see that those ideas keep proliferating.

Finally, at the outset of this chapter I noted that definitions of family are highly controversial in today's political climate. But while we can discuss the family and health using a variety of different definitions of family, at some point researchers may want to make stronger claims about the types of families (including different types of family structures) that best promote the interests of their members and the interests of the larger community. Families have a potential to do both tremendous good and tremendous harm to the health of their members. A better understanding of these positive and negative forces can improve not only family life, but ultimately, public health.

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CHAPTER 17

Using Agent-Based Modeling to Simulate the Influence of Family-Level Stress on Disease Progression

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This volume, in its depth and breadth, reflects the ubiquitous appreciation among scientists and health practitioners that the health of an individual is tightly embedded within the social matrix of his or her family. Numerous recent publications have forwarded plausible links between the health of an individual and his or her immediate familial setting. Following from the pioneering work of Kiecolt-Glaser and her colleagues (Kiecolt-Glaser & Newton, 2001; see also Burman & Margolin, 1992) on marital dyads, many of these investigations have expanded to include entire families (e.g., Miller, Cohen, & Ritchey, 2002; Vitaliano, Zhang, & Scanlan, 2003). The common axes of this area of research are the intersection of health, immunological response, and stress (e.g., Cohen, Miller, & Rabin, 2001; Zautra, 2003; see Sapolsky, 1998, for a nontechnical overview). Individuals under sustained physical or psychological stress are susceptible to suppressed immunological response, thereby providing opportunistic diseases the setting to invade and manifest themselves in the host.

Being in a family with an ill spouse or child is obviously stress inducing (Greene & Griffin, 1998; Miller et al., 2002). This reverberating process of stress and illness is well documented, yet the processes binding the health of a family member or members to the psychosocial milieu of their family awaits delineation (see Vitaliano et al., 2003, for a good discussion). Thinking about this highly complex reciprocal interaction between

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