CHAPTER 4

Global Health Systems Politics, Economics, and Policy

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The Worldwide Challenge of Health Policymaking in the 21st Century

Health care is one part of society that has always been subject to varying degrees of public scrutiny and regulation, and thus there is health policymaking, in one guise or another. Since medicine originated thousands of years ago within such important social institutions as religion, societies have recognized that healthcare organizations and practices have a social dimension that needs to be monitored.[1] Governments and other social/community organizations have intervened in health care because national societies have viewed it as at least partly a social service, not an economic good. Government intervention often takes place because of market imperfections or failure, or due to national/social political imperatives that override the prerogatives of the healthcare market.[2-4]

As will be discussed later, the biggest policymaking challenges faced by nations around the world are broadly similar, and they represent efforts to manage a medical/scientific revolution that has positively and profoundly transformed the life prospects of humanity. Using almost any metric of performance, there is no area of human endeavor that has been more successful in the last 150 years than health care. In that very success lies the worldwide problems we now face. As physician and social theorist William Schwartz notes:

> Even the prospect of dependable and sustained progress against disease—let alone the achievement of a medical utopia—emerged only after World War II …. [At the end of] the hundred-year span … beginning with … the 1950s and ending in the year 2050 … it seems conceivable that most of today's debilitating and fatal diseases will be preventable or curable. … That is the utopian vision for medicine that now, for the first time, appears to have a scientific foundation. The critical question is at what price—economically, politically, and ethically—that vision will be realized.[5]

Due to the cost and complexity of modern health care, all nations now have problems controlling costs, providing effective access to care, ensuring a reasonable level of quality of care, controlling the introduction and use of technology, and validly measuring individual and community health outcomes. Inevitably, at the same time, nations are attempting to address these common health system aspects while possessing widely varying national cultures, governmental structures, economies, political systems, and

population/subpopulation health statuses and lifestyles.[6] Not surprisingly, then, what U.S. policymakers are considering with respect to health system reform often differs considerably from that contemplated by their counterparts in nations such as the United Kingdom, Brazil, Russia, and China.[7-9]

It will be argued here that, despite these differences, the general range of policymaking issues and options faced by nations can be productively analyzed and compared by using well-defined models of what can be called *micro* and *macro* health policymaking. To consider health policymaking issues and activities around the world, we must first understand how to think about health policymaking.

How to Think About Health Policymaking—Micro and Macro Models

It must be remembered that in the most fundamental way, health policymaking (like any other area of policymaking) is a *political* process. There may be varying technical and clinical issues at stake in any given action, and the particular actors in the policy process may differ markedly. Most policymaking (whether it is taking place within a democratic or nondemocratic framework) usually involves both governmental and nongovernmental individuals and organizations. Nevertheless, all policy activities are critically determined by the interactions of individuals and interest groups within the society over the distribution of its resources. It is, at bottom, politics—in the words of Harold Lasswell, "who gets what, when, how."[10]

As suggested previously, health policymaking can be analyzed successfully using both micro and macro frameworks. In some ways, these policy frameworks are analogous to microeconomics (the study of economic interactions at the level of individual producers and consumers) and macroeconomics (the analysis of economic activity at the sector, regional, national, and international levels). For the purposes of policy analysis, they are interrelated and should both be used if the dynamics, substance, and outcomes of health policymaking are to be fully understood.

Micro Policymaking—The Policy Marketplace Model

The marketplace model of policymaking is outlined most completely in the work on health legislative policymaking done by Paul J. Feldstein.[11] As the term indicates, it is adapted from economic theory, with suppliers and demanders, as in the economic marketplace. The policy marketplace model has the following characteristics:

- Like its economic counterpart, the policy marketplace model assumes that individuals and groups are constantly interacting to satisfy their needs. All policy actors are both suppliers and demanders, since they must exchange some commodity in the marketplace to purchase the other goods that they want. For example, politicians supply favorable policies. In democratic states, these usually include financial subsidies, regulations, and additional health-related services for constituency groups, such as senior citizens, hospitals, and medical schools. In exchange, the politicians receive political support, which could include financial contributions, votes, and other desirable commodities.[11] In dictatorships such as Zimbabwe, the exchanged goods could also include such items as access to basic health services in exchange for support from armed groups (including the nation's military and police forces) used to suppress the mass public.[12]
- As in the economic marketplace, the policy marketplace around the world features disparities in power.[13] Individuals and groups that can supply more can demand more in exchange. In the United States, physicians, senior citizens, hospitals, pharmaceutical and insurance companies, and academic health centers are among the "haves," since they are politically organized, particularly through interest groups and professional associations, such as the American Hospital Association, the American Medical Association, and AARP. Members of these groups receive relatively generous government services and legal protections. In contrast, politically unorganized groups in nations as diverse as the United States and India are often less educated, less politically powerful, and poorly situated geographically, and as a consequence, they receive substandard or no medical services.[14,15]
- In the policy marketplace, the currency used in exchanges can be money, but it usually also involves other factors such as superior leadership, more effective organization, access to and greater articulation through communications media, and greater group-member intensity (the willingness of group members to exert great efforts to advance the interests of the group).[16,17] The latter is evident in U.S. health policymaking with disease-specific and victim groups, such as family members of the

mentally ill and as people with HIV/AIDS,[18-20] and it is evident in the post–World War II development of the Japanese health insurance system.[21] Money matters, but power in the policy marketplace involves much more than money.

- To gain control over their relevant areas of the marketplace, nongovernmental groups will attempt to forge enduring alliances with governmental agencies. For example, disease-specific groups in the United States lobby for more federal government funding for research via the National Institutes of Health in their area of disease. In the distinctive policy marketplaces of the United States, Canada, the United Kingdom, and France, pharmaceutical companies attempt to influence regulation by interacting differently with the relevant national health policymakers.[22] More politically powerful groups will be more successful at this than the "have-nots." Often, these groups will engage in their activities via enduring *iron triangles* or more transient *issue networks* of power and influence.[23] As a result of these organized group activities, it cannot be assumed that government in any given policy system will protect "the little guy"—those without group affiliations. Indeed, more often than not, governmental regulations reinforce power disparities in health policymaking.[11]

Macro Policymaking—The Policy Systems Model

In contrast to the marketplace of micro policymaking, the *macro* level of policymaking can be best conceived of as the continual evolution of a complex system. Systems theory was developed in the disciplines of engineering and ecology. It was first applied to political systems by Easton[24] and has been modified to describe health policymaking by Longest.[14] As applied to policy systems, systems theory has the following characteristics:

- *Complexity*—Numerous influences interact to produce a system that is continually in flux while generally attaining some level of equilibrium or stability. Individuals, social groups, and organizations are all actors in the policy process.
- *Interrelatedness*—Most significant activities are connected to one another by feedback loops and both direct and indirect impacts. All policy actions create reactions within the system, some perhaps modifying the system itself.
- *Cyclical process*—With complexity and interrelatedness, the policy process does not have a definite beginning or end; it continues on as long as organized society continues to exist. There are no permanent policy successes or failures.

As noted, the system's model is cyclical, so strictly speaking, there is no start or finish—just a continual cycle in which any beginning is arbitrary. In Longest's model, the policy process has the following stages:

1. *Recognition of inputs*. There are numerous elements of feedback from previous policy decisions (health outcomes, budgets, programs, elections, and so forth). These include support for and opposition to current policies as well as demands for modifications of these policies. These inputs are recognized by policy actors (including elected officials, interest group leaders, and regulators) and lead to their reactive efforts to engage in further policy activities.
2. *Policy formulation*. Significant policy actors attempt to develop new policies to address these new inputs. In advanced nations, these efforts usually center on formal policymaking structures, such as executive, legislative, judicial, and regulatory institutions. Executive orders are issued, legislation passes through Congress or a similar assembly, and lawyers bring cases for consideration before judicial bodies or regulatory agencies take up issues brought before them. As with the other stages of policymaking, the actions of policy formulation cannot be separated from politics and political considerations. As suggested in a study of health policymaking in advanced, industrial democracies, there is no such thing as apolitical policy formulation.[25]
3. *Policy outputs*. Efforts at formulation can result in a variety of policy outputs. The most obvious and conventional include statutory laws and regulatory directives (passed by legislatures but subsequently implemented by regulatory agencies). These actions can also contain subsidy and taxation provisions, thus redistributing wealth from one area of society to another. One output can in fact be a *nondecision*—a phenomenon first described by Crenson[26] and defined as a decision to do nothing, which itself creates political and policy impacts, such as when the U.S. Congress blocked Bill Clinton's Health Security Act in 1994 without ever holding any formal hearings or votes.[27,28]

   Many policy outputs also intentionally provide some element of political symbolism. As described by Edelman, a political scientist at the University of Wisconsin, symbolic politics is

virtually inseparable from policymaking because it provides both policymakers and the mass public with threatening and/or reassuring images that emotionally condense often-complex arguments into easily accessible reactions.[29] Often, these symbols include evocative legislative titles, such as the Medicare Modernization Act of 2003, which added not only a prescription drug benefit for seniors in the United States but also multibillion-dollar subsidies for the U.S. health insurance and pharmaceutical industries. Who could oppose "modernization"? Similarly, the Patient Protection and Affordable Care Act of 2010 (ACA), which was enacted by the Obama administration in the teeth of determined Republican party opposition, has a title that implies the victory of the average American over the costly medical/industrial complex. However, the legislation actually includes considerable financial concessions to the health insurance and pharmaceutical industries, providing them with additional subsidized customers for their products.[30] As Edelman notes, symbols can often be used in policymaking to distract the public from policy details that powerful and focused interest groups have worked out for their own benefit (if not the general public's).[29]

4. *Implementation*. Any policy output that is not a nondecision has to be implemented to have a social impact, and that implementation can be highly variable.[31,32] Government agencies must often work through nongovernmental elements of society to implement policies, and the values, political skills, and preferences of leaders in these organizations often determine whether or not (and, if so, how) a new governmental policy is realized through implementation.[14] Due to the vagaries of implementation, the actual impacts of policies are often unanticipated.[33,34]
5. *Outcomes*. Policies create individual, group, and social impacts. In health policy, the most obvious outcome may involve changes in individual, group, and social health resource consumption and health status. Usually, however, health policies have nonhealth outcomes that may be equally important politically. There are always winners and losers. Some individuals and groups get more resources, while others pay. Some have their needs attended to, while others' needs are neglected. Policy outcomes may also have profound long-range impacts that were unanticipated, such as the creation of new ethical issues (for example, in the case of new technological development resulting from the Human Genome Project), and the need for explicit resource rationing (for example, when government research funding leads to useful but costly new medical technologies and procedures).[35]
6. *Feedback and subsequent modification*. As previously mentioned, the outputs and outcomes of policy cycles include reactions in society and related efforts to further develop policy. In policy cycles, outputs and outcomes create the reactions in society mentioned earlier and related further efforts at policy development. The policy agenda is refreshed, and the cycle continues onward. Often, the success of a previous cycle (say, the enactment of Medicare and Medicaid to address the lack of healthcare access for seniors and some low-income categories) leads to the challenges faced in a subsequent cycle (for example, how to cope with the unsustainable healthcare demands and cost inflation triggered by events such as the introduction of large government health insurance programs such as Medicare and Medicaid).[36,37] Health policymaking does result in great benefits for individuals and society, but it also seems a compounding hassle when viewed in terms of day-to-day activities.

Looking at U.S. Policy Responses to the COVID-19 Pandemic Through the Lens of Micro and Macro Models

As of April 2023, the United States had surpassed 104 million infections from SARS-CoV-2, the virus that causes COVID-19, and more than 1 million deaths from this disease.[38] Since 2020, COVID-19 has become the third leading cause of death.[39] The adverse effects of COVID-19 are not limited to deaths. An estimated 1 in 13 U.S. adults have "long COVID" symptoms, defined as symptoms involving multiple organs and affecting many systems that last at least 3 months after first infection.[40] "Long COVID" is associated with increased healthcare costs and losing productivity.[41] The most recent estimates show that total costs of COVID-19 for the United States from 2020 to 2021 were approximately $16 trillion USD when combining health and life loss, mental health, and economic damages, with mental health issues being the primary concern given the rapid economic recovery since 2021.[42,43]

Most public policy responses to the COVID-19 pandemic since March 2020 occurred through national and state emergency declarations, which gave government flexibilities to waive or reduce red tape in a wide range of policy areas, such as stay-at-home (SaH) orders and mask mandates, as well as Medicare, Medicaid, and private health insurance coverage policies.[44] The Coronavirus Aid, Relief, and Economic Security (CARES) Act passed by the U.S. Congress in March 2020 was the most important legislation to support economic relief and recovery in response to the COVID-19 pandemic.[45] Besides loans and grants to business and funding for state and local governments, the CARES Act provided approximately $12.4 billion in initial funding to pharmaceutical companies, such as Pfizer-BioNTech and Moderna, for the COVID-19 vaccines, diagnostics, antiviral therapeutic development, and delivery through Operation Warp Speed (OWS). OWS was a public–private partnership between the Department of Health and Human Services (HHS), other government agencies, and pharmaceutical companies. For example, Pfizer-BioNTech received approximately $1.95 billion from OWS for 100 million doses of vaccines and Moderna received approximately $3.2 billion from OWS for vaccine development and manufacturing, as well as for 200 million doses of vaccines.[46] The emergency approval of the first COVID-19 vaccine based on messenger-RNA (mRNA) technology by Pfizer-BioNTech on December 11, 2020, significantly accelerated the pace of "back to normal" by building herd immunity through immunization to save lives and ensure health system functioning within its capacity. The success of the mRNA vaccines in protecting against severe disease and fending off infection in at least a limited period is widely considered to be the most important factor enabling the society to get "back to normal." After 3 years, public precautions toward COVID-19 have broadly faded, with low updated COVID-19 vaccine uptake. As of November 2023, only about 15% of U.S. adults age 18 or older and 5% of children had gotten the updated COVID-19 vaccines.[47] However, vaccination and masking remain the cost-effective way to curb the spread of COVID-19.[47,48]

From the health policy perspective, it is important for us to look back and answer a crucial question: Where are we heading out of the COVID-19 pandemic? There are different ways to answer the question. Here we answer it through the lens of micro and macro models.

From the micro perspective, the major actors are federal and state policymakers, physicians, hospitals, pharmaceutical and insurance companies, academic health centers, and vulnerable populations. For example, in response to the demand for maintaining healthcare flexibilities and waivers during the COVID-19 pandemic from healthcare providers, insurance companies, and people, the Biden administration extended the National Emergency Declaration to April 10, 2023, and the public health emergency (PHE) until May 11, 2023. Another two separate emergency declarations (pursuant to Section 564 and under Public Readiness and Emergency Preparedness, respectively) by the HHS allowed emergency use authorization (EUA) for COVID-19–related medical measurements and liability immunity for related activities, thereby shielding COVID-19 vaccine manufacturers and distributors from legal liability as the result of vaccine side effects. Without those emergency declarations, public and private insurers would have needed to cover the large proportion of costs for COVID–19–related tests, treatments, and services, and millions of privately insured citizens would have faced out-of-pocket costs for many COVID–19–related medical services. States also received a 6.2 percentage point increase in their federal matching rate for Medicaid under certain conditions.[44] Pharmaceutical companies are expected to continue research on universal COVID-19 vaccines and treatments, which may promote better preparedness for future pandemics, especially the application of mRNA technology in various therapeutics.[49] In addition, Democratic-affiliated states had more promptly adopted SaH orders, mask and vaccine mandates, and higher COVID-19 vaccination rates and lower COVID-19 infection and death rates compared with Republican-affiliated states.[50,51] The public health measures in response to the COVID-19 pandemic triggered vigorous political debates about state autonomy and individual freedom.[52] Some studies have found that the initial responses saved millions of lives and prevented the healthcare system from collapsing.[53,54] However, the damages brought by the COVID-19 restrictions, especially the toll on mental health and small businesses, were also significant. The public appetite for broad drastic measures is virtually nonexistent now, so "living with COVID-19" is the most preferred policy direction.[55,56]

From the macro perspective, the input by the federal government in the development of COVID-19 vaccines was perhaps the most successful government-sponsored public health program.[57] The federal

government was able to efficiently use taxpayer dollars to support fast-track development of the COVID-19 vaccines while minimizing the risk of a lack of demand for the vaccines through purchasing commitments. Because of the OWS, which later transformed into the White House COVID-19 Response Team in February 2021, the COVID-19 vaccine makers were able to secure sustained resources in the development of the COVID-19 vaccines. Government purchase contracts also allowed the COVID-19 vaccine makers to achieve economies of scale. The COVID-19 pandemic once again proved that in light of a public health emergency, government intervention is necessary to ensure quick and effective responses. The emergent policy responses effectively cut back red tape but also ensured sufficient regulations for the safety of COVID-19 vaccines through the FDA's rigorous and scientific emergency use authorization (EUA). The U.S. government is estimated to have spent $19.3 billion on COVID-19 vaccine development, which is a fraction of the $5 trillion in the total economic stimulus package. Public health spending proved to be the most cost-effective way to address the economic challenges in this public health crisis.[46,57]

However, as previously mentioned, the outputs and outcomes of policy cycles include reactions in society and related efforts to further modify policy. During the COVID-19 pandemic, the CDC was criticized as too data dependent, lacking an effective public communication strategy, and not acting quickly against new variants, as well as focusing too much on containing the virus, instead of factoring in other collateral damages, such as the toll on mental health, during its initial 2020 response. In response to the criticisms, the CDC reorganized to improve its responses in public emergencies, including increasing the use of available data and making communication more public friendly. In addition, the Biden administration continued the investment in COVID-19 vaccines and treatments.[58] With the U.S. Congress providing $1.15 billion to support research on "long COVID," such as the Long Covid Initiative by Brown School of Public Health, there is hope for better understanding and treatment of this long-term condition. Moreover, the FDA is working on a simplified annual booster plan to reduce future uncertainty associated with "living with COVID-19."[59] It is clear that the U.S. government's involvement in the development of vaccines and treatments will continue to be crucial in fighting the COVID-19 pandemic. Nevertheless, there have not been any permanent policies that commit resources for monitoring and managing the ongoing pandemic even though SARS-CoV-2 continues circulating and public precautions are waning.[47] It is important that public and private partnerships work toward a more proactive approach to prevent and prepare for the long-term impacts of COVID-19.

Possible Responses to the Convergence of Policy Problems

Since the rise of modern medicine in the 19th and 20th centuries, national variations in health organization, practice, and policies have been gradually affected by a growing convergence due to technologic change and social globalization.[60,61] Recent international surveys of health system changes emphasize that nations are all coping with the same major problems, including cost containment, access barriers to large population subgroups, the impact of rapidly developing new technologies, ensuring a reasonably high-quality standard for care, and measuring health outcomes.[6]

1. *Cost containment.* All nations face the problem that the cost of providing modern health care with currently accepted standards and technologies is outrunning patients' abilities to generate the wealth to pay for it. Nations that do not have true national healthcare systems, such as the United States, may be racing toward the cliff of runaway healthcare costs faster than most European nations, which have historically possessed national structures for healthcare organization and delivery.[62] But all nations are being forced to confront the issue of allocating scarce healthcare resources. According to the Organization for Economic Cooperation and Development (OECD), healthcare expenditures "will outpace GDP growth over the next 15 years in almost every OECD country…. Health spending per capita will grow at an average annual rate of 2.7% across the OECD and will reach 10.2% of GDP by 2030, up from 8.9% in 2018."[6]

   The need for cost containment entails consideration of the cost-effectiveness of health technologies and procedures.[63] Frequently, the most cost-effective technology is not the most recently developed, particularly in areas where it appears that healthcare research and development are approaching, or have reached, the "flat of the curve."[64] Cost containment requirements also include the imperative to sometimes say *no*, even

when the added consumption of health resources might benefit individual and/or population health in some way.[65] The removal of "waste" in health services delivery is certainly desirable, but the ultimate challenge in cost containment is controlling and limiting the application of potentially useful health services.

2. *Access to care*. Whether they are economically advanced and wealthy or relatively poor and less developed, all nations have at least some subpopulations that are relatively disadvantaged in their access to necessary health services. However, it is often difficult to address these needs since they usually require the expenditure of additional resources (clearly limited, as noted earlier). In addition, the redistribution of national resources to "have-not" groups is often administratively and technically difficult (it is hard to reach vast rural populations in nations such as China, for example), and politically divisive (politically active and articulate "have" groups in all nations usually want to keep their share of national wealth rather than having a significant part of it taken away and given to others).[66]

   Often, poorer citizens in nations such as Bolivia, Vietnam, and Moldova have to rely on under-the-table payments (often constituting bribery) to get even the most essential healthcare services from underpaid and overworked providers.[67] In extreme situations of political instability and repression, healthcare institutions can break down entirely. This was the case in the Tigray region of Ethiopia during a civil war that began in 2020, where healthcare facilities were targeted for destruction by Ethiopian military forces.

   An equally horrifying medical disaster has taken place in Syria as the result of a civil war that began in 2011. In late 2024, Syrian rebels seized the capital of Damascus and overtook the Assad family's brutal rule of the country. The Syrian people are reeling from the decade-long conflict and crisis, which includes the decimated healthcare system. Many hospitals and primary care facilities are nonfunctional.[68]

   At the same time, wider access to basic health services would save hundreds of millions of people worldwide from death and disability and would serve as a powerful tool in antipoverty efforts.[69-71] The case for greater access to health care is, therefore, both sensible from the standpoint of national interests and urgent as a global moral imperative.[72,73] When the wealthiest nations in the world help the poorest and sickest people in the world, they wind up doing well for themselves by doing good for others. (Indeed, if this was not the case, the outlook for the poorest and the sickest would be even worse than it is now.)

3. *Impact of new technologies*. Health technologies have continuously and rapidly evolved in the last century, usually becoming more complex and costly. These technologies, in areas as varied as assistive technologies, pharmaceuticals, and surgical techniques, often provide major health benefits to their recipients.[74] Most dramatically, the rapid development and deployment of vaccines using new mRNA technology in 2020 saved millions of lives worldwide during the COVID-19 pandemic. But all nations, as part of the challenge of facing cost containment difficulties, have to balance the allocation of limited resources to these new technologies against older but cheaper services (often in the realm of primary care) that may help larger numbers of people, but less dramatically or visibly. This leads to both economic and ethical conflict, since such decision making inevitably does involve "playing God," sometimes with life-and-death consequences.[75] National governments must respond to continuous and virtually unlimited demands from individuals and groups with limited resources. The allocation of these scarce resources involves explicit or implicit rationing that inevitably benefits some individuals and groups at the expense of others.
4. *Quality of care considerations*. As healthcare technologies become more complex, the issue of quality assurance looms larger. Health professionals often cannot monitor technologies through simple observation—detailed technologies are required to provide constant readings.[76] In addition, there have been breakthroughs in data collection and analysis during the last two decades, particularly with respect to the development of computerized data entry and aggregation (often via Internet-based means). For the first time in history, it is possible to aggregate large numbers of patient encounters and detect variations in care quality, along with their consequences, such as medical errors. Major studies that have been done in the United States, the United Kingdom, Canada, and Australia constitute the first steps in defining and understanding the level of medical errors.[76-79] However, as noted in a PriceWaterhouseCoopers (PWC) report, "no one really knows how many errors or adverse events

occur because of gaps in reporting processes and differences in definition."[6]

The revolution in health information technology means that nations can consciously guide healthcare quality assurance and improvement, with enormous benefits accruing to both patients and providers. Of course, to benefit from these technologies, nations must also develop the necessary data collection systems, along with the trained professionals to administer and utilize them. As with other aspects of health technologies, this can pose major challenges for less economically developed nations, such as India.[80]

5. *Measuring health outcomes.* In the long run, the greatest potential benefit from new health information technologies is that they increase the likelihood that health status and outcomes can be measured and related back to health services utilized, as well as individual and community lifestyles and practices. The *health outcomes movement* has the potential to make health service delivery much more cost-effective, as well as to reduce medical errors and to clarify which aspects of health care and behavior are more or less important.[81]

It must be noted that an important part of this is showing to what extent health services and new technologies cannot substitute for improved individual and community health lifestyles. For example, whatever funding the nation of China puts into its health system for treatment of lung cancers, it is clear that the funding cannot substitute for a concerted effort to reduce the rapid increase in national tobacco consumption, which will result in the deaths of tens of millions over the next few decades.[82] A 2015 report by the National Research Council at the National Academies of Science suggested that 50% of premature deaths in the United States can be accounted for by one or more quantified lifestyle and environmental risks.[83] Unfortunately, it is also true that nations differ in their abilities to afford and apply the systems needed for effective health outcomes research, as well as the subsequent system reforms driven by research results, with poorer nations being especially hampered.

Internationally, there is a general consensus about the existence of the previously mentioned healthcare system problems. Within each country, there has also been some debate (if only at the upper policymaking level) over how the nation should respond to these challenges. China, a rapidly developing but still relatively low-income nation that has never really had a structured national health system, faces enormous challenges in organizational development and funding.[66] Developed nations with existing national health systems, such as Australia and Japan, are talking about to what extent (and if so, how) private-sector components should be introduced and integrated to improve provider responsiveness to consumer demands.[84,85]

The United States is unique internationally in that it is a very wealthy nation with a lavishly funded healthcare sector but lacks an effective structure to direct spending and system restructuring. So, while the U.S. system can produce some of the best high-technology health care in the world and leads in research and development spending, it wastes money on an epic scale and suffers from glaring disparities in health insurance coverage and access to care.[65] As the United States has the highest proportion of GDP devoted to health care, and with cost inflation generally recognized as ultimately unsustainable, health reform has been and will continue to be a major item on the nation's policy agenda. Reform proposals have been put forth by political liberals (such as the introduction of a *single payer system* like that in Canada as well as enhanced employer coverage within existing insurance structures) and conservatives (such as the increased use of individual healthcare purchasing through Health Savings Accounts).[86,87]

In the international study done by PWC,[6] three clear findings emerged:

- The globalization of health brings enormous opportunities, but is overshadowed by common threats. Bloated costs, uneven quality, and inequitable or mismanaged access threaten the sustainability of health organizations, systems, and populations. The most important attribute of reformed national healthcare systems in the coming years will be sustainability. "To be sustainable, health executives will need information, metrics, and transparency to support decision making …. Transparency enables a comparative focus on access as well as the cost and quality of care."
- Increasingly, with ever-growing global communication among national health policymakers, it appears that *convergence* will characterize policy reform efforts. In the words of the PWC study authors, there will be significant "global convergence, as best practices are shared, and industry-wide convergence, as the barriers among pharmaceuticals, providers, clinicians, biotech, and payers melt away." If sustainability is the key objective for health policymakers around the world, what aspects of reform do they need to focus on to get there? Like most others who have

considered the issue, the PWC analysts believe that there are some critical factors. The PWC list includes:

1. *A quest for common ground*. Essentially, this is an effort to develop national political consensus on the public/private sector division of healthcare responsibilities, along with social agreement about some basic level of guaranteed access to basic health services for all citizens.
2. *A digital backbone*. This refers to the use of nationwide integrated clinical and administrative information systems to increase the efficiency of the healthcare system, as well as to provide data that can be utilized for program evaluation and outcomes research efforts.
3. *Incentive realignment*. This feature centers on the nation's citizens who are healthcare recipients and contends that a sustainable national system must "ensure and manage access to care while supporting accountability and responsibility for healthcare decisions."[6]
4. *Quality and safety standardization*. This feature focuses on provider accountability and responsibility, suggesting that there needs to be transparent quality and safety standards so that consumer trust can be established and maintained in the nation's healthcare services.
5. *Strategic resource deployment*. This is more vaguely defined in the PWC study, since it suggests the need for resource allocation that "appropriately satisfies competing demands on systems" to balance cost containment and access requirements without being able to provide any real definition of what might constitute *appropriate satisfaction*.[6] This indicates the contingent nature of this feature, since it will most clearly be determined by the political balance of power within each society.
6. *Climate of innovation*. This feature suggests that nations need to embrace innovation in both technology and processes in order to improve the functioning of the healthcare system.
7. *Adaptable delivery roles and structures*. The PWC report calls for patient-centered care that is maximized in varying circumstances by the adoption of variable care practices and clinical roles.

Surveying the current state of national health systems around the world, what can be concluded with respect to the progress being made in policymaking in these areas?

Two of the previously mentioned sustainability features are primarily technological in nature and can be assessed fairly easily. Some nations have moved materially toward a true *digital backbone* (#2), but only a few. The Netherlands has pioneered in using health information systems to improve healthcare quality within a constrained national budget.[88] Both Canada and the United Kingdom have also worked toward developing national integrated electronic medical records.[89] However, these nations already have truly integrated national health systems; the Netherlands has a national employer-based system, the United Kingdom has a National Health Service, and Canada has a single payer system administered by its provinces.[86] There may be significant problems with national health systems, but it is easier to implement uniform technical and structural reforms within them. In all of these nations, the policy marketplace has been dominated by forces (particularly the government and organized labor, along with general public opinion) in favor of national health care. As will be discussed later, if that decision is made (or not made), choices concerning structure, including of information systems, are significantly affected.

In contrast, the United States is very wealthy and spends an enormous amount on health care, but lacks such a national governing structure. In the policy marketplace, there is bitter political controversy over the structure and functioning of the ACA, and industry groups tend to further system fragmentation through their own interests in controlling market share. Consequently, U.S. health care has failed to produce a viable health information system through market mechanisms.[90] Smaller providers in the United States, particularly home health agencies and skilled nursing facilities, have clearly lagged behind larger private- and public-sector health systems in adopting health information technologies.[91]

In recent years, the need for national health information integration has become so evident that it united conservatives like Newt Gingrich and liberals like Hillary Clinton in support of national policy initiatives.[92] A conservative Republican president, George W. Bush, followed through on this call by supporting the establishment of a National Health Information Infrastructure (NHII), which is supposed to be a "comprehensive knowledge-based network of interoperable systems of clinical, public health, and personal health information."[93] In the case of the United States, the policy marketplace has shifted to support national health information system restructuring due to growing concerns by payers (that a lack of a national information infrastructure is not cost-effective) and patients/consumers (primarily due to desires for increased

quality improvement and safety and for easier personal access to care information).

Since they usually lack the funds and technical expertise, most poor and less developed nations are far from attaining the digital backbone sustainability goal put forth by PWC. For example, in Mexico, the Ministry of Health is responsible for overall health system functioning, but provider funding is very fragmented (much of it coming from patient self-payment), and there is essentially no functioning national information system. The nation's healthcare problems are so great, and government funding so limited, that it will be many years before the system will be sufficiently coherent to permit a digital backbone.[94] For these nations, sustained economic growth will be necessary to generate the required capital for health system upgrades.

Some of the same conclusions are reached in a global examination of quality and safety standardization (#4). In Europe and Canada, physicians have taken a leadership role in forwarding these causes. In the U.S. policy marketplace, the prominence of patient advocacy groups has provided a different avenue to advance demands for quality and safety assurance.[6] The Health and Medicine Division (formerly the Institute of Medicine) of the National Academies of Science has provided a reasonably clear blueprint as to how the United States can cross the quality chasm.[95] Generally, in economically advanced nations, there are important and increasingly influential groups that are effectively demanding higher quality standards, although there are still debates about the extent to which these standards should be dictated by the government, as opposed to the private sector.[96]

As with the digital backbone, less economically advanced nations generally do not yet have the funds or organizational structure to provide system-wide quality and safety standards, whatever the political preferences might be. A study of practice quality in Indonesia, Tanzania, India, Paraguay, and Mexico suggests substantial variation within each country and different factors leading to each country's pattern of variation. As the study's authors conclude, "questions relating to practice quality [in low-income countries] remain unanswered in the literature, because the quality of health care in low-income countries is difficult to measure."[97] Until data collection and database development related to the quality of care are improved in these nations, they will not have the necessary inputs to even begin developing and monitoring system-wide quality standards.

The same thing can be said for safety standards. Many poorer nations do not have well-established and effective regulatory structures for overseeing medical safety. China has been particularly visible with respect to safety problems. It is the largest supplier of pharmaceutical ingredients in the world, and there have been major problems reported with some medical products.[98] China's chief food safety watchdog has said that almost 20% of products made for consumption in China were found to be substandard.[99] It appears that neither government nor voluntary private-sector safety guidelines and agreements are effective in China, where there is high turnover in manufacturers and their executives.[100] These ongoing problems resulted in the United States and China signing a Memorandum of Agreement on December 11, 2007, to establish a bilateral mechanism to ensure the safety of drugs, excipients, and medical devices exported from China to the United States.[101] This has resulted in a permanent FDA presence in China as a condition for continued exports to the United States. China is making major efforts to improve "pharmacovigilance," but the nation faces numerous cost and organizational challenges, particularly in integrating traditional Chinese medicines (TCM) into a unified drug surveillance system.

Beyond the two previously described factors, a digital background and system-wide quality and safety standards, it should be noted that the others listed in the PWC report ("a quest for common ground," "incentive realignment," "strategic resource deployment," "climate of innovation," and "adaptable delivery roles and structures") are fundamentally political in nature. Their definition within each nation depends on ideologic decisions that in turn will come from widely varying political systems and structures. These varying decisions made by each will reflect tradeoffs between multiple valued objectives. So, to understand the nature of what nations will be doing in health care in the coming decades, we must understand the nature of tradeoffs, and how these tradeoffs relate to national systems of ideology and ethics in health and nonhealth areas.

The Nature of National Health Tradeoffs, Ideology, and Ethics

In policymaking, tradeoffs come from the inescapable fact that all policy decisions involve the use of finite resources, and to use them in one area means that they may not be available to be deployed in alternative areas. As economist Arthur Okun suggested,

"Tradeoffs are the central study of the economist. 'You can't have your cake and eat it too' is a good candidate for the fundamental theorem of economic analysis."[3] But resources in policy analysis can also be intangible and involve such value-laden tradeoffs as individual choice versus government dictation, or political equity versus economic efficiency. That means that tradeoffs must involve ideology and ethics as well as economics.

The importance of tradeoffs in health policymaking—and differing decisions on tradeoffs—have been widely recognized, both within and among nations. Dervaux, Leleu, and Valdmanis conducted an expanded data envelopment analysis of World Health Organization (WHO) and individual national rankings of five health objectives: life expectancy, health distribution, health system responsiveness, responsiveness distribution, and financial contribution fairness. The authors agreed with the WHO Commission for Macroeconomics and Health that any global perspective on health policy priorities needs to be complemented by individual national health policy priority analyses and choices.[102]

When it comes to tradeoffs between economic efficiency and political equity, some researchers have attempted to provide tools that contain explicit criteria. Focusing on developing nations, James et al. suggest that more explicit analysis can aid efforts to attain social justice.[103] In their work, the researchers list and explain a number of efficiency and equity criteria to guide priorities, including cost-effectiveness, horizontal equity, and vertical equity.[103] Ross states that social justice is a "central obligation of civil society where the measure of the ethical integrity of a society is how it treats its most vulnerable members."[104]

Particularly in wealthy nations with expensive healthcare systems, policymakers and clinicians are starting to develop guidelines for tradeoffs in healthcare decision making. New York State health officials have now developed protocols for the allocation of ventilators in the event of an H5N1 influenza pandemic. The lead author of their study, Dr. Tia Powell, calls for the public to confront such triage issues, so that these decisions reflect community views as well as ethical and clinical standards. "It's not really a technical solution. … It's values. And the people are the experts on that."[105] Another example of this is in cancer treatment. According to *The New York Times*, medical groups, such as the American Society of Clinical Oncology, are now recommending that physicians weigh the costs as well as the effectiveness of treatments when making cancer care decisions. This group is developing a scorecard to evaluate drugs on cost and value as well as efficacy and side effects.[106]

There are clear political obstacles to explicit tradeoff analysis in health policymaking. The public in most nations does not have a clear understanding of the inescapability of tradeoffs, especially if they suspect that they entail rationing of popular services.[107] As some have observed, all Americans ask for is cheap, fast, and high-quality health care, but they do not understand that they can never get health care with more than two out of those three characteristics in a real-world healthcare system with limited resources and potentially unlimited demands. Research on public response to possible cost-quality tradeoffs in clinical decisions indicates that reactions are unpredictable and not necessarily clinically or economically logical.[102] Conversely, findings suggest that a significant portion of the public (at least in the United States) would be willing to accept cost–quality tradeoffs, if they are provided with clear information on the cost-effectiveness of specific treatments. Most recently, these issues have been faced in the difficult and contentious area of COVID-19 resource allocation decision making.

At the global level, it is just as difficult to analyze tradeoffs. In research conducted for the WHO Advisory Committee on Health Research, Schunemann et al. reviewed the available literature on "determining which outcomes are important for the development of guidelines" and found "limited relevant research evidence."[107] The authors offered the general recommendation that methods to examine tradeoffs and their impact on outcomes should employ "systematic and transparent methods involving key stakeholders, including consumers and people from different cultures, to help ensure that all important outcomes are considered."[108] Of course, this recommendation only addresses procedural issues and does not touch on the substance of which choices should be made. Moreover, the division and debate over the substance of health reform is the primary challenge facing national publics and their policymakers.

As noted earlier, there is a convergence of opinion (at least, at the policy elite level) that current national health systems are unsustainable because of growing cost, access, and quality problems. In the ongoing global discussion about tradeoffs and possible health system reforms, it is equally clear that there is no current consensus—only a diversity of ethical perspectives and ideological positions.

One thing is clear: National deliberations over health reform policymaking cannot take place without recognizing that there are ethical and ideologic

disagreements at the heart of the debates. Unfortunately, all too often, policymakers do engage in de facto social experiments without ethical review and debate, both among themselves and with their nation's citizens.[109] In an analysis of the role of justice and solidarity in priority setting in health care,[110] two ethicists point out that one major reason for this is that some nations do not have the ideologies or institutions of inclusive social participation and modern economics that provide the foundation for a balanced debate over tradeoffs in health system reform. One analyst contends that "in a political process, where reforms are implemented by democratically controlled agencies, the analogy to informed consent is democratic oversight of the reform process. Unfortunately, this analogy is problematic wherever democratic control of institutions is weak … and wherever powerful external agencies offer large incentives and are not themselves held accountable for the reforms they impose."[111]

Scholars have developed a variety of perspectives related to this. The economist Hernando de Soto has contended that many poor nations, particularly in the "post-communist" world, have not developed the social habits of the rule of law that permit widely accepted policies for resource use. Absent these, decisions on resource allocation in all areas of society—including health care—are made largely on the basis of "might makes right." The less powerful are largely disenfranchised and simply attempt to evade the rule of the powerful (usually through governments) by the use of black markets.[112] According to the social philosopher John Rawls, "One may think of a public conception of justice as constituting the fundamental charter of a well-ordered human association."[113] In societies with volatile political and social systems in transition (including nations experiencing rapid economic and social growth, such as China and India), the principles of justice and popular participation are often not well established or widely shared, which means that health policymaking may be essentially the imposition of the will of political elites. In the long run, such policymaking may contribute to, rather than reduce, social and political instability.

Justice has both individual and social components. Ethical health policymaking implies an acceptance of *individual autonomy*—the belief that individuals have the right to their own beliefs and values and to related decisions and choices with respect to the use of health services. Some of the most politically charged policy debates occur when the principle of autonomy clashes with social/communal welfare principles of treatment, as in the case of Terri Schiavo in the United States.[114] *Whose Life Is It Anyway?* is a noted play and movie that considers the dilemma of which set of priorities should prevail over life-and-death decisions—that of the individual whose life is in question or that of a society, which has to put forth and defend laws regulating medical treatment. The debate over COVID-19 vaccine mandates for school-age children and various categories of employees beginning in 2021 featured strong (at times violent) disagreement between those prioritizing personal choice and those maintaining that public/community health needs require individual compliance with vaccine mandates.

In health policymaking, the social component is reflected primarily in the debate over *distributive justice*, or the fairness in the distribution of health benefits and burdens in society.[14] In most nations, the question of fairness is debated endlessly by the various participants in the policy marketplace. The economist Thomas Rice, criticizing the United States in 1998 for its unique status as the only economically advanced nation without some system of national health insurance, articulated the egalitarian view of justice, in which equal access to health services (at least to an essential minimum package of services) for all citizens, regardless of income or class, is of central importance. In doing so, he made the ethical case for U.S. adoption of national health insurance.[115]

In most Western nations (particularly in the United States), there is also a libertarian perspective of fairness that would argue Rice's preferences are decidedly unfair. Libertarians (who adhere to a mix of beliefs found both on the political left and on the political right) tend to believe that individual freedom is the most important social value. *Fairness* means that individuals have the freedom to choose to do what they wish with their own resources, and that the best set of policies rests on the belief in a minimal state, enforcing basic laws and regulatory "rules of the game" but not attempting to dictate economic outcomes or to engage in large-scale redistribution of wealth.[116,117] In contrast to Rice, libertarian health economists prescribe individual choice and responsibility as the best ways to *reform* U.S. health care.

Health policymaking is certainly a matter of data collection and analysis, of research and forecasting, of power struggles within national policy marketplaces. Like other aspects of public policy, it is also an "inescapably moral enterprise."[118] Because of that, health policymaking and analysis will be sterile and ultimately ineffective if the policymakers and analysts do not realize—whether they want to

or not—that "policy and ethics both ask the same question: 'what is the good, and how do we achieve (create, protect, cultivate) it?'"[119]

Conclusion: Health Policymaking Around the World—Uncertain Times and Futures

It is not at all clear how the nations of the world, with greatly differing political, economic, healthcare, and social systems, are going to meet the health system challenges in the next 20 years. Most wealthy countries, with aging populations, are beginning to hit the financial wall, with unpredictable consequences. In the United States, any reasonably balanced investigation of the numbers—rising demand for more (and more technologically intensive) health care, an aging population, declining employer-based insurance, increasing number of uninsured individuals, and, above all, a healthcare cost inflation rate that outruns economic growth by a significant margin—will reveal that sometime between 2025 and 2035, when essentially all of the "baby boomers" will have retired and expect to get all of the health care they want and "deserve" from Medicare, financing the U.S. healthcare system as it is currently structured will not add up. Something will have to give.

In the absence of the establishment of a true national healthcare system, the supply/demand imbalance is already creating de facto rationing, with insured individuals waiting longer and longer and paying more and more to get ever more tightly limited care. If the U.S. healthcare system hits the financial wall, many individuals who cannot afford to even make copayments on ACA insurance purchased through state exchanges will fall completely through the cracks, since the ad hoc public and charity healthcare system will come apart at the seams. This is a profoundly depressing vision for anyone who believes that access to some effective level of basic health care should be a right that all citizens possess.

U.S. reformers who want to avoid these dire straits generally advocate increased cost controls on health system expenditures and/or increased taxes on upper-income citizens. Some advocate eliminating private health insurance and moving to a single payer system ("Medicaid for all").[119] They will experience major political difficulties in getting any post–ACA proposal enacted. Most efforts to enact national health reform, including the ACA, are sold to the public as giving everyone the right to relatively easy access to comprehensive health services, with only modest costs. As was seen in 1993 to 1994, the largely insured public reacted badly when they found out that they would actually have to adjust their own healthcare arrangements and pay out themselves to provide insurance for those fellow citizens who were going without.

There has also been a significant backlash against the ACA, with claims of decreased access, with health providers withdrawing from markets, and with employers eliminating jobs or reducing work hours to reduce their obligations to fund expanded health insurance.[120] Access was further reduced when the U.S. Supreme Court, in its *National Federation of Independent Business v. Sebelius* decision in 2012 made a key element of the ACA, state Medicaid expansion, optional rather than mandatory.[121] Many states with Republican-dominated governments immediately announced that they would not expand their state Medicaid systems. Most Republicans in Congress still advocate "repeal and replace" for the ACA while being extremely vague on exactly what the replacement might be. However, as time has gone by, more and more states (41 plus the District of Columbia, as of January 2025) have expanded Medicaid as part of the ACA, including many states led by Republican governors.[122] Yet, even the ACA does not squarely confront the dilemma of a continuing large gap between healthcare demand and affordable supply and ongoing cost inflation exceeding the economic growth required to pay for care.

The problems of cost containment and access in the United States have continued to mount. There is no question of maintaining the current "system"—it is visibly coming apart before our eyes. Either we shape the future healthcare system now, or we will inherit the disorder of our old healthcare system as it slowly unravels.

Any examination of the experiences of those nations that do have comprehensive national health systems, such as the National Health Service in the United Kingdom, shows that national health insurance means national health rationing, like it or not, with real consequences for patient health and well-being.[65] In any event, European nations, with rapidly aging populations and relatively expansive social expectations for public health and welfare spending, will have their own political conflicts. However, with structured healthcare systems, they appear to have the potential to develop some political consensus over providing health care within tighter financial limits.

The situation in many developing nations will be incomparably more difficult. It is hard to see how most African nations, with their unstable political systems and desperately poor populations, could afford to even approach "advanced nation" healthcare provision any time in the foreseeable future. Some Asian countries, such as South Korea, Singapore, and Taiwan, have already reached very high economic development levels and so can afford the most modern health care. But China and India, even with their strong economic growth rates in the last decade, will continue to face the prospect of rapidly growing (and potentially politically explosive) social inequities, with growing numbers of relatively well-off urban residents, and hundreds of millions of low-income individuals in their rural hinterlands and urban slums.

The world is entering what will undoubtedly be a turbulent period, with national healthcare systems everywhere requiring major overhauls of one form or another. There is no past template that nations can employ to respond to this challenge. However, it is very important to remember that any response to escalating healthcare costs must recognize that health care has never been, and can never be, treated as a purely market good. There is clearly a role for competition and economic incentives in providing and selecting health care. At the same time, any long-range response that brings healthcare supply and demand into a sustainable balance—by regulatory fiat or by market competition—will have to recognize that, as citizens, community members, and human beings, we must all care enough about each other to ensure that none of us lacks the essential healthcare services that we can afford to provide.

To end on a note of optimism, it is important that we do not lose sight of the ongoing achievements of modern health care that have transformed the lives of citizens in wealthy nations and are now doing the same for a majority of the poor in the rest of the world. A renewed sense of economic limits in health care need not be in opposition to this worldwide trend. In fact, recognizing the limits is almost certainly a requirement for continuing to make progress. Here it is appropriate to conclude with another quotation from the scholar and visionary cited at the beginning of this chapter, Dr. William Schwartz:

> Where does all this leave us as we try to sort out the challenges that face us at the beginning of a new century? We are enticed by visions of triumph over disease but disturbed by the near-term prospect of denying useful care to some patients …. The next 25 years will be especially challenging and possibly divisive ones, but it is important that we not lose sight of the utopian visions that are emerging. The possibility of mastery over a broad range of illnesses is no longer the sole property of philosophers and science fiction authors. Our challenge will be to tackle the ethical and social issues that accompany medical progress with the same rigor that we apply to the scientific challenges themselves. Above all, we must ensure that in the sacrifices required to realize our visions, especially in the critical area of healthcare rationing, we do not compromise fairness and equity, without which the conquest of disease would be a hollow victory.[5]

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