The World Health Report 2000:

Joseph S. Coyne, DrPH, and Peter Hilsenrath, PhD

"The rankings reflect much more than shortcomings of the health systems in these countries. What is measured has to do with broad socioeconomic conditions. This results in a bias against countries with greater inequality, such as the US and South Africa."

COMPARATIVE STUDIES have been part of health services research literature for decades. The benefits of these analyses include documenting how the more successful practices can be adapted in another country. Such has been the case in France, where many US health care delivery practices have been adopted in market reforms.[1]

The World Health Organization (WHO) studied the health systems of 191 countries for its World Health Report 2000.[2] The study is provocative and has stimulated significant analysis of the structure and performance of health systems.[3] We examine the variables and methodology used by the WHO to measure efficiency and performance of health systems.

METHODOLOGY OF THE WORLD HEALTH REPORT

The methodology employed in the WHO report relies on the following major components: (1) goal attainment (effectiveness), (2) health expenditures per capita, and (3) efficiency and the overall level of health performance.

Goal Attainment (Effectiveness)

The first component, goal attainment (effectiveness), has 5 subcomponents (respective weights in parentheses): level of health (25%), distribution of health (25%), level of responsiveness (12.5%), distribution of responsiveness (12.5 %), and fairness of financial contribution (25%).

The first of these subcomponents is reported in terms of disability-adjusted life expectancy (DALE), for which life tables are used to calculate the average number of healthy years of life for a population. Japan ranked 1st on this measure, Australia 2nd, and the United States 24th. The second subcomponent measures the equality of child survival for a population. Chile ranked 1st on this measure, the United Kingdom 2nd, and the United States 32nd. The third subcomponent measures the level of system responsiveness; it is based on surveys of approximately 2000 key informants from selected countries about the performance of their health system in terms of such concerns as access to social services and choice of provider. The United States ranked 1st on this measure, and Switzerland ranked 2nd.

The fourth subcomponent is the distribution-of-responsiveness variable, used to measure the proportion of the population judged by the 2000 key informants to be part of a disadvantaged group (e.g., racially disadvantaged, indigenous, elderly, or poor). On this measure, for which a country that has greater equality would score higher than one with more inequality, the United Arab Emirates ranked 1st, Bulgaria 2nd, and the United States fell into a group of countries that were tied for 3rd to 38th place.

The fifth subcomponent measures the equality of household contributions to the financing of the health system, based on the proportion of permanent income above subsistence level spent as out-of-pocket outlays. On this measure, Colombia ranked 1st, Luxembourg 2nd, and the United States was tied with Fiji for 54th and 55th place.

The 5 subcomponents were weighted as specified above to produce one overall measure

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Can Health Care Systems Be Compared Using a Single Measure of Performance?

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"The report shows a bias toward the conventional wisdom, in the US and increasingly in European health care establishments, which promotes managed competition and privatization."

ON JUNE 24, 2000, THE World Health Organization published its World Health Report 2000, *Health Systems: Improving Performance*, which ranked countries according to an overall single indicator of the performance of their health care systems.[1] This indicator was an aggregate of 3 other indicators that supposedly measured (1) effectiveness of health care (basically, medical care and public health services), (2) responsiveness of the health care system to users of its health services, and (3) fairness in the system of financing of health care.

Publication of the report created a worldwide debate, most of it published outside the United States.[2–6] Recently, the debate has also started in the United States.

THE MEDICALIZATION OF HEALTH

The major criticisms that can be made of the WHO report are conceptual and methodological in nature and can be made for each of the components (effectiveness, responsiveness, and fairness) of the single indicator of performance used in the report. Regarding effectiveness of health care, for example, the WHO report assumes erroneously that health care is the primary force responsible for the decline of mortality and morbidity in both developed and developing countries. That assumption is evident in statements such as "[If] Sweden enjoys better health than Uganda—life expectancy is almost exactly twice as long—it is in large part because it spends exactly 35 times as much in its health systems." Not surprisingly, the report concludes that what is needed to eradicate disease in less-developed countries is a greater investment in health care: "with investment in health care of $12 per person, one third of the disease burden in the world in 1990 would have been averted." Such statements reveal a medicalization of the concept of health that is worrisome and surprising, coming as it does from the major international health agency of the United Nations.

Coyne and Hilsenrath seem to concur with this criticism, although somewhat moderately. They write that for some diseases, such as the dramatic and heartbreaking problem of AIDS in Africa, many other types of intervention, apart from the right medicines, are needed. Actually, the same could be said for most causes of mortality and morbidity in any country. Medical and, far more important, public health interventions are indeed crucial to improving the health and quality of life of populations. But far more important for the improvement of health and quality of life are political, economic, and social interventions—and these interventions condition also the effectiveness of the medical and public health interventions.

For example, the very successful experience of the "barefoot doctors" in the People's Republic of China in the 1960s could not be reproduced in, for example, Iran, because Iran has a very different political context. As Navarro and Shi have shown, political forces that are committed to the redistribution of resources (not only health care resources) in a society are more successful in improving the health of their popu-

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constructed on a scale of 0 to 100. On this overall goal attainment measure, Japan ranked 1st, Switzerland 2nd, and the United States 15th.

Performance and Efficiency

The second component, health expenditure per capita, is a variable considered in both efficiency and performance measures. The United States ranked 1st in health expenditure per capita, with expenditures well beyond those of Switzerland (2nd) and Germany (3rd).

The third component measures performance of health systems, including efficiency. Efficiency has been defined as follows:

$$HS_E = (DALE_O - DALE_{WO}) / (DALE_M - DALE_{WO}),$$

where HS_E is the efficiency performance of the health system; $DALE_O$ is the observed DALE; $DALE_{WO}$ is the DALE without a "functioning modern health system" given the nonhealth attributes that affect health, represented by education; and $DALE_M$ is the maximum DALE given the level of expenditure per capita. A frontier production model was used to estimate maximum DALE levels. A similar model was used to produce an overall indicator of performance, but in this model a measure of composite health system attainment was used in place of life expectancy.

The results reported by the WHO have received wide publicity and drawn attention to the shortcomings of many health systems, including that of the United States. Oman ranked 1st, Malta 2nd, and the United States 72nd in terms of HS_E. France and Italy ranked 1st and 2nd, respectively, in overall health system performance; the United States ranked 37th.

THE CASE OF SOUTH AFRICA

The emphasis on DALE can be misleading and undermines rankings for countries with low life expectancy but otherwise good health systems. DALE is driven by many factors other than health systems. The WHO also emphasizes equity in the distribution of health, the distribution of responsiveness, and the fairness of financial contribution. Equity is not universally considered desirable and is difficult to achieve in heterogeneous societies.

Consider the case of South Africa, which is home to perhaps the most modern health care system in Africa. It was the first nation to perform a human heart transplant in the 1960s. It has modern hospitals and clinics and well-trained providers, with most health spending occurring in the private sector.[4] Yet South Africa was ranked 175th in overall performance and 182nd in efficiency among 191 countries.

How is it possible that such a well-developed infrastructure supports one of the worst health systems in the world, according to the WHO? Some empirical studies show that public health measures matter, not medical care.[5] The answer lies largely with the tremendous impact of AIDS in driving down DALE in South Africa. A significant additional factor has been the continuing inequity that prevails in the post-apartheid era.

The United Nations estimates that 20% of the adult population in South Africa is HIV-positive, but there is considerable variation within the country.[6] Life expectancy in South Africa is expected to fall to 35 years by 2010.[7] It is not clear how much of this epidemic is due to a flawed health system. Other factors, more appropriately classified as cultural, anthropological, or social, are driving AIDS in Southern Africa. A similar argument can be made about inequality. The conditions driving inequality are often complex, with deep historical roots. It can be misleading to attribute severe inequality, such as is found in South Africa, to the health system. The rankings, it can be argued, reflect much more than shortcomings of the health system.

THE CASE OF THE UNITED STATES

There is another dimension of efficiency that should also be considered. A low-cost, highly effective health system that sustains a healthy population is efficient in a static sense, but over the long run advances in medical and other technologies play a significant role.[8] The above data and the WHO report do not account for this important aspect of efficiency.

The United States spent an estimated $22 billion on research in the health sector in 1999, exclusive of substantial private-sector research and development occurring in pharmaceutical, medical electronics, and other organizations.[9] These large allocations have generated major advances in health technologies that are not adequately captured by the WHO methodology. The responsiveness of health systems, at least in a static sense, is captured in the WHO methodology. On the measure of responsiveness, the United States ranked 1st and South Africa tied for 73rd and 74th, and this ranking was achieved while South Africa was implementing conservative public spending programs.[10]

A CONTINUING CONTROVERSY

Shortcomings of health systems are identified in the WHO report, but much of what is measured has to do with broad socioeconomic conditions. Consider the case of the country ranked first in overall health system performance. France's health policies are driven by the national culture and preferred philosophies of its people: freedom of choice and regulatory protection.[11] The importance of such traditions and other nonsystem factors becomes even more apparent when France is compared with other countries.[12]

It is misleading for an efficiency or system performance indicator to rely heavily on life expectancy when many determinants of life expectancy are beyond the realm of the health sector. Another criticism of the report is that the WHO has not made an adequate effort to distinguish between efficiency and equity. This results in a bias against countries with greater inequality, such as the United States and South Africa. While this bias may be defensible politically, it is more difficult to defend in a performance analysis of health systems.

The controversy over the WHO report, has in our view, been constructive and contributed to an important dialogue

among students of health systems.[13,14] Such dialogue has encompassed a full spectrum of cross-national comparisons.[15–18] We hope this continues. ■

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lations than are political forces that are less committed to such redistribution.[7]

THE SELLING OF MANAGED COMPETITION AND PRIVATIZATION

Another area that Coyne and Hilsenrath do not touch on is the bias of the WHO report in choosing the "experts" or "informants" who ranked the countries according to the responsiveness of their health care systems. In general, the WHO report shows a well-documented bias toward what may be called the conventional wisdom in US and, increasingly, European health care establishments, which promotes managed competition and privatization in the management and delivery of health services as a way of improving the efficiency and responsiveness of medical care.

Not surprisingly, therefore, the report lists the US health care system as the most responsive in the world, even though the US population is the least satisfied (among the populations of Organization for Economic Cooperation and Development countries) with the organization and funding of its health care. According to a nationwide poll on Americans' perception of their health care system prepared for the American Hospital Association,

> the majority of the people in the U.S. see in the health care services they receive neither a planned system nor a consumer-oriented organization, except one devoted to optimizing profit by blocking access, reducing quality, and limiting spending. They blame most of it on the pursuit of profits by health insurance companies. Americans believe that their health insurance companies have too much influence and hold too much control over their care.[8]

Similarly, Colombia—a country that has introduced managed competition at the cost of dismantling its national health system—is ranked in the WHO report as having the most responsive health system in Latin America.

The bias of the WHO report reaches vulgar proportions when it even refers to the collapse of the Soviet Union as an indicator of the unresponsiveness of health care systems that are publicly funded and deliver health care through public institutions (i.e., national health services). This condemnation by proxy is unworthy of a document that aspires to scientific credibility. And, in another section, the report is critical of the well-known WHO Alma-Ata Report of 1978 (which established the primary care movement, from a public health perspective) for not being sufficiently sensitive to the market and to the needs of the private sector in medicine. Actually, in many of its positions and values the WHO report reproduces some heavily ideological assumptions, using a technocratic and statistical discourse that gives it an appearance of rigor that it actually lacks.

THE REPRODUCTION OF IDEOLOGY UNDER TECHNOCRATIC DISCOURSE

Another major problem with the World Health Report 2000 is the methodology chosen to develop the single performance indicator. As Coyne and Hilsenrath indicate, the report gives different weights to the different components of the single performance indicator. This weighting is highly subjective and plays a key role in determining the placement of a country's health care system in the health care performance league.

We saw recently how Spain was demoted from 7th in the world in quality of life, as defined by the United Nations Development Program (another UN agency given to producing compound single indicators), to 21st, simply because of a change in the weights given to the different components of the single quality-of-life indicator. That change cre-

ated alarm in Spain's political establishment, which assumed that the country's quality of life was deteriorating very rapidly. It forced the government to change its public policies to improve those components that were given more weight in the new quality-of-life indicator to make sure that Spain's international standing would be improved.

Thus the technocrats of the United Nations Development Program or the WHO determine, by the way they weight the components of the indicators, the priorities of public policies, and the biases of international technocrats have an enormous influence in shaping the health and social policies of individual countries. This is profoundly wrong. It is one of the major problems that Coyne and Hilsenrath ignore.

THE WHO AS A POLITICAL ORGANIZATION

The history of international agencies, including the WHO, is crowded with examples of how they have reproduced the conventional wisdom of the major developed countries in other contexts, damaging other countries by introducing policies that are foreign to their interests. Banerji has documented many examples of how the WHO, as well as UNICEF, the World Bank, and other agencies, have damaged India.[9]

It is important to realize that the WHO is not a scientific institution but rather an agency of the United Nations, and, as such, is subject to the influence of governments of the G-7 countries—particularly those, like the United States, that fund large proportions of the WHO budget. Thus it is not uncommon for the agency to act as a transmitter of the conventional wisdom prevalent in the developed countries.

Of course, the WHO has done very good work in many areas. But there is an urgent need to analyze, more critically than has yet been done, its work and modus operandi. At a time when the World Trade Organization, the World Bank, the International Monetary Fund, and other international agencies are coming under increasing scrutiny, we should be directing an equally critical look at other agencies, including the WHO. ■

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