# Global Health, National Development, and the Role of Government

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**Abstract:** In spite of extreme differences in health status between the more developed and less developed countries, trends of infant mortality and life expectancy show substantial improvements in *both* types of country between 1950 and 1980. These improvements may be attributed to three types of change: 1) socio-economic development with decolonization, increased industrialization, growth of gross domestic product, urbanization, the gains of women, and enhanced education; 2) cross-national influences due to greater international trade, the spread of technology, and widespread affirmation of human rights; and 3) national health system development through expanded governmental health programs. Further improvements will depend on greater strength in public sector health services rather than private sector services which aggravate inequities. (*Am J Public Health* 1990; 80:1188–1192.)

It has been customary to analyze the shocking differences in health between the rich and poor countries of the world. In this paper we want to examine health *trends* in recent decades in both types of countries, and consider the reasons for them.

## *International Health Trends*

In the early 1980s, life expectancy at birth in Africa was about 51 years, in Latin America 64 years, while in all economically developed counties of the world it was more than 72 years.[1]

Infants born in Africa in the early 1980s died at the rate of 116 per 1,000 live births per year, at the rate of 63 per 1,000 live births in Latin America,and in the United States and Canada at the rate of 12 per 1,000 live births.[2] Within each of these regions, there are substantial differences in the mortality rates of various countries and different social classes. Very affluent families of Africa or India, for example, may have a better health record than the very poorest families of the United States, but the figures apply to averages calculated for total populations.

In spite of these differentials, the great progress made in health by the vast majority of developing countries over the last 40 or 50 years may not be so widely recognized. Continuing gaps in health between the industrialized and developing countries should not obstruct our recognition of the accomplishments in both types of setting. The struggles of health workers and countless others, often against great odds, have not been in vain.

Measurements of population health status in most countries, especially showing historical trends, are not plentiful. Except for a few highly industrialized countries, data are limited largely to infant death rates and life expectancies at birth. While in the vast domain of human health, the mortality figures show just the tip of the iceberg, they are still widely recognized as reflections of social well-being in a larger sense.

In Africa—composed almost entirely of European colonies in 1950—over the 30-year period 1950–55 to 1980–85, life expectancy at birth rose from 38.0 years to 49.9 years. In South Asia (largely India and Pakistan), it increased over this 30-year period from 38.8 to 54.4 years. The equivalent trend in Latin America was 51.2 to 64.5 years.[3]

Trends in infant mortality can also be reported for the 30-year span from 1950–55 to 1980–85. Over these three decades, the rate in Africa declined from 187 per 1,000 live births to 116 per 1,000. In South Asia it fell from 189 to 113, and in Latin America from 126 to 63.[4] The great decline of Europe's infant mortality from 62 to 15 deaths per 1,000 live births over the same period should not downgrade the achievements of developing countries in saving even greater numbers of infant lives.*

The worldwide economic difficulties of the 1980s and continued high military expenditures have slowed down the development of organized health programs in many countries. One might expect that health status measurements would reflect these deficiencies. Yet, up to the present, significant evidence of health declines in the developing countries is lacking. Thus in Africa's largest country, Nigeria, between 1982 and 1987 the infant mortality rate declined further from 120 to 106 deaths per 1,000 live births. In Brazil, Latin America's largest country, infant deaths declined over these recent years from 70 to 64 per 1,000 live births. In India, with more than 700,000,000 mostly impoverished people, the infant mortality rate has gone from 120 in 1982 to 100 in 1987.[5]

Such data are not intended to belittle the tragic discrepancies in the nutrition, well-being, and survival of infants, children, women, and men in the developing countries, compared with others. The application of current epidemiological knowledge in Africa, Asia, and Latin America could soon save millions of lives. But the overall trends we report are nevertheless real.

These trends are not easy to interpret, in light of the enormous problems not only in health systems but also in the overall living conditions of people. One might only speculate that the improvements in quality of life, including the health services, achieved over the previous few decades, have persisted in spite of economic setbacks. This surely does not apply to all countries and all people in a country, but evidently to enough people to affect regional and national averages. What then is the explanation for these remarkable improvements in the health of people in developing countries?

## *Determinants of Improved Health*

Three major types of change, we believe, have contributed to improved health status in developing countries since

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*Averting infant deaths from infectious causes in poor countries may theoretically seem easier than preventing the fewer such deaths from other causes in affluent countries; in 1850, however, the task of reducing Europe's high infant mortality did not seem so easy.

World War II: 1) social and economic development, 2) international and cross-national influences, and 3) the impacts of national health systems. Each of these can be examined only briefly.

**Social and Economic Development**

A central fact of global society after World War II was the independence achieved by former European colonies. Nearly all of the independent lands of Africa and Asia—usually after massive struggles—became sovereign nations, running their own affairs. The world's largest country, China, made a revolution from semi-colonial and feudal status to a self-reliant form of socialism. After initial turmoil, these national liberations led to countless social changes.

Transformation from colonial to independent status is reflected by changes in the work done by people. Between 1965 and 1986, the proportion of the labor force in developing countries engaged in agriculture declined, while the share in industry and services increased. In the "middle income" developing countries (as defined by the World Bank), people in agriculture decreased from 56 to 43 percent of the total; and even in the "low income" developing countries it went from 77 to 72 percent.[6] This trend meant a somewhat lesser role for these countries as sources of raw material for industrial powers and a stronger role as producers of goods and services.

Economic productivity world-wide is increasing. From 1965 to 1987 the gross domestic product (GDP) per capita in all developing countries has been growing each year. With world-wide economic problems, the *rate* of growth has declined from 6.5 percent a year in the first third of this period to 3.2 percent a year in the last third, but overall net economic growth continued.[7]

Another reflection of economic development is the consumption of energy. Between 1965 and 1986, in the middle-income developing countries commercial energy consumption per capita has nearly doubled; in the low-income countries it has nearly tripled.[8]

These data on trends do not tell us about the distribution of economic benefits within countries or the differentials between developing countries, but they do document overall economic advancement that contributes to health status. Analyses of health records in selected countries, however, have demonstrated exceptional achievements, where political will (often linked to socialist ideologies) has led to egalitarian social policies and high priority for health programs.[9,10]

*Social* improvements have been even more dramatic. Virtually every developing country is becoming increasingly urbanized. The squalor and misery of large city slums are all too well known, and at early stages such conditions may elevate death rates. Yet in the long run urban life yields many advantages for employment, education, health, and other social benefits; in developing countries city populations show better health status outcomes than rural—especially for infant death rates.**[11]

The effects of strengthened education in developing countries have been enormous. For all countries, classified by the United Nations as "least developed," the adult literacy rate rose from 19.4 percent in 1970 to 32.4 percent in 1980.[12] The percentage of children enrolled in primary schools in all these countries rose from 39.1 percent in 1970 to 54 percent in 1984. Concerning the status of women—a crucial reflection of overall social development—the number of females per 100 males in primary schools has increased markedly. In the period 1965–70 to 1985, in low-income developing countries the ratio of females to 100 males in primary schools rose from 53 to 74, and in secondary schools from 39 to 60. The mother's educational level is generally recognized as a major determinant of infant survival.

**Cross-National Influences**

The second major determinant of improved health in developing countries, in our judgment, has been international exchange in the broadest sense. This exchange has occurred in three forms: increased trade among countries; the spread of useful technology; and world-wide affirmation of human rights.

The growth of international trade has brought to developing countries machinery for industrial production, for construction, for environmental sanitation, for improved agricultural methods, and for modern transport and communication. Such industry, housing, sanitation, agricultural output, and so on obviously contribute to overall standards of living, which have substantial long-term impacts on health. Between 1970 and 1986, the developing countries with market economies had nearly a five-fold increase in their foreign trade.[12] (This is not to overlook the still greater advances of living standards in the industrialized powers.)

Not that all foreign trade has been beneficial for health. We cannot overlook the policy of the United States forcing developing countries to buy US tobacco as a condition for our accepting (without trade barriers) products exported from those countries. The threat of US trade sanctions has compelled Japan, South Korea, and Taiwan to open their markets to US cigarette companies and their blatant advertising.[14] Thailand is now also threatened. Fortunately, US trade policy that promotes the spread of the smoking epidemic to developing countries is being challenged by legislation, introduced in the US Congress, to make exports and advertising of cigarettes abroad subject to the same restrictions as apply to the sale, distribution, and advertising of cigarettes in the United States.[15]

The *spread of technology* to developing countries has been vast and pervasive. Malaria has not been eradicated, but in many countries it has been greatly reduced, thanks to DDT developed in Switzerland and to other chemical pesticides. Although the eradication strategy of the 1960s has been replaced by the approach of primary health care, vector control by appropriate techniques remains an important component of malaria control.[16]

Penicillin, first discovered in England and followed by generations of other antibiotics produced in America and Europe, has prevented countless deaths and disabilities. The world-wide eradication of smallpox required sophisticated planning, organization, and inter-country cooperation far more than an effective vaccine; yet the international availability of such a vaccine was essential. The elimination of crippling poliomyelitis is another goal now in sight because of innovative immunological thinking in the United States.[17]

The term "technology" may bring to mind magnetic resonance imaging and other forms of sophisticated diagnostic equipment that is seldom appropriate—or surely not of high priority—in developing countries. But the misuse of

**For example, in 1988 Cairo had 41 infant deaths per 1,000 live births compared to 47 in the rest of Egypt, Lagos had 21 to 90 in the rest of Nigeria, Jakarta 33 to 84 in the rest of Indonesia, Bangkok 17 to 41 in the rest of Thailand, Manila 32 to 45 in the rest of Philippines, and 79 in Karachi to 116 in the rest of Pakistan.

some technology should not block our recognition of the benefits of appropriate technology that has benefited millions of people and can benefit millions more. This would include improved and effective methods of contraception, of techniques for obtaining safe drinking water, of low-cost refrigeration, of efficient transport and communication, of fertilizers and pesticides to enhance agriculture and nutrition, of the new therapeutic agents that can effectively treat leprosy, schistosomiasis, trachoma, onchocerciasis (river blindness), and other scourges of the developing world, once regarded as hopeless.

The third form of international exchange, world-wide affirmation of human rights, may seem less concrete than trade and technology, but its influence has been profound. In all countries for several centuries there has been a certain competition between two concepts of health services. With greater or lesser explicitness, health care has been regarded, on the one hand, as a commodity for buying-and-selling in the market or, on the other hand, as an obligation of society—a human right.[18] In the late nineteenth and twentieth centuries, the concept of health services as a social entitlement and human right has gained ascendancy in most of the world.[19]

After World War I, the Versailles Treaty gave birth to the International Labour Organization (ILO) in 1919, based on the principle: "peace through social justice." The ILO became the principal world body to promote social security for the protection of people against various hazards, including sickness. After World War II, the United Nations went further. A major purpose of the UN, defined in its Charter, is "to promote and encourage respect for human rights and for fundamental freedoms for all, without discrimination as to race, sex, language, or religion." (Article I(3) )[20]

To implement this broad purpose, in 1948 the UN adopted its Universal Declaration of Human Rights, which provides:

> "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control."[21]

Many other international documents reaffirm the right to health protection. The Constitution of the World Health Organization (1948) sets the objective of the attainment by all peoples of the highest possible level of health and states that "Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures."[22] The Proclamation of Teheran (1968) provides for the protection of the family and children. The Universal Declaration on the Eradication of Hunger (1974) calls for elimination of hunger and malnutrition. The Declaration of the Rights of Disabled Persons (1975) provides for the right of such persons to full rehabilitation.[23] In 1978, 30 years after the founding of the World Health Organization, UNICEF, WHO, and its member states reaffirmed at Alma Ata that "health . . . is a fundamental human right" and that:

> "a main social target of governments, international organizations and the whole world community in the coming decades should be the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life."[24]

Still other international statements have elaborated on the concept of health as a human right and on strategies for implementing this. Of course, some may cynically say that these legal instruments are mere words, and do not reflect reality. They record social values and policy goals, however, that have been forged from long social struggles—going back at least to the French Revolution and reinforced by the Second World War and post-war movements for national liberation. They affirm principles for social action, they shape political strategies, and they exert, in fact, substantial influence on the features of health systems. National health systems throughout the world have, indeed, been moving in the direction of assuring health service as a human right.

#### Impact of National Health Systems

The maturation of national health systems is, we think, the third major force contributing to the improved health of people, seen in developing countries since the end of World War II.[25] In virtually all developing countries, human and physical resources for health have been expanding more rapidly than the growth of populations. Increased manpower has meant not only more professional doctors and nurses, but many new forms of community health workers. The WHO concept of "primary health care" has influenced national policy in most developing countries, even though large hospitals remain politically attractive.

Systematic organizational networks have helped to disseminate health service to the provinces, districts, and communities throughout the nations of Africa, Asia, and Latin America. Rational health planning and effective management may not be successfully achieved in many countries, but they are processes that almost all governments want to employ. Health services are being provided increasingly by teams of personnel working in health stations, health centers, polyclinics, and hospitals—usually interrelated in some type of regional framework.[26]

To finance these health resources, programs, and services, developing countries are devoting larger fractions of their national wealth to the health system. Around 1950 total health expenditures in developing countries were typically 1–3 percent of gross national product (GNP).[27] In the 1980s, health expenditures in these countries were more often 3–5 percent of GNP. Much of this increase has come from private spending, even though greater amounts have also been collectively mobilized, usually through government.[28]

General evidence of the association of governmental health programs with health status may be inferred from the relationship of health expenditures by government to life expectancy at birth in countries throughout the world. The strong association of overall national wealth, as reflected in gross national product (GNP) per capita, with health status is widely recognized. In 1986, life expectancy in 142 countries was correlated well with the country's GNP per capita (Pearson r 0.658). Correlation of the total health expenditures by government—at all levels and by all public agencies—as a percent of GNP, with life expectancy in the 134 countries on which 1986 data were available, was virtually the same (Pearson r 0.635). Private sector health spending does not contribute to this high correlation.[29]

These trends signify a strengthening of national health systems. All of us in international health work are extremely conscious of the deficiencies remaining in those systems, the sparsity of needed resources, the weaknesses of programs, the poverty of funding. Yet we should not be unmindful of the

gains accomplished, as countries struggle for further progress.[30]

*Demands for Privatization*

This perspective on the health achievements of the last 40 years is important for assessing the recent call, from some quarters, for greater private initiative within national health systems. Although the vast bulk of any country's health expenditures is for medical care (not organized prevention), the World Bank has advocated that "most curative care, whether provided by the government or nongovernment sector, should be paid for by those who receive the care."[31] It must be appreciated, however, that the major health gains of developing countries in recent decades have come from actions by governments. Insofar as health services (both curative and preventive) have been more equitably distributed to rural and urban populations, to children, to the unemployed, to the poor, it has depended on public action. This applies not only to functions inside health systems, but also to the broader sense of socioeconomic development and international exchanges discussed earlier.

The private sector in national health systems has had largely anti-egalitarian effects. The contention that private spending releases government health funds for the poor simply ignores the inequities of private claims on scarce social resources. As expressed in a WHO/UNICEF "Joint Health Policy" study of 1981:

> "The private medical sector absorbs scarce health personnel trained mainly at the state's expense. It is predominantly curative in character, and its expensive practices lead . . . to inflated medical expenditure (and) . . . excessive foreign exchange cost for pharmaceuticals. . . . It has negative influence on medical education. . . . Private medicine undermines. . . . attempts to rationalize . . . procedures on a cost-effective basis. . . . For these reasons the private medical sector now has negative effects on primary health care implementation."[32]

As recently as July 1989 the United Nations Economic Commission for Africa issued a scathing attack on the policies of the International Monetary Fund and the World Bank to increase the role of the private sector. Such programs, the UN Commission said, have often led to lower standards of living . . . to de-industrialization, poorer health, and falling educational standards.[33]

No one realistically expects to abolish the private sector from most national health systems in the modern world (although this has been attempted in certain African countries). But surely it should be kept to a minimal tolerable level, in the interests of health equity. Private resources may sometimes be used by state agencies and paid to provide public services. The solution to poor quality government health services, however, is not to privatize them but rather to heighten the priority and enhance the support of governmental activities for advancement of health.

*Health Strategies for the Future*

If study of the past can yield lessons for strategies in the future, it points above all to the need for still stronger and more effective public actions for health. In practice, this means:

- *adequate financial support* for national health systems, through progressive taxation, social security, and other measures of equitable economic policy;
- *political commitment* to priority for health, for education, and human well-being as a surer path to security and peace than military expansion;
- *trained health personnel* to provide comprehensive health services and to administer those services effectively in communities, provinces, and nations;
- *consumer involvement* in the planning, policy-making, and operations of health systems at all levels;
- *strengthening ministries and departments of health* to direct, integrate, and assure high quality preventive and curative services for all people
- *being alert always to hazards* from the environment, from tobacco, addictive drugs, occupational toxins, trauma and violence, and undertaking social action to minimize or eliminate these risks; and
- *maximum international collaboration* for overall socioeconomic development in countries, essential for creating the fundamental conditions for healthful life.

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