WORLD HEALTH ORGANIZATION

FIFTY-SECOND WORLD HEALTH ASSEMBLY A52/DIV/9
Agenda item 4 18 May 1999

Health in development

Keynote address by Professor Amartya Sen, Master of Trinity College, Cambridge, Nobel Laureate in Economics, to the Fifty-second World Health Assembly

Geneva, Tuesday, 18 May 1999

I feel very honoured - and of course delighted - to have the opportunity of giving this lecture at this extraordinarily important conference. I feel triply privileged, first because the **occasion** is so significant (the World Health Assembly is a gathering of people who can influence the health and longevity of billions of people in the world), second because the **agenda** is so momentous (we have just heard the priorities that have been outlined by the Director-General for "a year of change"), and third because it is so wonderful to be here on the invitation of Dr Gro Harlem Brundtland for whom I have the greatest of admiration.

I have been asked to speak on the subject of "health in development". I must take on the question - the very difficult question - as to how health relates to development.[1] At one level the question admits of a simple answer: surely the enhancement of the health of the people must be accepted more or less universally to be a major objective of the process of development. But this elementary recognition does not, on its own, take us very far. We have to ask many other questions as well. How important is health among the objectives of development? Is health best promoted through the general process of economic growth which involves a rising real national income per capita, or is the advancement of health as a goal to be separated out from the process of economic growth seen on its own? Do all good things go together in the process of development, or are there choices to be made on the priorities to be chosen? How does our concern for equity reflect itself in the field of health and health care? I shall have to go into these issues also.

However, to motivate what is perhaps the most basic issue, let me begin with the report of a very old conversation between a husband and a wife on the subject of earning money. It is, of course, not unusual for couples to discuss the possibility of earning more money, but a conversation on this subject from around the 8th century BC is of some special interest. As reported in the Sanskrit text *Brihadaranyaka Unpanishad*, Maitreyee and her husband Yajnavalkya are discussing this very subject. But they proceed rapidly to a bigger issue than the ways and means of becoming more wealthy: **how far would wealth go to help them get what**

[1] In answering this - and related - questions, I draw on my forthcoming book, *Development as Freedom*, to be published by Alfred Knopf, in September 1999. This lecture also has considerable affinity with my keynote address (entitled "Economic progress and health") to the 9th Annual Public Health Forum at the London School of Hygiene and Tropical Medicine, on 22

they want?[1] Maitreyee wonders whether it could be the case that if "the whole earth, full of wealth" were to belong just to her, she could achieve immortality through it. "No", responds Yajnavalkya, "like the life of rich people will be your life. But there is no hope of immortality by wealth". Maitreyee remarks, "What should I do with that by which I do not become immortal?".

Maitreyee's rhetorical question has been cited again and again in Indian religious philosophy to illustrate both the nature of the human predicament and the limitations of the material world. I have too much scepticism of other worldly matters to be led there by Maitreyee's worldly frustration, but there is another aspect of this exchange that is of rather immediate interest to economics and to understanding the nature of development. This concerns the relation between incomes and achievements, between commodities and capabilities, between our economic wealth and our ability to live as we would like. While there is a connection between opulence, on the one hand, and our health, longevity and other achievements, on the other, the linkage may or may not be very strong and may well be extremely contingent on other circumstances. The issue is not the ability to live forever on which Maitreyee - bless her soul - happened to concentrate, but the capability to live really long (without being cut off in one's prime) and to have a good life while alive (rather than a life of misery and unfreedom) - things that would be strongly valued and desired by nearly all of us. The gap between the two perspectives (that is, between an exclusive concentration on economic wealth, and a broader focus on the lives we can lead) is a major issue in the conceptualization of development. As Aristotle noted at the very beginning of the *Nicomachean Ethics* (resonating well with the conversation between Maitreyee and Yajravalkya three thousand miles away): "wealth is evidently not the good we are seeking; for it is merely useful and for the sake of something else".[2]

The usefulness of wealth lies in the things that it allows us to do - the substantive freedoms it helps us to achieve, including the freedom to live long and to live well. But this relation is neither exclusive (since there are significant **other** influences on our lives other than wealth), nor uniform (since the impact of wealth on our lives varies with other influences). It is as important to recognize the crucial role of wealth on living conditions and the quality of life, as it is to understand the qualified and contingent nature of this relationship. An adequate conception of development must go much beyond the accumulation of wealth and the growth of gross national product and other income-related variables. Without ignoring the importance of economic growth, we have to look well beyond it.

The ends and means of development require examination and scrutiny for a fuller understanding of the development process; it is simply not adequate to take as our basic objective merely the maximization of income or wealth, which is, as Aristotle noted, "merely useful and for the sake of something else". For the same reason economic growth cannot be treated as an end in itself. Development (as I have tried to argue in my forthcoming book, *Development as Freedom)* has to be primarily concerned with enhancing the lives we lead and the freedoms that we enjoy. And among the most important freedoms that we can have is the freedom from avoidable ill-health and from escapable mortality. It is as important to understand the qualified and contingent nature of the relationship between economic prosperity and good health as it is to recognize the crucial importance of this relationship (qualified and contingent though it may be).

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[1] *Brihadaranyaka Upanishad*, II, iv, 2-3.

[2] Aristotle, *The Nicomachean Ethics*, Book I, section 5; in D. Ross's translation (Oxford University Press, 1980), p. 7.

RELATIVE AND ABSOLUTE DEPRIVATION OF AFRICAN AMERICANS

Let me illustrate the conditional nature of the relationship with some empirical examples. It is quite remarkable that the extent of deprivation for particular groups in very rich countries can be comparable to that in the so-called "third world". For example, in the United States of America, African Americans as a group have no higher - indeed have a lower - chance of reaching advanced ages than do people born in the immensely poorer economies of China or the Indian State of Kerala (or in Sri Lanka, Jamaica or Costa Rica). Since I do not have the opportunity of showing you any overhead projection in this hall, you have to imagine the picture yourself. I presented charts on this in my article ("Economics of Life and Death") in the *Scientific American* in 1993, which show how the African Americans as a group are overtaken in terms of the proportion of survival by some of the poorest people in the world.[1]

Even though the income per capita of African Americans in the United States of America is considerably lower than that of the American white population, they are, of course, very many times richer in income terms than the people of China or Kerala (even after correcting for cost-of-living differences). In this context, the comparison of survival prospects of African Americans with those of the very much poorer Chinese, or Indians in Kerala, is of particular interest. African Americans tend to do better in terms of survival at low age groups (especially in terms of infant mortality) *vis-à-vis* the Chinese or the Indians, but the picture changes over the years.

It turns out that Chinese men and those in Kerala in India decisively outlive American black men in terms of surviving to older age groups. Even African American women end up having a similar survival pattern for the higher ages as the much poorer Chinese, and decidedly lower survival rates than the even poorer Indians in Kerala. So it is not only the case that American blacks suffer from **relative deprivation** in terms of income per head *vis-à-vis* American whites, they also are **absolutely** more deprived than the low-income Indians in Kerala (for both women and men), and the Chinese (in the case of men), in terms of living to ripe, old ages. The causal influences on these contrasts (that is, between living standards judged by income per head and those judged by the ability to survive to higher ages) include social arrangements and community relations such as medical coverage, public health care, elementary education, law and order, prevalence of violence, and so on.[2]

The contrast on which I have just commented takes the African American population as a whole, and this is a very large group. If instead we consider African Americans in particularly deprived sections of the community, we get a much sharper contrast. The recent work of Christopher Murray and his colleagues shows how very different the survival rates are for the American population in different counties.[3] If, for example, we take the African American male population in, say, the District of Columbia, St. Louis City, New York, or San Francisco, we find that they fall behind the Chinese or the Keralan at a remarkably early age. And this despite the fact that in terms of income per head, which is the focus of attention for standard studies of growth and development, the African Americans are much richer than the poor population with whom they are being compared in terms of survival patterns.

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[1] These and other such comparisons are presented in my "The Economics of Life and Death", *Scientific American*, 266 (1993), and "Demography and Welfare Economics", *Empirica*, 22 (1995).

[2] On this see my "Economics of Life and Death", *Scientific American*, April 1993, and also the medical literature cited there.

[3] C.J.L. Murray, C.M. Michaud, M.T. McKenna and J.S. Marks, *U.S. Pattern of Mortality by County and Race: 1965-1994* (Cambridge, MA: Harvard Center for Population and Development Studies, 1998).

These are striking examples, but it would be right also to note that, in general, longevity tends to go up with income per head. Indeed, this is the case even within particular counties studied by Chris Murray and others. Is there something of a contradiction here?

There is really none. Given other factors, higher income does make an individual or a community more able to avoid premature mortality and escapable morbidity. But other factors are not, in general, the same. So income is a positive influence, and yet - because of the variation of other factors (including medical facilities, public health care, educational arrangements, etc.) - there are a great many cases in which much richer people live much shorter lives and are overtaken by poorer people in terms of survival proportions. It would be just as silly to claim that higher income is **not** a contributory factor to better health and longer survival as it would be to assert that it is the **only** contributory factor. Also, on the other side, better health and survival do contribute, to some extent, to the ability to earn a higher income (given other things), but then again, other things are not given.

GROWTH-MEDIATED HEALTH DEVELOPMENT

Perhaps the relationship between health and survival, on the one hand, and per capita income levels, on the other, is worth discussing a bit more, since the literature on this is sometimes full of rather misleading conclusions. The point is often made that while the rankings of longevity and per-capita income are not congruent, nevertheless if we take the rough with the smooth, then there is plenty of evidence in intercountry comparisons to indicate that **by and large** income and life expectancy move together. From that generalization, some commentators have been tempted to take the quick step of arguing that economic progress is the real key to enhancing health and longevity. Indeed, it has been argued that it is a mistake to worry about the discord between income-achievements and survival chances, since - in general - the statistical connection between them is observed to be quite close.

Is this statistical point correct, and does it sustain the general inference that is being drawn? The point about intercountry statistical connections, seen in isolation, is indeed correct, but we need further scrutiny of this statistical relation before it can be seen as a convincing ground for taking income to be the basic determinant of health and longevity and for dismissing the relevance of social arrangements (going beyond income-based opulence).

It is interesting, in this context, to refer to some statistical analyses that have recently been presented by Sudhir Anand and Martin Ravallion.[1] On the basis of intercountry comparisons, they find that life expectancy does indeed have a significantly positive correlation with GNP per head, but that this relationship works mainly through the impact of GNP on (1) the incomes specifically of the poor, and (2) public expenditure particularly in health care. In fact, once these two variables are included on their own in the statistical exercise, little **extra** explanation can be obtained from including GNP per head as an additional causal influence. Indeed, with poverty and public expenditure on health as explanatory variables on their own, the statistical connection between GNP per head and life expectancy appears to vanish altogether.

It is important to emphasize that this does not show that life expectancy is not enhanced by the growth of GNP per head, but it does indicate that the connection tends to work particularly **through** public expenditure on health care, and **through** the success of poverty removal. Much depends on how the fruits of economic growth are used. This also helps to explain why some economies such as South Korea and Taiwan

[1] Sudhir Anand and Martin Ravallion. "Human Development in Poor Countries: On the Role of Private Incomes and Public Services", *Journal of Economic Perspectives*, 7 (1993).

have been able to raise life expectancy so rapidly through economic growth, while others with similar record in economic growth have not achieved correspondingly in the field of longevity expansion.

The achievements of the East Asian economies have come under critical scrutiny - and some fire - in recent years, because of the nature and severity of what is called the "Asian economic crisis". That crisis is indeed serious, and also it does point to particular failures of economies that were earlier seen - mistakenly - as being comprehensively successful. Nevertheless, it would be a serious error to be dismissive about the great achievements of the East and South-East Asian economies over several decades, which have radically transformed the lives and longevities of people in these countries. I go into the positive and negative aspects of the East Asian experience more fully in my forthcoming book, *Development as Freedom*, but will not pursue them further here.

For a variety of historical reasons, including a focus on basic education and basic health care, and early completion of effective land reforms, widespread economic participation was easier to achieve in many of the East and South-East economies in a way it has not been possible in, say, Brazil or India or Pakistan, where the creation of social opportunities has been much slower and acted as a barrier for economic development.[1] The expansion of social opportunities has served as facilitator of high-employment economic development and has also created favourable circumstances for reduction of mortality rates and for expansion of life expectancy. The contrast is sharp with some other high-growth countries - such as Brazil - which have had almost comparable growth of GNP per head, but also have quite a history of severe social inequality, unemployment and neglect of public health care. The longevity achievements of these other high-growth economies have moved more slowly.

There are two interesting - and interrelated - contrasts here. The first is the disparity between different **high-growth economies**, in particular between those **with** great success in raising the length and quality of life (such as South Korea and Taiwan), and those **without** comparable success in these other fields (such as Brazil). The second contrast is between different **economies with high achievement in raising the length and quality of life**, in particular the contrast between those **with** great success in high economic growth (such as South Korea and Taiwan), and those **without** much success in achieving high economic growth (such as Sri Lanka, **pre-reform** China, the Indian State of Kerala).

I have already commented on the first contrast (between, say, South Korea and Brazil), but the second contrast too deserves policy attention as well. In our book, *Hunger and Public Action*, Jean Drèze and I have distinguished between two types of successes in the rapid reduction of mortality, which we called respectively "growth-mediated" and "support-led" processes.[2] The former process works **through** fast economic growth, and its success depends on the growth process being wide-based and economically broad (strong employment orientation has much to do with this), and also on the utilization of the enhanced economic prosperity to expand the relevant social services, including health care, education and social security. In contrast with the "growth-mediated" mechanism, the "support-led" process does not operate through fast economic growth, but works through a programme of skilful social support of health care, education, and other relevant social arrangements. This process is well exemplified by the experiences of economies such as Sri Lanka, pre-reform China, Costa Rica, or the Indian State of Kerala, which have had very rapid reductions in mortality rates and enhancement of living conditions, without much economic growth.

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[1] On this issue see my joint book with Jean Drèze, *India: Economic Development and Social Opportunity* (New Delhi, New York: Oxford University Press, 1995).

[2] Jean Drèze and Amartya Sen, *Hunger and Public Action* (Oxford: Clarendon Press, 1989); see particularly Chapter 10.

PUBLIC PROVISIONING, LOW INCOMES AND RELATIVE COSTS

The "support-led" process does not wait for dramatic increases in per-capita levels of real income, and it works through priority being given to providing social services (particularly health care and basic education) that reduce mortality and enhance the quality of life. In a comparison on which I have commented elsewhere, we may, for illustrative purposes, look at the gross national product (GNP) per head and life expectancy at birth of six countries (China, Sri Lanka, Namibia, Brazil, South Africa and Gabon) and one sizeable State (Kerala), with 30 million people, within a country (India). Despite their very low levels of income, the people of Kerala, or China, or Sri Lanka enjoy enormously higher levels of life expectancy than do the much richer populations of Brazil, South Africa and Namibia, not to mention Gabon. Even the **direction** of the inequality points oppositely when we compare Kerala, China and Sri Lanka, on one side, with Brazil, South Africa, Namibia and Gabon, on the other. Since life expectancy variations relate to a variety of social opportunities that are central to development (including epidemiological policies, health care, educational facilities, and so on), an income-centred view is in serious need of supplementation, in order to have a fuller understanding of the process of development.[1] These contrasts are of considerable policy relevance, and bring out the importance of the "support-led" process.[2]

People in poor countries are, of course, persistently disadvantaged by many handicaps; the picture is one of diverse adversities. And yet, when it comes to health and survival, perhaps nothing is as immediately important in many poor countries in the world today as the lack of medical services and provisions of health care. The nature and reach of pervasive deprivation of biomedical services is brought out most vividly by Paul Farmer's recent study, *Infections and Inequalities: The Modern Plagues*.[3] The failures apply to perfectly treatable diseases (such as cholera, malaria, etc.) to more challenging ailments (such as AIDS and drug-resistant TB). But in each case, a major difference can be brought about by a public determination to do something about these deprivations.

THE ECONOMICS AND POLITICS OF HEALTH CARE

Surprise may well be expressed about the possibility of financing "support-led" processes in poor countries, since resources are surely needed to expand public services, including health care and education. The need for resources cannot be denied in any realistic accounting, but it is also a question of balancing the costs involved against the benefits that can be anticipated in human terms. Financial prudence is not the real enemy here. Indeed, what really should be threatened by financial conservatism is the use of public resources for purposes where the social benefits are very far from clear, such as the massive expenses that now go into the military in one poor country after another (often many times larger than the public expenditure on basic education or health care). It is an indication of the topsy-turvy world in which we live that the doctor, the schoolteacher or the nurse feels more threatened by financial conservatism than does the General and the Air Marshall. The rectification of this anomaly calls not for the chastising of financial prudence, but for a fuller accounting of the costs and benefits of the rival claims.

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[1] On this see my "From Income Inequality to Income Inequality", Distinguished Guest Lecture to the Southern Economic Association, published in *Southern Economic Journal*, 64 (October 1997), and "Mortality as an Indicator of Economic Success and Failure", first Innocenti Lecture to the UNICEF (Florence: UNICEF, 1995), also published in *Economic Journal*, 108 (January 1998).

[2] See also Richard A. Easterlin, "How Beneficient is the Market? A Look at the Modern History of Mortality" mimeographed, University of Southern California, 1997.

[3] Paul Farmer, *Infections and Inequalities: The Modern Plagues* (Berkeley, CA: University of California Press, 1998).

This important issue also relates to two central aspects of social living, in particular the recognition of the role of participatory politics, and the need to examine economic arguments with open-minded scrutiny. If the allocation of resources is systematically biased in the direction of arms and armaments, rather than in the direction of health and education, the remedy of that has to lie ultimately in informed public debate on these issues, and ultimately on the role of the public in seeking a better deal for the basic requirements of good living, rather than efficient killing. Nothing perhaps is as important for resource allocation in health care as the development of informed public discussion, and the availability of democratic means, for incorporating the lessons of a fuller understanding of the choices that people in every country face.

The second issue is that of economic scrutiny. It is, in particular, important to see the false economics involved in an argument that is often presented against early concentration on health care. Lack of resources is frequently articulated as an argument for **postponing** socially important investments until a country is already richer. Where (as the famous rhetorical question goes) are the poor countries going to find the means for "supporting" these services? This is indeed a good question, but it also has a good answer, which lies very considerably in the economics of relative costs. The viability of this "support-led" process is dependent on the fact that the relevant social services (such as health care and basic education) are very **labour intensive**, and thus are relatively inexpensive in poor - and low-wage - economies. A poor economy may **have** less money to spend on health care and education, but it also **needs** less money to spend to provide the same services, which would cost much more in the richer countries. Relative prices and costs are important parameters in determining what a country can afford. Given an appropriate social commitment, the need to take note of the variability of relative costs is particularly important for social services in health and education.[1]

A CONCLUDING REMARK

So what conclusions do we draw from these elementary analyses? How does health relate to development? The first point to note is that the enhancement of health is a constitutive part of development. Those who ask the question whether better health is a good "instrument" for development may be overlooking the most basic diagnostic point that good health is an **integral part** of good development; the case for health care does not have to be established instrumentally by trying to show that good health may also help to contribute to the increase in economic growth.

Second, given other things, good health and economic prosperity tend to support each other. Healthy people can more easily earn an income, and people with a higher income can more easily seek medical care, have better nutrition, and have the freedom to lead healthier lives.

Third, "other things" are not given, and the enhancement of good health can be helped by a variety of actions, including public policies (such as the provision of epidemiological services and medical care). While there seems to be a good general connection between economic progress and health achievement, the connection is weakened by several policy factors. Much depends on how the extra income generated by economic growth is used, in particular whether it is used to expand public services adequately and to reduce the burden of poverty. Growth-mediated enhancement of health achievement goes well beyond mere expansion of the rate of economic growth.

Fourth, even when an economy is poor, major health improvements can be achieved through using the available resources in a socially productive way. It is extremely important, in this context, to pay attention

[1] This issue is discussed in Drèze and Sen, *Hunger and Public Action* (1989).

to the economic considerations involving the relative costs of medical treatment and the delivery of health care. Since health care is a very labour-intensive process, low-wage economies have a relative advantage in putting **more** - not **less** - focus on health care.

Finally, the issue of social allocation of economic resources cannot be separated from the role of participatory politics and the reach of informed public discussion. Financial conservatism should be the nightmare of the militarist, not of the doctor, or the schoolteacher, or the hospital nurse. If it is the doctor or the schoolteacher or the nurse who feels more threatened by resource considerations than the military leaders, then the blame must at least partly lie on us, the public, for letting the militarist get away with these odd priorities.

Ultimately, there is nothing as important as informed public discussion and the participation of the people in pressing for changes that can protect our lives and liberties. The public has to see itself not merely as a patient, but also as an agent of change. The penalty of inaction and apathy can be illness and death.

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