

Health, globalization and developing countries

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ABSTRACT

In health care today, scientific and technological frontiers are expanding at unprecedented rates, even as economic and financial pressures shrink profit margins, intensify competition, and constrain the funds available for investment. Therefore, the world today has more economic, and social opportunities for people than 10 or 100 years since globalization has created a new ground somewhat characterized by rapid economic transformation, deregulation of national markets by new trade regimes, amazing transport, electronic communication possibilities and high turnover of foreign investment and capital flow as well as skilled labor. These trends can easily mask great inequalities in developing countries such as importation and spreading of infectious and non-communicable diseases; miniaturization of movement of medical technology; health sector trades management driven by economics without consideration to the social and health aspects and its effects, increasing health inequalities and their economic and social burden creation; multinational companies' cheap labor employment promotion in widening income differentials; and others. As a matter of fact, all these factors are major determinants of ill health. Health authorities of developing countries have to strengthen their regulatory framework in order to ensure that national health systems derive maximum benefit in terms of equity, quality and efficiency, while reducing potential social cost to a minimum generated risky side of globalization.

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Health status is an essential part of human well being. However, the greatest improvements in people's health have resulted not from health services but from social and economic changes and it remains high opportunities to do even better. In health care today, scientific and technological frontiers are expanding at unprecedented rates, even as economic and financial pressures shrink profit margins, intensify competition, and constrain the funds available for investment. Worldwide experience shows that health must be seen as a central factor not only in social development, but also in countries' ability to compete on the global economic stage and achieve sustainable economic progress. Therefore, health is a necessary investment for development process.^{1,3} The experience in the historical context shows that globalization somewhat conflictly characterized by rapid economic transformation, new trade regimes and a growing increase of the poverty gap along with revolutionary electronic communications

and transportation means; and the hope held out by the new transnational social and political movements. These trends offer both possibilities and problems for public's health. The examples of this argument can be observed in developing world. For example,⁴ Tanzania ranks as one of the world's poorest countries according to World Bank figures. But, its commercial center, Dar es Salaam, is one of the most expensive cities in the world in which to live due to expatriates on developed world salaries have helped to increase living costs. An even greater irony is that for Tanzania and many developing nations net flows of wealth remain, as in colonial days, from poor to riches. Far more is spent on servicing national debt than on services such as health or education. These are perhaps some of the less expected features of globalization of the world economy. On the other hand, Western tobacco and arms companies seek to support their profits through selling more to low-income countries. Since 1945, the vast majority of deaths directly or indirectly due

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to armed conflict have been among the world's poor. Besides, efforts within low-income countries to implement rational drug policies through lists of essential drugs have met with resistance from multinational pharmaceutical companies.

These are some examples of economic globalization that implies an unfair selection on behalf of developing world. However, globalization is both inevitable and usually desirable and contains advantageous and disadvantageous issues. Interfering with the free movement of capital hinders the advantages that will bring better standards of living and health for all. On the other hand, presently a very far from "free trade," but a world economy increasingly dominated by a small number of multinational giants able to dictate the conditions of trade. Whatever the point of view, the last decade has undoubtedly seen an increase in the inequality gap between the world's rich and poor.⁵

The literature⁶ has suggested 2 proximate causes of the low overall rate of poverty reduction in the 1990s, despite aggregate economic growth in the developing world. First, too little of that economic growth was in the poorest countries. Second, persistent inequalities (in both income and non-income dimensions) within those countries and elsewhere prevented the poor from participating fully in the growth that did occur.

Health and globalization: Interactions and developing countries.

There is no precise, widely agreed definition on this globalization phenomenon. "I see globalization as a morally neutral but nonetheless inevitable force that poses both opportunities and threats", says Dr. Nils Daulaire, president of the Global Health Council. "Those who judge it to be bad might as well try to hold back the tide. It's just like electricity. If you put your finger in a socket, it's bad. But, if you use it to plug in things that improve your well-being, it's wonderful" says Dr. David Heymann, who heads communicable disease activities of World Health Organization (WHO). Therefore, it is possible to say that: globalization is a source of both hope and of apprehension. It is an accelerating process in flow of information, technology, goods and services as well as production means. Globalization creates challenges for the governance of global health, including the need to construct international regimes capable of responding to global threats to public health. It refers to the process of increasing inter-connectedness between societies such that events in one part of the world increasingly have effects on peoples and societies far away.⁷

Today's commentators argue that the factors, especially the facilitating ones accounting for globalization, such as flow of information technology, rapid transportation, free-trade and the flow of capital, increased pollution, changes in diet produced by genetically modified foods, changing

demand elasticity in the tobacco market, increasing inequalities and more cultural contacts undermine the state's control over what happens in its territory. In fact, it is possible to analyze the common effects of globalization within many contexts.

Globalization has a complex influence on health.

Its effects are mediated by income growth and distribution, economic instability, the availability of health, education and other social services, lifestyle such as stress and other factors, a review of which have recently appeared.⁸ In the modern world, bacteria and viruses travel almost as fast as money.

With globalization, a single microbial sea washes all of humankind.⁹ Because, millions of people cross international borders every single day: almost a tenth of humanity each year. It is not only the infectious diseases that spread with globalization. Changes in lifestyle and diet can prompt an increase in heart disease, diabetes and cancer. More than anything, tobacco is sweeping the globe as it is criss-crossed by market forces.⁹ In order to argue the effects and reflections of globalization on public's health it is useful to build a framework that covers the harmful, beneficial or mixed effects of this process. However, this is not an easy work since one effect can be beneficial for one country while the same one can be harmful for the others. Within this context, for example, Woodward et al¹⁰ developed a conceptual framework for assessment of the linkages between globalization and health. This framework is not approaching this topic in terms of beneficial or harmful effects, but it includes both the indirect effects of globalization on health, operating through the national economy, household economics and health-related sectors such as water, sanitation and education, as well as more direct effects on population-level and individual risk factors for health and on the health care system. Fundamental changes are currently taking place in health. Some of these are caused by developments within the health sector, including new discoveries and new treatments in health care and a greater awareness of the effects of the environment on population health, and some are caused by developments outside the health sector, such as globalization and the growth of the telemedicine and Internet. These changes are likely to increase in the coming years and new developments will take place. Within this climate there is a need for policy to become more informed about the context in which it operates and to take a long-term, strategic view of developing countries health. There is no consensus either on the pathways and mechanisms through which globalization affects the health of populations. Health is one of the facets of globalization that has complex relations. Its effects are mediated by income growth and distribution, economic instability, the availability of health, education and other social services, lifestyle such as

stress and other factors, a review of which has recently appeared. Some health impacts of globalization can be defined as positive such as telemedicine that could help in the provision of services in remote areas. But, telemedicine also requires substantial investment in equipment, communications infrastructure, and training of personnel, which can be counted as negative economic and health effect. Telemedicine presents mixed effects.

In summary, globalization has advantages as well as disadvantages for public's health (*Appendix 1). Inequalities within country define the positive or negative health effects of globalization. For example, globalization increases the accessibility to health information, health services or new treatment regimes of rich people while these opportunities are not attainable for poor, more disadvantages groups. Therefore, when discussing the reciprocal relationship between globalization and health it is necessary to take into account some issues such as poverty and inequalities, and free trade.

1. Health, poverty and inequalities. There is a reciprocal relation between poverty and health. There is a growing concern that globalization increases marginalization of the world's poorest. Many commentators argue this issue. Globalization will be the most important risk factor to enlarge the gap between the rich and poor. The existence of inequalities enlarges the adverse effects of globalization on health. As it is indicated in the 1999 United Nation Human Development Report, the income size of the top fifth of the world's people living in the richest countries was compared with that of fifth in the poorest. The ratio had changed from 30 to 1 in 1960, to 60 to 1 in 1990 and to 74 to 1 in 1997.¹¹ The World Development Reports and Indicators^{12,13} emphasize the disadvantages of globalization on poverty. One of every 5 people in the world is living in absolute poverty, with an income of less than \$1 per day. Surviving on less than \$2 a day is a reality for almost half the people on the planet. The resulting inequalities in health outcomes are stark. Those living in absolute poverty are 5 times more likely to die before reaching 5 years of age than those in higher income groups. Life expectancy gains from the 1950s on are falling in some countries - due to acquired immunodeficiency syndrome (AIDS) and growth in poverty. In Zambia, life expectancy has fallen from 70 to approximately 32.7 years. Even in rich nations socio-economic inequalities in health have grown in the last 20 years. In many countries of the world health systems have deteriorated: access is poor, quality is poor, and drugs are not available. In some low-income countries over 70% of the health budget is coming from external sources. As public health systems have broken down, so has the spread of infectious diseases become increasingly labile -

hitting the poor disproportionately? Attention on emerging and reemerging infectious diseases has risen over the past decade, partly due to growing drug resistance, partly by reason of new diseases such as AIDS, and partly because of self-interest: tuberculosis (TB), for example, was described as 'conquered' in the industrialized world in the 1950s, but has reemerged in the late 1980s. There were also unexpected outbreaks of cholera, dengue, *Ebola*, *Escherichia coli*, diphtheria, even the dreaded plague, just to mention a few in 1997. While the response in the rich world is often couched in terms of a new threat to the health of their populations, it has drawn attention to problems which were never absent from low income and some middle income countries: TB and malaria; for example, and, with a change in leadership at WHO, have led to concerted action around these diseases, as evidenced by some public-private partnerships and by campaigns such as Roll Back Malaria. Nevertheless, the balance is far from redressed.¹⁴

World Development Reports and Human Development Reports showed that:^{13,15} (i) poor people have worse health, such as in several Sub-Saharan African countries, as many as 173 out of every 1000 children born will die before their fifth birthday, while in Sweden; by contrast, under 5 mortality rate is 3 per 1,000 live births.¹⁶ (ii) Ill health is a dimension of poverty as well as it generates poverty: closing inter-country and intra-country gaps between rich and poor, by securing greater proportional improvements amongst poorer groups is not only a poverty issue, it is also a question of social justice and equity. (iii) Inequalities: gap between rich and poor is widening and this situation affect's public's health in negative way. For example, as it was indicated by Bezruchka,¹⁷ the health of the United States population is poor compared to other rich countries. In terms of life expectancy in 1997, the United States stood 25th, behind all the other rich countries, even a few poor ones. The country that has longest life expectancy every year since 1977 is Japan and it has the highest smoking prevalence in the world. However, the Japanese do not die of smoking-related diseases to the extent that Americans do. Therefore, it can be said that the health of population in rich countries is determined primarily not by the sophisticated and expensive health care system or by individual risk factors such as smoking but rather, by the gap between the rich and poor. Many recent studies show that populations with a greater income hierarchy are less healthy and specifically have shorter lives, than populations that are more equitable.¹⁷ This situation is more crucial in developing countries. Therefore, in order to tackle this problem, it is necessary to analyze the power relationships that lies behind the poverty.

*The full text including Appendix 1 is available in PDF format on Saudi Medical Journal website (www.smj.org.sa)

2. Health and trade liberalization. The benefits from growing exchange of health related goods and services between countries were decided to be channeled in order to improve the health status and decrease the inequalities by General Agreement of Trade in Services (GATS). General Agreement of Trade in Services was the outcome of the multilateral negotiations of recent Uruguay Round since there was a need to regulate the growing trade activities according to the same principles underlying all agreements under the umbrella of the World Trade Organization.¹⁸

The intellectual property rights and access to essential medicines in poor countries is an ongoing debate. This is very clearly in the case with HIV/AIDS in Africa where the growth of the epidemic is formidable and the pricing policies of multi-national pharmaceutical companies mean treatment choices are very limited for those living in poor countries.¹⁹ Free trade could offer risks that can be a harmful effect on health by promoting, marketing and trading hazardous products such as tobacco. Although the global reach of the transnational tobacco companies that has been enhanced by a recent wave of liberalization, they have also taken advantage of more direct forms of market penetration via direct foreign investment, either by licensing arrangements with a domestic monopoly, joint ventures, or direct acquisition of a domestic company.²⁰ Some modes of trade namely, cross-border trade, movement of consumers, foreign commercial presence, movement of personnel can be taken into account to examine the general effects of globalization on health that is identified in the General Agreement of Trade in Services from the standpoint of health systems in developing countries.²⁰ (i) Cross-border trade, which involves in particular telemedicine, with certain support services, is not yet widespread in developing countries. Although it could help in the provision of services in remote areas, it requires substantial investment in equipment, communications infrastructure, and training of personnel. (ii) Movement of consumers involve both patients seeking treatment abroad and students receiving foreign training. Flows are usually from developing to industrialized countries, but movement in the opposite direction is also occurring as developed country patients seek good quality treatment at lower prices abroad. Health authorities would need to ensure that any upgrading of services for foreign patients extends equally to domestic patients, and that these are not excluded from the services offered to foreigners. Foreign education can help to upgrade the skills of personnel, provided that students return home, and the training they receive matches needs in the home country. Much attention has been given to designing incentives to encourage trainees to return, and to finding other solutions,

such as setting up regional training facilities. (iii) Foreign commercial presence in the health sector so far is limited in developing countries, and its growth will depend on the size and value of the target market. It will be a sensitive area for health authorities to handle as it involves both foreign direct investment and private sector supply of services. Such investment may not match with national health policy objectives, or may cause a dual system, with a different quality of service for the wealthy and for the needy. Competition among providers may also induce health facilities increasingly to invest in expensive high-technology equipment. (iv) The movement of personnel to provide health services abroad has been a long-standing problem for developing countries. Better working conditions and higher remuneration often attract their trained staff elsewhere. This can produce shortages of staff in the home country, which might have to be compensated by an inflow of foreign health personnel. The home country has to support the cost of training without receiving the benefits, although this expenditure may be offset to some extent by the remittances sent home by workers abroad. (v) Besides, these reduced public health funding is another possible effect that may threaten the developing countries. The emergence of the global market where trading of products is highly competitive and "survival of the fittest" is the dictum has prompted developing economies to reduce national expenditures for low priority programs such as public health. Thus, reduction in public health expenses in these countries has slowed down public health surveillance efforts.

However, to make a preliminary appraisal of the potential impact of this trade, 3 health policy objectives can be taken into account: equity of access, quality of services and efficient use of resources. Therefore, health authorities of developing countries will need in particular to strengthen their regulatory framework in order to ensure that national health systems derive maximum benefit from trade in health services in terms of equity, quality and efficiency, while reducing potential social cost to a minimum.

Reflections of different facets of globalization in the developing world. Literature on globalization,

development, poverty and health status of low and middle-income countries' brought the facts into the open. Some summarized examples are given below: (i) In a briefing paper prepared by Weisbrot et al.²¹ it was indicated that for economic growth and almost all of the other indicators, the last 20 years have shown a very clear decline in progress as compared with the previous 2 decades. Although authors indicated the limited basis of the comparisons used in the analysis, it had been shown that the developing countries benefited the risky side of globalization more compared to developed

ones. The authors proved their argument by using some indicators derived from World Development Reports. For each indicator, countries were divided into 5 roughly equal groups, according to what level the countries had achieved by the start of the period; 1960 or 1980. The summarized findings²¹ are given below:

Economic growth. The fall in economic growth rates was most pronounced and across the board for all groups or countries. The poorest group went from a per capita Gross Domestic Product (GDP) growth rate of 1.9% annually in 1960-1980, to a decline of 0.5% per year (1980-2000). For the middle group (which includes mostly poor countries), there was a sharp decline from an annual per capita growth rate of 3.6% to just <1%. Over a 20-year period, this represents the difference between doubling income per person, versus increasing it by just 21%. The other groups also showed substantial declines in growth rates.

Health outcomes. Life expectancy - progress in life expectancy was also reduced for 4 out of 5 groups of countries, with the exception of the highest group (life expectancy 69-76 years). The

sharpest slowdown was in the second to worst group (life expectancy between 44-53 years). Reduced progress in life expectancy and other health outcomes cannot be explained by the AIDS pandemic.

Infant and child mortality: Progress in reducing infant mortality was also considerably slower during the period of globalization (1980-1998) than over the previous 2 decades. The biggest declines in progress were for the middle to worst performing groups. Progress in reducing child mortality (<5) was also slower for the middle to worst performing groups of countries. Comparisons of two periods in terms of approximate values of health outcome indicators derived from Weisbrot et al²¹ study are given at Table 1.

Education and literacy. Progress in education also slowed during the period of globalization. The rate of growth of primary, secondary, and tertiary (post-secondary) school enrollment was slower for most groups of countries. There are some exceptions, but these tend to be concentrated among the better performing groups of countries. By almost every measure of education, including literacy rates,

Table 1 - Average yearly changes in some major health and education indicators for the periods of 1960-1980 and 1980-1998 (approximate values).

Indicators	Average yearly change between periods		Remark on performance
	1960-1980	1980-1998	
Life expectancy at birth			
69-76 years	0.15	0.19	Improvement
64-69 years	0.20	0.18	No improvement
53-64 years	0.43	0.38	No improvement
44-53 years	0.56	0.18	No improvement
31-44 years	0.40	0.32	No improvement
Infant mortality rate			
6-26 per thousand	0.52	0.45	No improvement
26-50 per thousand	0.99	0.92	No improvement
50-97 per thousand	1.95	1.61	No improvement
97-145 per thousand	2.56	1.96	No improvement
145-218 per thousand	2.75	2.55	No improvement
Under 5-mortality rate			
9-35 per thousand	0.75	0.62	No improvement
35-80 per thousand	1.52	1.53	Slight improvement
80-151 per thousand	3.33	2.41	No improvement
151-228 per thousand	3.75	3.34	No improvement
228-390 per thousand	4.92	4.22	No improvement
Public education spending as percent of GDP			
0.4-2.10	0.11	0.07	No improvement
2.1-2.8	0.09	0.06	No improvement
2.8-3.7	0.09	0.08	No improvement
3.7-5.2	0.07	0.01	No improvement
5.2-9	0.02	-0.02	No improvement
Literacy rate			
1-23	1.12	0.81	No improvement
23-42	1.18	0.87	No improvement
42-63	0.91	1.11	Slight improvement
63-84	0.66	0.63	No improvement
84-100	0.03	0.18	Slight improvement

the middle and poorer performing groups saw less rapid progress in the period of globalization than in the prior 2 decades. The rate of growth of public spending on education, as a share of GDP, also slowed across all groups of countries. Comparisons of 2 periods in terms of approximate values of education indicators derived from Weisbrodt et al²¹ study are given at **Table 1**.

As a result, researchers found that by almost every measure (including growth rates for GDP per capita, improvements in infant and child mortality, and rates of increase in life expectancy, interalia), the progress achieved in the 2 decades of globalization was considerably less than the progress in the period from 1960-1980, despite the 2 oil shocks and high inflation experienced throughout the developed and developing world during the 1970's.

(ii) Cornia⁸ in his article argues that with slow growth and frequently rises in inequality, health improvements during the era of deregulation and globalization decelerated perceptibly, especially during the 1990's. The author indicates that in many parts of Africa and countries of the former Soviet Union there was total stagnation or a sharp regression. The infant mortality rate,⁸ a key indicator of overall health in developing countries, fell more slowly over the period 1960-1998 than in previous decades (**Table 2**), despite the massive increase in the coverage of low-cost, lifesaving public health programs (vaccination coverage rose from an average of 25-70% between 1980 and the end of the 1990's) and the spread of knowledge concerning health, nutrition, and hygiene among parents.

(iii) In his report Yusuf,²² indicates that: "Globalization is not a panacea. Under some circumstances, it can increase the susceptibility of countries to shocks". The experience of the preceding century, which is still fresh in our minds,

teaches us that erecting barriers to the flow of goods, factors, information and ideas, was injurious to welfare and entailed a loss of freedom. Reversing globalization, even if it could be carried out, would be an enormous setback. Slowing international integration, while it might temporarily protect some groups from competition, will often be purchased at high long-term costs for the majority. Frequently, the delay in opening the economy does not lead to reforms that strengthen vulnerable sectors or to the creation of safety nets to protect low-income groups. Generally, reforms are compelled and implemented by facing the challenges ahead on it.

(iv) Another World Bank Report²³ showed that: Global business cycles make considerable macro economic volatility at the national level that has become more acute in late 20th century globalization. In particular, the scope and severity of the crisis in the 1990s, for example in Mexico (1994-1995), Asia (1997), Russia (1998), Brazil (1999), Argentina (2001-02), Turkey (2001-2002) is evidence that we are facing severe financial vulnerability. This is a very serious problem of globalization as highly integrated financial markets transmit, very quickly, across countries, financial shocks and change in confidence levels that affect exchange rates interest rates, asset prices and ultimately output and employment with adverse social effects.

Situation in Turkey. The total population of Turkey in the year 2000 is approximately 67.8 million and this country is one of the 20 most populous countries of the world. Turkey has a young population; 41% of the total population is aged ≤ 18 years.²⁴ In Turkey, due to the continuous, consistent and reliable data deficiencies making analysis in terms of the reciprocal relations between demographic, health, social and economic status variables are hard. Therefore, ecological data is usually employed. The available data indicate that

Table 2 - Trends in average regional annual decline in infant mortality rate in the 1960-1998.*

Country groups	1960-1970	1970-1980	Years cover		1980-1990	1980-1990
			1980-1990	1990-1998		
High-income	-2.6	-2.0	-2.7	-1.3	-2.3	-2.1
Low- and middle income	-3.9	-5.3	-3.8	-4.0	-4.6	-3.9
Eastern Europe	-2.8	-2.1	-2.8	-1.3	-2.4	-2.1
Central Asia	-	-	-3.9	-3.1	-	-3.5
Sub-Saharan Africa	-1.8	-1.7	-1.3	-1.2	-1.8	-1.2

*rates are compounded and weighted by population size.

Turkey is affected from the merits and demerits of global trends and national economic crises. For example, after the economic crises in the Far East,²⁵ the effects were also felt in Turkey. The Turkish economy is rebounding slowly after the national financial crisis in 2001. After decreasing by 7.4% in U.S. dollar terms from 2000 to 2001, the Turkish economy has grown at an annual 5.4% pace. In 2001, per capita the GDP was \$5,890 using purchasing power parity comparisons. Inflation, which peaked at 68.5% in 2001, has decreased to 27% rate²⁶ and recently it is approximately 10%. The health status of Turkey is not at a good level absolutely the same and when compared to other countries with the same income level. The sector has problems in each part, but it is necessary to deal with some problems immediately. As a development indicators of health sector, maternal and infant mortality rate, which is still very high, comes at the beginning of these problems. Some evidence on the health reflections of global situation are as follows: (i) significant achievements have been made in human capital since 1923 by investing it in education, health and other national efforts. Life expectancy during the period of 1935 to 2002 showed 21.3 years increase for female and 15.5 years for men while both crude births and mortality rates steadily decreased by 22.4 and 24.7. Life expectancy at birth was 44 years for the period of 1950 to 1955 and 52 years in the period of 1960 to 1965 while it increased to 69 years in the period of 1990 to 2002.²⁷⁻²⁹ Projections of State Planning Organization of Turkey prevail that life expectancy at birth was 69.6 years in 2002, projected to reach 70.3 in 2005.²⁷⁻²⁹ On the other hand, as it is shown in the latest survey, income distribution is still highly skewed, with the richest 20% of the population accessing 48% of the income, while the lowest quintile has 5.2% in 2002. This argument is supported by the comparison of Gini coefficients of 1963 (Gini coefficients of 0.55) and 2002 (Gini coefficients of 0.44) generated by household income and consumption survey findings.^{30,31}

(ii) Turkey's total fertility rate (TFR), however, marks considerable variation in fertility across urban-rural Turkey and across regions. As the Turkey Demographic and Health Survey³² (TDHS) results show, TFR in rural areas was 2.23 in 2003, almost 8% higher than the TFR of 2.06 in urban areas while this ratio was 29% for the 1998 study period. The Eastern region has the highest TFR (3.7%), almost twice as high as that in the Western region (1.88) in 2003, a rate that is comparable to many Western European countries. Total fertility rate falls as education levels raise, and it is 2.8 times higher among women with no education or minimal education (3.9%) compared to those who have at least high school (1.4%). The urban-rural and

regional differences in TFR are indicative of disparities in access to health and family planning services, differences in income and education levels and differences in cultural values across locations and regions.

(iii) Data from Turkey's National Health Accounts (NHA) study measures GNP at \$3,002 per capita in 1999 and \$2,700 per capita in 2000. Total health expenditures were \$187 per capita in 1999 and \$202 per capita in 2000 (6.2% and 7.5% of GNP). The Turkey's NHA study found that public expenditures were 62.9% of total health expenditures in 1999 and 64.3% in 2000. By way of comparison, the Organization for Economic Cooperation and Development (OECD) measures Turkey's 2001 GDP per capita at \$3,000, and health expenditures at \$150 per capita (5% of GDP). Public health expenditures account for 71% of this amount, and private expenditures for 29%. The World Bank in 2003 provides slightly different estimates of healthcare expenditures in 2001 as \$112, with 83% from public sources. While they differ in terms of details, these sources are consistent in showing that Turkey's health expenditures-measured to be between \$112 and \$202 per person, are inadequate and far below countries that are socially and economically comparable. Health financing trends in Turkey are slowly increasing; however, the Ministry of Health budget was equal to 2.2% of the national budget in 2001, and is currently estimated at 2.4% of the national budget.^{27,28,33}

(iv) The infant mortality rate (IMR) of 3.9 and under 5 mortality rate (U5MR) of 4.6 is higher compared to the lowest income quintile relative to the richest income quintile in 1993 survey (Table 3). The difference between the fourth and the top quintile is also significant (approximately 50%), while the second and third quintiles group together. Factors such as inadequate access to health care services, lower utilization of health services, poor nutritional levels and lack of environmental hygiene (availability of safe drinking water and sanitation) contribute to these differences in infant and U5MR across wealth quintiles.³⁴

Infant mortality rate is generally accepted as a sensitive indicator that reflects the health and economic status of a country. As it is indicated in Table 4,^{31,32} the comparison of amount of relative change in IMR between rural and urban areas for the 1993 and 2003 surveys showed that the amount of relative reduction (being better-off) in IMR is greater (therefore faster) in urban areas compared to rural settlements in Turkey (48% and 16% for IMR) while the percentage of household direct health expenditures increased in 2002 since the 2001 economic crises affected the country and most rural people had no opportunity to be reimbursed for health by the government.

Table 3 - Some indicators of infant and child (<5) Health by Wealth Quintiles, 1993.

Wealth Quintiles	Infant mortality %	<5 mortality %	Children (<5) stunted (< -2SD z-score) %	Children (<5) underweight (< -2SD z-score) %
Poorest quintile	99.9	124.7	36.3	-1.3
Second quintile	72.7	84	26.3	-4.0
Third quintile	72.1	83.2	18.8	-1.3
Fourth quintile	54.4	61.8	9.4	-3.1
Richest quintile	25.4	27.1	4.3	-1.2

Table 4 - Comparison of Health and Economic Indicators for 1993 and 2003.

Variables	1993 Turkey Demographic and Health Survey			2003 Turkey Demographic and Health Survey		
	Rural	Urban	Total	Rural	Urban	Total
Infant mortality rate (per 000)	65.4	44	52.6	39	23	29
Household health expenditures (%)	2.5	2.6	2.6	2.7	2.1	2.3

(v) The nutritional status of children varies significantly across households grouped by wealth quintiles. As **Table 3** shows, children in the poorest quintile were almost 9 times more likely to be stunted and almost 7 times more likely to be under-weight than those in the richest quintile. These differences persist in both urban and rural areas.³⁴

(vi) Turkish imports of medical equipment approaches to USD 430 million at the end of 2003 while production is estimated to reach USD 1.3 billion. The government witnessed growth in the domestic medical device industry as imports fell as a result of the 2000 and 2001 financial crises. On the other hand, Turkey relies on imports for a large portion of its sophisticated medical equipment needs. For pharmaceuticals, 2.951 billion Euro were spent for consumption in 2000.³⁵ However, towards European Union Accession, pharmaceuticals and intellectual property were areas specifically identified for alignment which threatens the national production.

The weight of the above evidences indicates that economic and social determinants not only have a direct impact on the health of individuals and populations, but also are the best predictors of individual and population health. The degree of

inequality within the country is strongly associated with an increase in social problems. Evidence from trends in health inequalities-in both the developing and the industrial world-supports the notion that health inequalities rise with rising per capita incomes. The association between health inequalities and per capita incomes is probably due in part to technological change going hand-in-hand with economic growth, coupled with a tendency for the better-off to assimilate new technology ahead of the poor. Turkey has one of the more complex health care systems in the world. A wide array of health care providers, financiers, and organization arrangements has resulted in an inefficient system, which increasingly fails to meet the health needs of the country's population. Poor health status of the population relative to the country's income level, inequitable access to health care, an unsustainable public insurance system, inefficient use of resources make health care reform activities imperative.³⁶ As an OECD member and as a European Union (EU) accession candidate, Turkey is seeking ever-closer ties with Western Europe and the EU. Yet, equity in the health sector is one of the important stumbling blocks that the country must address to achieve social peace. While Turkey is the world's seventh most industrialized nation, it ranks only

88th out of 177 countries as measured in the 2004 UNDP Human Development Index,³⁷ far behind most middle income countries, most notably the middle income countries in Latin America such as Argentina (34), Chile (43), and Mexico (53) or some middle-east countries such as Saudi Arabia (77), Kuwait (44) and United Arab Emirates (49). In Turkey, factors contributing to this low ranking are the nearly 17% adult illiteracy rate and poor health outcomes. Global economic crises are affecting the population in Turkey. For the new world order, Turkey needs more open trade and investment policies to have more reliable property rights and better economic institutions to participate in the global economy for economic growth promotion since what is good for national income are good for national health.

Global problems wait for global solutions. Globalization is sometimes used in a much broader economic sense, as another name for capitalism or neocolonization or the market economy. Today, almost 2 billion of people live in deep poverty in this world. And the world has the resources, technology and knowledge to improve their health as well as of all humankind. The solution is in the hands of owners of these resources. But, it is not clear that whether the developed world really want to pay the opportunity cost of their welfare.

The countries that have been excluded from the benefits of the global market should create a ground in strengthening their human resource bases, infrastructures and macroeconomic balance. For many countries, some components of globalization, such as trade liberalization and technology transfer, could, in principle, increase efficiency, welfare and health. Under the present restrictive rules of access to the international market, further liberalization and globalization would help these countries to improve their market position, economic efficiency and health status. Uncontrolled globalization in these countries could be expected to immediately generate considerable costs in efficiency and social affairs that would worsen growth performance and health outcomes. Particularly for these countries, a gradual and selective integration into the world economy and to the creation of new democratic institutions of global governance is highly preferable to instant globalization.

The role of the state is changing. Governments should constitute strong national health policies, regulations, programs and institutions to protect public's health from the negative effects of globalization. Strategies, which maintain and create equity in health status, should be an integral part of sustainable social, economic and human development policies. Within the context of health reforms, global health promotion programs should support every country to create rational and effective health policies. Also, the public health

workers should be equipped with the knowledge and skills to engage partners across sectors and across borders to achieve health and social goals.

Although health has traditionally been seen an area of limited multilateral cooperation, there is a growing awareness that contemporary globalization has led to the proliferation of cross border determinants of health status and is undermining the capacity of nation states to protect health through domestic action alone. Consequently, globalization is creating a heightened need for new global health governance structures to promote coordinated intergovernmental action. International bodies such as WHO, United Nations Development Program and World Bank should continue to function as an independent provider of knowledge and evidence. International and national public health movements need the power of strongly public and non-governmental organizations' support. People should raise their voices to establish advocacy against the growing power of multinationals and increasing inequalities.

Therefore, global problems can be solved by global efforts. The recent United Nations Millennium Declaration contains an integrated and comprehensive overview of the current situation and searches solutions.³⁸ It outlines potential strategies for action that are designed to meet the goals and commitments made by the 147 heads of State and Government, and 189 Member States in total, who adopted the Millennium Declaration. The Declaration suggests path to follow and shares information on "best practices." It draws on the work of Governments, the entire United Nations system, including the Bretton Woods Institutions and the World Trade Organization, intergovernmental organizations, international organizations, regional organizations and civil society.³⁸

Developing and implementing research agenda at national and international level should investigate positive and negative health effects of globalization. The governmental and non-governmental bodies should carry this responsibility. The outputs of the researches can be utilized to create more rational policies, practices and evaluations.

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Appendix 1

Key issues in health and globalization interaction

- 1. Speed and spread of diseases: (as a result of the movement of people and environmental changes)**
 - Importation of infectious diseases and possible epidemics (HIV/AIDS, STDs, influenza, tuberculosis and others)
 - Spreading of increased non-communicable diseases (for example increased number of coronary heart diseases, obesity, asthma, depression, hypertension and others)
- 2. Standardization of medical education**
 - An establishment of a common curriculum and acceptable professional standards (medical professionals) among countries.
 - Requirement of licensing for cross-border medical practice.
 - Harmonizing accreditation standards
 - The development and improvement of skills of health providers through access to new technologies
- 3. Availability of dangerous products**
 - Movement of legal and illegal drugs that pose as a health risk.
 - Increased trafficking (modern slavery, organ trafficking, prostitution)
 - Smuggling (human, arm, and others)
- 4. Changes in health systems**
 - Creation more flexible health insurance for portability
 - Reconstruction health systems and more privatization in health sector
 - Reduced public health funding
 - Not enough attention for equity and access to health care services as resources shift from public to the private sector
 - Limited resources (financial, human and technological) in the public sector to provide efficient health care services in developing countries.
- 5. New rules for cross border flows**
 - Movement of medical technology
 - Capital flows
 - Movement of production means
 - Difficulty in attracting foreign and domestic investors in developing countries.
 - Brain drain from developing countries
- 6. Increased inequalities within and among countries which increases health risks**
 - Skewed income distribution (Poor people have worse health)
 - Ignorance high-risk groups by health authorities
 - Expanded trade in the health sector driven by economics without consideration to the social and health aspects.
 - Increased health inequalities cause extra economic and social burden.