Is Public Health Between East and West? Analysis of Wealth, Health and Mortality in Austria, Central and Eastern European Countries, and Croatia Relative to the European Union

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Aim. To provide a conceptual framework for health planning activities in the “middle-income” transition countries.

Method. Economic, demographic, and disease-related data in Central and Eastern European (CEE) countries, including Croatia and Austria, were compared to the European Union (EU) average. Data were selected from the databases provided by the World Health Organization, Organization for Economic Cooperation and Development, World Bank, United Nations, and the European Bank of Reconstruction and Development. Life expectancy and mortality were extrapolated until the year 2000 by using an exponential growth model for the WHO time series data, starting in 1994. Death rates due to ischemic heart diseases (18%) and cerebrovascular diseases (13%) were selected to show frequent causes of death.

Results. Relative to the EU average, the gross domestic product (GDP) share of health expenditures in transition countries was disproportionate to wealth and premature death. The population in CEE-countries was younger and the share of people aged ≥65 was predicted to remain about 15% below the EU average and Austria. For Croatia, the share of people aged ≥65 would be on the increase, similar to the share predicted for Austria (slightly above the EU average). Mortality of selected non-communicable, chronic diseases is predicted to increase and remain relatively high. Mortality rates due to infectious diseases have been declining but remain comparatively on a high level.

Conclusions. Coexistence of demographic and epidemiological transition along with high mortality rates due to infectious diseases creates a “double burden”. Economic transition has the potential to comprise both the increase in wealth, and life and health expectancy.

Key words: European Union; Europe, Eastern; health planning; health priorities; health services needs and demand; mortality

In the course of transformation efforts, many economies have to face a turning point. Most of them are now growing, considering the situation of only a few years before when many were experiencing extreme economic decline and rapid falls in output. When national income declines, as it did in every Central and Eastern European country and the new independent states, the health sector almost inevitably shrinks at the early stages of the reform. According to the European Bank of Reconstruction and Development, there are two reasons for optimism: (a) the potential for a large productivity gains from the structural change and enterprise restructuring, and (b) potential contributions to growth from the highly skilled work-forces in the region. Increases in output partly reflect the recovery from the effects of the collapse of the previous regime’s central planning and from the initial challenges of market liberalization. They also show the beginnings of a market-driven growth. However, for some people, such as those with outdated skills, the elderly or children in large families, growth is not a complete solution. For such groups, explicit remedial programs are needed. Even for the rest of the population, growth should be sustained to have a major impact on the living standards and therefore on health conditions in the respective population. Thus, the challenging task in relation to the health sector is how the transition of growth gains into priority setting can be accomplished if the health care system is to respond in an effective and efficient way to the prevailing and future health needs.

The purpose of this study is twofold. The first aim is to analyze economic, demographic, and disease-related data in Central and Eastern European countries, including Croatia, and in Austria with respect to the European Union average (EU average). To discuss the estimation of future health needs, age adjusted mortality rates for selected diseases were predicted up to the year 2000, and their evolution was investigated with respect to the EU average. The second aim is to provide a conceptual framework for health planning activities in “middle-income” transition countries. It emphasizes the prospective method for the estimation of future health needs. The rational for estimating future health
needs is to map the scope and the quality of resources and services needed to meet the demand for health within the transformation process of living conditions, i.e. health conditions.

**Method**

The article is organized in several sections. Section one summarizes the most recent growth prospects and points out the inverse relation between wealth, health spending, and premature death in transition countries. The second part concerns life expectancies and age distribution relative to the EU average. Section three summarizes the presumed causes of differences in the mortality rates and their contribution to the inconsistency in life expectancies between Central and Eastern European countries, the region of new independent states, and western Europe. Mortality trends and possible explanations for the mortality discrepancy are envisioned in the fourth and fifth section, respectively. Finally, section six provides a conceptual framework for considering health transition embedded in economic transition as an opportunity to set health priorities according to future health needs of a population rather than to use pure allocation mechanisms due to budgetary limitations.

**Results**

**Wealth and Health**

Although many of their citizens had experienced material and non-material gains, Central and Eastern European countries and the new independent states are characterized by an increase in poverty. As the Central and Eastern European countries and new independent states underwent a simultaneous decline in output and increase in inequality, poverty rose sharply. According to the World Bank and European Bank of Reconstruction and Development, inequality has risen throughout the region because of wage liberalization, increase in unemployment and reduced social transfers, rise in income earned in the private sector, where incomes vary greatly, and a decline in public services. Resumed growth was therefore the key to containing and reducing poverty (1,2).

The resumption of the economic growth (from 1.5% to 2%) began in the region as a whole in 1997 after seven years of continuous decline in gross domestic product (GDP). On an average, Central and Eastern European countries are now growing at rates of 4% or more. Nevertheless, the growth performance has been uneven in different countries. Growth in the eastern Europe has been slowing for the third year in a row, with Albania, Bulgaria, and Romania experiencing serious setbacks. Growth in many of the more advanced economies in implementing reforms is currently driven by domestic demand and especially by private consumption, whereas exports were the driving force when growth first resumed (2).

As the economies are starting to grow again, policy-makers have to devise a strategy in order to allow the health sector to develop in a controlled way, both to prevent an explosion in health spending and to adjust the overall mix of medical activities and health service provision.

**Figure 1:** Comparison of wealth (1995), health (1994), and outcome (1994) in Austria, Central and Eastern European (CEE) countries, and Croatia relative to the European Union average (EU-15=100). Closed bars, GDP per capita USD purchasing power parities; gray bars, total expenditure on health in percent of GDP; open bars, reduction of life expectancy through death before the age 65. [view this figure]

**Figure 2:** Comparison of the age distribution and life expectancy in Austria, Central and Eastern European (CEE) countries (1995), and Croatia relative to the European Union (EU-15=100). Closed bars, population 0-14; gray bars, population ≥65; open bars, life expectancy at birth. [view this figure]

However, Figure 1 (3-5) indicates that in 1995 there was – with respect to the EU average – an inverse relation between wealth and health spending and early death in the Central and Eastern European countries and in Croatia. Broadly speaking, this inverse relation is in contrast to macroeconomic efficiency. Achieving macro-economic efficiency means that the allocation of funds to the health sector is adjusted to the economic capacity of the respective country. Health care consumes have a significant share of resources in all countries. In 1994, the percentage of GDP spent on health care in the Central and Eastern European countries ranged from 2.8 in Albania to 8.7 in Croatia. Despite the severe contraction in real growth in GDP over the 1987 to 1994 period, real health expenditures either grew faster or decreased more slowly than the GDP (3). The primary objective of health policy is to, within budget constraints, improve citizens' health. Several subsidiary objectives follow from this twofold obligation: equitable access to health care; producing the quantity, quality, and mix of health interventions (including preventive care and health education).
that bring about the greatest improvement in health (external efficiency); running medical institutions as efficiently as possible (internal efficiency); and financing health interventions efficiently and equitably (1, 6, 7).

In Croatia, FYR Macedonia, and Slovenia, health care expenditures have been financed insurance-based since the beginning of the sixties. Many of other transition economies, including the Czech Republic, Estonia, Hungary, the Kyrgyz Republic, Latvia, Russia, and the Slovak Republic have recently shifted from taxes to social insurance to pay for health care, and many others consider this solution. The shift towards national health insurance has led to a marked and sustained increase (2.0-2.5%) in real public spending on health (6) and has caused problems. Firstly, structural deficits arise because workers’ contributions subsidize non-active population, including pensioners. Secondly, substantial reliance on payroll taxes has increased labor costs and aggravated incentives to work in the informal sector. Thirdly, some governments have lost control over spending, because contributions and expenditure are determined separately by a more or less autonomous health insurance fund (1).

Generally, there has been a continuing weakness in the fiscal revenue performance and, as in previous years, it has forced the authorities to rely heavily on tight policies in the pursuit of stabilization (2).

**Age Distribution and Life Expectancy**

The well-being of the population depends on the income, wealth (e.g., possession of a house or land), and on less tangible factors, such as a fair degree of security. It also depends on the access to public goods and social services. Moreover, the absolute number and age distribution of the population are the main determinants to estimate health needs. Figure 2 (4, 5, 8) shows that, compared to the EU average, both the age group Æ65 and life expectancy at birth were lower in the transition countries. Regarding the population projections, the share of the age group Æ65 in the total population is predicted to increase in the Central and Eastern European countries. However, it is forecasted to remain about 15% below the EU average. Figure 3 (9) shows that the share of people Æ 65 in Croatia should be growing very much in line with the share predicted for Austria.

Figure 3: Comparison of the age group >_65 as a share in the total population relative to the European Union average (EU-15=100). Tick marks, Austria; triangles, Croatia; rectangles, Central and Eastern European average. [view this figure]

Although life expectancy at birth was declining compared to the EU average, as it is shown in Figure 4 (5), it is projected to increase. Thus, epidemiological, as well as demographic transition, will alter morbidity and mortality.

**Mortality and Life Expectancy**

There is a sharp division in mortality between the western Europe and the former socialist countries of Central and Eastern Europe. Moreover, the gap is predicted to widen. The difference in life expectancy between countries with the lowest and highest life expectancies at birth is more than 10 years for both men and women. The gap in mortality has largely developed in the past two or three decades. In all the western European countries, life expectancy increased substantially between 1970 and 1991 (an average of 3 to 4 years). In contrast, the increase in the Central and Eastern European countries was at best negligible, and in Hungary, Poland, and Bulgaria there was a decline in male life expectancy at the age of 15. Not a single Central and Eastern European country recorded an increase in male life expectancy, and even at the age 45, the difference in male life expectancy between the best and worst European countries was almost eight years. The situation further deteriorated in most Central and Eastern European countries after the collapse of the communist regimes in 1989 (10). By the late 1980s, Hungarian men aged 15 to 59 were at a greater risk of dying than their counterparts in Zimbabwe, and the risk of death in Czechoslovakia was higher than in Vietnam (1). By the mid-1980s, the mortality rates from heart disease in men aged 45-54 in Czechoslovakia were twice as high as those in Austria; thirty years before the rates were similar (1, 10).

The World Health Organization analyzed the contribution of individual causes of death at different ages to the 6.06 year gap in life expectancy at birth between Central and Eastern European countries and the rest of Europe (11). Despite an eight-fold difference in infant mortality between the best in the
The level of age may reach the level that is 120% above the EU average (Fig. 6). Thus, the increase in diseases had increased to 80% above the EU average. In Croatia, it was about 100% above the EU average, in line with the EU average. By the year 1994, mortality due to stroke and other cerebrovascular diseases had increased to 80% above the EU average. In many of the new independent states, the long-run trend towards the mortality increase has accelerated since the beginning of transition, particularly for men. The sharp decline in men's life expectancy in Russia between 1990 and 1994 was the most dramatic shift of all. By contrast, infant mortality and life expectancy improved in the advanced reform countries. In Poland between 1989 and 1995, infant mortality decreased from 19.1 to 13.4 per 1,000 live births (1,5), and life expectancy increased by one year for men and six months for women (1). Infant mortality in Croatia has dropped below 10 and the number of low-birth-weight babies is close to the EU-level (5,12).

**Mortality Trends until 2000**

Mortality patterns are a key variable to describe the health status of a population. Although mortality is an incompressive measure of the complex nature of the health status, it is nevertheless of enormous significance for health planning activities and for setting health priorities.

To show the development of mortality in selected diseases until the year 2000, I made a projection using an exponential growth model for the WHO time series data (5), starting in 1994. The mortality trends were calculated by least squares fit using the equation where c and b were constants, and e was the base of the natural logarithm. The R-squared values presented in the figures were not adjusted. All mortality data were age standardized. For this analysis, the data were not stratified according to age groups and sex.

As with all predictions, the assumption is that the existing trends will continue into the future. The golden technique for predicting disease pattern is age period cohort analysis supplemented by qualitative techniques. The method employed in the analysis is therefore only a crude measure of how mortality will extrapolate for a very short time, compared to the EU average. This procedure is justified by the expectation that, despite the resumption of the economic growth in transition countries and possible change in the social condition, the improvement in the health status will be lagging behind. Thus, the assumption is that disease pattern will not change in the short run, which is the time-span used in the analysis. Moreover, the purpose of making this forecast is embedded in the intention to augment the arguments for a comprehensive priority setting under severe budget constraints that the transition countries have to face.

In order to show the most frequent causes of death worldwide (13), the death rates due to ischemic heart diseases and cerebrovascular diseases have been selected. In the countries considered — including the EU — they comprise on an average about 18% and 13% of all deaths, respectively. In addition, the prediction of mortality trends has been made on the basis of death rates due to diabetes and infectious diseases. They comprise on an average 1.7% and 0.7% of all deaths in the Central and Eastern European countries, respectively. Diabetes is closely connected to heart disease, kidney failure, and blindness. Infectious diseases, on the other hand, are linked to socioeconomic conditions. In particular, their high prevalence in Central and Eastern European countries compared to the EU average creates a “double burden” for transition countries in terms of setting health priorities along with the retarding economic growth.

Mortality data and the predictions of mortality rates, however, serve as an approximate interpretation of the real health status of a population and require a lot of caution. Not only the continuous revisions of the international classification of diseases (ICD), but also improved data collection may result in worsening or improving mortality trends.

In 1994, the age-adjusted death rates due to ischemic heart diseases (5) in the Central and Eastern European countries were 40% above the EU average and are predicted to further increase. The gap between Austria and Central and Eastern European countries was only 20%, but it is predicted to increase (Fig. 5).

The difference in mortality trends due to cerebrovascular diseases (5) is even more pronounced. Between 1977 and 1984, the death rates in Central and Eastern European countries were developing in line with the EU average. By the year 1994, mortality due to stroke and other cerebrovascular diseases had increased to 80% above the EU average. In Croatia, it was about 100% above the EU level. Thus, the prediction shows a further widening of the gap. By the year 2000, mortality in Croatia may reach the level that is 120% above the EU average (Fig. 6).

The level of age-adjusted death rates due to diabetes (5) in Central and Eastern European countries...
had reached the EU average by the year 1994. The low level between 1970 to the mid-eighties might have been a result of a documentation bias. Nevertheless, according to the prediction, the observed increase will continue to rise and the level for Central and Eastern European countries will be 20% above the EU average in the year 2000 (Fig. 7).

Figure 5: Comparison of age-standardized death rates due to ischemic heart diseases, all ages per 100,000 relative to the European Union average (EU-15=100). Prediction of the Institute for Advanced Studies using exponential growth model for the time series data; R²=0.87 for EU average, R²=0.71 for Austria, R²=0.68 for Croatia, R²=0.79 for Central and Eastern European (CEE) average. Tick marks, Austria; triangles, Croatia; rectangles, CEE average. [view this figure]

Figure 6: Comparison of age-standardized death rates due to cerebrovascular diseases, all ages per 100,000 relative to the European Union average (EU-15=100). IHS prediction using exponential growth model for the time series data; R² = 0.98 for EU average, R² = 0.89 for Austria, R² = 0.83 for Croatia, R²=0.50 for Central and Eastern European (CEE) average. Tick marks, Austria; triangles, Croatia; rectangles, CEE average. [view this figure]

Figure 7: Comparison of age-standardized death rates due to diabetes, all ages per 100,000 relative to the European Union average (EU-15=100). Prediction of the Institute for Advanced Studies using exponential growth model for the time series data; R²=0.75 for EU average, R²=0.85 for Croatia, R²=0.85 for Central and Eastern European (CEE) average; for Austria no trend is to be observed. Tick marks, Austria; triangles, Croatia; rectangles, CEE average. [view this figure]

Figure 8: Comparison of age-standardized death rates due to infectious and parasitic diseases, all ages per 100,000 relative to the European Union average (EU-15=100). Prediction of the Institute for Advanced Studies using exponential growth model for the time series data; R²=0.92 for EU average, R²=0.97 for Austria, R²=0.74 for Croatia, R²=0.92 for Central and Eastern European (CEE) average. Tick marks, Austria; triangles, Croatia; rectangles, CEE average. [view this figure]

Whereas the death rates in Central and Eastern European countries due to the diseases of the circulatory system were developing very much in line with the EU average between 1970 and 1980 (Figs. 5 and 6), the prevalence of infectious diseases (5) in Central and Eastern European countries in 1970 was 120% above the EU average, with a clear declining trend. The sharp increase in 1994 may be partly caused by the fact that the EU average mortality due to infectious diseases declined by about 22%, so that, relative to the EU average, the increase is larger than it would have been if the EU average mortality had been decreasing more continuously. This reasoning is confirmed by abridging the time series and starting the prediction in the year 1985. In this model, the mortality due to infectious diseases remained fairly stable in the Central and Eastern European countries, at the level that is about 50% above the EU average. For Croatia, a clear declining trend could be observed, which will reach the level of less than 20% above the EU average in the year 2000 (Fig. 8).

Overall, the mortality of non-communicable chronic diseases is predicted to increase and remains relatively high compared to the EU average. Further, the onset of mortality due to chronic diseases is apparently premature. Mortality rates due to infectious diseases are declining, though they are still on a high level compared to the EU average.

Understanding the Mortality Gap

How can health be improved? Four groups of factors influence a person's health: income, lifestyle, environmental pollution and occupational risks, and the quality of available health care. Experts agree that income and lifestyles are by far the most important; thus the causes of health outcomes go well beyond the health sector (1).

Not surprising, but somehow sad to acknowledge, is the fact that the poor die young while the rich die old. Life expectancy increases with wealth (14), but, above the threshold of income, it depends more on the distribution of income than on the level (2,15). This observation corresponds to the speculation that there are two broad classes of factors that account for the relation between income and mortality: material deprivation and psycho-social factors. Due to relatively good records in infant death rates, it has been presumed that the poor socioeconomic situation in Eastern Europe was important for generating high adult mortality, but that its effect was mediated by psycho-social factors rather than absolute deprivation (10). Lifestyle choices are clearly the key to improving health. The single largest contributor to the health
gap between the Eastern and Western Europe is cardiovascular and cerebrovascular disease – heart attacks and strokes – for which the main risk factors include excessive alcohol consumption, smoking, obesity, unhealthy diet, and lack of exercise. All these factors are more prevalent in Central and Eastern European countries and the new independent states than in industrial market economies. The single most important factor, smoking, is far more prevalent. In the third quarter of 1999, Lithuanians spent 4% of the GDP on alcohol and tobacco, compared to 2.1% spent on health care (1). Death rates from cirrhosis are 75% higher in Central and Eastern Europe than in the EU (10). Greater consumption of alcohol almost certainly influences mortality from accidents and injuries. These causes are higher in the East than in the West and account for almost 25% of the gap in life expectancy (10).

Pollution and occupational risks are also widespread in Central and Eastern European countries and the new independent states. Severe environmental pollution, in particular air pollution, is largely the result of heavy uses of hydrocarbon energy source in these countries. In 1990, sulfur dioxide emissions from power plants exceeded EU-levels on a per capita basis by a factor of nine in Bulgaria, seven in Estonia, and six in the Czech Republic (16). In the “Black Triangle”, where Germany, the Czech Republic, and Poland border, about 6.5 million people are exposed to extremely polluted air. Air pollution may account for about 9% of the Czech Republic’s health gap with Austria or former West Germany (10).

Considering the quality of care contributing to the gap in the death rates of all causes, it could be estimated that mortality would be reduced by some 20% if causes of death amenable to medical intervention were at the same rate in all countries. Excluding cerebrovascular diseases, the mortality excess attributable to medical care fell to less than 10% (10). Health services under the old regime in Central and Eastern European countries and the new independent states were very strong on preventive health care especially in providing immunizations to fight against infectious diseases. This impressive record has received too little attention. Preventive health efforts need to focus on the control of communicable diseases, but are threatened in some countries by problems in vaccine production, purchase, and delivery (1).

Understanding the mortality gap is a necessary precondition to enhance efforts for improving the health status of the population and thus to affect the economic development mediated by the avoidance of premature death. To bring health (care) issues on the political agenda is a further necessary step toward improving health, however insufficient. In order to be able to set priorities within the health field, predicting future health needs has to be embedded in the conceptual framework of transitional aspects of health status development and its implications for prudent allocation decisions.

Health Transition

The aim of this section is to provide a conceptual framework to embody health transition as a part of the economic transition. As the economies considered are starting to grow, both the social circumstances (i.e., health conditions) and the potential to adjust health care delivery will change. However, in an attempt to describe the health transition for Central and Eastern European countries, one must bear in mind that the coexistence of demographic and epidemiological transition along with relatively high mortality rates due to infectious diseases creates a “double burden” for the respective society. This pattern is to be observed in many “middle income” countries to which the Central and Eastern European countries belong according to the classification of countries by the World Bank. In addition, even if growth resumes, transition countries are exposed to rigid macro-economic priority setting due to the prevailing current account and budget constraints. Social services, health care, public health, and/or the non-discriminating access to public goods are perceived as important mediators for human capital accumulation and investment. Nevertheless, the public sector, including the health care system, renders the restriction of costs and balancing of budgets as a target itself in order to reduce budget and current account deficits. Thus, the priority given to the health system evolution is apparently twofold. Unfortunately, it is subject to both aggregate allocation goals and priority setting within the health budget. This is not surprising per se but – as a consequence – it is extremely difficult to execute health planning according to the prevailing and future health needs. The adjustment of the health care delivery system and the upgrade to the “state-of-the-art” technical progress will not happen automatically. Hence, the adaptation of the health care system demands the assessment of health needs in order to obtain estimates to derive real resource requirement for them. Consequently, the crucial issue is that preventing, curing, and caring must not compete. Instead, it is of particular importance to identify the basic elements of the dynamics of health in the population of transition countries. The allocation of health resources at the expense of preventive interventions or at the expense of curative health or vice versa should be particularly avoided.

Health transition refers to changes over time of both the health conditions (needs) and the organized
collective choice to prevent illness, cure, and care for ill health (17).
Certainly, these two elements are not independent. They act as inputs to the health transition: their interaction itself must be seen as responsive to economic development, including the maturity of formal institutions to internalize health risks in a changing economic environment. In turn, the health transition comprises two sets of processes corresponding to the foregoing differentiation. Changes in health conditions therefore result in an epidemiological transition. The epidemiological transition refers to a situation where increasing life expectancy predisposes more and more people to diseases that are more common among older age groups (13,17). The second process refers to the transition of health care that occurs due to changes in the organized social response (i.e., the health care system) to health care conditions.

Again those two “output elements” are not independent of each other, as it is shown in Figure 9 (ref. 17, and Institute for Advanced Studies). For example, universal coverage of effective health services and preventive interventions have contributed to the decline of childhood mortality due to infectious diseases. The anticipatory adaptation of the health system to the expected change in the health needs of the population, on the other hand, is less common.

Using Health Transition to Set Priorities
With respect to budgetary constraints, there are two main methods of planning the health services. The retrospective method commonly starts out from a given budget and moves to the allocation of resources according to the previously established priorities. This approach has the decisive advantage of permitting the allocation of resources subject to budget constraints the planner has to face. Nonetheless, its foremost disadvantage in the long-run is that it tends to preserve the existing circumstances. Generally, the tendency to preserve the existing circumstances is perceived as particularly harmful in a period of economic transformation where formal institutions have to adopt quickly to the changing economic environment (18).

Alternatively, the prospective method of health planning begins by defining the population’s health needs. Needs in this context can be defined as health and disease processes such as mortality, ill health, and disability. In addition, it includes all non-pathological conditions that require care, such as pregnancy or monitoring of infant growth and development (18). The most important demographic determinants of health needs in a population are the absolute number of individuals and age distribution. Moreover, both changes in the prevalent pattern of diseases and in the demand for health services that are influenced by rising information levels and available income determine health needs. Thus, the transition of health needs into services and resource requirements are mediated by the quality, technological consolidation, and geographically uniform distribution of those services and facilities. The actual amount of services provided and consumed is determined by the productivity of inputs employed in addition to the availability of services and the non-discriminatory access to them (17).

If the purpose of health planning and priority setting is to anticipate the future rather than preserve the past, as to transform it and enhance economic transformation in the long run, the transition countries are requested to adopt a prospective method. The prospective method of health planning allows policy makers and social planners to make prudent allocation decisions reflecting real future health needs and deriving resource requirements from them. This process does not need to be inconsistent with a limited budget. Limited budget itself requires careful design of interventions and/or programs. Population size and age- and cause-specific mortality rates are the most straightforward measures of health needs. Combining projections of population age groups with age- and cause-specific mortality rates provides an adequate tool for estimating future health needs. Moreover, it is an instrument for the analysis of changes that must be conducted if the transition of health care system is to become both effective and efficient while reflecting an increasingly complex set of population needs.

From the crude prediction of mortality trends in this analysis, it is nevertheless possible to conclude that health needs will be changing due to an increase in the number of people suffering from non-communicable diseases. Taking into account that the quality of life is at least as important as its quantity, both social planners and individuals should be concerned not only about life expectancy but also about their health expectancy. Health expectancy can be defined as life expectancy in good health (13). Addressing this issue implies reforming the quantity, mix, and quality of health services and their delivery while encouraging people to take on the role of active participants in improving their lifestyle. The acknowledgment of the non-independent nature of health conditions on the one hand
and the institutional response to them on the other hand is the first step to reinforce the allocation of resources for competing health needs not only efficiently, but also in favor of economic prosperity.

**Conclusion**

Economic transition has the potential to comprise both growth of wealth, life, and health expectancy. Within the resumed growth prospects, the opportunities to enhance health planning are increasing. Theoretical insights into the pattern of health transition, combined with the comprehension of the specific nature of interactions between the elements of the health transition, are indispensable for health planning. Further, the identification of the specific nature of the relationships between the basic elements of health transition in the respective transition country provides opportunities rather than obstacles. It permits translation of growth gains and the reorganization of institutions to adjust to real health needs. In addition, it helps to avoid inaccuracies that West European countries have established in modeling their health care system in the course of the post-World War II economic development. Thus, health planning in transition countries is a challenging task and could be a model for the rest of the world.

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