# Chapter 3: " Is an unhealthy population indicative of an unhealthy medical system?"

*The reform of health care systems in the countries of the CEE and the FSU presents health policymakers with a unique predicament. On the one hand they face pressures to introduce Western models of health care financing and organization; on the other they face a peace time mortality and health crisis unprecedented in recent European history. The dilemma lies in the fact that there is no clear link between the process of health system reform and recorded measures of population health status. The manner in which transitional economies have, since the early 1990s, reconciled demands to amend their health care systems along the lines of Western European models with the urgent task of devising appropriate strategies to improve their population's well-being raises important policy considerations.*

*This chapter is composed of four parts: first, a review of the mortality and health crisis in CEE and the FSU; second, an analysis of reform efforts to adapt systems of "socialized medicine" to the exigencies of transitional economies; third, an outline of three cases of health care reform – in the Czech Republic, the Kyrgyz Republic and the Russian Federation – and the ways in which policymakers have dealt with the predicament noted above; and finally, a discussion of policy issues that must be addressed in attempting to reduce poverty, improve the population's well-being and reform health care systems.*

*It is this chapter's contention that improvements in overall health require a well-coordinated, intersectoral approach as an essential component of any strategy to reduce poverty in the region.[1] Within the field of healthcare, policymakers must not only articulate carefully sequenced reform programs, they must also devise and implement appropriate public health strategies. While there are notable exceptions, health care reforms in many CEE and the FSU countries have placed disproportionate emphasis on adapting financial and organizational aspects of health care. These systemic reforms have frequently been undertaken without identifying adequately the factors responsible for the health crisis or elaborating, on the basis of such analyses, appropriate strategies for collective action by credible public institutions and emerging private-sector organizations.[2]*

## [A] Scope of the Mortality and Health Crisis.

### *A.1 Pre-Transition Trends.*

While life expectancy at birth (LEB) has increased in Western Europe and other OECD countries over the past 40 years, it has declined throughout most of CEE and the FSU over the thirty-year period from the 1960s through the 1980s. This has been due in large part to increasing mortality rates among middle-aged adults, especially men. For example, between 1965 and 1985, the mortality rate for men aged 45-49 rose 44% in Czechoslovakia, 56% in Poland, 67% in Bulgaria, a staggering 118% in Hungary and 42% in the FSU. Although there is no easy explanation for these trends, heart disease accounts for a considerable portion of these increases.[3] Adding to the overall decline in LEB rates is the fact that female rates did not increase over this period. Although some improvements were noted from 1978-1986, there have been little or no gains since then.[4]

Drawing on 1987 data, studies that compared mortality rates in the FSU with averages for the United States, West Germany, France, Great Britain and Japan found that the age-adjusted mortality rate for the working population was 1.6 times higher in the FSU. In addition, comparisons indicate that mortality rates from infectious diseases were much higher in the FSU than the United States from 1987-88, with the exception of gonorrhoea and syphilis.

The difference in life expectancy at birth (LEB) between all CEE/FSU countries and Western Europe was six years in 1989. In terms of infant mortality, the health gap between FSU/CEE and

Western Europe, measured in deaths per 1000 live births, was equal to 10.3. In comparison to Southern Europe the difference was 1.2.

In addition to the most general indicators of health status – LEB and infant mortality – there was also a health gap between CEE/FSU nations and Western Europe when other standard indicators of well-being were employed. In terms of living standards and health status, the CEE/FSU countries were closer to Southern Europe.

## *A.2 Transition Trends (1989-1995).*

The cataclysmic economic and social changes brought about by the transition have had deleterious effects on the crude mortality rate in almost all countries. Studies indicate that the steepest increases in mortality occurred among middle-aged men, an unusual fact since this group is typically one of the more robust population segments.[5] This, however, should not overshadow the extent to which many women and children in CEE and the FSU are also seriously at risk in the current socio-economic environment.

**Table 3.1**: *The Health Gap Between East and West (1989-1995). Percentage changes.*

| | GDP per capita | Life Expectancy @ Birth | Male Life Expectancy @ Birth | Infant Mortality Rate | Maternal Mortality Rate | Probability of dying before age five (per 1000) | Homicides & purposeful injuries (per 100,000) | Suicides & self-inflicted injuries (per 100,000) | Incidence of TB (per 100,000) | Infectious & parasitic diseases (per 10,000) |
|---|---|---|---|---|---|---|---|---|---|---|
| Central Europe | 4.0 | 0.7 | 1.2 | -26.3 | 18.9 | -18.7 | 48.8 | 17.2 | 7.0 | -15.7 |
| Eastern Europe | -17.5 | 0.2 | 0.3 | -1.0 | -35.1 | -6.1 | 55.8 | 1.1 | -12.0 | -10.0 |
| Baltic States | -33.4 | -1.7 | -3.4 | 19.4 | -40.1 | 13.6 | 186.0 | 62.3 | 44.7 | 34.0 |
| Slavic Republics | -35.7 | -3.9 | -5.8 | 6.3 | -3.2 | 3.4 | 96.0 | 33.0 | 39.1 | 29.1 |
| Caucasus | -58.0 | -0.8 | -1.2 | -16.6 | 8.8 | -10.0 | 1116.4 | -51.4 | -26.5 | .. |
| Central Asia | -32.9 | -0.9 | -1.2 | -10.5 | -0.7 | -5.6 | 59.6 | 0.1 | -12.3 | 52.2 |
| CEE/FSU | -28.9 | -0.8 | -1.3 | -1.4 | 3.2 | -4.1 | 191.2 | 27.3 | 2.5 | 8.9 |
| Southern Europe | .. | .. | 0.8 | -28.3 | -20.8 | -26.2 | 16.8 | -2.2 | 1.5 | 1.3 |
| Western Europe | .. | 1.1 | 1.7 | -27.8 | -1.0 | -25.1 | 2.4 | -4.8 | -1.7 | 2.0 |
| Health Gap[a] | | 1.9 | 3.0 | 26.4 | 4.2 | 21.0 | 188.9 | 32.1 | 4.2 | 6.9 |

[a] Defined as the difference between CEE/FSU and Western Europe.
Source: UNDP, World Bank, UNICEF, and WHO.

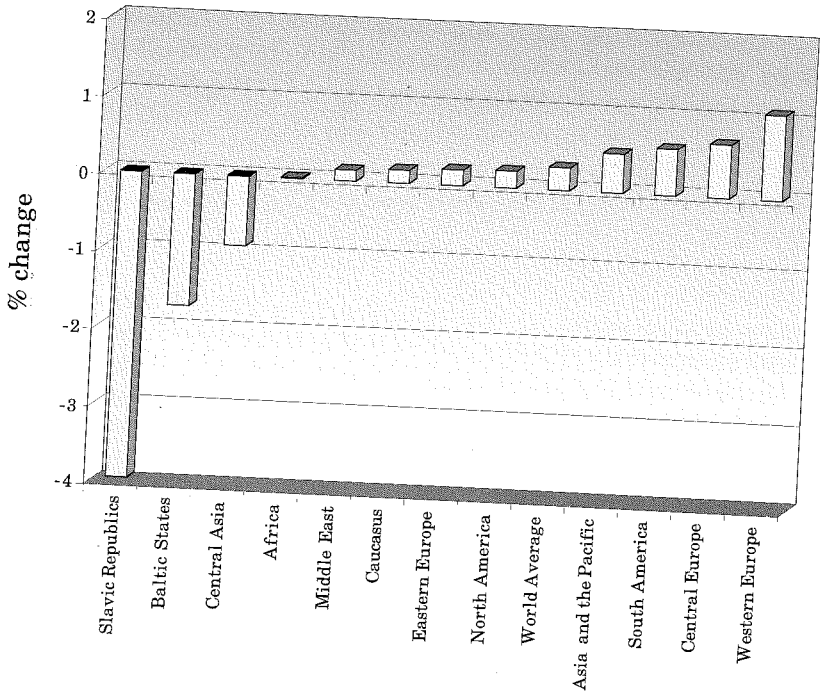
Between 1989-1994, the collective health gap between CEE/FSU and Western Europe increased according to a variety of indicators. Even more striking are the considerable variations between mortality and health indicators that occurred within the CEE and FSU. These clearly indicate that the health crisis worsened far more for the Baltic States and Slavic Republics than for any other region. (See Table 3.1)

### Life Expectancy at Birth (LEB).

The *LEB* gap between CEE/FSU and Western Europe increased by 3% for men and by 1.9% overall.

Variations between LEB rates for the FSU and CEE are even more compelling. Figure 3.1 illustrates variations in LEB at a regional level as compared to the rest of the world. From 1989-1995

*Figure 3.1: Change in life expectancy by sub-region as compared to the rest of the world, 1989-1995.*




Source: World Bank, WHO.

LEB actually increased in Central and Eastern Europe. In contrast, LEB decreased in the Slavic Republics, the Baltic States, Central Asia, and the Caucasus for this same period. The steepest decline was among men. The Russian Federation suffered the worst regression: LEB for men fell from 64.2 to 57.6 years from 1989 to 1994, a drop of 11%.

Increased health care expenditures does not necessarily result in higher LEB rates. Nations might exhibit "health without wealth" or conversely "wealth without health." The distribution of income, social hierarchy, economic hardship, and a variety of social factors influence LEB and other health status indicators as much as overall expenditure rates. [6]

### Infant Mortality.

There is more positive news with respect to infant mortality. In the CEE/FSU infant mortality rates fell by 1.4%. Although this is minor in comparison with the drop of 28% in Western and Southern Europe between 1989-1994, it was still significant in view of the major depression in the FSU.

Although infant mortality decreased in Central Europe, Eastern Europe, the Caucasus and Central Asia, there were increases in the Slavic Republics and the Baltic States.

### Maternal Mortality.

In contrast to infant mortality, maternal mortality rates improved significantly in Eastern Europe and the Baltic States and marginally in Central Asia. They deteriorated in Central Europe (19%) and the Caucasus. It must also be noted, however, that fertility rates have fallen more precipitously in Eastern Europe and the Baltic States, than in Central Europe and the Caucasus.

### Child Mortality.

The child mortality gap between CEE/FSU and Western Europe rose by 21% from 1989-1994. Mortality of children under five years has increased most in the Baltic and Slavic States, while it has fallen in Central and Eastern Europe, the Caucasus and Central Asia.

### Mortality from Murder and Suicides.

The difference in mortality rates from homicides and purposeful injuries between CEE/FSU and

Western Europe increased by 189%.

Increases are, of course, highest in areas that have suffered the effects of war, e.g. the Caucasus (1,116%). Nevertheless, other areas report considerable increases as well, such as the Baltic States and the Slavic Republics.

The difference in mortality rates from suicides and self-inflicted injuries between CEE/FSU and Western Europe increased by 32%.

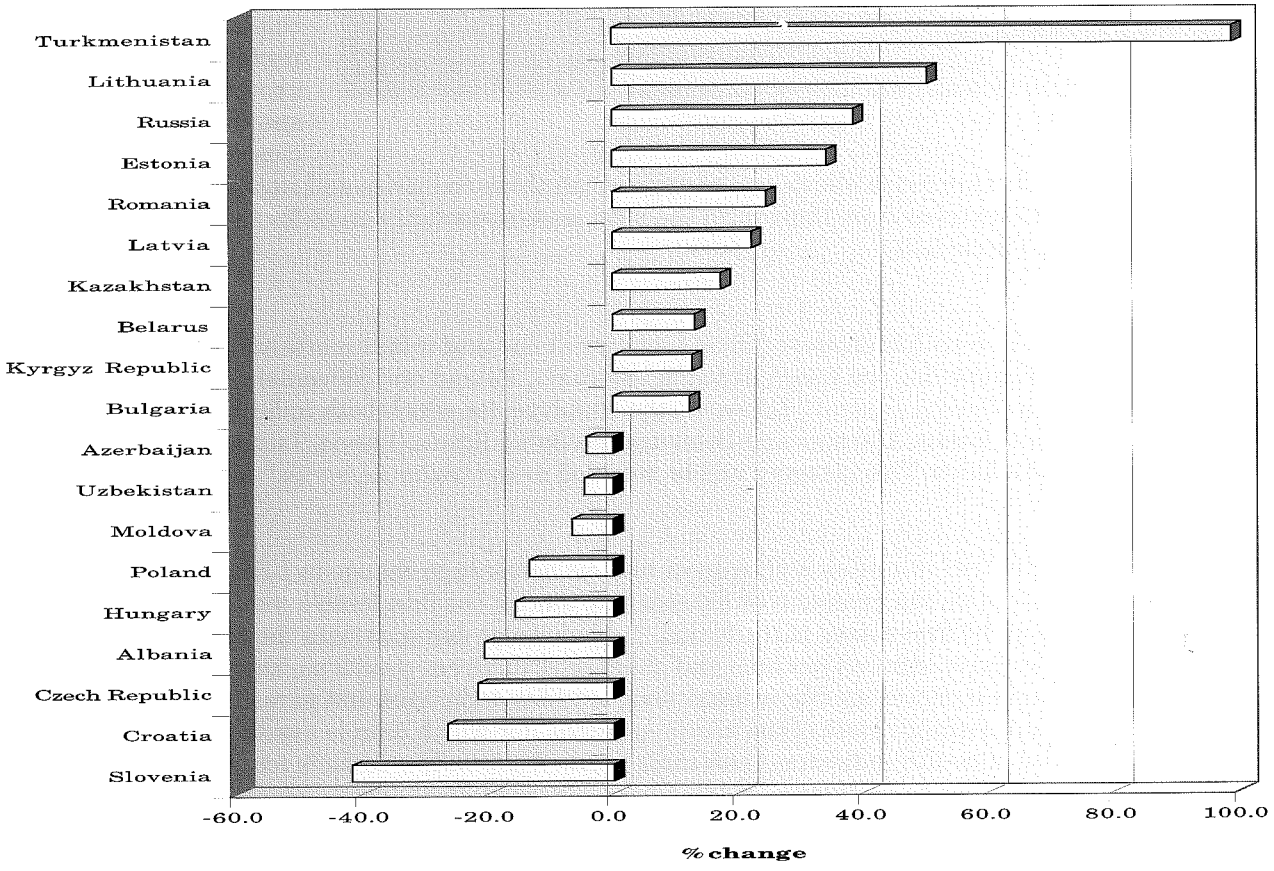
Interestingly, the regions with the highest initial rates (in 1989) report the highest increases. These include the Baltic States and the Slavic Republics. The regions with the lowest initial rates report overall decreases, such as the Caucasus with 51%.

## Infectious Diseases.

Differences between CEE/FSU and Western Europe in mortality rates from infectious and parasitic diseases climbed by 6.9% and in the incidence of tuberculosis by 4.2%.

Between 1989-1993, Central Asia suffered the highest percentage increase (52%) in standardized death rates from infectious and parasitic diseases. The worst case was Turkmenistan, where the death rate doubled (see Figure 3.2). The Slavic Republics and the Baltic States also suffered a

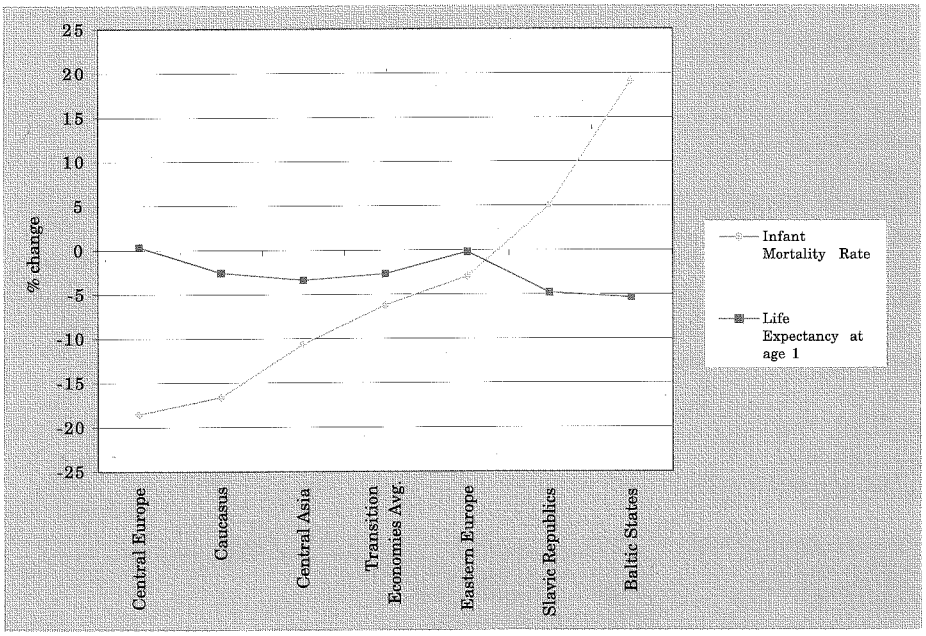
*Figure 3.2: Change in number of deaths due to infectious & parasitic diseases per 1,000 pop, 1989-1993.*




Source: WHO.

growth in the number of deaths attributed to infectious and parasitic diseases, as shown in Figure 3.2. Central and Eastern Europe, on the other hand, fared relatively well during the same period. The incidence of TB in Georgia increased ten-fold between 1991-1994, earning Georgia the dubious rank as the country with the highest TB rate in Europe.[7] Rampant increases in the incidence of tuberculosis between 1989-1995 were also recorded in the Russian Federation and the Baltic States – Lithuania, Latvia, and Estonia.

*Figure 3.3: Life expectancy at age 1 and infant mortality. (percent changes 1989-1995).*




Source: World Bank, WHO.

## An Overall Health Matrix.

Although LEB data provides a tool with which to rank CEE/FSU countries with respect to changes in total loss of life from 1989-1995, it does not reveal which age groups have been most affected. Since LEB incorporates mortality rates for a variety of age groups, including infant mortality and mortality rates for those higher aged, it is useful to examine life expectancy for a specific age to obtain a clearer picture of mortality trends. This approach allows one to distinguish those countries and regions with the most severe infant mortality crisis from those with the most severe mortality crisis for the population aged one and over. (See Figure 3.3)

The countries for which both indicators (life expectancy at one and infant mortality) improved are mostly in Central Europe (i.e. the Czech Republic, Slovakia, Poland and Slovenia) and will henceforth be described as "*health leaders*." Likewise, the countries for which both indicators deteriorated are Slavic Republics (Russia, Ukraine and Belarus), the Baltic States (Latvia, Lithuania, Estonia) and Bulgaria and Moldova. This category will be referred to as "*health laggards*."

Table 3.2 ranks CEE/FSU countries with respect to their percentage change in LEB from 1989-1995. The *health laggards* (with the exception of Estonia) are among the first twelve countries for which LEB dropped during the first stages of transition. Table 3.2 also demonstrates the extent to which changes in mortality have affected mothers and children in different countries, as well as the relative magnitude of changes in mortality due to homicides, suicides, infectious and parasitic diseases, and tuberculosis. Not surprisingly, most of the *health laggards* (for which data is available) suffered a greater degradation of health indicators than most *health leaders*. The same is true with respect to morbidity, as measured by the incidence of TB.

It should be noted that the comparison of health status involves averages. The negative health effects on the poorest groups in the FSU were more severe.

## *A.3 Prospects for the Future.*

In 1995, for the first time since the transition, life expectancy at birth increased slightly in the Baltic States and the Russian Federation. However, the 1997 World Health Report warns that "the health situation (for the FSU) has deteriorated considerably with respect to noncommunicable diseases."[8]

**Figure 3.2**: *Overall Health Matrix, Percent Changes from 1989 to 1995.*

| | Life Expectancy @ Birth | Life Expectancy @ age 1 | Infant Mortality Rate | Maternal Mortality Rate | Probability of dying before age five (per 1000) | Homicides & purposeful injuries (per 100,000) | Suicides & self-inflicted injuries (per 100,000) | Infectious & parasitic diseases (per 10,000) | Incidence of TB (per 100,000) |
|---|---|---|---|---|---|---|---|---|---|
| Albania | 1.3 | 2.5 | 40.3 | -31.5 | 0.1 | 155.6 | 4.0 | -20.6 | -66.8 |
| Armenia | -1.6 | -1.1 | -30.4 | -57.5 | -12.3 | 687.9 | -4.3 | .. | -72.4 |
| Azerbaijan | 0 | -3.9 | -13.7 | 20.0 | -7.7 | 1620.0 | -80.4 | -4.3 | -5.3 |
| Belarus | -2.8 | -3.6 | 12.7 | -1.3 | 2.8 | 56.7 | 28.3 | 13.1 | 15.8 |
| Bulgaria | -4.7 | -0.4 | 2.8 | -24.0 | 5.4 | 96.0 | 2.6 | 12.2 | -7.7 |
| Croatia | 2.6 | 1.1 | 37.3 | 187.2 | -14.4 | 109.8 | 3.4 | -26.4 | -23.4 |
| Czech Rep. | 2.1 | 1.4 | -23.0 | 24.4 | -14.0 | 115.0 | -1.1 | -21.5 | 4.4 |
| Estonia | 0.2 | -5.1 | 0 | -19.9 | -11.8 | 232.7 | 59.5 | 34.1 | 28.5 |
| Hungary | 0.9 | -0.7 | -31.8 | 22.0 | -25.2 | 39.6 | -14.5 | -15.6 | 13.9 |
| Kazakhstan | 0.5 | -4.2 | 5.3 | -6.5 | 2.2 | 58.5 | 17.1 | 17.2 | -26.5 |
| Kyrgyz Rep. | -1.3 | -4.9 | -7.1 | 4.6 | -11.3 | 93.6 | 9.8 | 12.6 | 20.2 |
| Latvia | -2.1 | -7.0 | 64.0 | -47.1 | 29.1 | 190.1 | 58.5 | 22.1 | 38.3 |
| Lithuania | -3.2 | -3.9 | 15.9 | -55.2 | 23.5 | 118.0 | 68.1 | 50.2 | 67.4 |
| Moldova | -0.3 | -4.3 | 3.9 | 90.8 | 9.2 | 50.7 | 7.0 | -6.5 | -3.2 |
| Poland | 1.7 | 0.6 | -28.8 | 11.0 | -16.9 | 30.2 | 150.6 | -13.4 | 2.7 |
| Romania | 2.0 | -0.6 | -21.2 | -68.6 | -17 | 8.9 | 9.6 | 24.4 | 48.6 |
| Russian Fed. | -6.3 | -8.0 | -1.1 | 5.3 | 2.2 | 139.6 | 58.3 | 38.4 | 100.0 |
| Slovakia | 1.5 | .. | -18.5 | .. | .. | .. | .. | .. | .. |
| Slovenia | 0.5 | 0.7 | -32.9 | 19.9 | -20.2 | -43.8 | -7.5 | -41.6 | -20.3 |
| Tajikistan | -2.6 | -2.0 | -2.6 | 78.8 | 5.0 | 324.2 | -18.3 | .. | -38.1 |
| Turkmenistan | -2.9 | -3.1 | -19.5 | -22.6 | -15.3 | -7.4 | -20.4 | 98.7 | 14.6 |
| Ukraine | -2.7 | -2.7 | 10.8 | -15.9 | 5.1 | 56.9 | 6.2 | .. | 1.4 |
| Uzbekistan | 1.6 | -2.5 | -20.5 | -42.7 | -8.6 | -21.7 | -20.4 | -4.5 | -31.7 |

Sources: Stastical Appendix, 1997 OECD Health Data, WHO-Health for All Database, 1996, TransMONEE Database, UNICEF, 1997, Human Development Reports, UNDP, 1995-1997.

The rising incidence of infectious diseases - diphtheria, hepatitis B, cholera, typhoid, syphilis, gonorrhoea, and malaria (in Azerbaijan and Tajikistan) and tuberculosis – if uncontrolled, will further exacerbate the health crisis.[9] According to WHO, the 1990 diphtheria epidemic that began in the Russian Federation, and eventually spread to all 15 FSU countries, has amounted to over 50,000 cases. Although the number of new cases has dropped in the past two years, this outbreak signals an emerging threat. In Tajikistan, for example, WHO reported 100,000 cases of diphtheria, including many with the deadly falciparum form of the disease.

In most FSU and some CEE countries morbidity and mortality rates from tuberculosis have increased sharply since 1995. Also, there has been a rapid increase in the spread of syphilis, particularly in the FSU but also in CEE. Lithuania alone recorded a three-fold increase over the last three years. There has also been a sharp rise in HIV infection rates in Belarus, the Russian Federation and the Ukraine. In Odessa, the number of reported HIV cases grew from 119 in 1994 to 4,325 by the end of 1996.[10]

### *A.4 Explanations for the Health & Mortality Crisis.*

Historically, health and mortality crises of the magnitude currently experienced by transition countries have normally only occurred in famine or war. Between 1930-1933, during the period of forced collectivization under Stalin, for example, crude mortality rates increased by 50% in Russia, 360% in Ukraine and 15% in Belarus.[11] Likewise, following the abolition of slavery in the United States, LEB for the former slaves declined sharply between the last decade of slavery (1850-60) and 1880. During the Great Depression in the United States (with its cumulative 30% GDP drop), the crude death rate and most other health indicators fell sharply.

It is worth noting that the mortality rate for males between 55-64 years of age increased modestly in the United States during the Great Depression.[12] One explanation for this apparent anomaly is that the introduction of antibiotics and Prohibition reduced diseases of "poverty" and deaths related to alcohol, thereby countering the rise of "stress-related mortality." [13]

In the CEE/FSU, however, there have been no technological advances equivalent to the introduction of antibiotics nor any Prohibition, either before or during the period since 1989. On the contrary, access to pharmaceuticals has become more difficult due to real price rises. Alcoholism has remained a serious problem in parts of the region.

A number of studies have attempted to sort out the probable causes behind the health and mortality crisis in CEE/FSU, both before and during the transition. One school of thought attributes the decline in health status to environmental degradation. Others have made a case, based on analysis of Russian data, for the adverse effects of alcohol consumption. A third group, also on the basis of the Russian data, has blamed the perverse effects of "neo-liberal economic policies".[14]

UNICEF [15] has neatly summarized the evidence with regard to "proximate causes and risk factors" for disease and mortality: alcoholism, smoking, environmental contamination, diet, lifestyles and health system inadequacy. The report also emphasizes the importance of "a far deeper psychosocial adaptation crisis," the case for which has recently been made based on regression analyses of data for thirteen countries and 89 oblasts[16] within them.[17] This position is consistent with theories about the rising mortality rates among men in CEE who face a growing "incongruity between aspirations and the means of achieving them."[18] Others, however, point out that in the case of the Russian

Federation, where more general studies on the East-West LEB gap have been carried out, the relative effectiveness of medical care should not be dismissed.[19]

In essence, the psychosocial adaptation model suggests that the "underlying causes" behind the various proximate causes and risk factors have to do with psychosocial stress related to massive dislocations in the economy, in family structure and in "distress migration".[20] These changes take many forms, ranging from rising poverty, growing income distribution inequality and increasing unemployment, with all of the shame, frustration and disorientation to which they give rise.

### *A.5 What is To Be Done?... The Road Ahead.*

The psychosocial adaptation model suggests that policies to improve the population's health would do well to focus on strengthening the economy – i.e. increasing real incomes and minimizing large and rapid fluctuations in unemployment and income inequality. Indeed, this position is consistent with widely recognized theories regarding the factors responsible for dramatic health improvements in the West since the eighteenth century: rising standards of living, improvements in sanitation, education, and nutrition. However, from the point of view of designing appropriate policies for reform of the health sector, this assertion alone is of limited help. Careful analysis of the determinants of documented mortality and health declines, as measured by various indicators, is essential to the design of country-specific strategies to improve the population's health.[21]

In the context of transitional economies, the psychosocial adaptation model places health planners in a difficult circumstance. They must support policies that bolster the economy while simultaneously requesting the extra funds required to design and implement health-sector strategies aimed at increasing the efficiency of resource allocation and improving public health.

## [B] Topics of Health Care Reform & Efforts to Adapt Health Systems.

In an analysis of European health-care reform, four "integrating themes" emerge:[22]

1) the changing roles of the state and the market in health care
2) decentralization to lower levels of the public sector, or to the private sector
3) greater choice for and empowerment of patients; and
4) the evolving role of public health.

In CEE/FSU countries, the first two issues have been central to reform efforts. The third has been given some degree of consideration. The last, however, has frequently been lacking.[23]

To appreciate the relevance of these issues to CEE/FSU, it is useful to review the principal features and problems of health system financing and organization in the region. This background provides a context for examining directions of health system change, and the current problems encountered during the transition, particularly as they affect the poor. Specific cases are then described, which reflect the range of inherited problems and policy responses and highlight some noteworthy areas of

success, and continuing difficulties in facing the predicament of reforming health systems and simultaneously improving population health.

## *B.1 Inherited Systems of Health Care Financing and Organization.*

Table 3.3 provides a simple matrix to distinguish four models of healthcare financing (columns) and three forms of healthcare organization along a public/private mix spectrum. Pure "socialized medicine" is located in box 1. Pure private sector medicine is in box 12. Existing real-world forms of health care financing and organization fall somewhere between boxes 2-11.

**Table 3.3**: *Typology of Health Care Financing and Organization.*

| ***Provision*** | ***Financing*** | | | |
|---|---|---|---|---|
| | Government | Social Security/NHI | Private Insurance | Out-of-Pocket Payment |
| Government Owned | 1 | 2 | 3 | 4 |
| Private Non-Profit Quasi-Government | 5 | 6 | 7 | 8 |
| Private For-Profit | 9 | 10 | 11 | 12 |

Source: Rodwin 1998.

Health systems in CEE/FSU evolved along the lines of Soviet socialized medicine, otherwise known as the Semashko model, a centralized, national and regional system under which all health care providers were state employees working in publicly capitalized organizations (row 1). The state was responsible for the financing, as well as the delivery of health care (box 1). Thus, health expenditures were financed from general revenues which were distributed, through a budgetary process, from the central administration down to various levels of the hierarchy. Resulting budgets bore no correlation to the level of services provided. Patients entered the system through their assigned physician, polyclinic or health center. In principle, services were provided free of charge to patients, but in practice under-the-table "tipping" was routine, particularly in

**Table 3.4**: *Health System Resources and Performance Characteristics in 1989.*

| | Health expenditure (% of GDP)[a] | Physicians per 10,000 pop. | Nurses per 10,000 pop. | Hospital Beds per 10,000 pop. | # of hospital admissions per 1,000 | average hospital length of stay | hospital occupancy rate | acute hospital bed days per capita |
|---|---|---|---|---|---|---|---|---|
| Central Europe | 6.0 | 28.9 | 61.4 | .. | .. | .. | .. | .. |
| Eastern Europe | 4.6 | 23.5 | 59.8 | 81.6 | 19.5 | 13.6 | .. | .. |
| Baltic States | 2.8 | 38.7 | 76.0 | 128.8 | 21.3 | 17.4 | .. | .. |
| Slavic Republics | 3.4 | 39.8 | 99.3 | 134.2 | 25.0 | 15.8 | 83.5 | 395.0 |
| Caucasus | 2.9 | 42.9 | 98.5 | 97.7 | 14.3 | 16.0 | 62.7 | 228.8 |
| Central Asia | 5.3 | 33.6 | 89.7 | 130.9 | 23 | 15.1 | 79.8 | 347.3 |
| CEE/FSU | 4.2 | 33.1 | 78.5 | 110.5 | 20.6 | 15.2 | 78.0 | 314.3 |
| Southern Europe | 5.6 | 24.0 | 30.7 | 46.8 | 10.7 | 10.4 | 67.8 | 111.9 |
| Western Europe | 7.0 | 24.7 | 61.8 | 89.8 | 17.3 | 14.3 | 78.8 | 246.0 |
| The Gap[a] | -2.8 | 8.4 | 16.7 | 20.7 | 3.4 | 1.0 | -0.8 | 68.4 |

[a] Defined as the difference between the FSU/CEE & Western Europe.
Sources: 1997 OECD Health Data, World Bank 1997a, WHO-Health for All Database, 1996, TransMONEE Database, UNICEF, 1997.

obtaining access to speciality services.[24] Thus, there were elements of direct out-of-pocket financing (column 4).

The establishment of Soviet socialized medicine was originally defended as a strategy to triumph over epidemics of infectious disease which devastated the population at the time of the Bolshevik revolution. Recall Lenin's notorious challenge that "either the louse defeats socialism or socialism defeats the louse."[25] In retrospect, one of the most remarkable achievements of Soviet and East European socialist nations was to provide extensive health care coverage (without major financial barriers) to their vast population. No other region of the world – neither in Europe nor Asia – has ever held such lofty aspirations and invested so heavily in the development of physical infrastructure and trained staff.

Table 3.4 presents data for 1989 on health system resources and performance characteristics in CEE/FSU and Europe. Although CEE/FSU countries had more health personnel, hospital beds, hospital admissions, hospital lengths of stay and consequently more hospital bed-days, per capita, than Western and Southern European countries, their health expenditures (as a percent of GDP) were considerably less (4.2%), except for Central Europe (6%) which was on par with Southern Europe (5.6%) and slightly under Western Europe (7%).

The principal weaknesses common to the health systems of CEE and the FSU have been well documented and are summarised in Table 3.5.

**Table 3.5**: *Legacies of Poor Health & Inefficient Health Services.*

| *Key Problem Areas* | *Issues* |
|---|---|
| Health Status | High Mortality (especially in adult men).<br>High Morbidity.<br>Unhealthy lifestyles & environment. |
| Policy-making/Management | Ineffective intersectoral coordination.<br>Low priority of health & good health care.<br>Lack of responsiveness to local needs.<br>Weak management, tracking, & evaluation. |
| Structure | Rigid over-centralized structure.<br>Overemphasis on institutional care.<br>Neglect of public health & primary care.<br>Distortions of public/private mix. |
| Function | Lack of functional integration.<br>Ineffective, inefficient, or of low quality. |
| Resources | Arbitrary statistical norms (physical & human).<br>Imbalances with surpluses & shortages.<br>Overutilization. |
| Training and R&D | Narrow overspecialization & isolation.<br>Graduate education isolated from universities.<br>Research isolated from teaching.<br>Non-competitve funding. |
| Financing | Under-financing compared with capitalization. |

Source: Rodwin, 1998.

It is ironic that in countries wedded to an ideology of collectivism, most of their health systems were organized around the delivery of personal health care services with a disproportionate share of resources allocated to hospitals. Although public health interventions dealt successfully with infectious diseases in the past, in the 1960s-80s there was far less attention, in comparison to the United States and Western Europe, to the rise of noncommunicable diseases and their association with unhealthy life-styles and the environment. For example, with respect to tobacco, basic epidemiological studies were lacking, public health advocates were weak, sporadic initiatives were ineffective, nor was there any systematic policy to organize health promotion and education activities.[26] Given that health care services not only relieve suffering but also affect health status, the declining share of health related expenditures in the FSU from the 1960s-1980s and its consistently low share of GDP in the 1990s can hardly be expected to raise the health status of the area's population.[27]

In addition to the problem of relatively low health care expenditures for CEE and the FSU, there is widespread consensus that the health systems of the entire region deployed resources with notorious inefficiency. Given the limited availability of resources, there were too many medical personnel

and hospital beds. There was poor functional integration between ambulatory and hospital care, between occupational, general and the highly fragmented and inequitable employer-sponsored medical services. Generally, medical care was reputed to be of low quality. Planning was based on arbitrary statistical norms, there were chronic shortages, overspecialization of health personnel and perverse incentives for performance among health professionals, as well as among hospitals.[28]

## *B.2 Directions of Health System Change.*

The most powerful force affecting health system change in CEE/FSU has been the weakened ability of the state to sustain existing levels of infrastructure. Moreover, health system reform is part of a broader attempt to adapt the health sector to the changing roles of the state in emerging market economies. In contrast to Western Europe, the most universal concern in adapting the role of the state in the health sector has been to shift the burden of health care financing away from general revenue taxation to payroll taxes collected by private, non-profit or quasi-public organizations independent, in principle, of state budgetary authorities.

Beyond these distinguishing features of CEE/FSU, there are other issues related to the changing roles of the state and market that parallel health care reform efforts in Western Europe. For example, there is mounting interest in separating the financing from the provision of health care (otherwise known as the "purchaser-provider split") in order to encourage greater efficiency via competition among providers or incentive-based payment mechanisms by health insurance funds.[29]

Whether this takes the form of "managed competition" or "internal markets," as in the United Kingdom,[30] or "public competition," and "planned markets" as in the Nordic countries[31], there has been a general tendency throughout Western Europe to favour mixtures of public and private contractors.[32] In this regard, however, the public administrations of CEE/FSU countries are less well equipped to regulate changing forms of public and private-sector interactions.

Another important issue has been the move to legalize private medical practice and (in some countries) the transfer of ownership from public to private hands. This trend reflects the decline in state authority, and the emerging growth of professional power that has taken the form of strengthening "medical chambers" for physicians and other health care professionals (for example in Romania), and has created a constituency for private fee-for-service practice reimbursed under some form of national health insurance.

Decentralization of financing in CEE/FSU is intended to reduce national budgetary pressures in light of fiscal incapacity brought on by recession. Decentralization of financing and administrative responsibilities allows for better integration between hospital and primary care services, health and social services, and disease prevention and health promotion services.

In the Russian Federation, the move to territorial Mandatory Health Insurance Funds, in 1993, was an important way to provide regions with more authority in managing the health system. Also, there were more flexible options with regard to ownership of provider institutions at the local level. Likewise, in Poland, although the process of decentralization of health care responsibilities to the *voivodship* level has been slow, it has allowed for some regional experimentation of plans for integrated services with a focus on health education and preventive care.[33]

Yet another reform issue in Western Europe is the push for greater consumer choice and empowerment. The 49 member states of WHO's European region expressed a consensus opinion on this matter in their 1996 Ljubljana Charter on Reforming Health Care:

> *"Health care reforms must address citizens' needs, taking into account their expectations about*

*health care. They should ensure that the citizen's voice and choice decisively influence the way in which health services are designed and operate. Citizens must also share responsibility for their own health."*[34]

There are several examples of this in CEE/FSU. In the Czech Republic, for example, the population has been given far greater leeway in choosing their physicians and/or health care providers. The recent Romanian law on health system reform allows patients to choose their primary care physician. There are several experiments in progress in the Russian Federation, Kazakhstan and the Kyrgyz Republic where patients have greater choice of providers than in the past.

These general topics of health care reform notwithstanding, the actual design and implementation of reforms vary considerably within CEE/FSU. In some countries, reform programs have largely been drawn up by aid agencies or draw upon temporary funds, neither of which results in any significant changes in the financing and organization of health care. In others, reforms have spawned new institutions to implement health insurance programs in order to help manage the allocation of health resources. Nevertheless, a study of selected countries within the region concludes that "economic transition has led to a significant reduction in real resources devoted to the health sector....yet, few countries have successfully downsized their health sectors or reallocated health spending in line with their diminished resources."[35]

More recent data from a larger sample of CEE/FSU countries confirms the reduction of real resources devoted to the health sector. Even though health care expenditures as a percent of GDP increased 6.7% between 1989 and 1994, given the concurrent decreases in GDP, this represents a sharp decrease in real resources devoted to health. Moreover, spending gaps between East and West increased as well. Evidence also suggests that there is a decreasing trend in the number of physicians, nurses, hospital beds, hospital admissions, and the level of hospital occupancy rates and lengths of stay. This trend, of course, says little about the efficiency with which these diminished resources are deployed. In principle, the shortage of funds in public budgets creates pressures to increase efficiency. This is particularly important now because previous systems distorted the structure of healthcare provision. The Russian Federation, for example, had inpatient hospital costs amounting to 70% of health spending, in contrast to the OECD average of 44% to 55% for hospitals and long-term care institutions.[36]

## *B.3 Problems of Transition in the Health Sector.*

Since transition began, many of the problems of CEE and FSU countries were exacerbated by the following: 1) price liberalisation; 2) macroeconomic stabilisation; 3) marketisation; 4) privatization; and 5) industrial restructuring.

### 1) Price Liberalization:

Decreases in real income and higher prices have led to deteriorating diets, family stress, and financial barriers to health services and medicines. In Poland, for example, sudden liberalization of prices and wages resulted in an increase in spending on pharmaceuticals from 12 to 30% of total health care expenditures.[38] More generally, the high levels of inflation experienced by most CEE/FSU countries — at least in the initial years of transition — exacerbated many of the structural obstacles to markets. In many instances, this has made foreign suppliers and investors uneasy about entering these emerging markets.[39]

### 2) Macroeconomic Stabilisation:

Governments have attempted to reduce budget deficits by cutting back on expenditures. Budgets for public health facilities have been slashed. Reduction, or elimination, of subsidies has forced enterprises to reduce, or cut, their health services for workers. Under previous health systems, "productive"

workers in key sectors had access to health clinics and hospitals owned and operated by their employers. These facilities generally delivered services of higher quality than those available to the general public.

### 3) Marketisation:

The demise of the planned economy that regulated the exchange of most goods and services has had several effects upon health care. While private food markets and pharmacies have expanded in many countries there has been no commensurate development of the State's capacity to regulate. As a result hygienic standards have been undermined. The growth of unregulated pharmacies has not helped either. Access has also been affected by the resource crunch, which has led many institutions to raise user fees sharply. Survey evidence in the Kyrgyz Republic indicates that nearly one-half of all patients reported severe difficulty in finding money to pay for their hospitalization.[40]

**Box 3.1:** *Checking the Pulse of Health Care Reform. Spotlight on Hungary.*

As in many other transition economies, Hungary has been burdened with the need to maintain the remnants of an expensive, overly-specialized system, while simultaneously trying to restructure and minimize costs. The current system's high costs are related to inherited inefficiencies. The need to focus on preventive medicine, long-term and ambulatory care is apparent. The 6-7% of GDP spent on health is higher than most other transition economies, but is still not enough to support the system.

The beneficiaries of the Hungarian health system are also at a disadvantage due to the lack of consensus between policy makers as to the direction of reform. Some feel that Hungary should move to adopt a system similar to the US. Under this model, the cost of basic health care is covered by competing private entities. Many fear, however, that under this model, Hungary might fall into the same dilemma as Chile where many of the private firms went bankrupt leaving the poor in an under-funded state system. Still others seek to develop a European style system.

Difficulties encountered during reform include problems with efforts at privatization as a mean to improve efficiency. In 1992, family practitioners were required to sign contracts with individual private or state hospitals with the condition that tenure in their position is dependent entirely on their performance. This mechanism would only prove to be effective depending on the ability of the state to refocus its responsibilities. In this regard, the National Health Commission's capacity to manage the privatized system entails a new institutional responsibility.

Alarming trends have emerged related to decreasing life expectancy rates for males in the region. In response to a survey about the low life expectancy for Hungarian males (around 66 years compared to the 68 year average for Central Europe), doctors argued that this decline does not indicate a health system in crisis but is a consequence of lifestyles. The Hungarian debate underlines the importance of including basic public health and diet education initiatives within narrower health sector efficiency reforms.

Source: Nicholls, A. *Business Central Europe*, April 1998.

### 4) Privatization:

Though privatization of medical facilities has often led to higher quality services, it has often been at the expense of excluding those who cannot pay. This is evident in Moscow, for example, where some state-of-the art medical services are available for the new upper strata who can afford either direct payment or expensive private health insurance. To illustrate with an extreme example, in one of the best Western-run clinics in Moscow, a routine examination costs $150 and is only available to those who have paid a prior membership fee ranging from $750 to $1500.[41]

Likewise, in Georgia, most of the population can no longer afford to go to the hospital. At the same time, there are only a limited number of private health-care facilities. As a consequence, hospital occupancy rates are below 15%.[42]

### 5) Industrial Restructuring:
*- a deterioration in infrastructure.*

Poor maintenance in industrial enterprises and nuclear power stations have increased the risks of health catastrophes. Inadequate investment in water and sewage treatment facilities, pollution controls, and housing and social welfare programs also represents a serious health risk.

In the Russian Federation, for example, it has been reported that half of the popula-

tion is using drinking water below current microbiologic and chemical standards, and 40 percent of the urban population in the FSU is living under "extremely high pollution levels."[43]

In sum, the health status of the population has been affected by wider policy changes and the examination of health sector reform in any country has to be viewed in the context of larger changes.

### *B.4 Health System Reform & Public Health.*

Health system reform in CEE/FSU has been compared to a social experiment in which the physician has given penicillin – the dose of market forces – to a patient with a known allergy to this wonder drug – market failure – knowing that the patient would have died without it.[44] The challenge is to understand exactly what side effects will occur so that appropriate interventions can be made to prevent the treatment from killing the patient.

However, the general direction of the reforms has been necessary, and, if the economy improves many existing problems will be alleviated. In the meantime, it is important to devise appropriate public health strategies for each country and to allocate resources, including those of donors, to address the problems noted above. Box 3.1 describes the status of reforms in Hungary. Three other cases of national strategies for health reform are discussed below to illustrate how different countries have tried to tackle major health problems.

## [C] Cases of Health Care Reform.

### *C.1 The Czech Republic.*

The Czech Republic, with the wealthiest transitional economy of CEE ($9,200 in PPP per capita GDP in 1994), illustrates a "big bang" approach to health care reform. In fact, it had already taken the road to a Bismarckian German system of health insurance in 1924. In 1989, the Czech Republic suffered from a decline in overall health status which widened the gap between its health status and that of Western and Southern Europe, albeit less than other CEE or FSU countries.[45] As in most CEE and FSU countries, cardiovascular diseases were the leading cause of death (56% in 1992).[46] These are generally attributed to a high prevalence of smoking, consumption of high-fat foods and lack of regular exercise. Nevertheless, following the 'Velvet Revolution' of 1989, the Czech Republic has successfully begun to narrow the health gap and overhaul its health system as part of the general transformation of Czech society.

#### The Health & Mortality Deterioration.

In 1960, Czechoslovakia was tenth, in longevity, among twenty-seven European countries and among the leaders in indices of overall health status. However, by 1970, the country had dropped to twenty second, and by 1980 it fell to the last place in Europe.[47] This deterioration continued through 1990 in the final years of the communist regime. A recent study noted Czechoslovakia's positive achievements in paediatrics, maternity care, vaccination, and communicable disease control, but emphasized the problems of chronic illness (cardiovascular disease and cancer), birth control (94 abortions per 100 live births) and environmental pollution. The decline in life expectancy of adult males was attributed largely to tobacco, obesity, poor diet, lack of physical exercise

and stress. Environmental conditions were also sited as major factors, particularly in highly polluted areas in northern Bohemia, northern Moravia and the Silesian coal fields.

Other analysts, including Martin Bojar, the Czech Minister of Health in 1992, suggest that the high levels of environmental contamination reveal the previous government's focus on "industrial production, economic rigidity, and minimal monitoring at the expense of the environment and human safety." The Minister also pointed out the correlation between the lowest life spans and the most ecologically disturbed regions. In 1992, only 17 percent of the drinking water in the Czech Republic met health standards, and more than 60 percent was contaminated.[48]

In an effort to improve health policy in the Czech Republic, the following five-point programme was developed: preserve the "good," attack the "bad," reform institutions, train public health employees and protect the health care budget.[49] Evidence suggests that administrators have followed much of this plan. Nevertheless, many have cautioned that in the case of the Czech Republic, it is easier to adapt health care institutions to the demands of a market economy than to implement public health strategies that would significantly reduce the risk factors associated with disease.

### The Inherited Health System and Its Problems.

Like the rest of CEE/FSU countries, the Czech Republic inherited a system with the following distinguishing characteristics:

- A centralized, rigid and hierarchical administration of services.
- An excess of physical resources (personnel and hospitals) and a pre-transition reduction in the level of real financial resources.[50]
- An emphasis on inpatient hospital services.
- Arrears in the provision of modern technology for medical practice, equipment and drugs.
- A focus on treatment therapies rather than disease prevention programs and health education.
- Low status and limited economic incentives for health professionals.
- Limited patient choice and consumer influence over the health system.

Although private practice was illegal, estimates of under-the-table payments to physicians indicate they were equal to 2% of the GNP in 1988, i.e. about a quarter of total health care expenditures.[51] This is an important indicator of inequalities in access to medical care, for such payments determined the choice of physician, position on a waiting list, acquisition of imported drugs – in short, the quality of medical care. They also reflect the shortages of state-of-the-art drugs and medical technology that existed.

It is easy to appreciate, then, one of the most disturbing paradoxes of the inherited system: on the one hand, citizens had the proclaimed right of access to all health care services; on the other, an informal rationing system for quality facilities provided services only to those who were well-connected or could afford significant gratuities. Likewise, physicians and other health care "workers" felt that they had low social prestige and little control over their work.

### The Reformed Health System.

In response to the problems noted above, it should come as no surprise that the physician commu-

nity, particularly the specialists, since they outnumbered general practitioners by a factor of four, took the lead in designing the reformed health system in the wake of the 'Velvet Revolution' of 1989. In 1990 the new government accepted the following guidelines for the new health system:[52]

- Freedom of choice for patients of physicians and health facilities;
- De-monopolization of the health system and massive privatization of office-based practice and health facilities;
- Introduction of national health insurance (NHI) along the lines of the German model — a mandatory employer-based system under which health care providers are reimbursed on a fee-for-service basis; and
- Decentralization of the health system.

With the exception of Switzerland, the Czech Republic now has the most market-oriented health insurance system in Europe. The entire resident population is covered under a compulsory and universal NHI system that allows competition between various funds. The largest insurer, the General Health Insurance Company of the Czech Republic, was established in 1992 as a public-sector company and covers approximately 70% of the Republic's 10.5 million population. The principal source of finance is from employer and employee contributions, while the state continues to pay for children, students, the unemployed and other vulnerable groups.[53] As of 1996, the remaining 30% of the population was covered by 25 private health insurance companies. This number is likely to decrease as the government tightens its regulatory authority and forces the weaker providers into receivership.[54]

In 1991, professional associations -Chambers of General Medicine, Dentists and Pharmacy- were established and took on the task of licensing their new members and negotiating fees with the Ministry of Health. By 1994, nearly three-quarters of outpatient care was provided by private doctors. Since then a significant portion of hospital facilities, particularly those less specialized, have become private.

The privatization of pharmacies, the liberalization of prices for prescription drugs and increased imports of more expensive drugs resulted in a 400% increase in expenditure between 1989-1994.[55] The combination of NHI and fee-for-service reimbursement has turned the Czech Republic into the highest health care spender among all transitional economies (7.6% of GDP in 1994). Perhaps the most widely applicable lesson from the Czech experience is that cost escalation under NHI is likely to lead to cost-containment measures such as management utilization and more careful clinical resource allocation.[56]

Another important lesson is that financing access to medical care does not necessarily influence the Czech population's lifestyle, environmental exposure or other genetic factors.[57] Reform in public health trails behind privatization of health services.[58]

### *C.2 The Kyrgyz Republic.*

In contrast to the Czech Republic, the Kyrgyz Republic, with a population of 4.7 million, is one of the poorest transitional economies. Between 1989 and 1995, its national income fell by 57%. Since independence in 1991, there have been declines in most health status indicators in the Kyrgyz Republic. Health care expenditures have also decreased, while prices for drugs and other medical supplies have increased.

Many international donor organizations have provided assistance to the health sector. What distinguishes the Kyrgyz Republic most from other CEE/FSU countries, however, is the development of the MANAS Health Care Reform Program, which sought to streamline all international aid within the framework of a master plan.[59] The existence of this coordinating mechanism may have created

an above-average environment for launching pilot programs as part of the overall healthcare reform process.

The MANAS Program, named after a heroic poem of considerable cultural significance, aims to improve the population's health status by "ensuring that health care reform promotes health gain, equity, effective use of resources and cost-containment".[60] This approach stands out because it places less urgency on health system change, in the context of overall transition to a market-based economy, and explicit attention to a traditional comprehensive health planning process. For example, the master plan distinguishes short, medium and long-term strategies. Also, the planning process has incorporated a situation analysis study which also articulated carefully sequenced policy options.

### The Health & Mortality Deterioration.

The Kyrgyz Republic, like most of Central Asia, has had relatively high birth rates compared to most other CEE/FSU countries. Despite the declining long-term trend in fertility and the emigration of Russians, Slavic and European nationals, the overall population growth rate has been relatively high (12.7% between 1989-1994).[61] Between 1989 and 1995, however, crude death rates increased, while life expectancy at birth decreased from 68.5 to 66 years.[62] Although infant mortality rates decreased significantly for the same period, the incidence of infectious diseases (syphilis, tuberculosis and brucellosis) has risen sharply.[63]

When cause-specific mortality trends over the 1989-1993 period are examined for the Kyrgyz Republic, deaths from heart and circulatory diseases account for 35% of the increase for men, while 56% is attributable to "other causes." For women, 58% of the increase is attributable to "other causes."[64] Moreover, the 1997 UNDP Kyrgyz Human Development Report notes that alcoholism and drug addiction are "acquiring the proportions of a national tragedy." The number of deaths from alcohol poisoning rose from 3.5 to 6.4 per 100,000 from 1992-1996. Drunk drivers cause roughly one-half of deaths on roads and about 30 percent of suicides are committed in a state of intoxication. In addition, there has been an alarming rise in drug addiction and prostitution, thereby increasing the potential for greater incidences of venereal disease and AIDS.

### From the Inherited System to Transition.

Before 1991, the Kyrgyz Republic shared all of the problems of the FSU: rigid planning on the basis of often arbitrary norms, enormous waste and the all-too-frequent provision of inappropriate, low quality services.

Following independence, the government recognized the urgent need for health system reform and enacted three laws in 1992: 1) the People's Health Protection of the Kyrgyz Republic; 2) the Medical Insurance Law, and 3) the Sanitation Law. What sets the Kyrgyz Republic apart from the Czech Republic is that the Medical Insurance Law, although it defines a goal for the future of health care financing through a system of compulsory and voluntary national health insurance, has not yet been implemented. The Health Protection Law sets the general legal framework and defines the roles and responsibilities of different state bodies. The Sanitation Law turns over the tasks of assuring sanitation and environmental health to a single department within the Ministry of Health.

Like other FSU countries, perhaps the most daunting problem during transition has been the questions of how to adapt the health system, while simultaneously meeting health care service needs and improving the population's health in the economic context of decreased real expenditures on health. In the Kyrgyz Republic, between 1990 and 1994, real per capita public health spending

(in PPPs) declined by more than one half (from $136 to $62).[66] And 70 percent of this low budget was spent in hospitals.[67]

### Strategies for Health Care Reform.

In contrast to the "big-bang" approach pursued in the Czech Republic, the MANAS Health Reform Program recognized that it required time to prepare the nation for a national health insurance (NHI) system. The Kyrgyz experts, drawing on assistance from WHO/EURO consultants, decided that, in the short-term, it was important to preserve public ownership and financing structures while promoting efficiency and equity in resource allocation. In the medium-term, they recommended a contract strategy by introducing a separation of provision and finance of services. For the longer term, they recommended that pilot programs designed to test the viability of various schemes proceed the introduction of health insurance, and also that its overall introduction be considered only after relative economic stabilisation has been achieved.

Meanwhile, in 1994 the Kyrgyz government requested assistance in testing health reforms. The USAID-sponsored Zdrav Reform Program responded with a proposed pilot project for a population of roughly 410,000 in Issyk-kul Oblast. The city of Karakol and the surrounding areas were designated as an "experimental zone" for the following reforms:[68]

- Creation of a sustainable health insurance fund;
- Implementation of provider payment reforms to establish incentives and change relationships among government, facilities, physicians and consumers;
- Establishment of family group practices (FGPs) to deliver primary care.

Zdrav Reform's pilot project has introduced a new payment system for health care providers in which funds for FGPs are pooled and funds for hospitals are paid on the basis of admitted cases, adjusting for the complexity of treated conditions. The large specialty dominated polyclinics were reorganized into smaller, neighbourhood-based FGPs from which the population can choose one in which to enrol. As of 1996, there were 28 FGPs with 66 physicians, 13 managers and 68 nurses. The payment systems tested in this project create competition between the FGPs and hospitals thereby creating a market for health services and unprecedented incentives to shift care from hospitals to primary care.

In addition, the World Bank has made a health-sector loan to the Kyrgyz Republic. A large portion of this will be used to extend provider payment reforms to Bishkek and Chui Oblasts . Also, the Zdrav Reform Program has spurred the creation of a basic health insurance (BHI) fund, the design of a fee schedule for outpatient specialists and diagnostic tests and clinical information systems. Whether such pilot programs eventually result in major health system improvements, let alone better health status, remains to be seen. Nevertheless, the MANAS approach to healthcare reform is atypical and promising. Success with this and other pilot programmes suggests the Kyrgyz government is responding as well as possible under trying circumstances.

## *C.3 The Russian Federation.*

The Russian Federation is an important case to examine. Not only does it have the largest population in the CEE/FSU, it also has the most severe health and mortality crisis. Consequently, it has pursued significant efforts to remodel its health system. Moreover, reform efforts in Russia have

placed more attention on transforming the financing and organization of the health system than on developing a public health strategy to improve the population's health status.

**Box 3.2:** *The Russian Mortality Crisis; what else can be done? UNDP/WIDER Collaboration for Public Health Policy.*

As mentioned in the text, Russian men have experienced an alarming decline in life expectancy. Although evidence suggests that this rising male mortality rate began as early as the 1980s, the problem has reached acute proportions since the collapse of the USSR. The average life expectancy for men fell sharply by 6.2 years from 1989 to 1995. To a lesser degree, Russian women have also experienced reduced life expectancy – 2.5 years during the same period.

The UNDP is currently co-sponsoring a project under its Poverty Strategy Initiative with WIDER, which is part of the UN University. The objectives of this project are to identify the causes of this alarming trend so that swift and effective policy measures can be recommended. The UNDP's particular interest is to develop public health policy measures specifically targeted to the most adversely affected.

Regionally, males from the "Northern Belt" (St. Petersburg, Kaliningrad and the North East) have shown the greatest increase in mortality rates. This region has undergone the most rapid labour market adjustment and has, therefore, had a sudden increase in unemployment rates. It is thought that this economic instability has been an important factor in this crisis. Another factor thought to have contributed to the decline in male life expectancy is the deterioration of the family unit. Divorced, single, and widowed men make up the greatest proportion of men whose life expectancy has been diminished.

Such research can help guide policy considerations as to which areas need most attention. For example, the Russian people have exhibited increased "psycho-social" stress since the beginning of the transition. Accustomed to guaranteed employment under the Soviet Era, people are suddenly faced with financial insecurity and unemployment. The UNDP-WIDER project examines the broader aspects of economic and social reform and how these would affect mortality and health. Clearly economic uneasiness which would revive employment and social changes, which create more harmonious family structures, would improve the physical and mental well-being.

Still, the main policy area that requires examination is the health sector. The Russian health infrastructure has significantly deteriorated during transition. The current health system is ill equipped to deal with newly emerging medical conditions, cardio-vascular and infectious disease, and cancer and cirrhosis. Policy questions for the health sector relate to access to services and treatment, as well as public health programmes. How have changes in the health system effected medical care? Is the health sector universally accessible? How has the role of preventative medicine evolved during the 1990s? As new epidemiological conditions emerge, have steps been taken to inform the people of these health problems? Are these messages reaching all levels of society?

Current research suggests that a strong public health policy approach is needed to address the Russian male mortality crisis. The Poverty Strategy Initiative currently underway is an example of a project which aims to develop a mix of policy instruments to confront these issues.

Source: Poverty Strategy Initiative, UNDP.

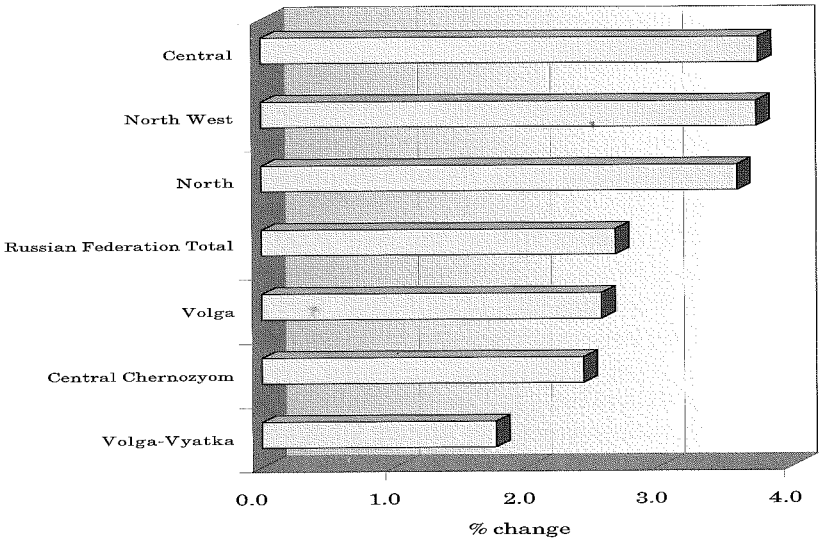
## The Health & Mortality Crisis.

In 1989, life expectancy at birth for Russian men and women was 64.2 and 74.5 years, respectively, 8 and 4 years less than in Western Europe. By 1994, LEB for men and women, had decreased to 57.6 and 71.7 years, respectively. At the same time, the 1989 infant mortality rate of 17.8 per 1000 live births was more than twice as high as the European average. By 1994, infant mortality had increased to 18.6 deaths per 1000 live births. This places the life expectancy of Russian men below that of men in Egypt, India and Bolivia and creates a gender gap of almost 14 years, a fact that puts Russia on the way to becoming a nation of widows. (See box 3.2 for further discussion)

Two caveats must be made in characterizing the health and mortality crisis in the Russian Federation. First, it is important to remember that in Russia, as in most of CEE/FSU, there were already indications of a long-term increase in mortality prior to the onset of economic transition. There was a stagnation in life expectancy at birth for women, and a gradual decrease for men. Some attribute the anomalous and rapid increase in life expectancy in the mid 1980s to the severe restrictions the prohibition placed on alcoholism. From 1988-91, however, there was another decline in life expectancy for men, and levels again began to stagnate for women. Since 1991, the mortality increases have accelerated. Moreover, they have deviated from the pre-transition trend resulting in "excess mortality" equal to 2.3 million deaths over the period from 1990-1995.[69]

Furthermore, analyses of the mortality crisis generally note the important disparities between regions. For example, Figure 3.5 depicts crude mortality rates between seven large regions of the Russian Federation and reveals that these rates were much lower in the more industrialized Northern belt than in Central Chernozyom. However, during the period from 1980-1992, the average percent increase in these rates was far higher in the urbanized northern belt and Central region, which experienced more rapid industrial restructuring than the more rural Volga and Central Chernozyom regions.[70]

*Figure 3.5: Life expectancy at birth by region in the Russian Federation. (percent change in the 1990s)*




Source: A. Telyukov, 1994.

In 1995 and 1996, life expectancy at birth began to rise again each year, reaching 59.6 for men and 72.7 for women, and infant mortality fell to 17. Despite this slight and recent progress, there are few grounds to believe that the worst is over.[71] Unfortunately, a continued deterioration of health status is likely to continue primarily due to the rise of infectious diseases.

## The Rise of Infectious Diseases.

Morbidity from syphilis, tuberculosis, and AIDS has increased dramatically. Data are not sufficiently complete or reliable to fully assess the magnitude of this problem, but there is definitely ground for concern. The 1997 UNDP Russian Federation National Human Development Report, for example, notes that morbidity from syphilis has increased 311% in the 1990s. This number is thought to have increased by 2300-2500% between 1991-1995[72] and by 48% between 1995 and 1996.[73]

Left untreated, syphilis can lead to malformations including blindness, heart disease and brain damage. Syphilis also places newborns and young children at risk. Equally dangerous for children is the fact that rubella shots are not on Russia's immunization calendar. Although there are no reliable data on gonorrhoea, it is believed that the disease is widespread since it is known that its global incidence is generally at least twice that of syphilis.[74] Moreover, gonorrhoea is neither well diagnosed nor routinely treated in the region. These risk factors, in combination with environmental dangers, malnutrition and the generally poor reproductive health of women, lead to reports that 75% of all pregnant women experience complications during pregnancy, and only 37.6 % of newborns are born normally.[75]

Tuberculosis has also risen to dangerous levels. Studies suggest that the TB infection rate is ten times higher than in the United States.[76]

According to an unpublished 1997 memorandum from the Ministry of the Interior entitled "Epidemic Tuberculosis in Russia," the incidence of TB will increase 50 times compared to present rates, mortality will increase seventy-fold and deaths among children will rise ninety-fold.[77] Should these predictions prove correct, "then the deaths attributable to TB will be larger than the cumulative

total reported for heart and cancer in Russia in 1995".[78] This would make the Russian Federation the only country in the world to have passed an epidemiological transition, only to revert to a situation where the causes of death from infectious diseases outnumber those from chronic degenerative diseases.

AIDs is spreading more rapidly than either syphilis or tuberculosis.[79] In 1995, 195 cases of HIV were detected. In 1996, detected cases rose to 1,535 and in the first five months of 1997, that number increased to 2000. Reports estimated that by June of 1997, there were approximately 4000 cases of HIV. The Minister of Health, Tatyana Dmitrievna estimated that there would be no less than 800,000 cases of HIV by the year 2000.[80] Even if this estimate, pronounced on the eve of budget negotiations in the Duma, is exaggerated, the consequences could be disastrous given the rise of sexual promiscuity, prostitution, and intravenous drug use, combined with the lack of well-organized prevention campaigns and treatment options.

A WHO study ranked the Russian Federation as having the highest proportion of male deaths (42%) attributable to tobacco among CEE/FSU.[81] Russia also has the highest rate of per capita alcohol consumption in the world. In the 1990s the Russian alcohol syndrome has become more acute.[82] With respect to this "risk factor" there is both solid evidence, on the basis of Russian data, and general consensus regarding its causal link to the mortality rate.[83] Unhealthy diets, poor nutrition, general pessimism and frequent despair about the future are also considered primary factors in declining health statistics.

## Overview of Health System Reform.

Beginning in 1990 and 1991, discussions of national health reform in the Russian Federation focused mostly on the transition to a health insurance system as a strategy for supplementing inadequate general revenue financing. There was much debate of moving to decentralized management to make decision-making more responsive to local needs. In addition, much emphasis was placed on introducing contracting models and performance-based reimbursement to create incentives for providers to increase the supply of services.

The Health Insurance Law was passed in 1991 and subsequently amended in 1993. This law, in making the entire population eligible for coverage, provides a legal foundation for health sector reform. In essence, it establishes a new system of health service funding, which is based on a payroll tax levied on employers and local governments to cover their employees. Revenues thus collected are pooled into a Federal "equalization fund" and newly established Mandatory Health Insurance (MHI) funds.[84] These monies are intended to finance health care across the Federation, excepting those services to be covered by the traditional public health system.

The MHI Funds are expected to form local subsidiaries or pay private insurance companies to "underwrite" employers and reimburse, monitor, and purchase on their behalf from health care providers. For this service, a MHI Fund pays insurance companies and agencies charged with organizing and managing health services, an age/sex adjusted capitation payment per enrolled member. Depending on local circumstances, this new financing framework has provided an unprecedented level of regional autonomy, thereby allowing for the development of innovative pilot projects such as in Kuzbass.[85] Provision and management of the MHI funds, however, remains under the control of local governments. The development of this type of framework has increased funding inequality, effectively raising the risk that the Russian system will disintegrate – for better or worse – as a national system.

By January 1995, territorial MHI Funds were operating in 86 of 89 Federation *oblasts*. Almost one-half of the population was covered under MHI health insurance policies. The compliance rate among

**Table 3.6:** *Sector Responsibility for Continuum of Policies & Programmes.*

| Responsible Health Sector | Behavioral Life Style | Personal Health Services | Family or Community Based Programmes | Social & Environmental Policies |
|---|---|---|---|---|
| Private | ** | *** | ** | * |
| Public | ** | * | *** | *** |

Source: Fielding and Halton (1994).

employers reached 91 percent. Local governments, however, which are supposed to make contributions for 56 percent of the population, paid for only 24 percent of MHI enrollees. Between 1993 and 1994, MHI allocations to medical facilities increased from 28 to 75% of their total spending. However, payment to health care providers has not yet been coordinated to enhance productivity. One of the key goals, therefore, of Russian health care reform "remains un-addressed and is eroding."[86]

One of the strongest arguments for shifting finance systems away from general revenue taxation to mandatory employer premiums was to enhance funding for the health care sector. Nevertheless, as of 1997 MHI funds accounted for only 30% of total health care expenditures.[87] Recall, also, that real expenditures on health care have decreased . These facts, together with a range of indicators, point to a continued downward slide of the health sector's capacity to deliver medical care.[88]

Another argument in favour of the shift to mandatory contribution by employers to MHI funds centred around the recognized failure of the central state to manage the health system during the 1980s and the desire to shift responsibilities to local government, the non-profit sector or even the private sector. Given the problems of the public sector in the inherited Russian health system such an attitude is understandable (e.g. inadequate governance, corruption, the low status and morale of the medical profession, gaps in medical knowledge and technology, lack of drugs and supplies; and so forth). However, assuming that changes in the health system will somehow address the health and mortality crisis may, "...prove to be almost as helpful as a band-aid on a wooden leg!" [89]

### Whither Public Health? The Absence of Strategies for Improving Population Health.

The health and mortality crisis in the Russian Federation has been more thoroughly studied than in any of the other FSU countries. There is wide disagreement between researchers in search of explanations and reformers interested in designing institutions for a new health system. The most neglected and needed new institutions appear to be those charged with public health responsibilities. Unfortunately far more financial and intellectual resources have been expended on the design of a new health system than on the elaboration of a public health strategy to improve the population's well-being.

There is substantial evidence to suggest that introducing strong measures to prevent alcohol abuse, discourage smoking, and encourage healthier eating habits would improve life expectancy in the Russian Federation. A strong case has been made along these lines for the design of a public health strategy focused on: 1) strengthening epidemiological and professional standards and applying them to reorient the health system toward prevention and away from institutional care; 2) defining health targets and appropriate strategies to achieve them; 3) improving food supply and poor nutrition; and 4) correcting deficiencies in the immunization program.[90]

# [D] Health Policy Choices & Issues for the FSU & CEE.

## *D.1 The Need for a Public Health Strategy.*

In many CEE/FSU countries, efforts to elaborate and allocate resources to implement a public health strategy have been minimal. This is unfortunate at a time when there is increasing recognition that public health problems – whether they arise from environmental pollution or AIDs – can have important health costs.

Considering the magnitude of the health and mortality crisis in CEE/FSU, there is an urgent need to strengthen public health programs whose aim is to prevent disease and promote well-being. Two fundamental aspects of public health – prevention programs and "community" – are in need of further development.[91] The prevention of diseases and injuries is accomplished largely through health protection and promotion strategies. Health *protection* focuses on traditional public health programs, such as the control of communicable diseases and the assurance of a safe environment with regard to food, air, water, housing and workplaces. Health *promotion* focuses on encouraging individuals to lead healthy lifestyles – to avoid smoking, excessive drinking, to practice safe sex, and so on. It also includes the provision of basic health services, such as child and adult vaccinations, maternal and child care and treatment of sexually transmitted diseases. Finally, "community" refers to the geographic, institutional and social framework in which these programs are pursued.

If improving health status is the goal of health care reform in CEE/FSU, public health programs will not only have to be strengthened, they will need to be integrated with reformed health systems. Since all public health programs require some form of collective action, there will always be important interactions with the public sector, even if the private sector eventually leads in the delivery of personal health services. Appropriate public health strategies need not be designed and managed by the public or private sector alone. The challenge is to find an appropriate public/private mix that covers what has been called the "continuum of policies and programs."[92] (see Table 3.6)

There is a wide range of possible divisions between public and private sectors. Irrespective of ideology or organization, however, social and environmental protections remain primarily a public sector responsibility that must be achieved through legislation and regulatory authority.

## *D.2 The Need for a Credible State in the Health Sector.*

One of the most consistent concerns in health care reform efforts among CEE and FSU countries has been the drive to distance the state from the health sector. Although this visceral reaction to the heritage of communist government is understandable, it raises a paradox that has been analysed in the context of privatization in the region:

"We have the makings of a genuine paradox that constitutes the most fundamental systemic obstacle to the economic transformation of Eastern Europe: the most important aspect of the transition to a spontaneously functioning market economy cannot be initiated by the market forces themselves. Indeed, the only force powerful enough to set the market forces in motion is the very state that is supposed to remove itself from the picture. And, for a number of reasons, the state may be unable to accomplish this task." [93]

Even in the most market-based health care systems, such as the United States and Switzerland, the state plays many important roles in the health sector. These range from financing a large portion of health care expenditures, to the direct provision of medical services in public hospitals

and public health services in a range of government institution. Perhaps most importantly, the state exercises regulatory authority to protect conditions necessary for the successful operation of markets. In this regard, oversight and regulation of the health sector is an immense task in all of the OECD countries, not only to assure a "level playing field" but also to oversee biomedical research, elaborate and enforce standards, diffuse information and assure some level of accountability for the ways in which public funds are allocated.

Although the United States has the smallest share of publicly financed health care expenditures with respect to health care financing among OECD countries, it still represents 45 percent of health care expenditures. And, although the United States is often viewed as an exemplar of a private health system, roughly one third of all hospital beds are in the public sector. Moreover, the U.S. Federal Public Health Service, including the Center for Disease Control, the Federal Drug Administration, the National Institutes of Health and the state and county departments of public health are all examples of the strategic role played by government in the health care system.

In thinking about an appropriate strategy for government intervention in addressing the health and mortality crisis of transition economies, it is useful to recall the distinction between the two kinds of policy intervention: those that create backward linkages and those that create forward linkages. In the field of healthcare, backward linkages refer to traditional public health programs that include assessment and control of environmental toxins, assurance that drinking water is clean and sewage properly disposed of, organization of health education campaigns, immunization, disease prevention services and the provision of health care to mothers and children and other vulnerable groups. Forward linkages refer to the provision of medical care and hospital services. In other words, policy interventions that create backward linkages try to avert death and disease, whereas those that create forward linkages emphasize curative, palliative or restorative services.

One strategy to improve population health is to alleviate poverty and improve education, particularly for women, i.e. promote policy interventions with backward linkages beyond the health sector , i.e. WHO's well-known inter-sectoral approach.[94] Nevertheless, the issue of poverty cannot be addressed without simultaneously improving a population's overall well-being. The challenge, then, in designing an appropriate health strategy for a population that has grown increasingly poor is to find the appropriate balance between policies that produce backward and forward linkages.

Thus far, most CEE/FSU governments have tended to pursue forward linking policy interventions within the health sector and have shifted increasing responsibility to newly designed non-governmental organizations -health insurers and the private sector. While this is an important aspect of health care reform, it must not be done at the cost of neglecting others. There is a growing need for a credible state to strengthen policy interventions that produce backward linkages. This calls for the state to retain an active role in revitalizing the public health agenda.

*Endnotes.*

[1] The chapter is based on available data collected and published by WHO-EURO, UNICEF, the World Bank and UNDP. It draws on existing analyses sponsored by these organizations, information collected by UNDP field staff and published in National Human Development Reports, as well as on relevant research and news briefs from academic and trade publications.
[2] The case for elaborating a public health strategy in the context of transition has been forcefully made by Zarkovic, Mielck and Beckman (1994).
[3] UNICEF(1994), p.27-28.
[4] Rowland and Telyukov (1991).
[5] See UNICEF (1994, 1995).
[6] Wilkinson (1992), Marmot, et. al. (1978), Lynch (1997), Evans,Barer, Marmor (1994).
[7] Ruben, B. "The Emerging Threat of Infectious Diseases,"*CommonHealth*, Washington D.C., Fall, 1997, p.4.
[8] *The World Health Report.* Geneva: WHO, 1977, p.114..
[9] Data in this paragraph are taken from WHO, *Ibid.*
[10] Ruben, B. "NIS and CEE: The Coming Plague?" *CommonHealth*, Washington D. C., Fall, (1997).
[11] UNICEF (1994: 46).
[12] UNICEF (1994: 44).

[13] Eyer, J. and Sterling, P., "Stress-Related Mortality and Social Organization," Review of Radical Political Economics (9)1, Spring, 1977. Cited by Cornia (1996:14).
[14] Feshbach and Friendly (1992), Leon, et. al.(1997), Field, Kotz and Bukhman (1998).
[15] Cornia (1994).
[16] Oblast refers to a district level unit of government.
[17] Cornia (1996), Paniccia (1997), Shkolnikov and Cornia (1998).
[18] Watson (1995).
[19] Davis (1997).
[20] Cornia (1996).
[21] UNICEF, Lazutka and Sniukstiene, Economic Transition in the Baltics: Independence, Market Reforms and Child Well Being in Lithuania," International Child Development Center, Florence, Italy, Sept. 95.
[22] Boys, Foster and Jozan (1991).
[23] Saltman and Figueras (1997:39).
[24] Zarkovic, et. al. (1994), Zarkovic, et. al. (1997).
[25] Ensor, T. "Health System Reform in Former Socialist Countries of Europe," *International J. of Health Planning and Management* (8)1993:169-187.
[26] Cited by Barr, D. and Field, M., "The Current State of Health Care in the Former Soviet Union: Implications for Health Care Policy and Reform," AJPH(86)3. 1996, 307-312.
[27] Piha,T. et. al., "Tobacco or Health,"*World Health Statistics Q.* (46) 1993:188-194.
[28] On the meager share of health care expenditure in CEE and FSU, see Davis and Feshbach (1980), Davis (1993, 1993a, 1997), Eberstadt. (1981).
[29] Preker, A. "Meeting the Challenge: Policymaking and Management During Economic Transition." In Rice, J. (1994)
[30] Chernichovsky (1995).
[31] Enthoven (1988).
[32] Saltman and van Otter (1992).
[33] OECD (1992).
[34] Sheahan (1995).
[35] *British Medical J.* (7047) 312, June 29, 1996.
[36] Goldstein, et. al. (1996).
[37] World Bank Public Information Center, "Russia-Health Reform Pilot Project," Jan.28, (1997).
[38] See Davis, C. (1993) and (1997).
[39] Preker and Feachem (1992), p. 15.
[40] This point was made in an incisive paper by Lawler (1997).
[41] Klugman and Schieber (1996:31).
[42] Barr and Field (1996:309).
[43] World Bank Staff Appraisal Report, Georgia (1996).
[44] Tulchinsky and Varavikova (1996:317).
[45] Preker and Feachem (1995).
[46] Albert, et. al.(1992).
[47] 56% in 1992.
[48] Lassey et. al. (1997).
[49] Albert, et. al. (1992); Federal Committee for the Environment (1990).
[50] World Bank study (1991).
[51] Vachudova and Fisher (1993).
[52] Albert (1992).
[53] HIT (1996).
[54] UNDP, *Czech HDR* (1996).
[55] See, e.g. "Czech Republic 1st Quarter 1996," *The Economist Intelligence Unit.*
[56] UNDP, *Czech HDR* (1996).
[57] Massaro, et. al. (1994).
[58] Rubas (1994).
[59] Robbins (1995).
[60] Zarkovic and Satzinger (1997).
[61] HiT (1996).
[62] These data, referring to natural population growth are taken from Klugman and Schieber, (1996) p. 3.
[63] Data are from Klugman and Schieber,(1996); p.4 and UNDP, *Kyrgyz HDR*, UNDP(1997) p. A-3.
[64] The fact that this latter figure is unusually high suggests poor diagnostic capability, poor quality care and unreliable data. UNDP, *Kyrgyz HDR* (1997).
[65] *Ibid*, p.5.
[66] HiT (1996:2).
[67] Expenditure data for the Krygyz Republic appear glaringly unreliable. These figures are from the World Bank — Klugman and Schieber (1996) p.19. The figures in Appendix A refer to total spending and must be adjusted for the 57% decline in GDP during this period. Data from HiT-Kyrgyzstan (1996), and the *Kyrgyz Republic HDR* (1997), are inconsistent and not comparable.
[68] HiT (1996).
[69] Borowitz (1996); For more information on this pilot project, see *Health Watch*(1)4, (1996); Washington D.C: Abt Associates.
[70] Shkolnikov and Cornia (1998).
[71] See Shkolnikof and Cornia (1998) for analysis of the urban and rural disparities in relation to their pyschosocical adaptation model.
[72] Feshbach (1997a, 1997b) presents a gloomy forecast for the future. The evidence to which he points is largely consistent with troubling trends reported by Shkolnikov and Cornia (1998), Garrett (1997), and the UNDP, *Russian Federation HDR,* (1997).
[73] Shkolnikov and Cornia (1998), Feshbach (1997b).
[74] These data are from Sanepidnadzar and Goskomstat.
[75] Feshbach (1997b).
[76] Feshbach (1997a).
[77] Garrett (1997a).
[78] This memorandum was obtained by Laurie Garrett (1997a), a Pulitzer-prize winning journalist and microbiologist, in the course of her special series of investigative reports for *Newsday.*
[79] Feshbach (1997b), p.10.
[80]UNDP, *Russian Federation NHDR,* (1997).
[81] Feshbach (1997a).
[82] Piha (1993).
[83] Shkolnikov and Nemtsov (1997), Shkolnikov and Cornia (1997) and Treml (1997).
[84] Leon, et. al.(1997); Ryan (1995).
[85] Telyukov (1996).
[86] Isakova et. al. (1995).
[87] The data in this paragraph are taken from Telyukov (1996)
[88] *UNDP, Russian Federation* (1997).
[89] Davis (1997).
[90] Mark Field (1995:1477).
[91] Tulchinsky and Varavikova (1996).
[92] Baker, E., et. al., "Health Reform and the Health of the Public," JAMA (272)16, (1994)
[93] J. Fielding and N. Halfon, "Where is the Health in Health System Reform?" JAMA (272)16, (1994)
[94] Frydman and Rapaczynski (1994)
[95] On this score, see e.g. Gunatilleke and Hammad (1997) and Hammad and Gunatilleke (1994).

*"Although the world is full of suffering, it is also full of the overcoming of it."*

Georgian Proverb.