# A Decade of Transition

# The MONEE Project CEE/CIS/Baltics

This Chapter is extracted from Regional Monitoring Report 8

'A decade of Transition'.

UNICEF Innocenti Research Centre



This Regional Monitoring Report is the eighth in a series produced by the MONEE project, which has formed part of the activities of the UNICEF Innocenti Research Centre since 1992. The project analyses social conditions and public policies affecting children and their families in Central and Eastern Europe and the Commonwealth of Independent States.

Earlier Regional Monitoring Reports are as follows:

- 1. Public Policy and Social Conditions, 1993
- 2. Crisis in Mortality, Health and Nutrition, 1994
- 3. Poverty, Children and Policy: Responses for a Brighter Future, 1995
- 4. Children at Risk in Central and Eastern Europe: Perils and Promises, 1997
- 5. Education for All?, 1998
- 6. Women in Transition, 1999
- 7. Young People in Changing Societies, 2000

Russian as well as English versions of the Reports are available.

Besides benefiting from the core funding to UNICEF IRC from the Italian Government, the MONEE project receives financial contributions from the UNICEF Regional Office for CEE/CIS/Baltic States and from the World Bank.

Readers wishing to cite this Report are asked to use the following reference:

UNICEF (2001), "A Decade of Transition", Regional Monitoring Report, No. 8, Florence: UNICEF Innocenti Research Centre.

 $\label{lem:cover_design:miller,Craig & Cocking, Oxfordshire, UK \\ \textit{Layout and phototypesetting: Bernard & Co, Siena, Italy}$ 

Printing: Arti Grafiche Ticci, Siena, Italy

© UNICEF 2001 ISBN: 88-85401-98-8 ISSN: 1020-6728



#### THE UNICEF INNOCENTI RESEARCH CENTRE

The UNICEF Innocenti Research Centre in Florence, Italy, was established in 1988 to strengthen the research capability of the United Nations Children's Fund (UNICEF) and to support its advocacy for children worldwide. The Centre (formally known as the International Child Development Centre) helps to identify and research current and future areas of UNICEF's work. Its prime objectives are to improve international understanding of issues relating to children's rights and to help facilitate the full implementation of the United Nations Convention on the Rights of the Child in both industrialized and developing countries.

The Centre's publications are contributions to a global debate on child rights issues and include a wide range of opinions. For this reason, the Centre may produce publications that do not necessarily reflect UNICEF policies or approaches on some topics. The views expressed are those of the authors and are published by the Centre in order to stimulate further dialogue on child rights.

The Centre collaborates with its host institution in Florence, the Istituto degli Innocenti, in selected areas of work. Core funding for the Centre is provided by the Government of Italy, while financial support for specific projects is also provided by other governments, international institutions and private sources, including UNICEF National Committees.

The opinions expressed are those of the authors and editors and do not necessarily reflect the policies or views of UNICEF. The designations employed in this publication and the presentation of the material do not imply on the part of UNICEF the expression of any opinion whatsoever concerning the legal status of any country or territory, or of its authorities, or the delimitation of its frontiers.

All correspondence should be addressed to:

UNICEF Innocenti Research Centre Economic and Social Policy Research Programme Piazza SS. Annunziata, 12 50122 Florence, Italy Tel.: (+39) 055 203 30

Tel.: (+39) 055 203 30 Fax: (+39) 055 244 817

 $\begin{array}{ccc} \hbox{E-mail (general information):} & \hbox{ciusco@unicef.org} \\ & \hbox{(publication orders):} & \hbox{florence.orders@unicef.org} \end{array}$ 

Website: <www.unicef-icdc.org>

# **Foreword**



A Decade of Transition reviews the momentous changes in the 27 countries of Central and Eastern Europe and the Commonwealth of Independent States since 1989, focusing on the well-being of ordinary people and their children. It builds on years of authoritative research carried out by UNICEF's Innocenti Research Centre, to produce an end-of-decade report on the human face of the transition.

This Report, the eighth from the Centre, is published at a time when the world's commitment to children's survival and development is under close scrutiny. In 1990, world leaders met at the World Summit for Children to pledge their support to a series of goals to improve child well-being by the year 2000. This year, the UN Secretary-General's review of the progress made reveals a mixture of success and failure. Thanks to a decade of strenuous efforts, child mortality rates have fallen in many countries. However, millions of children continue to suffer from poverty, ill health and marginalization.

This global picture certainly reflects the situation in the transition countries, but no other region has experienced such a root and branch transformation of its social structure, its societies, infrastructure and borders. Eight countries splintered into 27. Every one of them experienced some kind of economic crisis. In many, tensions that had been simmering for years erupted into open conflict.

The human impact has been immense. Fundamental freedoms have been recognized in most countries – the right to vote, to express an opinion, to use one's own initiative and enterprise, to travel and so on. But many people have been stranded by a tide of progress that has swept past them.

It is clear that the original goals of the transition – to raise the standard of living for everyone and to develop humane and democratic societies – now need to be re-affirmed. The economic goals of the transition should be seen as tools to achieve these greater human goals. In reality, the ultimate success of the transition will depend on improvements in social conditions and the promotion of human rights, as well as on economic strength.

We hope that A *Decade of Transition* will be a useful tool for decision-makers, economists, child rights campaigners and for children and young people wishing to make a difference. As a record of the progress and setbacks of the 1990s and the lessons learned, this Report acts as a signpost for the way forward.

Carol Bellamy Executive Director, UNICEF

#### Acknowledgements

This Report was prepared by a team at the UNICEF Innocenti Research Centre with contributions and assistance from a large number of other persons. The core team of authors was Gáspár Fajth, Jane Falkingham, Roumiana Gantcheva, Martin Godfrey, Judith Harwin, John Micklewright and Marc Suhrcke. Cinzia Iusco Bruschi provided administrative and secretarial support. Gáspár Fajth and John Micklewright organized the work and edited the Report; responsibility for the views expressed rests with them.

Giorgina Brown, Benedetta Calonaci, Virginija Eidukienė, Alenka Halova, Angela Hawke, Ceema Namazie, Gerry Redmond and Sylke Viola Schnepf contributed material or assistance on various issues. William Jack, Georgetown University, and Maria Herczog, Hungarian National Institute of Family and Social Policy, commented on earlier versions of parts of Chapters 3 and 5, respectively. Robert Zimmermann copyedited the text, and he and Eve Leckey played a major role in getting the final product into print. Bernard Chazine and Annalisa Tinervia are thanked for their work on the design and layout of the Report. She may now be a subject, we're still not sure, but, for us, Maria Grazia is royalty among statisticians.

Philip O'Brien and John Donohue, the current and the former directors of the UNICEF Regional Office for CEE/CIS and the Baltic States, offered encouragement and unfailing support. Thanks also to Steve Umemoto, who was acting director at the Innocenti Research Centre much of the period during which the Report was being prepared, together with the current and the former directors, Marta Santos Pais and Mehr Khan.

The Report benefited from the help and comments of many other UNICEF colleagues, including Steven Allen, David Baker, Giovanna Barberis, Mary Black, Elena Bogdanska, Geert Cappelaere, Robert Cohen, Martine Deletraz, Jean-Michel Delmotte, Gloria Fernandez, Robert Fuderich, Slavenka Grahovac, Philippe Heffinck, Karin Hulshof, Branislav Jekic, Stephen Johnson, Victor Karpenko, Shahnaz Kianian-Firouzgar, Sabah Knani, Sabir Kurbanov, Roberto Laurenti, Alexander Malyavin, Nada Marasovic, Ken Maskall, Rosemary McCreery, Eddie McLoughney, Gianni Murzi, Nino Nanitashvili, Yulia Narolskaya, Yuri Oksamitniy, Nino Partskhaladze, Martha Rajandran, Judita Reichenberg, Olga Remenets, Rudy Rodrigues, Akif Saatcioglu, Elena Selchonok, Jeannette Shikhmuradova, Simon Strachan, Thomas Thomsen, Boris Tolstopiatov, Svetlana Topchyan, Richard Young and Alexandre Zouev. We remember our colleague, Mikayel Aleksanyan, who died in a tragic accident while on a field trip in the region. Thanks also to Bernadette Abegglen-Verazzi, Andrea Brilli, Nigel Cantwell, Patrizia Faustini, Patrick McCormick and other colleagues at IRC.

Individuals in other institutions must also be thanked for their assistance: Bruno Laporte, Pierella Paci, Ana Revenga, Dena Ringold, of the World Bank; Martin Raiser, Peter Sanfey, of the European Bank for Reconstruction and Development; Giovanni Andrea Cornia, University of Florence and UNICEF IRC; Judith Kent, European Children's Trust; Cathy Wright, IMF; Assia Brandrup-Luckanow, WHO; Laura Mourino-Casas, UNDP; Albert Motivans, Institute of Statistics, UNESCO; Björn Hibell, Swedish Council for Information on Alcohol and Other Drugs; Gregory Gerasimov, International Council for the Control of Iodine Deficiency Disorders; Irene Müller, Rolf Uher, of the Zentralarchiv für Empirische Sozialforschung, University of Cologne. Thanks also to the London School of Economics and Brunel University for facilitating the contributions of Jane Falkingham and Judith Harwin to Chapters 2 and 5, respectively.

The Report could not have been produced without the participation of the central statistical offices in the countries of the region. (They bear no responsibility for the way data are used or presented in the Report.) Thanks are due for their many contributions (including written papers) to the following persons and to others working with them.

Albania Milva Ekonomi, Elda Muca Armenia Juliette Magloutchiants

Azerbaijan Meri Gardashkhanova, Arif Veliyev

Belarus Galina Gasyuk

Bosnia-Herzegovina Munira Zahiragić, Enes Hadžiefendić (Federation of B-H), Slavko Šobot (Republika Srpska)

Bulgaria Jaklina Tzvetkova-Anguelova Croatia Senka Bosner, Robert Jurak

Czech Republic Jaroslav Novák Estonia Urve Kask

FYR Macedonia Blagica Novkovska, Svetlana Antonovska

Georgia Teimuraz Gogishvili, Vladimer Papava (Ministry of the Economy)

Hungary Judit Lakatos Kazakhstan Erbolat Musabekov

Kyrgyzstan Zarylbek Kadabaev, Kuliypa Koichumanova

Latvia Edmunds Vaskis Lithuania Virginija Eidukienė

Moldova Jana Tafi

Poland Maria Daszynska, Zofia Galazka, Bozena Balcerzak-Paradowska

Romania Constantin Chirca, Filofteia Panduru Russia Irina Zbarskaya, Svetlana Nikitina

Slovakia Eugen Placintár, Milan Olexa, Aleksandra Petrasova

Slovenia Tomaz Banovec, Joza Klep Tajikistan Bakhtiya Mukhammadieva

Turkmenistan Juma Durdy Bairamov, Ludmila Amanniyazova

Ukraine Irina Kalachova, Natalia Vlasenko Uzbekistan Rayganat Makhmudova

UZDEKISTATI KAYBAHAT INIAKHIHUUOVA

FR Yugoslavia Dragoljubka Puskovic, Dragana Filippi

# **Contents**



EXECUTIVE SUMMARY	ix
1. CHANGING SOCIETIES	1
1.1 Political Change and Development Perspectives	3
1.2 Social and Economic Change during the Transition	9
1.3 Economic Reforms and Individual Well-Being	
1.4 Demographic Change and Family Formation	18
1.5 Conclusions	23
2. INCOME INEQUALITY AND CHILD POVERTY	25
2.1 Inequality in Household Incomes	25
2.2 Child Poverty	
2.3 Public and Private Responses to Poverty	
2.4 Conclusions	44
3. HEALTH: OUTCOMES AND POLICY	47
3.1 Disturbing Trends	47
3.2 Health over the Life Cycle	
3.3 Growing Health Inequalities?	56
3.4 Challenges for Health Policy	60
3.5 Conclusions	67
4. EDUCATION: ACCESS AND OPPORTUNITIES	
4.1 Changes in Access to Education	71
4.2 Equity in Access to Education	76
4.3 Costs, Financing and Governance	79
4.4 Outcomes	
4.5 Conclusions	
5. CHILDREN DEPRIVED OF FAMILY UPBRINGING	
5.1 Child Vulnerability and State Intervention	94
5.2 Stability and Change in Institutional Care Patterns	
5.3 Stability and Change in Foster Care, Guardianship and Adoption	103
5.4 Reasons for Public Care and Deprivation of Family Upbringing	108
5.5 Developing a Strategy to Safeguard and Promote a Family Upbringing	110
5.6 Conclusions	115
STATISTICAL ANNEX	119
GLOSSARY	191

# **Outcomes and Policy**



Good health, according to the World Health Organization, is "a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity". It is important not only for the individual: much evidence demonstrates the link to countries' social and economic development (see Box 3.1). This chapter reviews the evolution of health status in Central and Eastern Europe and the CIS during the 1990s – both among the population as a whole and among children – and discusses challenges for health policy in the years ahead.

Chapter 1 describes achievements in the area of health under the communist system during the post-war period, for example the reduction in child mortality. How did such achievements come about? Three principal factors stand out:

- Universal access to health care and immunization that resulted in major reductions in communicable diseases.
- A broad-based education system that virtually eradicated illiteracy and that realized equal access to education for girls and boys.
- The elimination of extreme poverty.

The 1990s saw conditions deteriorate in various ways. Living standards fell, and extreme poverty emerged, putting at risk the population's health in much of the region. The funding of public health systems obviously suffered as economies shrank. Changes in education have yet to make their full mark on health outcomes, but there has been little here that has been positive.

Section 3.1 highlights some of the disturbing trends in health since 1989. Among these are the "mortality crisis" – a dramatic increase in the number of deaths among adults, particularly men – and the spread of HIV/AIDS and of tuberculosis in parts of the region. HIV/AIDS is obviously a new problem, as elsewhere in the world, while tuberculosis is an old infectious scourge that had previously been brought under control. As in other aspects of life in the region, a marked divergence in countries' experiences is often noted.

Young children, adolescents and women are the focus of Section 3.2, which examines how health has been affected over the life cycle. The topics covered include infant mortality, child malnutrition, drug abuse among the young and abortion.

Evidence on inequalities in health outcomes and in access to health care is analysed in Section 3.3. Household income inequality has risen, often markedly, as shown in Chapter 2. What have been the implications for differences in health status? The widespread phenomenon of informal payments for health care is discussed.

Section 3.4 reviews the substantial changes that have occurred in terms of health policy and identifies some of the main challenges that remain. The health system inherited from the communist period had many merits, but was not without faults. For example, there was a bias towards hospital care and insufficient promotion of healthy life styles. One key issue is how to finance health systems in an adequate and equitable way.

## 3.1 Disturbing Trends

Large-scale economic and political change has been mirrored by important changes in health status – and not always for the better. Adult mortality rates jumped upwards in the early 1990s in parts of the region, as early *Regional Monitoring Reports* highlight. The end of the 1990s saw a sharp rise in HIV/AIDS, while there was a large and fairly steady increase in the incidence of tuberculosis in some countries.

#### The mortality crisis of the 1990s

The MONEE project estimates that "excess mortality" in

the region over 1990-99 totalled some 3.26 million deaths. These are the deaths that would not have occurred if mortality rates had stayed at the 1989 levels (taking into account the changes each year in the age structure and size of the population). Of these deaths, 72 percent were to males, and three-quarters to persons aged over 25 and under 60 – the crisis has predominately been one affecting adult men.

The regional breakdown of the total is given in Table 3.1. In Central Europe, former Yugoslavia and the Caucasus, mortality in fact fell. (It should be noted that the figures for former Yugoslavia exclude Bosnia-

#### The economic costs of ill health

Besides the intrinsic value attached to a healthy life, there are substantial economic costs – both direct and indirect – caused by ill health.

It is the *indirect* costs in the form of reduced output from the economy that are often neglected by policy-makers when considering investments in the health of their nations, even though the indirect costs may be larger than the direct costs in the form of medical care. Good health is a crucial part of human capital that in turn shapes individual capabilities and promotes economic development.<sup>2</sup> Hence, poor health reduces an economy's output both in the present, due to absences from work and lower effort due to illness, and in the future if ill health has a lasting impact on an individual's working capacity. Ill health or injury that results in death is, by definition, an example of a permanent effect, but long-term deterioration in the ability to work can be generated by many conditions that do not kill.

The trends in adult mortality described in Section 3.1 will have had substantial indirect costs for the region's economies. Many of the more than one million people estimated to have died prematurely in Russia during 1990-95 were adult men below pension age, persons who could normally be expected to have worked. When taking into account those who sickened but did not die during these years, as well as those who became ill and then died prematurely, one study has estimated the discounted value of the future earnings that were forgone in Russia in the first half of the 1990s due to illness at between 1.8 and 4.7 percent of one year's GDP.<sup>3</sup>

Herzegovina and, in the case of FR Yugoslavia, exclude 1999.) In Central Europe, for example, there were nearly half a million fewer deaths than there would have been if the 1989 mortality levels had continued. On the other hand, the excess death toll was particularly high in the western CIS. The excess deaths in Russia alone totalled 2,566,000, and in Ukraine 896,000.

The intrinsic importance attached to life makes these numbers of excess deaths a deeply distressing aspect of transition. In addition, many of these deaths, typically among adult males, have implied the loss of a breadwinner, as well as emotional and psychological suffering among those left behind. This is one sense in which the impact of the mortality crisis continues, even if death rates in many countries have come down from the peaks in the early or mid-1990s. And since mortality is correlated with morbidity, the numbers imply that there has been a great deal of additional ill health, as well as the additional deaths.

Figure 3.1 summarizes the changes in mortality across the region with information on life expectancy at birth. Over 1980-99, the EU average, given as a benchmark, shows a steady improvement of almost four years in

The future indirect costs of ill health among children are especially high: children have all their working lives in front of them, and much of an individual's future earning capacity is formed by events taking place during childhood and adolescence. Ill health that interrupts schooling (or learning while at school) can therefore have high future costs, as do illnesses that impair later physical capacity. Malnutrition of various forms may affect both the cognitive and the physical capabilities of children as they mature (see Sections 3.2 and 3.3).

If HIV/AIDS were to gain a major hold in the transition countries, it would have a large impact on the region's economies, not least since this disease strikes hardest at young adults. (In sub-Saharan Africa AIDS has become a significant block to economic development.) The economic impact of AIDS evolves out from the household level, where the onset of the disease for one member means the loss of his or her income and the diversion of other household members from work and school to care for the patient. Where those who sicken and die have a substantial effect on the present or future working capacity of others, for example teachers, the consequences multiply.<sup>4</sup>

Recent research has made a strong case that health – measured mainly by life expectancy and infant or adult mortality – is a significant and reliable predictor of future economic growth. For a large sample of countries, it has been found that an increase in life expectancy in 1965 by 1 percent accounted for an acceleration in GDP per capita growth of over 3 percent each year for the subsequent quarter century.<sup>5</sup>

life expectancy. The experiences of the transition countries during the 1990s can be divided into three groups. In former Yugoslavia, the Caucasus, South-Eastern Europe and Central Europe, little or no decline in average life expectancy occurred in the early 1990s, and in general there was then a fairly steady improvement until the end of the decade (the data exclude Bosnia-Herzegovina). At the other extreme, life expectancy fell sharply in the western CIS and Central Asia, reflecting the onset of the mortality crisis. In the western CIS, this followed a more gradual decline in the late 1980s. In neither of these last two sub-regions has there been a full recovery. The Baltic countries combine features of both patterns: they were first hit as hard as the western CIS and Central Asia, but saw a marked rebound after 1994.

Of the 22 countries for which data for 1989 and 1999 are available, only 15 had recovered their 1989 level of life expectancy by the end of the decade. (Figures for men and women separately are given in Chapter 1, Table 1.1.) Slovenia is a notable achiever, the only country with no fall at any time during the 1990s and with the highest level in the region in 1999, 75.8 years. By contrast, life expectancy

Figure 3.1

declined in Belarus throughout the decade. The lowest value in the region in 1999 was the 66.0 years in both Kazakhstan and Russia.

One of the major influences on life expectancy has been the change in deaths caused by circulatory diseases, for example strokes and heart attacks. Figure 3.2 shows trends in the risk of death among males from this cause for one country from each subregion.

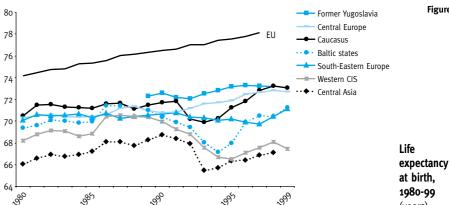
The differences already present in the mid-1980s increased greatly during the 1990s. Slovenia tracked the EU average, with the risk of death from this cause falling by almost 40 percent over 1985-99. The Czech Republic also experienced a falling risk, converging more quickly towards the EU after transition began. In the other countries, transition provoked higher rates of death from circulatory diseases. Russia and Latvia suffered roughly an 80-percent hike within the first four years of transition. During the second half of the 1990s, the situation generally improved. However, by the end of the decade, Russia, Kazakhstan, Azerbaijan and Romania had not reverted to their pre-transition levels.

The trend in Russia is particularly worrying, with 1999 seeing a renewed sharp increase to a level exceeded only in 1993-95. Indeed, life expectancy in Russia fell in 1999 by about one and a half years for men, to 59.9 years (just above the level in India), and by

half a year for women. The crude death rate (total deaths per thousand population) in 2000 rose for the second year running, to 15.3 - the highest rate since 1994.6 The mortality crisis in the largest country in the region seems far from over.

Deaths from circulatory diseases have apparently been sensitive to the way transition has evolved in different countries. A similar picture emerges from data on death rates due to "external causes" - accidents, murder and suicide - the other major contributor to changing life expectancy during the 1990s. The sensitivity of these two major causes of death to the transition process suggests that some common factors have been at work.

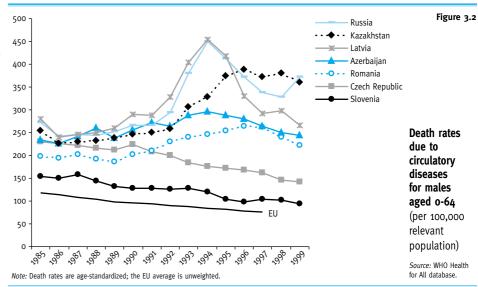
What are these common factors? Acute "psychosocial stress" is a key stimulus for heart problems and hypertension. Stress arises when individuals find themselves confronted with increased pressure to adapt to new and unexpected circumstances without having acquired appropriate coping strategies. Several studies have demonstrated the direct link between stress and cardiovascular disease.7 In addition, people exposed to stress may respond by an increased use of alcohol, tobacco and drugs in an attempt



Note: Unweighted regional average rates. Most of the data are from the HFA database; in cases in which WHO data are not available, the unweighted average of male and female life expectancy from Statistical Annex tables has been used. Figures for former Yugoslavia exclude Bosnia-Herzegovina. Data are estimated for FYR Macedonia in 1990 and 1998, Slovakia in 1981 and 1983, Estonia, Belarus, Moldova, Azerbaijan and Kazakhstan in 1983 and 1984, Georgia in 1983, 1984 and 1993, Armenia in 1988, and Tajikistan in 1983, 1984

(vears) Sources: Statistical Annex, Tables 4.2-4.3; WHO Health for All

(HFA) database.



to relieve the stress. When taken to excess, this also results in higher risk of death from circulatory diseases and external causes.

The much sharper than expected output decline in almost all countries at the onset of transition severely increased the economic hardships felt by the population in the region. This affected people's health through both physical and mental pathways. Lower household incomes and higher poverty and unemployment produced unprecedented financial strains, limiting the ability to buy goods and services that directly or indirectly improve health. Economic insecurity weakened individuals'

capability to cope psychologically. Soaring inflation in the early 1990s and the breakdown of the communist system also played a part in reducing certainty in people's lives.

## "Excess mortality", 1990-99 (number of deaths)

Central Europe	-488,000
Former Yugoslavia	-97,000
South-Eastern Europe	+22,000
Baltic states	+47,000
Western CIS	+3,680,000
Caucasus	-125,000
Central Asia	+217,000
Net total	+3,256,000

Source: MONEE project database

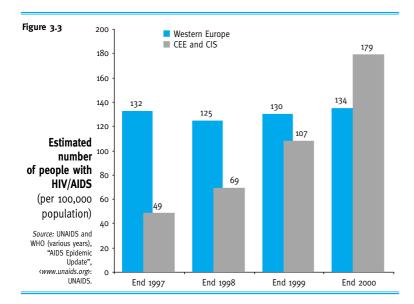
Note: The number of excess deaths is the difference between the actual number of deaths during 1990-99 and the number that would have occurred in this period had death rates in each country been at the same level as those prevailing in 1989. The 1989 death rates are gender- and age-specific (15 age groups) and are applied to the relevant population group in each year for the 1990s. Due to missing data, calculations are not made for Bosnia-Herzegovina (all years), Albania (1997-99), Georgia (1993), Tajikistan (1996-99) and FR Yugoslavia (1999).

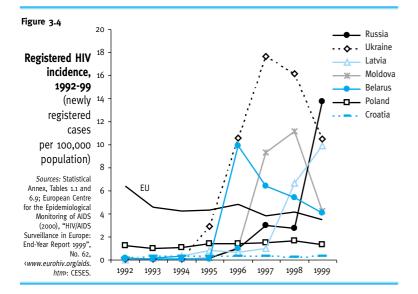
The physical and mental impacts combined to produce psychosocial stress of the kind described above, influencing deaths due to circulatory diseases and external causes. Even if children and women were not the immediate victims in this process, they shared in the consequences of the increased stress endured by their parents and spouses.

However, the story is not all negative. Those countries that have made serious economic and political reforms towards the market system and that have managed to revive economic growth on a sustained basis have been able to increase life expectancy.<sup>8</sup>

#### HIV/AIDS: an emerging threat

In December 2000, UNAIDS estimated that 700,000 people had HIV/AIDS in Central and Eastern Europe and the CIS, up from 420,000 one year earlier. The speed of the spread of the HIV virus is such that information on the extent of the problem is quickly out of date. New estimates are expected from UNAIDS shortly after this Report is published, and the reader is encouraged to visit the organi-





zation's website for an update: <www.unaids.org>.

As in other parts of the world, the disease has mainly hit adults in their 20s. Until now, no immunization or cure exists for HIV/AIDS, and effective treatments, which slow down the progress of the disease, are expensive and largely unavailable in transition countries.

Until the mid-1990s the problem was less widespread in transition countries than in Western Europe, but the situation has since reversed – see Figure 3.3. At the end of 1997, the estimated prevalence of HIV/AIDS was about one-third that in Western Europe, but by the end of 2000 it was one-third higher.

The data in Figure 3.3 relate to the *estimated* prevalence of HIV/AIDS. The estimated number of people with HIV or full-blown AIDS is far higher than the number of *officially registered* cases. The latter undoubtedly understates the problem since many people with HIV are unaware of their infection. This is important to bear in mind when considering Figure 3.4, which shows the number of newly registered cases of HIV per 100,000 population in selected countries. It should also be noted that the graph stops in 1999.

The graph illustrates the variation in the burden of HIV/AIDS across the region: low in Central Europe and high in parts of the former Soviet Union. About 90 percent of the people estimated to have HIV/AIDS are in Russia and Ukraine. Ukraine experienced a more than tenfold increase in the incidence of newly registered cases between 1995 and 1998. Registered incidence in Russia shot up in 1999, from below the EU average level in 1998 to four times above it in 1999, and it would be reasonable to suppose that the real difference in HIV/AIDS prevalence between Russia and the EU at the end of the decade was greater than this (assuming that infections are more likely to be detected in the EU). HIV cases were reported in 82 of Russia's 89 regions in late 2000.10 The officially registered new HIV cases in Russia in 1999 alone totalled 20,000, and data not included in Figure 3.4 show a huge increase in 2000 and 2001: 56,000 registered new infections in 2000, and 43,000 in the first six months of 2001 (resulting in rates per 100,000 persons that would be far off the top of Figure 3.4).11 Registered incidence in Latvia also shot up in 1998-99. And, while it is encouraging that the newly registered cases fell in Ukraine and Moldova in 1999, there is no reason for complacency, and it is possible that the true incidence of new infections did not fall.12

Thankfully, the overall prevalence of HIV/AIDS is still relatively low in the region: the UNAIDS estimates for end-2000 in Figure 3.3 imply a rate of 0.35 percent of the adult population aged 15-49 years (compared to 0.24 percent in Western Europe). But the trend is clearly worrying, and the rate is much higher in those countries the most badly affected and among some groups of the population.

What are the reasons for the rise of HIV/AIDS in the region, and how can it be addressed?

Until now, the HIV virus has been spread largely by

intravenous drug users through their sharing of syringes and needles.<sup>13</sup> But the virus is far from restricted to only this group in the population. In Ukraine, for example, a quarter of all the 30,000 officially registered HIV cases reported in the 1990s were not intravenous drug users. The transmission of the HIV virus from infected mothers to their children contributes a small fraction of the total infections in the region, although the absolute numbers are increasing rapidly in Ukraine and Russia – see Box 3.2. It is sexual transmission from adult to adult that is the principal means of infection other than shared equipment for injecting drugs.

The sexual transmission of HIV increases the likelihood that the virus will become more established in the population and that incidence will rise sharply. Whether this will occur is the outcome of many factors, including patterns of sexual mixing, rates of untreated and incompletely treated sexually transmitted diseases (which greatly raise susceptibility to HIV infection), and the general health status of the population. Prostitution is one contributory factor. Like drug use, this typically involves young people, and, again like drug use, the economic hardships of transition have favoured its spread.

The sharp rise in sexually transmitted diseases in much of the region (see Statistical Annex, Tables 6.7 and 6.8 and analyses in earlier *Regional Monitoring Reports*), coupled with a lower general health status, suggests that a huge escalation in HIV/AIDS infections is a concrete possibility. The experience of countries in Latin America, the Caribbean and Africa, including some that are relatively wealthy, suggests that, if unchecked, HIV/AIDS prevalence in Russia, for example, could grow in two to three years to 10 times the level at the end of the 1990s. <sup>15</sup>

Tackling the problem at its roots requires immediate government-led action along two basic lines:<sup>16</sup>

- Targeting the high-risk groups especially intravenous drug users and sex workers – through information campaigns and by lowering the costs of safer behaviour. The former creates awareness of the problem and of ways to prevent HIV infection. The latter involves programmes of needle and syringe exchange, methadone treatment and popularization of the use of condoms.
- Addressing underlying socioeconomic causes, especially youth unemployment, and providing AIDS education to the entire population.

Governments are starting to recognize the need for both targeted and comprehensive action. For example, an interministerial committee in Belarus unites 12 ministries in an AIDS response that ranges from harm-reduction measures for drug users to awareness-raising campaigns conducted by the national railways. Prevention efforts have been particularly successful among teenagers. In Ukraine a law adopted in 1998 endorsed the principle of voluntary HIV testing and broad AIDS education.<sup>17</sup>

#### Tuberculosis: a re-emerging threat

Tuberculosis is sometimes viewed as a "disease of the past" in industrialized countries, on account of its association with periods of much lower average living standards. But the disease re-emerged in Central and Eastern Europe and the CIS during the 1990s following 40 years of steady decline. This re-emergence forms part of what the World Health Organization declared in 1993 to be a global emergency involving a disease that worldwide kills about two million people per year. <sup>18</sup>

Box 3.2

#### Mother-to-child transmission of HIV

In countries where blood for transfusion and blood products are screened and where clean syringes and needles are widely available, mother-to-child transmission is the most significant source of HIV infection in children below the age of 10. The risk of a baby acquiring the virus from an infected mother ranges from 15 to 20 percent in industrialized countries and from 25 to 45 percent in developing countries.<sup>19</sup>

Prevention of mother-to-child transmission requires:

- Prevention of HIV infection among parents-to-be.
- Fewer unwanted pregnancies in HIV-infected women.
- Voluntary HIV testing and counselling, the provision of antiretroviral drugs and support for the feeding method(s) chosen by the mother.

With heterosexual transmission on the increase,

particularly in the CIS, the numbers of HIV-positive pregnant women are rising rapidly. The number of children born to HIV-positive mothers in Belarus, Russia and Ukraine is estimated to have almost quadrupled between 1997 and 2000 to an overall total of around 1,300.

There are positive factors that will help improve this situation: an infrastructure of antenatal care, delivery and post-natal care of reasonable quality and the still low overall numbers of HIV-positive women giving birth (which makes intervention more affordable). However, financial constraints in the public health sector remain a problem.

Sources: De Vincenzi, I. and A. Malyavin (2000), "Summary of the Situation Analysis as per the Interagency (UNICEF/WHO) Assessment Missions on MTCT of HIV in Ukraine, Belarus and Russia, 1999", Geneva: UNICEF and WHO; WHO (2001), "New Data on the Prevention of Mother-to-Child Transmission of HIV and Their Policy Implications: Conclusions and Recommendations", Paper presented at the WHO Technical Consultation on Behalf of the UNFPA/UNICEF/UNAIDS Inter-Agency Task Team on Mother-to-Child Transmission of HIV, Geneva, 11-13 October 2000; UNAIDS (1999), "Questions and Answers: Mother-to-Child Transmission of HIV, «www.unaids.org/publications/documents/mtct/index.htmb: UNAIDS.

Health for All database.

Note: The EU average is unweighted

One reason for increased concern over the disease (but by no means the only one) is its link with HIV/AIDS. A person who is HIV positive is much more likely to become sick with tuberculosis.

Like the common cold, tuberculosis spreads through the air via particles coughed or sneezed by an infected person. It thrives in crowded conditions and therefore hits hardest at the poor, because of their more cramped housing, and at persons living in refugee camps and institutions such as prisons. The poor also suffer more from malnourishment, which reduces resistance to disease, and they may in addition be less likely to seek prompt treatment, which increases the rate at which they infect others. Tuberculosis is almost always successfully cured by appropriate antibiotics. But treatment takes several months, and if the treatment is interrupted the disease can become resistant to drugs both in the patients who were undergoing treatment and in other persons they may infect. This "drug-resistant" tuberculosis is much harder and far more costly to treat, thus leading to many more deaths than would otherwise be the case.

On average, the incidence of tuberculosis rose in the region by about 50 percent over 1989-99. But as Figure 3.5 illustrates, the situation varies enormously, with the biggest problems coming mainly in the poorer countries, where increases of two- or even threefold occurred over the 10 years. The worst situation in the region is found in Kyrgyzstan, and both there and in Russia (as well as in other countries not shown in the diagram) it is notable that the problem took off in the second half of the 1990s, with no abatement in sight at the end of the decade. Some more economically advanced countries like Lithuania are also grappling with a mounting problem, and the Baltic states in general have a poor record: the incidence of tuberculosis rose about two and a half times over 1989-99 in Latvia, as well as in Lithuania, and by 80 percent in Estonia (although all three countries posted small reductions over 1998-99).

Figure 3.5 140 Kvrgvzstan Romania 100 Georgia 80 Lithuania Croatia Czech Republic **Tuberculosis:** newly 40 registered cases, 1989-99 (per 100,000 FU population) Sources: Statistical 1994 1995 1997 Annex, Table 6.6; WHO

A significant source of tuberculosis in Russia emanates from overcrowded prisons. The prison population rose sharply in Russia in the 1990s, which now shares with the United States the highest per capita rate of incarceration in the world. With 300,000 people leaving Russian prisons each year, this becomes a prime vehicle for transmission to all parts of society. The problem of tuberculosis in prisons has also been noted in Azerbaijan and Moldova. Azerbaijan and Moldova.

Children are especially vulnerable to the effects of tuberculosis, which is often difficult to diagnose in young children. Children have often shared directly the burden of the rise in tuberculosis. In Lithuania and Romania during the 1990s, the incidence of tuberculosis rose proportionately more among children than it did among the population as a whole. In Tajikistan the incidence among children doubled over 1995-99, having fallen in the first half of the 1990s.<sup>22</sup>

The reasons for the re-emergence of the disease are manifold. Economic recession, poverty, social upheaval, malnutrition, overcrowded prisons and increased homelessness have helped drive the alarming spread of tuberculosis in many parts of the region. War and civil unrest in the Balkans, Caucasus, Tajikistan and southern Russia have hampered control of the disease and resulted in large numbers of internally displaced persons and refugees who are high-risk groups and who can carry the disease to other areas.

But poorly managed and outdated control practices are also a factor. These are common in most high-incidence countries. The lack of appropriate drugs and the application of non-standardized drug therapy have generated high levels of drug-resistant tuberculosis in parts of the former Soviet Union. Estonia and Latvia have been identified by the World Health Organization as two of the "hotspots" worldwide for this problem. Estonia showed the highest incidence of drug-resistant tuberculosis in a study of over 50 countries (or parts of countries)

in the late 1990s. As many as 37 percent of the new tuberculosis cases in Estonia in 1998 were found to be resistant to at least one drug, and 14 percent to both of the two most powerful drugs used in the treatment of the disease. The Russian oblasts of Ivanovo and Tomsk were also singled out.<sup>23</sup>

Tuberculosis and HIV/AIDS have become issues with a European-wide dimension, as these types of infectious disease can quite easily spread across national borders. The fight against them therefore calls for cooperation on a pan-European level, as well as the establishment of national plans of action.

## 3.2 Health over the Life Cycle

A major thrust of UNICEF's approach towards health is to emphasize the links in health status across the life cycle. The health and nutrition of women during pregnancy have a major impact on the survival chances of infants. The life style and nutrition patterns established by parents strongly influence the health and development of children. Equally, the transition from childhood to adulthood involves choices over behaviour and life style that may affect all of future life.

This section views the health of people during transition from a life-style perspective by highlighting selected pieces of evidence on the health of children, women and young people. (For more detail on women and young people, see, respectively, the 1999 and 2000 Regional Monitoring Reports.)

#### Children's health

As Chapter 1 notes, one piece of good news about transition is that infant mortality fell during the 1990s across the region, at least by official counts. The regional average official rate of infant mortality fell by a third over 1989-99, and Chapter 1 argues that this may well be linked to the large decline in fertility in the region.

Digging below the regional average, one sees a more varied picture. Although infant mortality fell in all but two countries (Bulgaria and Latvia showing small rises), the averages for sub-regions were down by between only 5 percent, for the western CIS, and about 50 percent, in Central Europe and former Yugoslavia.

The biggest decline in absolute terms occurred in Central Asia, which Figure 1.6 shows converging rapidly on the rest of the region: still with the highest average rate in 1999, but much less further adrift than it had been in 1989. Given the performance in some other health indicators (see for example Kazakhstan's record in Figure 3.2 and Kyrgyzstan's in Figure 3.5) and the huge economic setback the Central Asia countries have suffered (the average GDP in 1999 was still one-third lower than that in 1989), concern has been expressed about the validity of the infant mortality data officially published in this part of the region.<sup>24</sup>

Table 3.2 addresses this issue by comparing the official infant mortality rates in Central Asia with those derived from household surveys through questions to women about their fertility history. The table also includes one country from the Caucasus, Azerbaijan.

There are striking differences between the rates based on the two types of data. The survey-based rates are always much greater than the official figures: 50 percent higher in Uzbekistan, about double in Kazakhstan, Kyrgyzstan and Tajikistan, and fourfold higher in Azerbaijan. Moreover, there is a diverging trend over time between the different

sources for Kazakhstan: while official data show a decrease in infant mortality from 1984-89 to 1994-99, the survey data show the opposite.

In the case of Tajikistan, the situation is complicated by a marked shortfall in birth registration. The 2000 household survey that provides the survey-based figure for Tajikistan in Table 3.2 shows that the births of as many as 25 percent of children aged under 5 had not been registered. The main reason for this seems to have been a high fee that applied in the second half of the 1990s for the registration of births. It was equivalent to \$5, only a little less than the average monthly income (see also Chapter 1, Box 1.4). In this situation, there may be many deaths among infants whose births have never been registered (failure to register and infant mortality can be expected to be concentrated in the same types of households, those on low income). Kazakhstan, Kyrgyzstan and Georgia also charge fees for the registration of births, fees that are not insignificant, and in the latter two countries there is concern that the practice may discourage some registrations.<sup>25</sup>

The reasons for the differences in survey-based and official infant mortality rates need more investigation, but in the meantime the conclusion to be drawn from Table 3.2 seems clear: the official figures, including the trends over time, must be treated with caution.

Even on the basis of the official rates, the conclusion from comparisons with the rest of the region is that child survival is less certain in Central Asia. In several cases, this situation is reflected in data on child malnutrition. Table 3.3 presents evidence on the prevalence of "stunting" (low height given age) and "wasting" (low weight given height) in young children.

Stunting reflects long-term chronic malnutrition and builds up over time. Wasting reflects a current nutritional

Table 3.2 Infant mortality rates: official versus survey results (per 1,000 live births)

<u> </u>		
	Official rate	Survey-based rate
Azerbaijan, 1996	19.9	79.0
Kazakhstan		
1984-89	29.6	54.9
1989-94	26.8	49.7
1994-99	25.2	61.9
Kyrgyzstan, 1992-97	29.1	66.2
Tajikistan, 1993	47.0	89.0
Uzbekistan, 1991-96	30.7	43.5

Sources: Survey-based rates, Kazakhstan, Kyrgyzstan and Uzbekistan: Macro International, Demographic and Health Surveys (DHS), <a href="www.measuredhs.com">www.measuredhs.com</a>; Azerbaijan and Tajikistan: UNICEF, Multiple Indicator Cluster Surveys (MICS), 2000, <a href="www.childinfo.org/index2.htm">www.childinfo.org/index2.htm</a>.

Note: The years indicate the period to which the rate derived from the survey refers (and not the year in which the survey was carried out). Infant mortality rates from surveys are calculated from information given by women on their fertility history. The official rates are for the same period (and are averages of annual rates, where applicable).

54

#### Child malnutrition: stunting and wasting

(percent of children aged under 5)

		(low height			(low weight-	
	All	Urban	Rural	All	Urban	Rural
Tajikistan (1996)	41.0			10.0		
Albania (2000)	31.7	23.8	36.7	11.1	11.9	10.6
Uzbekistan (2000)	31.0			12.0		
Kyrgyzstan (1997)	24.8	14.8	27.7	3.4	4.3	3.2
Azerbaijan (2000)	19.6	17.2	21.7	7.9	8.0	7.9
Ukraine (2000)	15.4	14.0	18.6	6.4	6.6	5.9
Russia (1995)	12.7			3.9		
Armenia (2000)	13.6	11.0	16.4	2.0	2.2	1.7
Georgia (1999)	11.7	9.6	13.9	2.3	2.1	2.5
Bosnia and Herzegovina (2000)	9.7	10.0	9.1	6.3	6.7	6.1
Kazakhstan (1999)	9.7	5.8	12.3	1.8	1.5	2.4
FR Yugoslavia (2000)	5.1	4.2	6.3	3.7	3.6	3.9
Croatia (1995-96)	0.8			0.8		
Brazil (1996)	10.5	7.8	19.0	5.7	4.6	9.2
Turkey (1998)	10.0	8.2	13.5	2.2	2.1	2.6
China (1998)	15.6	4.0	22.0	2.2	1.8	2.5
US (1988-94)	2.0	1.5	2.5	0.7	0.9	0.5

Sources: WHO Global Database on Child Growth and Malnutrition, <a href="www.who.int/nutgrowthdb/">www.who.int/nutgrowthdb/</a>; World Bank (2000), Prospects for Improving the Nutrition Situation in Eastern Europe, Washington, DC: World Bank; MICS (data for 2000) and DHS (Armenia, 2000), op. cit.: Table 3.2.

Note: Stunting and wasting are defined as height-for-age and weight-for-height, respectively, below two standard deviations of the median in a reference population of healthy US children. The WHO defines as "high" a stunting prevalence of over 30 percent and a wasting prevalence of over 10 percent. Data for FR Yugoslavia exclude Kosovo and Montenegro. Data for Georgia are for the share of stunting and wasting among internally displaced persons. Data for Croatia refer to all children in kindergartens.

> crisis and can occur quickly. Both are affected by disease, as well as by food intake. Malnutrition reduces energy and mental concentration and hence school performance and increases various health risks. It is therefore a threat to child development and even survival.

> The World Health Organization considers the severity of malnutrition as "high" when stunting prevalence reaches 30 percent and when wasting prevalence reaches 10 percent, although it stresses that these levels are arbitrary and that in a healthy, well-fed population one would expect figures of less than 3 percent.26 Judged by these criteria, the levels of malnutrition among children in Albania, Tajikistan, and Uzbekistan are of immediate public health concern. Azerbaijan and Kyrgyzstan are not far behind, with rates of stunting that are high by the standards of the rest of the region and far above the under-3-percent norm. About one child in seven or eight is classified as stunted in Ukraine, Russia and Armenia, a higher rate than in Brazil and Turkey, but similar to that in China. Only Croatia has managed to hold child malnutrition at levels that are comparable to those in rich industrialized countries (although it should be noted that the data for this country refer only to children attending kindergartens). The urban-rural differences in some countries, for example Kyrgyzstan, reveal that national averages can hide important problems at the sub-national level. This issue of health inequalities is taken up in Section 3.3.

> Child health is of course endangered by many other threats. One important factor in the differences in child

mortality rates between poorer parts of the region and the EU is the higher risk in the transition countries of deaths due to external causes.<sup>27</sup> These are also the main causes of death among adolescents.

#### Adolescent health

Table 3.3

Mortality among young people is generally low, and severe chronic diseases are rare among persons in their teens and 20s. Health among young people should therefore be considered in a wider sense: much illness in later life may have its origin during the transition from childhood to adulthood.

During adolescence people first confront choices related to intoxicating and potentially addictive substances: tobacco, alcohol and drugs. Many young people shared in the general patterns of smoking and drinking in the region before 1989 and still do so. According to the 2000 WHO Global Burden of Disease study, one in three to one in four deaths of men aged 15-29 is related to alcohol, slightly more than the European average.28 Drug abuse, however, was rare in the closed and highly controlled societies of the communist period.

Transition has opened up borders, values and opportunities, a process that has been accompanied by stress and turmoil. One of the unfortunate results is the increased willingness of many young people to

experiment with legal and illegal drugs, at the same time as these drugs have become more readily available. With privatization and economic liberalization, the tobacco industry in the region has become dominated by large transnational firms, a shift that has meant that the marketing of cigarettes has become more sophisticated. Branding now associates smoking with an affluent and advantaged Western life style or with other images which appeal directly to young people. Tajikistan and Kyrgyzstan recently responded by suing a group of US tobacco firms for unspecified damages over what the countries claimed was a campaign intentionally focused at their citizens, who would be easy targets given widespread poverty (from which smoking offers temporary "escape"), as well as a lack of awareness of the dangers of nicotine addiction. Russia has filed a similar suit.29

The European School Survey Project on Alcohol and Other Drugs provides some striking results on the consumption of alcohol, tobacco and illegal drugs among teenagers. The project has collected comparable data from 15 and 16 year-olds and included 14 countries from Central and Eastern Europe in the 1999 round of the survey.

Figure 3.6 shows results for the nine countries in the region that also participated in the 1995 round of the survey, together with those for a number of Western European countries in both rounds. (Results for the five countries only in the 1999 round are given in the note to the graph.) Adolescents' drug and cigarette consumption increased in

Figure 3.6

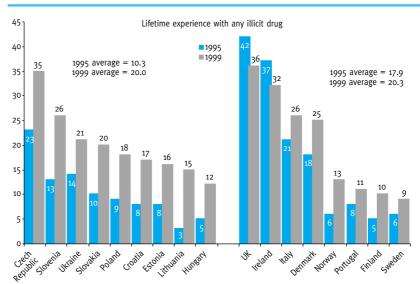
the second half of the decade. The rise has been especially pronounced in the transition countries and is particularly striking for illegal drugs. On average one in five 15-16 year-olds reported having tried illegal drugs in 1999 in the nine Central and Eastern European countries, up from one in ten in 1995. About 10 percent of the teenagers of this age in the Czech Republic, Poland, Romania, all three Baltic states and the Russian capital, Moscow, reported in 1999 having used at least once a drug other than cannabis, such as amphetamines, LSD, ecstasy, heroin and cocaine, a figure exceeded only by the UK in the Western European countries in the survey. (In Poland, 5 percent of the 15 year-olds had tried heroin.)30 The Central and Eastern European averages for both drug use and smoking in 1999 had caught up with those for Western Europe. The data illustrate the fact that, while life expectancy may have improved in the richer Central European countries, transition has certainly brought some threats to health in this part of the region.

#### Women's health

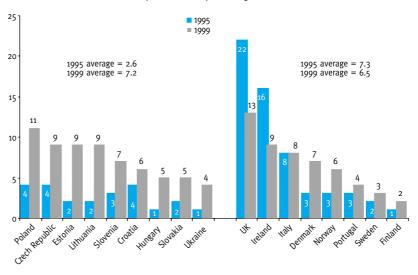
The health achievements among women were often remarkable under the communist system, achievements helped by the high levels of education among women, higher than in other countries at similar levels of economic development. Some of this record became jeopardized in the 1990s. While women have been less affected by the mortality crisis than have men, it is still the case that 28 percent of the "excess mortality" over 1990-99 in the region was borne by women - representing around 900.000 deaths. Women's health has also suffered in various other ways, explored in detail in the 1999 Regional Monitoring Report, "Women in Transition".

Subjects that deserve particular attention from policy-makers include the lack of screening services and prevention programmes for cervical and breast cancers (reflected in the higher death rates due to these causes), the rise in sexually transmitted diseases, which are particularly hard to diagnose in women, and violence against women.

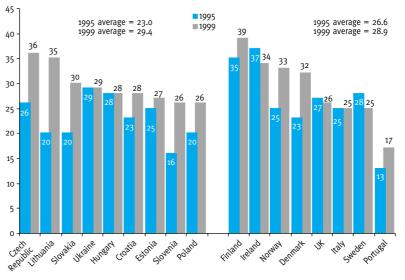
As far as women's reproductive health is concerned, the record prior to the



Lifetime experience with any illicit drug other than cannabis



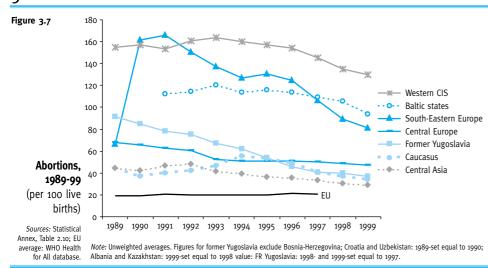
Lifetime use of cigarettes 40 times or more



Note: Illegal drugs are defined as amphetamines, cannabis, LSD or other hallucinogens, crack, cocaine, ecstasy and heroin. "Lifetime use" or "lifetime experience" refers in this case to any use up to the age of 15 (or 16). Figures for 1999 for transition countries that were not present in the 1995 survey for any illegal drug, any illegal drug other than cannabis, and cigarette consumption, respectively, are: Bulgaria (14, 5 and 36 percent), FYR Macedonia (10, 3 and 20 percent), Latvia (24, 11 and 30 percent), Romania (11, 9 and 16 percent) and Russia (Moscow only: 24, 9 and 42 percent).

Illegal drug use and cigarette consumption among 15-16 year-olds, 1995 and 1999 (percent)

Sources: European School Survey Project on Alcohol and Other Drugs (2001), press release, 20 February, \*\*cww.can.se/\*: ESPAD; 1995 data: B. Hibell, ESPAD project coordinator.



1990s was in many ways good, with, for example, extensive antenatal care. The decline in fertility during transition has entailed some decrease in maternal mortality, but the average maternal mortality rate in 1999 in the CIS countries was still about five times that of the EU countries, while the Central European average was twice the EU level. (Rates are given in Statistical Annex, Table 3.2.)

Between a quarter and a third of maternal deaths are due to problems associated with abortion. The region's record on abortion is not a good one: abortion was far more common there than it was in Western Europe, and, as Figure 3.7 shows, this remains the case, even though for most countries a declining trend over the 1990s is visible in the data. (The fact that abortion has not increased shows that the fall in births has not been caused by the greater use of abortion as a method of birth control.)

The highest abortion rates are registered in the western CIS: in Russia and Belarus there were 180 and 141 abortions, respectively, for every 100 live births in 1999, which may be compared with a rate in the EU of about 20. Next comes South-Eastern Europe, where the initial huge leap in 1990 reflects the liberalization of abortion in Romania following the fall of Ceauçescu (although the figures are driven not only by this country: Bulgaria, as well as Romania, still had a rate of 100 at the end of the 1990s). The trend in the Baltic states follows that in the western CIS. Estonia had the third highest abortion rate in the region in 1999, 136 abortions per 100 births, a rate in fact higher than that in 1989.

Other parts of the region have lower rates, and most show quite a strong trend towards convergence to the EU level. Central Europe is an exception in terms of the trend, due to the record of Hungary that shows no reduction across the decade, with a rate in both 1990 and 1999 of 86 abortions per 100 births.

Prior to 1989 abortion was widespread due to universal free access and the insufficient promotion of contraceptive choice. Although improvements have been made in the latter area, there is clearly scope for many more. However, it seems particularly difficult to confront the still existing cultural tolerance for abortion, despite the psychological and physical threats that abortion entails (including the risk of future infertility).

## 3.3 Growing Health Inequalities?

How have changes in health during the transition affected different parts of society? Has the rise in income inequality documented in Chapter 2 been accompanied by increased inequality in health, with the poor bearing the biggest burden?

This section first discusses available evidence on inequalities in health outcomes in the transition countries, focusing on child and maternal health. It then highlights the role that informal payments play in producing inequality in access to health care, a major issue in much of the region.

#### Differences in health outcomes

Inequalities in health outcomes certainly did exist well before the 1990s. Part of this situation is no surprise since any population in any society will of course display some significant variation in any health outcome, such as length of life, due to variation in genetic make-up and chance factors. In addition, however, evidence shows systematic differences related to the level of education.<sup>31</sup>

How the current differences in health outcomes compare with those in other countries is not entirely clear. But some insight into the situation at the end of the 1990s can be obtained from the World Health Organization's *World Health Report 2000*. The report evaluates countries' health systems according to a number of "health system goals", including the extent of differences in health outcomes measured by the degree of equality in child survival. In the case of the transition countries, the scores on this index reflect in part factors inherited from the communist period and in part developments during the 1990s.

Figure 3.8 uses the outcomes of this exercise for 140 countries, including all of those from Central and Eastern Europe and the CIS, to compare the rankings of average child survival with the *inequality* of child survival, where survival in both cases is to age 5. (The former refers to 1998 and the latter to the latest year available.) Countries are ranked from 1 to 140 on both dimensions, starting with lowest average mortality and most equal child survival.

\_

Figure 3.8

If the ranking for the inequality indicator were the same as that for average child mortality, all countries would lie on the 45-degree line. Obviously, this is not the case in practice. Those countries above the 45-degree line rank higher in terms of equality of child survival than they do for average survival. Quite surprisingly in view of the traditionally broad-based health coverage of the former communist countries, many of them are found just *below* the 45-degree line, implying that they rank somewhat more poorly for equality than they do for average child mortality.

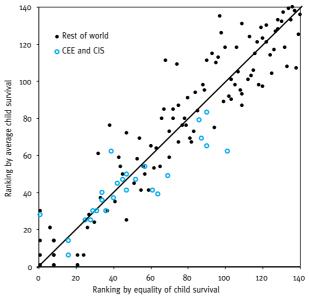
Calculations for the index of equality are based in principle on birth history data in household surveys that measure child mortality by family background and on administrative data that give detailed geographic breakdowns. But for the majority of countries such data are not available, and estimates have been made by the World Health Organization that are based on the relationship of health inequality with other factors. The results in Figure 3.8 need therefore to be considered with caution. If one takes the graph at face value, perhaps the main conclusion to be drawn is that the countries of Central and Eastern Europe and the CIS do not stand out as having either especially more, or especially less equality in child survival once their average levels of child mortality are taken into account. In this sense, they do not perform much better or much worse than other countries, which is not a very encouraging picture given the wider access to health care and education in the communist period compared to other countries at similar levels of economic development.

A more detailed study of inequalities in health outcomes among children and mothers in the mid-to-late 1990s is available for three countries from Central Asia: Kazakhstan, Kyrgyzstan and Uzbekistan. Table 3.4 presents evidence on health care access and health indicators in the poorest and the richest quintiles of the population (based on the same surveys used in Table 3.2, with income proxied by an index of asset ownership).

Uzbekistan appears to have only limited incomerelated differences in the access to health care. But Kyrgyzstan shows large gaps with respect to access to doctors both for antenatal care and for birth attendance. Child immunization in Kyrgyzstan continues to take place on a fairly equal basis, though coverage is not necessarily very broad. Kazakhstan shows differences in all health service indicators, for example, a 9-percentage-point difference in measles immunization between rich and poor and a 20-point difference in DPT immunization (diphtheria, pertussis and tetanus).

If one assumes that the communist period did achieve broad-based access to child and maternal health care (which does not seem an unreasonable assumption), then Table 3.4 implies that an increase in inequalities in access has occurred during transition.

Are these inequalities in access to health care reflected in visible differences in the equality of health outcomes among mothers and children? The bottom half of the table shows



Note: Average child survival is measured by the national under-5 mortality rate for 1998. Equality of child survival is measured by a WHO index of within-country differences in under-5 mortality. Countries are ranked from "lowest average mortality" (equal to "140") and from "most equal" ("1") to "most unequal" ("1") to "most unequal" ("10").

#### Child survival in 140 countries: ranks

Sources: WHO (2000), The World Health Report 2000: Health Systems, Improving Performance, Geneva: WHO; World Bank (2000), World Development Indicators 2000, Washington, DC: World Bank.

Table 3.4

# Health inequalities in Kazakhstan, Kyrgyzstan and Uzbekistan (percent)

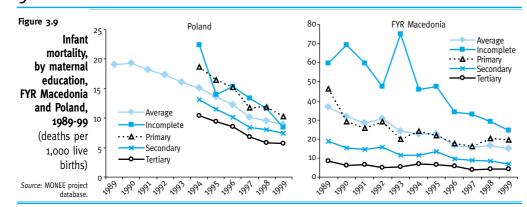
	Kazakhstan (1995)		Kyrgyzstan (1997)		Uzbekistan (1996)	
Quintile:	Poorest	Richest	Poorest	Richest	Poorest	Richest
Measles immunization	60	69	82	81	96	90
DPT immunization	37	57	82	87	90	85
More than two antenatal care visits	84	94	88	88	88	87
Antenatal care visits to a doctor						
(% total visits)	57	96	47	89	84	90
Delivery attendance by a doctor	69	95	50	84	84	99
Children stunted	30	3	34	14	40	31
Children underweight	11	3	13	8	25	12
Mothers with low body mass index	8	4	6	4	11	6

Source: <a href="www.worldbank.org/poverty/health/data">www.worldbank.org/poverty/health/data</a>: Health, Nutrition and Poverty Programme, World Bank.

Note: Immunization rates refer to children aged 12-23 months. DPT = diphtheria, pertussis and tetanus. Data on antenatal care visits refer to the percentage of births for which a woman received two or more consultations from a medically trained person in the five years before the survey. Delivery attendance by a doctor is the percentage of births that were attended by a doctor in the five years prior to the survey. Children are defined as stunted if they have low height-for-age (see note to Table 3.3) and underweight if their weight-for-age is more than two standard deviations below the median reference standard for their age. The Body Mass Index (BMI) is defined as weight divided by the square of height (measured in kg/m²); low BMIs are values below 18.5.

striking differences in child and maternal nutritional status between rich and poor households in all three countries.

Kazakhstan appears to exhibit the largest differences between rich and poor, matching the finding for access to health care. The percentage of stunted children in the poorest quintile is 10 times that in the richest one, and the percentage of underweight children is almost four times higher. While the values in the richest quintile are at the level one would expect to see in the world's wealthiest industrialized countries, those in the poorest quintile pose serious concerns; as noted in the discussion of Table 3.3, a stunting prevalence of 30 percent is classified as "high" by the World Health Organization. Still, of all three countries, Kazakhstan performs the best in terms of the average on both child nutrition indicators and only slightly worse than Kyrgyzstan for maternal



nutrition. And although Kyrgyzstan and Uzbekistan appear to achieve more equal access to the child and maternal health care services listed in Table 3.4, significant differences in nutritional status also exist in these countries. For example, in Kyrgyzstan, the child stunting rate in the poorest quintile is almost two and a half times that in the richest quintile.

Poor people are less able to afford a variety of goods and services that sustain health, including health care for which there is a fee, reasonable quality housing and sanitation, and food yielding a balanced diet. This applies not only in Central Asia, but in other parts of the region as well, including nations with higher average living standards. Chapter 2 notes the inferior diets of poor households in various countries. Comparable survey evidence for several parts of Central and Eastern Europe shows that material deprivation has reappeared as a powerful predictor of self-reported health.<sup>32</sup> One factor that may have contributed to this is the spread of informal payments, which may have restricted access to health care. These payments are considered below.

Income inequality, it has been argued, may of itself affect health, separately from the influence of poverty that comes through a widening in the distribution of income and a fall in average incomes.<sup>33</sup> Unequal societies may produce unhealthy populations due to the effect of income inequality on social cohesion. Lower levels of social cohesion result in a feeling of higher personal insecurity, which, among other things, translates into higher levels of stress

Figure 3.10 Bulgaria (1997) Albania (1996) Slovakia (1999) **Patients** Tajikistan (1999) making informal Moldova (1999) 70 payments for Russia (1997) health care (percent of Kyrgyzstan (1996) respondents) Azerbaijan (1995) 78 Source: Lewis, M (2000), Who is Paying for Health Care in Poland (1998) 78 Eastern Europe? Armenia (1999) Issues, Trends and Policy Implications Washington, DC 20 60 80 World Bank

and a lower subjective quality of life. This explanation claims to provide the reason for the inverse relationship between income inequality and average life expectancy (holding average incomes constant) that can be observed across the world's middle and higher income countries. While part of the argument may be applicable in the transition countries, there is no convincing empirical evidence of this to date.<sup>34</sup>

Differences in education may still determine an important part of the differences in health outcomes in the region. Figure 3.9 illustrates this with trends in infant mortality rates by maternal education for two countries at very distinct stages of economic development and progress with economic reform: Poland and FYR Macedonia.

In both countries, children born to more educated mothers are considerably less likely to die in infancy. In fact differences in mortality rates by the mother's educational level narrowed substantially in FYR Macedonia during the 1990s, as overall infant mortality fell, and to a certain extent also in Poland, where the differences had been smaller at the start of the decade. One might have thought that the differences associated with maternal education would have increased during transition. However, a large part of the narrowing in differentials is probably explained by the fact that the number of births to women with lower levels of education has fallen disproportionately.

Given that education and income were less closely related in the planned economies than they are in established market economies, the evidence of differences in health outcomes related to education in the early years of transition is important: it underlines the influence of education on health outcomes, independent of income. Education protects against disease by influencing life style, the ability to solve problems, and values – a view supported by evidence from both Western and Eastern Europe. (See also Chapter 4, Box 4.4.) If differences in education are a principal driver of health inequalities, the required policy response would involve reinforced efforts to assure the access to decent education for all segments of society.

# Informal payments and inequality in health care access

Informal payments – defined as payments to health care providers in cash or in kind outside official channels – were present in the communist period, in part as the result of doctors' salaries being relatively low. These types of payments have spread significantly throughout the region, including in the richer countries, to some extent due to a relative decline in public sector wages. They now account for a substantial share of health expenditures in many countries.

33

Table 3.5

Figure 3.10 presents evidence on the scale of the problem in 10 countries. In Armenia, 91 percent of all patients have made informal payments, reflecting a de facto collapsed public health system. But it is surprising to see that even Poland appears to have serious problems in curbing informal payments. The graph shows that payments are very widespread in other countries as well. (The Czech Republic and Slovenia, not in the graph, have been noted as possible exceptions.)

Direct fee-for-service payments can be thought of as introducing some accountability, but they bear important equity implications, since they constitute the most regressive form of health care financing. Informal payments effectively make access to health care conditional on the ability to pay. Since payment

is not through formal channels and hence is not formally receipted, it is impossible to mitigate the seriousness of this problem with subsidies to poor households linked to their actual expenditures. The result is that lower income households are less likely to seek medical assistance when they are in need.

Table 3.5 shows that this is indeed what has happened in Tajikistan. Persons in the poorest fifth of the population were nearly twice as likely as those in the richest fifth to report cost as the main reason for not seeking health care. (The fact that cost was cited by a quarter of respondents even among the richest fifth reflects the very low average living standards in Tajikistan, with an estimated 96 percent of the population living below the official minimum subsistence income level.)

Similar barriers exist for the purchase of essential drugs. Of those who sought medical assistance in Tajikistan, persons in the poorest fifth were a third less likely than were other groups to receive a prescription, and, of those who did, 70 percent were unable to buy the prescribed drugs, partly due to the reduction in drug subsidies for the poor. Since women and children are frequent users of pharmaceuticals, they have obviously suffered heavily from this development.

There is similar evidence on the direct consequences of out-of-pocket payments in other Central Asian countries as well.<sup>36</sup> And given the prevalence of informal payments in many other parts of the region, it should be expected that these consequences are not confined to Central Asia.

Since informal payments bypass the official system, they in effect reinforce their cause: the scarcity of public financial resources. They also interfere with incentives to provide health care more efficiently and effectively. If unofficial payments make up a significant proportion of the incomes of doctors and others working in the health sector, then the effect of any reform in the official wage system is diluted. In some cases, incentives could even be

(percent) Quintile Poorest 20% 2 Richest 20% Total Self-medicated 42 49 50 55 65 52 Believed problem would go away 6 8 16 11 3 5 Facility too far, closed, or poor service 1 2 4 5 3 3

Main reason for not seeking medical assistance, by income quintile,

Tajikistan, 1999

Could not afford

Other 5 5 5 2 5 2 4
Total 100 100 100 100 100 100 100 100 100

ing in 2002), Health and Health Care in Central Asia, Ballmoor, Buckingham, UK: Open University Press and European Observatory of Health

41

42

28

30

2/1

Note: Totals may not add to 100 due to rounding. Differences by quintile are significant at the 0.1-percent level.

contradictory. An incentive to reduce the length of stay of patients in hospitals through payments by the case rather than the day might fail to have the desired effect if health practitioners find that they can derive greater unofficial fees by keeping patients for longer periods in hospital. Insufficient attention to the phenomenon of unofficial payments and their incentive effects may mean that health sector reforms do not achieve the desired impact.

The way out of this dilemma should start with a decision by governments not to tolerate unofficial underthe-counter payments. Part of the solution can be the introduction of formal user charges, as many countries have indeed done recently, in recognition of the presence of private payments. Once payments are formalized, then the expenditures of the poor can in principle be subsidized to ensure the continued access of the poor to health care. But some people would always fall through the net due to problems in administering the subsidy system (as well as due to households' lack of knowledge of the system or their failure to claim their entitlement for other reasons).

This raises the general issue of private payment for health care. Opinion poll data for the end of the 1990s show that 40 percent of respondents in Central and Eastern Europe, on average, consider it "very unjust" that people with higher incomes can buy better health care (the same level as in the established market economies of the OECD) – see Chapter 1, Table 1.3. A fully private payment system would clearly threaten access to health care among the poor, and a subsidy system for lower income households is unlikely to overcome this adequately, as noted above. There will always remain a key role for the direct public funding and provision of health care in order to guarantee universal access. This is one of the major challenges for health policy in the region, the subject of the rest of the chapter.

## 3.4 Challenges for Health Policy

The purpose of this section is to summarize the main challenges, in general terms, that confront policy in the region. The focus is first on the financing of health systems and their efficiency. Selected key areas for action are then considered that are of particular concern for the health of women and children: primary health care, public health and the targeting of excluded groups. Inevitably, limits on space prohibit coverage of various important issues. Among other sources of discussion of health policy in the transition countries, the reader is encouraged to consult the 1999 World Health Organization policy framework for the European region, *Health21*, and the chapter on health in the 2000 World Bank report, *Making Transition Work for Everyone.*<sup>37</sup>

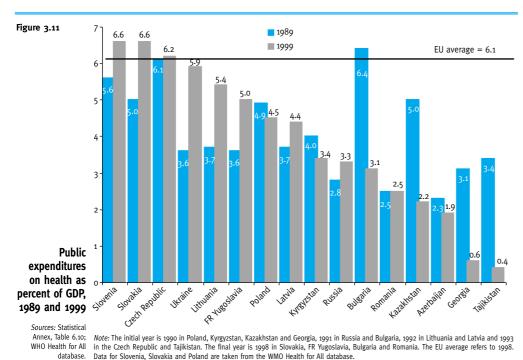
The issues of the financing and efficiency of health systems are central to the health of both children and adults. The way health care is financed not only affects how people pay for health care, but also who uses health services and how often they do so, as illustrated by the discussion of informal payments at the end of the last section. Devising appropriate payment mechanisms for health care providers can in principle improve the quality of care. Increasing efficiency so that limited resources are used to provide more and better care should free money for those areas of policy where governments' active role is keenly needed, such as

communism inevitably created a stimulus for change in virtually all areas of health policy, although governments' desires to restructure and decentralize the health sector have often been driven by mere fiscal pressure in the face of dwindling public funds.

Indeed, health sector reform has generally been approached much less eagerly than economic reform. In the poorer parts of the region, the state has often not had the political will or the economic and institutional capacity to embark on a sustained process of health reform. Where there has been armed conflict, this has obviously hindered the reform of health care, as well as all other areas of public policy. Although in principle the richer parts of the region have been more well placed to reshape their health sectors, the reform process in health policy has not coincided very closely with that in the economy. For example, Poland undertook sudden, controlled "shock therapy" for its economy, but has made only gradual steps to reform its health sector, while Estonia has carried out substantial reforms in health policy, as well as instituting major economic reforms.

Throughout this section, it should be borne in mind that no single "correct" health system exists for a market economy. Health policy in the established market economies of the OECD is in a constant process of change,

and considerable variation exists in these rich countries' health systems, as in other areas of basic social services such as education. The lack of a unique model clearly complicates the job of reform in the transition economies. In addition, reforming any structure that has been established over decades naturally takes time. Physical and institutional infrastructure and human and financial resources were all once geared towards the needs of the old system, creating powerful vested interests that may seek to preserve the status quo.



measures to improve public health and to support the health of the poor and of otherwise disadvantaged groups in society.

Health policy in the central planning era was based on a hierarchical, nationally controlled system, in which all health personnel were state employees. The collapse of

#### Adequate and equitable finance

Who actually pays for health care? As Section 3.3 indicates, a significant part of health expenditures in the region comes from private sources via

informal payments, but the exact magnitudes are largely unknown. More comprehensive data are available on public expenditures. Figure 3.11 shows government expenditure on health as a percentage of GDP for 1989 and 1999.

The variation in expenditure, measured in this way, was notably larger in 1999. Broadly speaking, richer coun-

tries have sustained or even expanded expenditure as a share of national income, while poorer countries have seen a decline to levels that in some cases are very low. The provision of even the most basic health services to the population is threatened in countries with the lowest expenditures, increasing the reliance on informal private payments so as to keep any sort of health system afloat. (Given the shrinking of national incomes, real expenditures have obviously fallen far more than have the expenditure shares shown in Figure 3.11.)

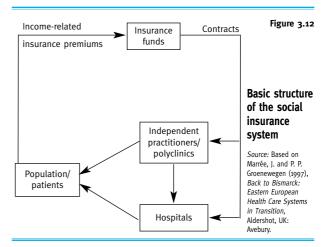
The diagram also shows that the expenditure shares are often well below the EU average. This might seem unsurprising for the poorer countries in the region, but to an extent it contrasts with the situation for public expenditures on education (see Chapter 4, Figure 4.14), where more countries in 1999 compare reasonably well to the OECD average (although countries like Georgia and Tajikistan clearly spend little on health and education). This may reflect a preference of governments for education over health, possibly due to an underestimation of the economic costs of ill health (see Box 3.1), although it is important not to consider one necessarily more important than the other.

What is the likely effect of changes in expenditure over 1989-99 on health outcomes? Some cross-country evidence, based on data drawn worldwide, shows little independent effect of public expenditures on average child mortality rates and other health outcomes, after controlling for factors such as average incomes, inequality of incomes, and levels of education.<sup>38</sup> The way money is spent may matter more for health outcomes than does the amount of public expenditure, although it is hard to imagine that the extremely low expenditures in parts of the Caucasus and Central Asia have no effect at all. Other cross-national evidence confirms that public spending does improve the health of the poor.<sup>39</sup>

While public expenditure on education has continued to be predominantly funded in the region from general tax revenues, for health expenditures a majority of countries have shifted from this form of financing to earmarked contributions to health insurance funds. Countries as diverse as Albania, Bulgaria, the Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Poland, Slovakia and Russia have introduced various forms of health insurance.<sup>40</sup>

What does this new model of health financing look like, and what are its implications for both the efficiency and the equity of health care? Figure 3.12 illustrates in stylized terms the basic functioning of the social insurance model applied by many of the transition countries.

The members of an insurance fund pay incomerelated contributions as a "membership fee". The fund in turn purchases health services from health providers – the individual doctors, polyclinics and hospitals. The relation between the insurance fund and the health providers is controlled by contracts. Patients receive health services from the providers. Ideally, government does not directly



interfere, but assumes a crucial role in determining the conditions that define the relations among insurance funds, providers and patients. The funds, it should be noted, are not run by private companies for profit. Rather they should be seen as autonomous or quasi-autonomous organizations within the public sector.

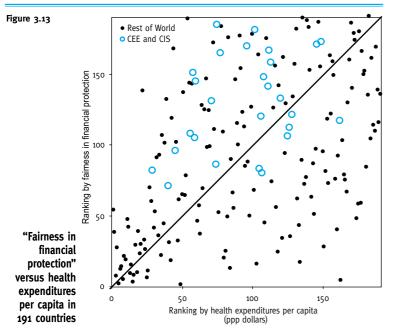
While previously only the central government was responsible for the collection of revenues and for paying health care providers, the insurance or "sickness" funds now assume this vital role within the health system. The idea in principle is to make these funds administratively and financially independent from government, although inevitably government retains a significant role in financing. In all countries which have introduced health insurance, the government budget provides additional funding in the form of contributions for certain groups of the population, such as the unemployed and the old, and for public health measures, medical education and research.

The number and size of insurance funds per country differ widely across the region. Albania's health insurance system, for example, is run by only one fund. Other countries, such as the Czech Republic, Estonia, Hungary, Slovakia and Slovenia, have established a central "national health insurance company" insuring the largest part of the population, with a number of local branches or specialized sickness funds overseen by the central fund. The rationale behind the introduction of more than one fund is to foster competition, which in turn should increase the funds' incentives to provide better services for their members. Few countries have explicitly allowed the insured to choose among different funds, although in practice the occupational or geographical composition of fund members may limit the actual degree of choice.

Some restriction on choice may in fact be desirable. People will find it much harder to evaluate the quality of competing health insurance funds than they would, for example, the quality of different apples on sale in market stalls, and the consequences of choosing a low-quality fund are more serious than are those of choosing a rotten apple. The ability to recognize the better funds can be expected to rise with education and, hence, income level, implying that greater choice is of more benefit to the rich than to the poor.

An inherent problem associated with competition is that insurance funds have an incentive actively to select members among persons with good health risks and, since contributions are income related, those with higher incomes. Persons with bad health risks and with lower incomes – two things that often go together – may then end up with those insurance funds which are least well off financially and as a result less capable of funding an adequate level and quality of service. To avoid this, governments can set up mechanisms to redistribute among the funds, but these are complicated to devise and to manage and may be beyond the capacity of many countries at present. While there is anecdotal evidence of active selection strategies by funds, the issue of whether this has led to lower quality provision for the poor has not yet been properly researched.

Membership in a health insurance scheme is generally compulsory. Members have to pay contributions to the insurance fund in the form of income-related insurance



Source: WHO (2000), Note: Countries are ranked from "fairest" (equal to "1") to "most unfair" (equal to "191") and from op. cit.: Figure 3.8. highest expenditure ("1") to lowest expenditure ("191").

contributions (typically at a single rate), and entitlement to health insurance benefits is usually linked to the payment of the contribution. Although the law typically stipulates exceptions to this rule, for example, for the unemployed, the disabled, pregnant women, and children, this principle is a significant departure from the previous system, which guaranteed universal access. By contrast, funding from general taxation allows for the greatest possible separation between the burden of contributions and the use of health care. Notwithstanding the exceptions just mentioned, health insurance introduces a closer link between payment and use. Funding through health insurance is thus less grounded in the principle of solidarity than is funding by general taxation.

In practice, health insurance may also be more regressive than general income taxation because the contribution

rate fails to rise with the level of income. A number of OECD countries have successfully counteracted this through exemptions among the lower income groups, 42 which is also done in Central and Eastern Europe. However, in some countries, for example the Czech Republic and Slovakia, there is an upper ceiling on the total contributions to be paid by a single member, which again tends to make the system at least mildly regressive.

The extent to which the new health insurance systems really are regressive in their financing has not yet been assessed empirically. As mentioned in Section 3.3, the observed rise in informal payments - which is the most regressive form of health financing and makes health care provision directly dependent on ability to pay - runs counter to what the World Health Organization has defined in the World Health Report 2000 as "fairness in financial protection". This criterion, one of those which the WHO report uses to evaluate the performance of countries' health systems (see also Figure 3.8), captures the idea that households ought to be required to pay for health in line with their ability to pay. Figure 3.13 compares the ranking of 191 countries for which the fairness indicator is available with the ranking for per capita health expenditures (both private and public).43

The majority of the transition countries are above the 45-degree line, indicating that they rank *lower* on the fairness of financing than they do on the level of health expenditures. Taken literally, this could reflect the regressive nature of the widespread informal payments and, possibly, any regressive aspects of the health insurance systems in many parts of the region. However, the results should be evaluated with caution. The fairness indicator is based on information from surveys at the household level in only 10 percent of countries worldwide, and alternative indicators have been proposed.<sup>44</sup>

The countries that have introduced health insurance systems have often had to cope with a low and unstable revenue base due to economic crises, drops in employment and significant levels of informal employment. Partly as a consequence of this, 18 health insurance funds disappeared in the Czech Republic in the late 1990s. Some went bankrupt, while others were closed down by the government for not having met legal requirements. The bankruptcies contributed to the accumulating debts in the system, rendering operations even more difficult. Events were broadly similar, though less dramatic, in Slovakia and Hungary.

All this does not imply that the path chosen by many countries in the region is bound to lead to failure. Once a relatively stable economic framework is in place, a well-functioning health insurance scheme can provide a sustainable financial basis, with government regulation and intervention ensuring adequate coverage for the poor. The Estonian system offers an example. Soon after the introduction of health insurance in 1992, the Estonian government recognized that administrative capacity and skills are crucial pre-requisites for the proper working of such a system. The

Table 3.6

operational skills of the 22 mostly regional sickness funds have been improved, and the funds are subordinated to a "central sickness fund". A good information system has been established, allowing the government both to set up provider contracts specifying the volume, quality and mix of services at negotiated or regulated prices and to monitor providers' behaviour through performance indicators.

However, poorer and less advanced parts of the region do not seem ready for a Western-European-style health insurance system, on account of more widespread informal employment, lower educational levels and weaker administrative and institutional capacity. Here, continued funding through general taxation may well be the best option for the time being. 45

#### Increased efficiency

Under central planning, concerns with efficiency in health systems did not figure prominently, and one factor in the decline in health outcomes in parts of the region in the late 1980s has been attributed to the inadequate management of health care resources. 46

As noted earlier, it is not the mere size of the funds devoted to the health sector that affects health outcomes, but also the way the money is spent. The typical health system in the communist period was resource intensive. Countries had more hospitals per head of population than is common in OECD countries; patients were more frequently referred to hospitals, and they stayed in hospitals for longer periods.

Table 3.6 explores whether this is still the case by presenting data for various indicators of health input and health care use at the end of the 1990s, grouping countries into subregions. The EU average is included for comparison.

Over-capacity still seems to prevail in parts of the region. In Central Europe, the Baltic states and especially the western CIS, there are still significantly more hospital beds per head of population than there are in the EU. The Baltic states and all regions of the CIS have 50-75 percent more hospitals per person than does the EU. In the Baltic states and more so in Central Europe, the number of physicians is slightly lower than the EU benchmark, but still higher than in other countries at similar levels of economic development. Health care inputs in South-Eastern Europe and former Yugoslavia differ from the general picture: the rates there are consistently lower than the rates in the EU.

The only indicator for which all seven sub-regions rank below the EU is the number of general practitioners – family doctors – per head. As the discussion of primary health care below argues, this is one area in which the transition countries need to make progress. The role of family doctors in primary care is an important factor in achieving both efficiency and equity in health care systems.

Health care resources and their use, 1999

(per 100,000 population)

	EU	Central Europe	Baltic states	Former Yugoslavia	South-Eastern Europe	Caucasus	Western CIS	Central Asia
Hospital beds	674	773	848	510	594	672	1,023	679
Hospitals	3.8	2.4	5.6	1.7	2.3	6.7	6.3	6.3
Physicians	353	306	338	202	223	365	376	287
General practitioners	99	60	50	58	64	31	41	31
Nurses	755	667	643	536	485	578	895	690
In-patient admissions	18	19	22	12	15	5	21	13
Average length of stay (days)	8	8	9	9	11	11	14	12

Source: WHO Health for All database.

Note: Unweighted regional averages. Data for 1999 or latest year available. The EU average refers to 1998. "General practitioners" refers to those working in primary health care. Figures for former Yugoslavia exclude FR Yugoslavia. Central European figures for general practitioners and nurses exclude Poland. Figures for average length of stay are not per 100,000 persons. For this last, data are missing for Poland, Albania, Romania, Latvia, Belarus and IJzbekistan.

The relatively excessive supply of resources has apparently sustained its own demand, as the use indicators on in-patient admissions and the average length of stay in acute care hospitals confirm. On average, patients in the western CIS stay two weeks in acute care hospitals, if admitted, compared to eight days in the EU, and the inpatient admission rate is higher, too. The stays in the Caucasus and Central Asia are also notably longer than they are in the EU, although the admission rate is lower, markedly so in the Caucasus.

Health care systems in the transition countries are typically financed by significantly smaller public expenditure shares in GDP than are those in the EU, with particularly low rates (close to 1 percent) in some CIS countries, and it is in the CIS where capacity and use are especially high by the EU benchmark. Given the much lower national income of the transition countries, this suggests that underfunding makes the running of such a resource-intensive system very difficult. This in turn is likely to result in low salaries, low staff morale, accumulating wage arrears and insufficient maintenance and renewal of physical infrastructure and equipment.

What are the causes of inertia in restructuring? Part of the explanation lies in the incentives within the system. The way in which health care providers are paid is an integral feature of a health system that may strongly influence the quantity and quality of care. Revisions to payment mechanisms can play an important role in improving services and bringing about change.

Payment mechanisms for health care providers can be classified into two types. "Prospective" mechanisms fix the payment in advance of the actual provision. Salaries, capitation fees (a payment for every potential patient irrespective of whether these actually make use of the health care system) and overall fixed budgets fall into this category. "Retrospective" mechanisms reimburse for the actual services provided, for example, fees for specific services and daily charges for in-patient stays in hospitals. Both types of payments have drawbacks when realized in their purest forms:

the prospective mechanisms may lower providers' motivation since reward is not influenced by effort, while the retrospective mechanisms give incentives to encourage what may be excessive use of services in order to increase providers' incomes. Hence some mix of the two would seem suitable so as to combine incentives for performance and control costs. This has been the approach many Western European countries have pursued, though with varying success.<sup>48</sup>

In the transition countries there has generally been a move away from the model of salaried practitioners employed by the state towards contractual relationships between the state and the medical practitioner, which in principle should result in better incentives to perform for the latter. Increasingly, self-employed doctors are being paid by a mix of salary, capitation fees and fee-for-service methods.

As for the payment of hospitals, the predominance of which is one of the major obstacles to reform, the retrospective methods of daily charges and case-based payment were popular schemes in the early 1990s. In the absence of binding expenditure caps, hospital expenditures subsequently mounted precipitously in some countries, often causing serious financial difficulties for the new health insurance funds that were financing the hospitals. The Czech Republic constitutes a particularly dramatic example in that several insurance funds went bankrupt in the second half of the decade due to exploding costs. In response, the surviving insurance funds shifted to mixed payment systems incorporating selected prospective elements (for example, capitation fees).

Several countries now see fixed budgets and capitation fees as the "next generation" payment system beyond daily fees and payments per case and have begun instituting simple caps on hospital expenditures (for example, Albania, the Czech Republic, Russia). The effects of these recent efforts await a critical assessment. Other countries still adhere to the old "line item" approach: flows of funds based on number of beds, past occupancy of beds, or past expenditures and so on (for example, Azerbaijan, Tajikistan, Ukraine, Uzbekistan). This encourages the accumulation of excess capacity by allocating funds largely according to already existing physical inputs. <sup>49</sup>

Nevertheless, in whatever manner payment systems may be devised, their effectiveness in bringing about reform ultimately depends on the implementation of other reforms and on building adequate institutional capacity. In particular, assuring quality and monitoring providers' activity are as important as ensuring a technically refined reimbursement system. As a general rule, a simple reimbursement scheme that places little strain on administrative capabilities can be more effective than a more sophisticated set of arrangements, provided it is supported by a plan for restructuring other parts of the health system and a strategy for assessing the quality of service.

#### Primary health care

The health care system inherited from the communist

period entailed in most countries a fairly specialized structure of the medical profession and a relative focus on hospital-based care, at least when compared with Western Europe. Primary health care of the kind where general practitioners – family doctors – act as "gatekeepers" to more specialized treatment was typically less developed. Strengthening primary health care of this sort is widely seen as a key to enhancing efficiency and improving access to care for families, including, of course, children. <sup>50</sup>

If family doctors assume the pivotal role of referring patients to specialist care, their decisions obviously have significant implications for the control of a health system's costs, given that specialist care accounts for over half of health care expenditure in most developed countries. By reducing unnecessary treatments and promoting sensible ones, family doctors have the potential both to lower total health care costs and to improve the system's outcomes.

Governments in the transition countries have typically endorsed this concept of primary health care and have taken steps – with mixed success – to re-orient their traditionally hospital-focused systems, although as Table 3.6 shows there is some way yet to go. The steps include measures to develop family doctors as an institution. In some Central Asian countries the change has so far been one of terminology only, with therapists, paediatricians and obstetricians redesignated as "family physicians", and hence there has been little impact on the services they provide. In other countries, such as Croatia, Hungary, Romania and Slovenia, the gatekeeping function of the general practitioner has been established. In most of the rest of the region, patients still have direct access to specialists.

Change is hampered by several linked factors:<sup>51</sup>

- Family doctors are insufficiently equipped to conduct treatment themselves and still often lack financial incentives to retain patients rather than refer them to hospitals.
- Due to the tradition of a system based on specialization, the difficulty in persuading the take-up of the family doctor training programmes that have been implemented.
- Little coordination in the restructuring of primary health care, with health services under the control of various ministries, for example, school-based doctors and occupational health centres.

An integrated strategy is required that addresses the health needs of individuals within their families and communities, promotes multidisciplinary cooperation among the different primary health care professionals and prepares the ground for a more generalist system by establishing a broader educational base for people working in the health sector. This is true irrespective of whether a country has adopted the gatekeeping model of family doctors, or continues to rely on specialists assembled in primary care health centres (polyclinics). The soil on which such efforts may grow seems fertile not least due to the abundance in the region of qualified – even if specialist – physicians.

#### Public health policy

Public health programmes to prevent disease or injury are a cornerstone of any sensible health system. Prevention may take place through the direct provision of services such as immunization, but also through the provision of information on health risks and healthy life styles, the importance of seeking care when needed and even "self-cure". Such public health initiatives are a classic domain of government. The private sector does not have sufficient incentive to supply public health programmes of general benefit to the population at large. Public health policy is of great relevance to children, since many of the measures involved, such as immunization or the iodization of salt, are directly applied for the benefit of children or are especially important for their development.<sup>52</sup>

Some important aspects of public health programmes were well established in the communist period, as the very high rates of child immunization against communicable diseases attest. Public health services were typically the responsibility of what was often called the "sanitary epidemiological service" - "Sanepid" - which operated in a vertically organized structure at central, regional and district level. Although Sanepid's role was, in principle, broad-ranging, including occupational health safety and health education, as well as the control of communicable diseases through mass immunization, the last generally dominated its activities. Hence, the prevention of disease and injury through the provision of information on risks and on behaviour and life style was relatively underdeveloped. After a decade of transition, these functions typically still require expansion. The rise of HIV/AIDS in parts of the region is the most obvious example of a new health threat that needs tackling with such methods.

Some positive examples of change exist. Hungary has undertaken an extensive restructuring of the public health system to include health promotion. Bulgaria has established the National Health Promotion Centre, which is to play a central role in devising a national health strategy. Estonia has allocated a percentage of the national health insurance revenues to health promotion activities.<sup>53</sup> In

Romania, parts of the public health service have been integrated with primary health care, which seems an attractive route for reform, the role of the family doctor naturally including the giving of advice on a healthy life style.<sup>54</sup>

Shrinking government budgets in much of the region have not helped either the expansion into new areas of activity, or the maintenance of previous successes, for example, the suppression of diseases such as tuberculosis – see Section 3.1. The maintenance of broad-based and free access to immunization is a critical issue for child health, vital not only for the individual child who is immunized, but also to reduce the risk of any disease taking a general hold in the population (the so-called "positive externality" of immunization).

As with the data on infant mortality for some countries, the official sources of immunization rates of children are sometimes at variance with the rates based on household surveys. Statistical Annex, Tables 6.2-6.5, based on official data, show what are typically very high rates of child immunization against various diseases at the end of the 1990s. But for some countries the notes to the tables report much lower rates given by survey data (see also Table 3.4). For example, surveys organized by UNICEF in 2000 show rates of immunization against diphtheria, pertussis and tetanus among children aged 12-23 months of only 52 percent in Albania and 76 percent in Tajikistan, compared to official rates for the end of the 1990s of 96 and 99 percent, respectively; the 2000 survey for Moldova shows that 9 percent of children of the same age were not immunized, while the official data imply a figure of only 1 percent. Survey-based rates in the mid-1990s for Kyrgyzstan and Turkmenistan show that between one-fifth and one-third of children were not immunized against various diseases. As the evidence for Kazakhstan in Table 3.4 illustrates, when immunization rates slip, it may be the children of the poor who are most affected.

In the case of Tajikistan, the failure to register many births, noted in Section 3.2, may be one explanation for the discrepancy between official and survey-based rates. Children whose births are not registered may be ineligible for immunization, which is one reason why birth registration is so important.

			Table 3.7					
IDD prevalence and cor	ntrol in the region							
	Status of IDD control programmes							
Current IDD status	Effective control programmes with salt iodization	Legislation or iodized salt production exists, but enforcement is poor	Lack of legislation or little or no salt iodization					
Virtually eliminated	Bulgaria, Czech Republic, FR Yugoslavia, Slovakia							
Marginal and mild	FYR Macedonia,* Bosnia-Herzegovina, Poland*	Moldova, Romania,* Belarus	Estonia, Latvia, Lithuania, Hungary					
Mostly moderate		Russia, Georgia, Armenia, Azerbaijan, Turkmenistan, Kyrgyzstan	Ukraine, Kazakhstan					
Mostly severe		Tajikistan	Uzbekistan					
Source: G. Gerasimov, International Council for Control of IDD.								
Note: Status is as of January 2001. * Denotes "close to virtual elimination". Information is missing on Albania and Slovenia.								

Maternal and child nutrition is one concern of public health policy, and fighting micronutrient deficiency is an important element in this. In parts of the region, especially in the CIS, there is a clear need for renewed efforts to iodize salt so as to combat iodine deficiency (IDD) and to fortify wheat with iron to combat anaemia. Iodine is vital to the development of the brain in the very young and the unborn child. Serious deficits can lead to mental retardation. Anaemia results in lethargy and lack of concentration. Deficiency of iodine and iron therefore threaten learning capacity, as well as health (see Chapter 4, Box 4.4).

IDD has been virtually eliminated in only four countries: Bulgaria, Czech Republic, FR Yugoslavia and Slovakia – see Table 3.7. In many countries, including some of the economically advanced ones (Hungary and the Baltic states), salt iodization legislation either does not exist, or is not properly enforced. The iodization of salt is very cheap, and international donor aid for the necessary equipment is available. Hence, even the poorest countries should be in a position to tackle the problem of IDD successfully.

The need for more promotion of healthier life styles and advice about health-related behaviour is exemplified by the lack of knowledge in some countries about HIV/AIDS. Figure 3.14 shows the percentage of women aged 15-49 interviewed in UNICEF-organized surveys in 2000 who do not know any way of preventing HIV transmission (including abstinence from sexual intercourse).

Results vary strikingly among and within countries. In Ukraine, one of the countries hit the hardest by HIV/AIDS in the region, the figure was only around 5 percent. By contrast, in rural areas of Tajikistan and Azerbaijan more than 80 percent of women are not aware of any means to prevent HIV transmission. But even in

Moldova, where officially registered cases of HIV/AIDS rose very quickly in the late 1990s (see Figure 3.4), nearly a fifth of women in urban areas and a third in rural areas do not know how to protect themselves.

#### Helping the poor and the excluded

Inequality in access to health care is a serious concern that requires the particular attention of health authorities in the region. Informal payment systems clearly work to the disadvantage of the poor, as Section 3.3 notes. Some aspects of health insurance funds pose a threat to the disadvantaged. Health outcomes are often worse for the poor and the less educated, for example, in the areas of infant mortality and malnutrition, although the extent to which this is due to the health system itself or to some other factor influencing health (for example, lack of income to buy nutritious food) is not always clear.

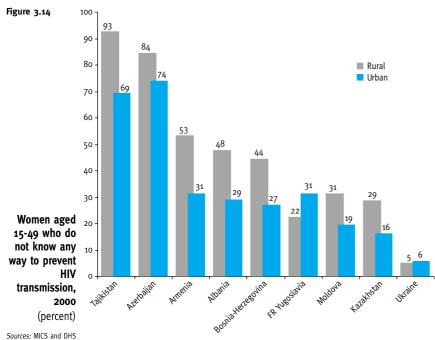
Governments have an important role in ensuring that all in society have access to affordable health care. Poor and marginalized groups should benefit, like everyone else, from public health policies. Good access to primary health care is also vital. To these ends, the efficient management of resources and the assurance of an adequate financial basis for the public health system are as important for the poor and the marginalized as they are for anyone else – indeed, even more important given that the rich can always switch to privately provided health care.

The particularly deprived situation of the Roma minorities in several countries of the region in terms of health (and education) is a case for serious concern. In the Czech Republic and Slovakia, for instance, the Roma infant mortality rate is about double the average. 55 Other

important groups that deserve special attention include the homeless, refugees and internally displaced persons, the disabled, and children in institutional care (see Chapter 5).

Improving health care and health outcomes for the disadvantaged contributes to a more cohesive society, as well as expanding the capabilities and the productivity of the individuals concerned. Policies to enhance education among children from disadvantaged families would be a highly beneficial complement to any measures on the health front. There is widespread agreement on the need to ensure that some level of access to basic health care is available to all members of society. Indeed, if such access is viewed as a human right, no argument can justify the lack of public action to advance that right.

The implementation of policies to help the poor and disadvantaged will depend on the overall availability of funds, but also on the political will of governments. Given marginalized groups' lack of political power, it is also the responsibility of the international community to help lobby on their behalf.



(Kazakhstan, 1999, and Armenia), op. cit.: (
Table 3.2.

Note: The figures are percentages of all women in the age group, including those who had never heard of HIV/AIDS (counted in the "do not know" category). Methods to avoid HIV transmission that respondents could report on included "abstaining from sex" and "using condoms".

### 3.5 Conclusions

The richer countries in the region generally maintained or even improved their records on health during the 1990s (although the gap with Western Europe typically remains to be closed). But the story is different in poorer parts of the region, including much of the CIS: the "mortality crisis" and the emergence and re-emergence of infectious diseases such as tuberculosis and HIV/AIDS, to name only the most prominent trends. Throughout the region, health problems related to life style and behaviour have been common.

Children and young people have shared in both the gains and the setbacks. Since these setbacks threaten both individual development and national prosperity, they should be of serious concern to policy-makers.

More divergence of health outcomes across the region is likely to contribute to the economic divide between countries, given the mutually reinforcing relationship that links health and economic development. Greater inequality among nations may be mirrored in further rises in health disparities within them unless firm steps are taken

to address this problem, with the widespread nature of informal payments being one key issue.

Sustaining and strengthening broad-based access to schooling, including gender equity, must be part of a general strategy to combat inequalities in health. Developments in education and training are also important for health care provision (for example, the training of family doctors) and health care management (for instance, to cope with the complexity of the new health insurance systems).

The preceding paragraph returns the chapter to where it began. Just as "good health" implies much more than the mere absence of disease or infirmity, so "good health policy" requires action on various fronts other than reform at the ministry of health. Ministries with responsibility for education, social welfare, the environment, and finance, as well as health, need to work with each other – and with health care professionals and the general public – to further the health status of the region's adults and children.

#### Notes and references

- 1. World Health Organization, at <www.who.int/aboutwho/en/definition.html>.
- 2. Hammoudi, A. A. and J. D. Sachs (1999), "Economic Consequences of Health Status: A Review of the Evidence", CID Working Papers, No. 30, <www.cid.harvard.edu/cidwp/>: Harvard University.
- 3. Bloom, D. E. and P. N. Malaney (1998), "Macroeconomic Consequences of the Russian Mortality Crisis", *CAER II Discussion Papers*, No. 32, <www.hiid.harvard.edu/projects/caer/papers/>: Harvard Institute for International Development.
- 4. British Council (1997), "The Social and Economic Impact of HIV/AIDS in Ukraine", <www.bc.kiev.ua/english/governance/aids/ukecot.htm>: British Council.
- 5. Bloom, D. E. and J. D. Sachs (1998), "Geography, Demography and Economic Growth in Africa", *Brooking Papers on Economic Activity*, Vol. 1998, No. 2, pages 207-95. For more evidence on the effect of increased life expectancy on growth, see also Sala-i-Martin, X. (1997), "I Just Ran Four Million Regressions", *NBER Working Papers*, No. 6,252, available at <www.columbia.edu/~xs23/papers/download.htm>; Bhargava, A., D. T. Jamison, L. Lau, and C. J. L. Murray (2000), "Modelling the Effects of Health on Economic Growth", *GPE Discussion Papers*, No. 33, Geneva: World Health Organization.
- 6. Goskomstat (2001), "Handbook Russia 2001", <www.gks.ru/>: Goskomstat. Rates until 1999 are given in Statistical Annex,
- 7. Marmot, M. and M. Bobak (2000), "Psychosocial and Biological Mechanisms behind the Recent Mortality Crisis in Central and Eastern Europe", Chapter 6, pages 127-50 in Cornia, G. A. and R. Paniccià (eds), *The Mortality Crisis of Transitional Economies*, Oxford: Oxford University Press.
- 8. Suhrcke, M. (2000), "Åre Reforms from a Centrally Planned to a Market System Bad for Health?", HWWA Discussion Papers, No. 105, available at <www.hwwa.de/Publikationen/Discussion\_Paper/>.
- 9. UNAIDS and WHO (2000), "AIDS Epidemic Update, December 2000", <www.unaids.org/epidemic\_update/report\_dec00/index\_dec.html>: UNAIDS.
- 10. Piot, P. (2000), "Welcome Address to the International Donors Meeting on the Joint Response to the HIV/AIDS Epidemic in the Russian Federation 2001-2003", Moscow, 16 November, <www.unaids.org/whatsnew/speeches/eng/moscow\_piot.html>: UNAIDS. 11. Data of the Ministry of Health and the Federal AIDS Centre of the Russian Federation.
- 12. Indeed, the latest data from the Ukrainian National AIDS Centre indicate that HIV incidence in Ukraine increased significantly again in 2000.
- 13. This is cited as the main method of transmission among adults in UNAIDS and WHO (2000), op. cit. See also Dehne, K. (1999), "The HIV Epidemic in Central and Eastern Europe: Update", Heidelberg: University of Heidelberg; European Centre for the Epidemiological Monitoring of AIDS (2000), "HIV/AIDS Surveillance in Europe: End-Year Report 1999", No. 62, <a href="https://www.eurohiv.org/aids.htm">www.eurohiv.org/aids.htm</a>: CESES. On drug use and HIV in the region, see the special issue of the Journal of Drug Issues (1999), "Drug Use in Central and Eastern Europe: Research, Interventions and Policies", Vol. 29, No. 4 (Fall).
- 14. See, for example, British Council (1997), op. cit.
- 15. Piot (2000), op. cit.
- 16. See, for example, Piot (2000), op. cit.; Ainsworth, M. and M. Over (1997), Confronting AIDS: Public Priorities in a Global Epidemic, Oxford: Oxford University Press.
- 17. UNAIDS and WHO (2000), op. cit.
- 18. General information about tuberculosis and its incidence worldwide can be found in WHO Factsheet, No. 104, available at <a href="https://www.who.int/inf-fs/en/fact104.html">www.who.int/inf-fs/en/fact104.html</a>>.
- 19. The difference is partly due to the more common and longer practice of breastfeeding in the developing world. This information should not be interpreted to imply that breastfeeding should necessarily be avoided in order to reduce HIV risk if the mother

- is HIV positive. Breastfeeding reduces other health risks that increase child mortality. See <www.unicef.org/breastfeed/> and <www.unaids.org>.
- 20. See the Sentencing Project's Factsheet, No. 1,072, at <www.sentencingproject.org/brief/brief.htm>, for the ranking of incarceration rates in 2000.
- 21. For example, see Balinska, M. (2000), "Tuberculosis is Spreading in Central and Eastern Europe", *British Medical Journal*, Vol. 320, April, page 959, available at <www.bmj.com/>. For an in-depth description and potential remedies of the tuberculosis problem in Russia's prisons, see Public Health Research Institute, at <www.russia.phri.org>.
- 22. MONEE project country reports, Lithuania, Romania and Tajikistan.
- 23. WHO (2000), "Anti-Tuberculosis Drug Resistance in the World: Prevalence and Trends", Report, No. 2, <www.who.int/gtb/publications/drugresistance/index.htm>: World Health Organization.
- 24. McKee, M. and L. Chenet (2001), "Patterns of Health", in McKee, M., J. Healy and J. Falkingham (eds) (forthcoming in 2002), Health and Health Care in Central Asia, Ballmoor, Buckingham, UK: Open University Press and European Observatory of Health Care Systems, Mimeo.
- 25. Information provided by UNICEF country offices.
- 26. A description of the WHO Global Database on Child Growth and Malnutrition is available at <www.who.int/nutgrowthdb/intro\_text.htm>.
- 27. See Ecohost (1998), Childhood Injuries: A Priority Area for the Transition Countries of Central and Eastern Europe and the Newly Independent States, London: European Centre on the Health of Societies in Transition, London School of Hygiene and Tropical Medicine; UNICEF (2001), "A League Table of Child Deaths by Injuries", Innocenti Report Card, No. 2.
- 28. Rehm, J. (2001), "Alcohol-related Burden of Disease in Young People in Europe", Zurich: Addiction Research Institute, Mimeo.
- 29. UN Foundation (2001), "Tobacco: Targeted Campaigns Decrease Smoking, WHO Study Says", UN Wire, 1 February, Section 4, <www.unfoundation.org/unwire>: UN Foundation. See also BBC Online (2001), "Tobacco Giants Face New Lawsuits", 25 January, <www.news.bbc.co.uk>: BBC.
- 30. MÖNEE project country report, Poland.
- 31. Kunst, A. E. (1997), Cross-national Comparisons of Socioeconomic Differences in Mortality, Rotterdam: Erasmus University; Shkolnikov, V., D. A. Leon, S. Adamets, E. Andreev and E. Deev (1998), "Educational Level and Adult Mortality in Russia: An Analysis of Routine Data 1979 to 1994", Social Science and Medicine, Vol. 47, pages 357-69; Mackenbach, J. P. and A. E. Kunst (1999), "Socioeconomic Inequalities in Mortality among Women and among Men: An International Study", American Journal of Public Health, Vol. 89, No. 12 (December), pages 1,800-06; Evans, T., M. Whitehead, F. Diderichsen, A. Bhuiya and M. Wirth (eds) (2001), Challenging Inequalities in Health: From Ethics to Action, Oxford: Oxford University Press.
- 32. Evidence on Russia, the Baltic states, Hungary, Poland and the Czech Republic is given in Bobak, M., H. Pikhart, R. Rose, C. Hertzman and M. Marmot (2000), "Socioeconomic Factors, Material Inequalities and Perceived Control in Self-Rated Health: Cross-sectional Data from Seven Post-Communist Countries", *Social Science and Medicine*, Vol. 51, pages 1,343-50.
- 33. Wilkinson, R. G. (1999), "Income Inequality, Social Cohesion and Health: Clarifying the Theory, a Reply to Muntaner and Lynch", *International Journal of Health Services*, Vol. 29, No. 3, pages 525-43.
- 34. Bobak et al. (2000), op. cit.
- 35. See, for example, Bobak, M., M. J. Jarvis, Z. Skodova and M. Marmot (2000), "Smoke Intake among Smokers is Higher in Lower Socioeconomic Groups", *Tobacco Control*, Vol. 2, pages 0-2; Roos, G. and R. Prättala (1999), *Disparities in Food Habits: Review of Research in 15 European Countries*, Helsinki: National Public Health Institute; Marmot, M., H. Bosma, H. Hemingway, A. Nicholson, E. J. Brunner and S. Stansfeld (1997), "Low Job Control and Other Risk Factors to Social Variations in Coronary Heart Disease Incidence", *Lancet*, Vol. 350, pages 235-39; Bobak, M., C. Hertzman, Z. Skodova and M. Marmot (1998), "Association between Psychosocial Factors at Work and Non-fatal Myocardial Infarction in a Population-Based Case-Control Study in Czech Men", *Epidemiology*, Vol. 9, pages 43-47.
- 36. Šari, N., J. Langenbrunner and M. Lewis (2000), "Affording Out-of-Pocket Payments for Health Services: Evidence from Kazakhstan", EuroHealth, Vol. 6, No. 2, pages 37-39.
- 37. The WHO strategy is described at <www.who.dk/cpa/H21/h21long.htm>.
- 38. Filmer, D. and L. Pritchett (1997), "Child Mortality and Public Spending on Health: How Much does Money Matter?", World Bank Policy Research Working Papers, No. 1,864.
- 39. Bidani, B. and M. Ravallion (1997), "Decomposing Social Indicators Using Distributional Data", *Journal of Econometrics*, Vol. 77, pages 125-39.
- 40. Saltman, R. and J. Figueras (1997), European Health Care Reform: Analysis of Current Strategies, Copenhagen: Regional Office for Europe, World Health Organization.
- 41. For details on the different schemes, see European Observatory on Health Care Systems country reports, available at <www.observatory.dk/>. These reports are drawn on at various points in this section.
- 42. Wagstaff, A. and E. van Doorslaer (2000), "Equity in Health Care Finance and Delivery", Chapter 34, pages 1,803-62 in Culyer, A. J. and J. P. Newhouse (eds), *Handbook of Health Economics*, Vol. 1, Amsterdam: Elsevier.
- 43. The fairness indicator is described in detail in Xu, K., C. J. L. Murray, P. Lydon and J. Ortiz de Iturbide (2000), "Estimates of the Fairness of Financial Contributions for 191 Countries", *GPE Discussion Papers*, No. 26, Geneva: World Health Organization, available via the WHO library catalogue at < www.saturn.who.ch/>.
- 44. Wagstaff, A. (2001), "Measuring Equity in Health Care Financing: Reflections on and Alternatives to the World Health Organization's Fairness of Financing Index", Washington, DC: World Bank.
- 45. Discussion of the financing systems appropriate at different levels of development is given in WHO (2000), World Health Report 2000: Health Systems, Improving Performance, Geneva: World Health Organization (in particular Chapter 5) and Hsiao, W. (2000), "What Should Macroeconomists Know about Health Care Policy?: A Primer", IMF Working Papers, No. 136, available at <a href="www.imf.org">www.imf.org</a>.
- 46. Langenbrunner, J. C. and M. W. Wiley (2000), "Paying Hospitals in Eastern Europe and the Former Soviet Union", Washington, DC: World Bank, Mimeo.
- 47. This statement is based on the results of a regression of the log of the number of physicians per 100,000 persons on the log of GNP per capita (in PPP) in 1998 for 120 countries, with data for "latest year available" in 1990-98 from World Bank (2000), World Development Indicators 2000, Washington, DC: World Bank.
- 48. Saltman and Figueras (1997), op. cit.
- 49. Langenbrunner and Wiley (2000), op. cit.

- 50. Scott, A. (2000), "Economics of General Practice", Chapter 22, pages 1,175-200 in Culyer and Newhouse (2000), op. cit.
- 51. European Observatory on Health Care Systems country reports, op. cit.
- 52. Currie, J. (2000), "Child Health in Developed Countries", Chapter 19, pages 1,053-90 in Culyer and Newhouse (2000), op. cit.
- 53. Saltman and Figueras (1997), op. cit.
- 54. European Observatory on Health Care Systems (2000), "Health Care Systems in Transition: Romania", <www.observatory.dk/>: European Observatory on Health Care Systems.
- 55. European Centre on the Health of Societies in Transition (Écohost) (2000), "Health Needs of the Roma Population in the Czech and Slovak Republics: Literature Review", Washington, DC: Human Development Sector Unit, Europe and Central Asia Region, World Bank, Mimeo.