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POVERTY AND HEALTH – EVIDENCE AND ACTION
IN WHO'S EUROPEAN REGION

Poverty and ill health form a vicious circle. There is evidence that good health is a prerequisite for development and that, without good health, poor communities cannot take full advantage of development opportunities.

WHO has taken an active role in the Massive Effort against Poverty and is committed to set in motion activities within a unified framework of action, in close cooperation with development partners and national governments.

This document reviews the conditions most associated with poverty in WHO's European Region and proposes lines of action to tackle the reduction of poverty.

A draft resolution is attached for consideration by the Regional Committee.

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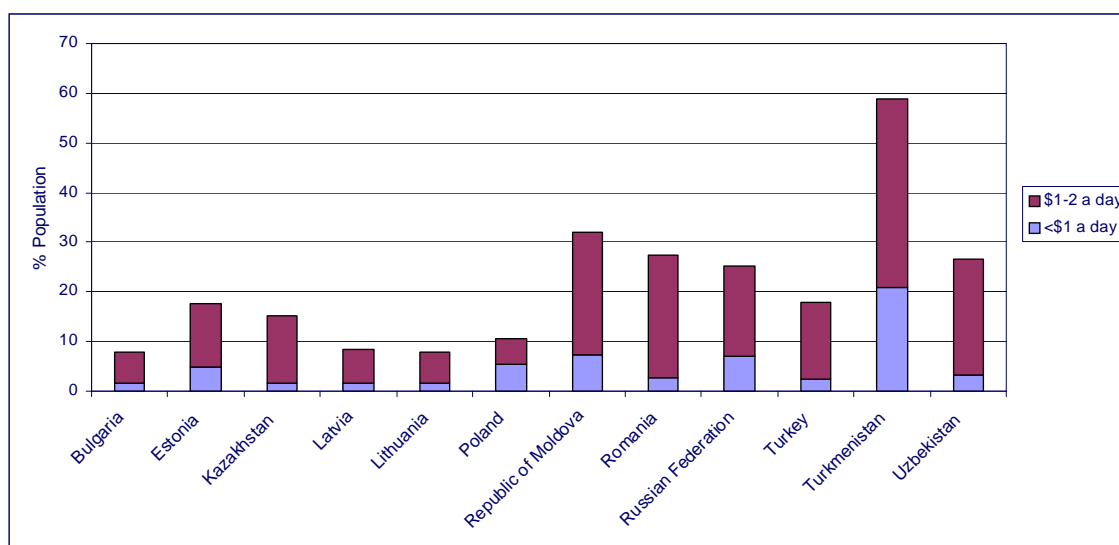
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INTRODUCTION

1. Poverty in the twenty-first century encompasses several dimensions, including not only material deprivation but also low educational achievement, poor health, vulnerability and exposure to environmental and occupational risks, as well as voicelessness and powerlessness. Poverty deprives individuals of the freedom to satisfy hunger, to achieve sufficient nutrition (food insecurity), to obtain remedies for treatable illnesses or to enjoy clean water or sanitary facilities. This lack of freedom prevents individuals from fulfilling their potential, thus leading to a great loss for society and hampering development (1).

2. The picture of absolute poverty¹ in the world has changed over the past decade. While there are still about 1200 million people living on less than US \$1 per day, the distribution of poverty in the different parts of the world has changed. There have been improvements in East Asia and the Pacific, and a deterioration in sub-Saharan Africa as well as the European Region. In the latter, 2% of the population in 1998 (approximately 24 million people) were living in absolute poverty (Fig. 1). The highest figure in Europe is reported in Turkmenistan, where nearly 60% of people live on less than US \$2 per day (2).

Fig. 1. Population living on <US \$2 and <US \$1 a day in some countries in WHO's European Region



Source: World Bank (2).

3. Relative poverty² is also a serious problem in a number of European countries. In 18 countries of central and eastern Europe/newly independent states (CCEE/NIS) in the mid-1990s, more than 165 million people were living on less than US \$4 per day: in 8 countries the proportion of people living with these limited resources was 50% or higher (3). With respect to countries that are members of the Organisation for Economic Co-operation and Development (OECD), relative poverty is a significant reality: for instance, 11% of people were living in relative poverty in the United Kingdom in 1995 (3), and 13% in Italy in 1999 (4).

¹ Absolute poverty is poverty which does not allow people to afford a minimum consumption basket of US \$2.15 per day (World Bank) (2).

² Relative poverty is where people's economic resources do not allow them a minimum acceptable way of life in the society where they live, e.g. income below 60% of the median (World Bank) (2).

4. The impact of poverty is not equally distributed among the poor. There is evidence that poverty can have different impacts by gender and age group. It has been shown that women make up 70% of the world population living in absolute poverty (5). However, estimating the number of poor men and women independently is difficult, because consumption data are collected at household level. Even so, available health and education data indicate that women are often disadvantaged (2). Children are also particularly affected. For instance, children account for around half of the poor in central Asia, but this is not surprising as they make up between 35% (in Kazakhstan) and 48% (in Tajikistan) of the population in the central Asian republics (CAR). However, if one examines the risk of being poor relative to the national average, children in central Asia do experience an elevated risk of poverty. Children in Kazakhstan are 24% more likely to be poor than the average, with corresponding figures of 14% in Turkmenistan, 12% in Kyrgyzstan and 7% in Tajikistan. In all CAR where data are available, the relative risk of a family being poor increases with the number of children in the family (6).

5. Unemployment as a cause of poverty and ill health is a major pan-European issue. In central and eastern Europe the scale of this problem reached an alarming high level in the past decade, with a very severe impact on the health of the population (7, 8). By the mid-1990s, using the International Labour Organization (ILO) definition, unemployment was estimated at well over 20% in Kyrgyzstan (9) and 30% in Tajikistan and the former Yugoslav Republic of Macedonia (10). Though the magnitude and the context differ, unemployment has also been a significant problem in western Europe in recent decades. An analysis of the unemployment situation in the European Union (EU) shows a sharp increase from 3% in the early 1970s to approximately 11% by mid-1990, with an overall EU average of 8.6% by April 2001 (11). Given these trends, millions of European people are, or have been, affected by unemployment and its impacts in terms of ill health and poverty (12).

6. The impact of unemployment and poverty on children and young people, both in western (13) and in eastern Europe (14), is of particular importance. Youth unemployment has been demonstrated to be a risk factor for future job prospects (15). Youth unemployment is often associated with social and health problems such as violence, suicide, alcohol and drug abuse, and crime (16, 17). In 1998, the youth unemployment rates in 18 CCEE were about double the overall unemployment rates. This unfortunate trend is also seen in many western European countries.

7. The association between poverty and urban areas is also particularly important in Europe. Over half the global population and over two thirds of the European population live in cities. As the world becomes increasingly urban, there are also increases in the number of urban poor and in the divisions between and within cities and among social groups. Already between one quarter and one third of all urban households in the world live in absolute poverty (18). Within Europe, urban poverty is a problem for cities in both the west and east: in Amsterdam, for example, over one fifth of households live below the poverty line (Table 1).

Table 1. Cities in the European Region and the prevalence of relative poverty

City	Households below the poverty line (%)	Poverty line (US \$ per household per month)
Chisinau	92.0	163
Baku	87.1	97
Sofia	71.2	183
Budapest	36.6	504
Amsterdam	20.5	807
Tilburg	15.7	816
Marseilles	15.0	455
Strasbourg	7.5	406

Source: 1993 data from the Global Urban Indicators Database maintained by the United Nations Centre for Human Settlements (<http://www.urbanobservatory.org/indicators/database>) (accessed on 9 July 2001). Cities selected for completeness of data.

8. In terms of disease burden, the urban poor suffer a “double jeopardy” – the so-called “urban penalty” (19). The urban poor are more exposed to disease because of their poor housing conditions, lack of sanitation, poor diet and occupational hazards, but they have fewer resources for dealing with illness because they are often marginalized and lack the social networks of the rural poor. However, ill health in turn can create and perpetuate poverty, triggering a vicious circle that hampers economic and social development (20).

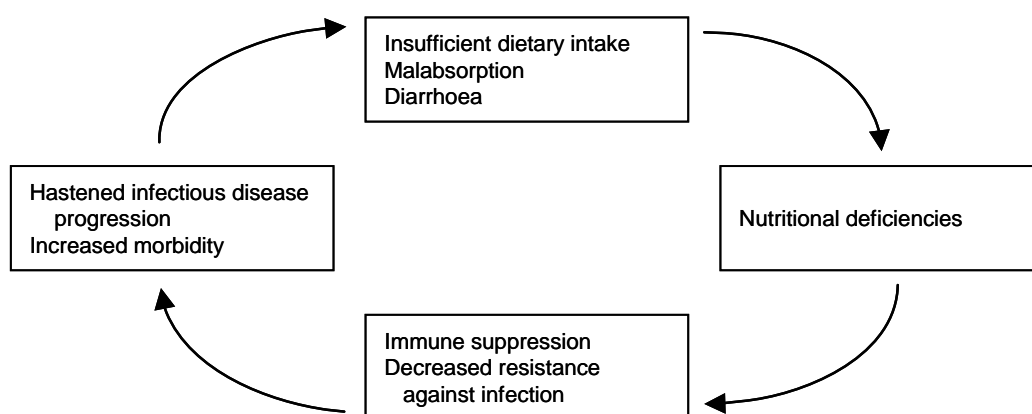
9. In many urban areas homelessness has become a very significant problem, although to date there has been no systematic cross-national survey on the issue of homelessness, thus making it impossible to compare the situation in the 51 Member States in the European Region.

10. Evidence is available showing the poor health status of homeless people. Recent studies have shown that homeless people have higher overall mortality and morbidity rates than the housed population (21), and in particular higher prevalence of chronic chest and other respiratory problems, tuberculosis, fits or loss of consciousness, and alcohol and drug dependence (20). Cases of suicide among the homeless have been reported as 35 times more likely to occur than in the general population (21), and attempted suicide is also very common, particularly among the young homeless (22). A recent study carried out in the United Kingdom showed that those living in poor economic, health or social conditions, who are receiving social security and assistance in the form of “bed and breakfast” accommodation, have death rates five times those of the housed population (20). Death rates for homeless people sleeping rough are 25 times greater than those of the housed population and their life expectancy is, on average, less than half as long as those housed in good housing.

POVERTY AND HEALTH

11. Poverty and ill health form a vicious circle. Poverty leads to ill health through increased personal and environmental risk, increased malnutrition and food insecurity, less access to knowledge and information, and a reduced ability to access health care (Fig. 2), while ill health causes poverty by reducing a household’s income and lowering people’s learning ability, productivity and quality of life. Poverty is therefore a major determinant of poor health, but it may also be an effect of ill health.

Fig. 2. The vicious circle of poverty leading to malnutrition and suppression of immune function



Source: Nutrition and Food Security programme, WHO Regional Office for Europe.

12. Poverty – whether defined by income, socioeconomic status, living conditions or educational level – is the single largest determinant of ill health (23, 24). Living in poverty is associated with lower life expectancy, high infant mortality, poor reproductive health, higher rates of infectious diseases, notably tuberculosis and HIV infection, higher rates of substance use (tobacco, alcohol and illegal drugs), higher rates of noncommunicable diseases, depression and suicide, and increased exposure to environmental risks. Evidence for some of these associations is summarized below.

13. There is a direct relationship between gross national product (GNP) per capita, measured at purchasing power parity (PPP), and life expectancy at birth. Life expectancy increases sharply with GNP up to about US \$4000 per year and then much more slowly, reaching a plateau at about US \$12 000–15 000. However, some countries have the same GNP yet very different life expectancies. This observation has shown that a substantial increase in life expectancy and health can be achieved through a programme of skilful social support to ensure food security, health care, education and other relevant social arrangements, and not only as a consequence of economic growth. On the contrary, in a number of countries vigorous economic growth has not been accompanied by a significant improvement in population health (1).

14. A significant deterioration in life expectancy, unparalleled in any country during periods without war, famine or plagues (25), has been observed in eastern Europe and the NIS over the past decades, in comparison with EU countries. In 1970, life expectancy figures in those countries that now form the EU and in eastern Europe excluding the Soviet Union were similar (a difference of less than 1.5 years). By 1990 there was a four-year gap, which had widened to six years in men by 1997. Moreover, between the mid-1970s and the mid-1990s, life expectancy at age 15 among men declined in Eastern Europe while it improved in western Europe. The changes in the NIS were even more dramatic: in 1970, life expectancy there was already four years lower for men and one year lower for women than in the rest of eastern Europe. By 1997, the gap had widened to more than ten years for men and more than six years for women (a decline of about five years over an eight-year period) (26). When these data were checked for validity, careful analysis of mortality statistics provided support for the reported data (27). Much of this excess mortality was due to chronic diseases in adulthood and to violence, with smoking, diet and alcohol among the key contributory factors (28). Increased mortality is also associated with increases in both poverty and income inequality (29). The increase in poverty is accompanied by a notable rise in food insecurity, as indicated by the proportion of household income required for food purchases (Table 2).

Table 2. Proportion of household income required for food purchases in selected countries, 1989–1994

	Poverty: percentage of earners below 50% of average earnings		Food insecurity: food costs as a percentage of average income	
	1989	1994	1989	1994
Bulgaria	5	10	43	49
Czech Republic	6	9	33	32
Hungary	13	15	37	38
Latvia	10	21	36	52
Lithuania	12	20	35	57
Poland	4	12	49	43
Romania	–	–	52	62
Russian Federation	12	33	34	47

Source: Bobak et al. (28).

15. Evidence shows that families and individuals suffering from poverty may also suffer from an absolute lack of food, leading to low body weight, stunted growth and long-term risks of chronic and infectious diseases. The alternative picture, and the most common one throughout the European Region, is a lack of adequately nutritious food – i.e. consumption of diets that are not only too energy-rich (leading to obesity) but also deficient in the nutrients needed for health and the prevention of disease. Undernutrition, i.e. both wasting³ and stunting⁴, in young children has serious functional consequences

³ Wasting: a weight-for-height that is more than 2 standard deviations below the reference standard (*Physical status: the use and interpretation of anthropometry*. Geneva, World Health Organization, 1995 (WHO Technical Report Series, No. 854)).

⁴ Stunting: a height-for-age that is more than 2 standard deviations below the reference standard (*Physical status: the use and interpretation of anthropometry*. Geneva, World Health Organization, 1995 (WHO Technical Report Series, No. 854)).

for the affected individuals, households and nations (see box below). Undernutrition in children inhibits their growth, increases their risk of morbidity, affects their cognitive development and reduces their subsequent school performance and labour productivity. The relationships between malnutrition and mortality, morbidity, educational performance and work performance have been documented (30). Stunting in childhood continues into adulthood, resulting in adults of short stature (31), and increases the risk of obesity and cardiovascular diseases.

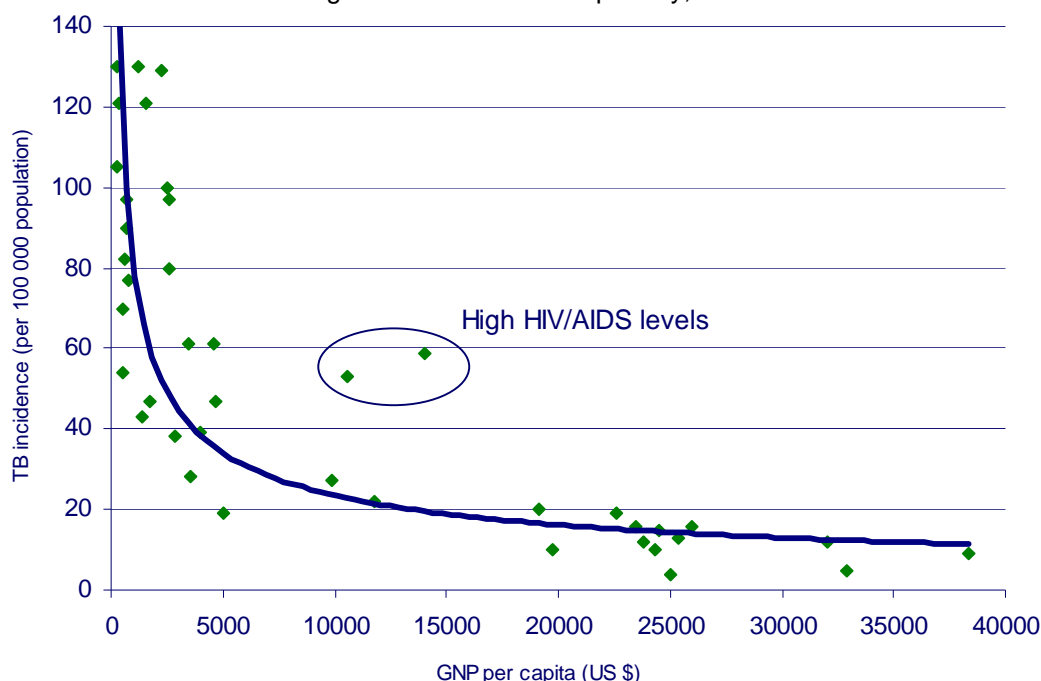
The cost of undernutrition to society

In a population such as in Uzbekistan, a simple calculation can show that stunting will cause enormous losses in future productivity. The number of pre-school children (0–3 years) is 1 892 000, of which 31% are stunted by the age of three years. Of those stunted, 14% are severely stunted. After the age of about 22 months, severely stunted children are about 10 cm shorter than normal children and moderately stunted children 7 cm shorter. Stunting during childhood translates to equal height deficits in adulthood. Assuming an average height of 1.60 m, 7–10 cm corresponds to a 4.38–6.25% reduction in height due to impaired growth during childhood, which is estimated to yield losses in labour productivity of 6.04% for the moderately stunted and 8.6% for the severely stunted (32). Assuming an annual current wage of US \$870, the loss of productivity of these children will amount to about US \$33 million.

Source: World Bank (2).

16. In 1999, there were more than 370 000 newly detected cases of tuberculosis (TB) in WHO's European Region – the highest figure in two decades (33). Most of these cases occurred in eastern Europe and the NIS, where TB has increased alarmingly since the beginning of the 1990s (34). All countries with a TB incidence rate above 70 cases per 100 000 population (14 countries) have a GNP per capita below US \$2700, while all countries with a TB case notification rate below 15 cases per 100 000 population (9 countries) have a GNP per capita above US \$24 000. Only 2 of 41 countries in the Region (Spain and Portugal) do not follow this pattern, in that they have a high TB incidence rate in relation to their GNP. A possible explanation could be that these 2 countries are the only countries in the Region where HIV infection rates have started to have a major impact on the TB epidemic (Fig. 3).

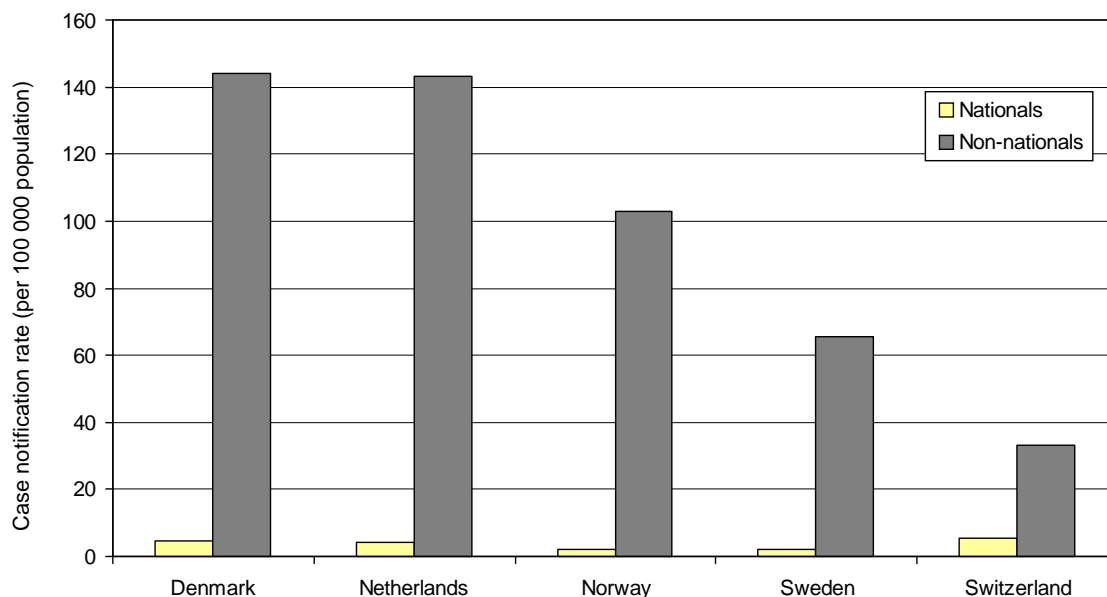
Fig. 3. Tuberculosis and poverty, 1999



Source: Tuberculosis Control programme, WHO Regional Office for Europe.

17. TB notification rates among non-nationals greatly exceed those in the indigenous population in countries of western Europe (Fig. 4). In 1998, 25% of all TB cases in EU countries occurred among non-nationals, while the corresponding figures for central and eastern Europe were 1% and for the NIS and the Baltic countries 4%. In 1999, TB cases among non-nationals made up more than 60% of all cases in some EU countries. In Denmark and the Netherlands, TB case notification rates among nationals were 4.0 and 4.5 per 100 000 population, respectively, while corresponding figures for non-nationals were 144.2 and 143.4 (Tuberculosis unit, WHO Regional Office for Europe, unpublished data).

Fig. 4. Tuberculosis and geographic origin, 1999



Source: Tuberculosis Control programme, WHO Regional Office for Europe.

18. Data from the NIS show that risk factors for TB include unemployment, malnutrition, alcoholism, a history of incarceration, and homelessness. Among 1715 TB patients detected in Latvia in 2000, 36% were unemployed, 8% had a history of incarceration, 34% were alcohol and/or drug abusers, and 18% were malnourished (Director, National Tuberculosis Control Programme, personal communication). Similar data from Ivanovo *oblast* in the Russian Federation in the 1990s show that 55% of the TB patients were unemployed, 61% were alcoholics and about 30% had a history of incarceration (35).

19. HIV/AIDS is the fastest growing threat to development today. What sets it apart from other epidemics is the speed of its spread and the extent of its devastation. Eastern Europe, which until the mid-1990s appeared to have been spared the worst of the epidemic, now has an estimated 270 000 people living with HIV, and it is estimated that the incidence of AIDS will increase in the future. For the moment Ukraine remains the worst-affected country, though the Russian Federation, Belarus, Kazakhstan and the Republic of Moldova have all registered very large increases in HIV infection in the past few years.

20. UNAIDS (36) notes that “poverty and illiteracy might be expected to raise the possibility of infection with sexually transmitted diseases, including HIV/AIDS, since people with low incomes may be less able than those with higher incomes to afford condoms or STI treatment, and those with little education may have less access to information about the dangers of high-risk behaviour or may be less able to understand prevention messages”.

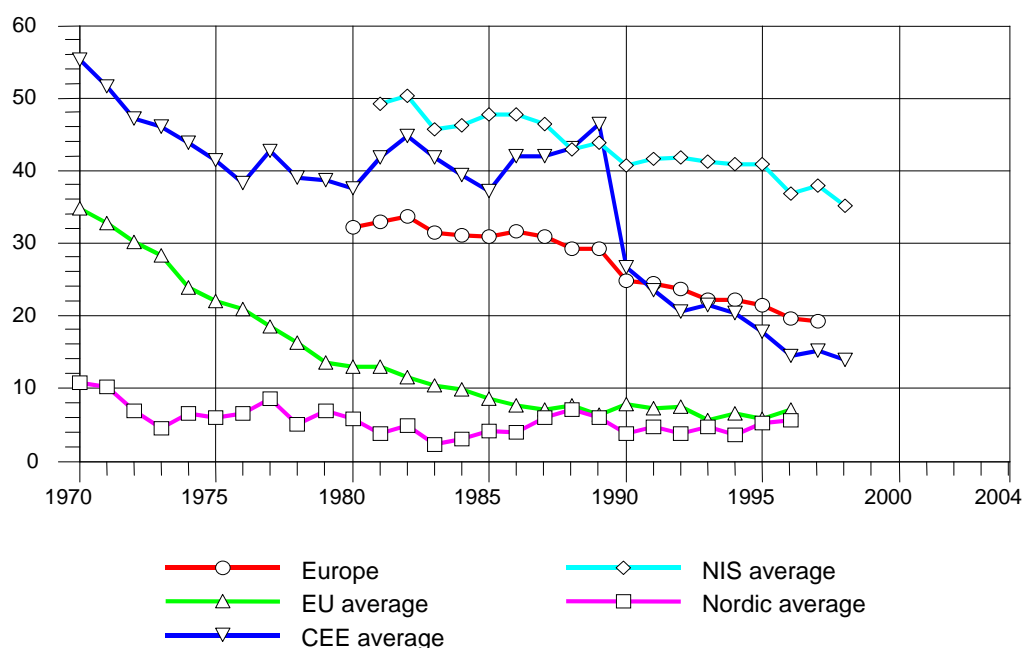
21. Factors that foster HIV transmission include economic instability, epidemics of other sexually transmitted infections (STIs), poverty and social factors such as gender roles (37). The risk of HIV infection increases where there is economic transition and decline, increasing unemployment and

impoverishment, the growth of informal economies, declines in public health revenue, the rapid spread of injecting drug users, and population migration (38). In addition, the social determinants of the STI epidemics include marked social polarization, increasing poverty and a decline in capital spending on the social infrastructure, which influences patterns of sexual behaviour as well as the factors determining the period of infectiousness (39). Vulnerable groups (including sex workers and their clients, injecting drug users, and young people) are deeply affected by the relationship between poverty and HIV/AIDS.

22. There is clear evidence that poverty affects reproductive health, in particular in women, although men's reproductive and sexual health is also affected. This is true for all countries in the European Region, not just those that have recently undergone, or are still in a period of, economic transition: it also applies to poor populations of socially disadvantaged people, migrants or refugees in rich western European countries.

23. Maternal mortality is strongly associated with poverty. The maternal mortality ratio and infant mortality rates are highest in the poorest countries of the Region, especially the CAR and Caucasian countries. Maternal mortality ratios in these countries are more than eight times higher than in other countries of the Region (Fig. 5) (26).

Fig. 5. Maternal deaths, all causes, per 100 000 live births



Source: Health for All database, WHO Regional Office for Europe.

24. Apart from low average per capita income, inequity in the distribution of wealth is also a risk factor for reproductive health. Some countries show significant differences in maternal mortality ratios between different geographical regions. In some NIS, for example, the proportion of home births without adequate professional help is as high as 60–70% in remote rural areas, since families do not have the means for transport to hospitals, or because they cannot afford the payments required there.⁵

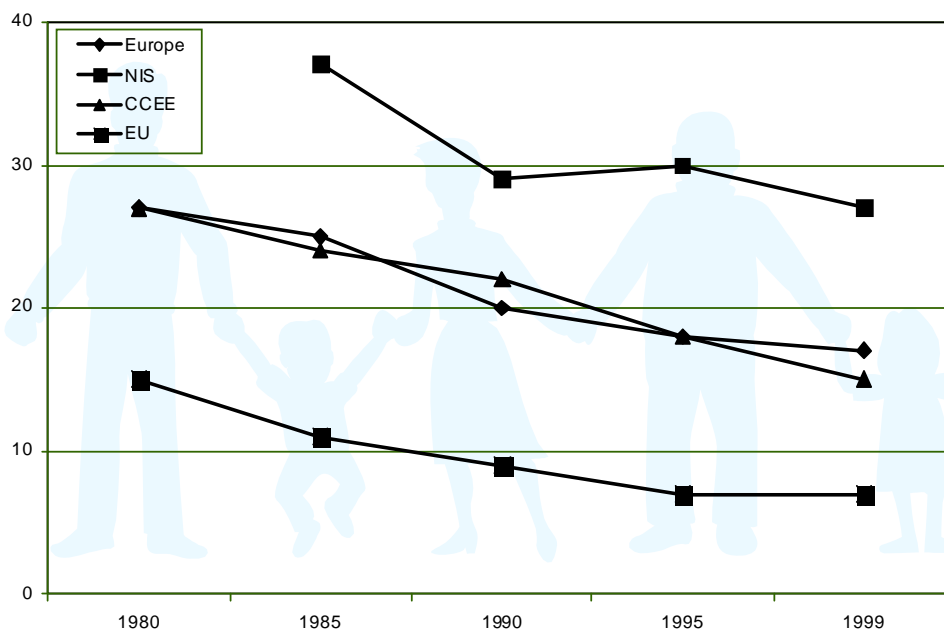
25. Studies carried out for the European Commission show that rates of maternal mortality and morbidity, as well as of infant mortality, are higher among immigrant women living in countries of western Europe than in women belonging to the ethnic majorities in the same countries. Abortion rates

⁵ Unpublished reports by national consultants and reports on missions by WHO, UNFPA and UNICEF staff to Tajikistan and Georgia.

are higher and levels of use of modern contraceptives are generally lower. These differences are related to lower levels of information about appropriate services and entitlements, for example with regard to antenatal care or access to contraceptives. This has been well documented in Germany, Italy, the Netherlands, Sweden and other EU countries (40).

26. Poor children are more likely to die by the age of five years and to suffer from acute respiratory infections, diarrhoea, congenital anomalies and chronic diseases. Child health conditions are quite heterogeneous in WHO's European Region: in some countries, mortality rates in children under five years old are among the lowest in the world, while in others they are still quite high (Fig. 6).

Fig. 6. Mortality rates among children under five years of age, European trends



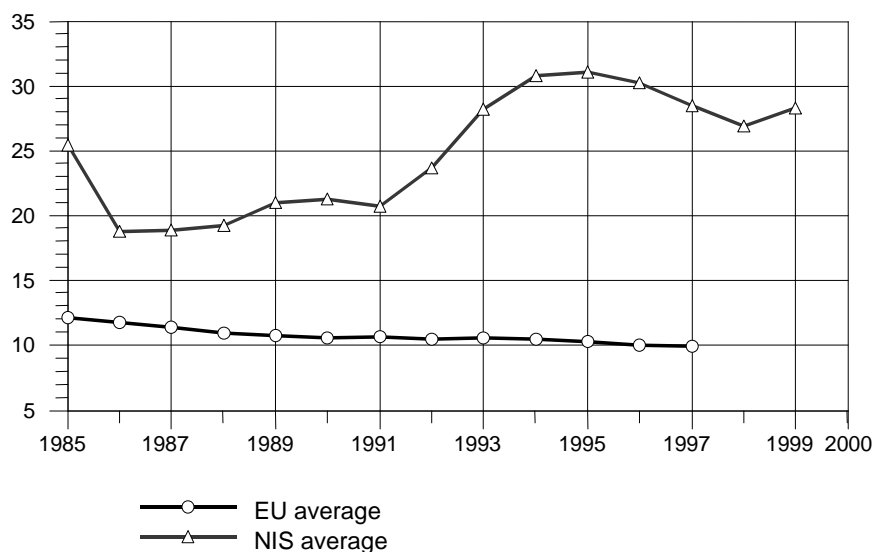
Source: Health for All database, WHO Regional Office for Europe.

27. The considerably higher rates of mortality in the NIS compared to the CCEE and EU are caused by much higher rates of mortality from communicable diseases, particularly in the CAR. In addition, there are sharp differences within countries: these rates are, in some cases, up to five times higher among the poorest 20% of the population than among the richest 20% (26).

28. The nature of the relationship between poverty and mental health is complex in terms of both direction and dynamics, leading to a vicious circle of impoverishment and mental illness. However, from the prevalence of depression in community-based studies it is apparent that, within the same community, the risk of depression is higher among the poor than among the rich. In addition, worldwide, across different countries, there is a similar odds ratio for development of depression among the poor in comparison to the rich (41).

29. In Europe, the community investigations available from developed countries show that the poor are affected by depression more than the rich. Studies revealed odds ratios of 1.6 for the Netherlands (42) and USA (43). Slightly higher odds ratios of 1.9 were found in Finland (44) and Germany (45). These data very clearly dispel the myth that depression is a disorder of the rich and concerns only people from developed and rich countries. This finding is further confirmed by the data on suicide (one of the strongest indicators of mental ill health): figures in the HFA database show a sharp increase in mortality from this cause in the NIS in the 1990s, compared with a steady decrease in the EU countries (Fig. 7).

Fig. 7. Suicide and self-inflicted injuries, standardized death rates per 100 000 population aged 0–64 years



Source: Health for All database, WHO Regional Office for Europe.

30. In most countries today, the poor are more likely to smoke than the rich. Overall, the smoking epidemic is spreading from its original focus, among men in high-income countries, to women in high-income countries and men in low-income regions (46). Historically, as income rose within a population, the number of people who smoked rose, too. But in the past three to four decades, this pattern appears to have been reversed, at least among men, for whom data are widely available. Affluent men in high-income countries have increasingly abandoned tobacco, whereas poorer men have not done so. For example, in Norway, the proportion of men with high incomes who smoked fell from 75% in 1955 to 28% in 1990. Over the same period, the proportion of men on low incomes who smoked declined much less steeply, from 60% in 1955 to 48% in 1990. Today, in most high-income countries, there are significant differences in the prevalence of smoking between different socioeconomic groups. In the United Kingdom, for instance, only 10% of women and 12% of men in the highest socioeconomic group are smokers; in the lowest socioeconomic group, corresponding figures are three times as high: 35% and 40%. The same inverse relationship is found between the level of education – a marker for socioeconomic status – and smoking. In general, individuals who received little or no education are more likely to smoke than those who are more educated. Until recently, it was thought that the situation in low- and middle-income countries was different. However, the most recent research concludes that there, too, men of low socioeconomic status are more likely to smoke than those from high socioeconomic groups. Studies in India, Brazil, China, South Africa, Vietnam, and several central American nations confirm this pattern.

31. As tobacco use is associated with poverty and low socioeconomic status, so are its damaging effects on health. Analysis of data from Canada, Poland, the United Kingdom and the United States shows that smoking is responsible for more than half of the difference in adult male mortality between those of the highest and lowest socioeconomic status. Smoking also contributed strongly, between 1970 and 1992, to the widening of the survival gap between affluent and disadvantaged men in these countries.

32. The relationship between socioeconomic conditions and alcohol use is not straightforward (47). The general picture, supported by studies from several countries, is that binge drinking is more common among people of low educational status or in occupations with lower income. There are especially pronounced differences with regard to levels of serious alcohol-related problems, which can be partly ascribed to differences in drinking patterns although with variation by age and gender. It has been reported that total alcohol-related mortality in 1988–1994 in England, Wales and Scotland was 10–20 times higher in unskilled male manual workers aged 25–39 years than in the professional class, while the difference

was 2.5–4 times in men aged 55–64 (48). The differences were smaller in women, with increased alcohol-related mortality in young female unskilled manual workers and in older women with professional work. A study carried out in Sweden has reported that total alcohol-related mortality in metropolitan Stockholm was 7–10 times higher among those who were outside the workforce, and hence relatively poor (49). A similar pattern has also recently been shown in eastern Europe. An interview study of alcohol consumption in a national sample of the Russian population showed that heavy drinking among middle-aged men during the period of economic transition was significantly higher among those with low education (50).

33. In general, most lifestyle risk factors appear to be linked to socioeconomic status. A survey of over 15 000 adults in the United Kingdom found significant differences in the prevalence of disease factors across different social classes defined by occupation (Table 3).

Table 3. Social class and ill health. Prevalence of diseases and risk factors in adults

	Social class		
	Highest	Intermediate non-manual	Lowest
Men			
Ischaemic heart disease	5.1%	6.0%	6.4%
Stroke	1.3%	1.7%	2.1%
Mean blood pressure	136/76	138/76	139/77
Cholesterol >6.5 mmol/l	26.0%	27.0%	26.0%
Haemoglobin <13 g/dl	3.0%	5.0%	5.0%
Obesity (BMI>30)	9.9%	13.7%	14.0%
Physically inactive	14.0%	15.0%	21.0%
Women			
Ischaemic heart disease	1.8%	5.2%	7.2%
Stroke	0.5%	2.3%	2.5%
Mean blood pressure	130/72	136/73	141/75
Cholesterol >6.5 mmol/l	26.0%	35.0%	36.0%
Haemoglobin <12 g/dl	9.0%	12.0%	13.0%
Obesity (BMI>30)	11.8%	15.0%	22.6%
Physically inactive	15.0%	17.0%	22.0%

Source: Colhoun, H. & Prescott-Clarke, P. (51).

34. The incidence of cardiovascular disease shows a strong relationship to socioeconomic factors, including household income, in many western European countries. In eastern Europe, other factors may also play a part: fluctuations in Russian (52) and Lithuanian (53) heart disease and mortality figures have been linked to alcohol consumption patterns, as well as to other lifestyle factors.

35. An inverse relationship between socioeconomic status and obesity has often been observed in women. The relationship in men, although less clear in earlier reviews (54), seems now to be similar to that in women. In a pan-EU consumer survey, in which body mass index (BMI) was calculated from subjects' self-reported height and weight, there was a strong association between levels of obesity and social class defined variously by household income, occupation or educational level (Table 4) (55). The survey involved over 15 000 people aged over 15 years in the member countries of EU.

36. A study in Sweden examined the relationship of BMI to age and education level, looking at the effects of ethnicity (defined by country of birth), exercise and smoking (56). Educational level and ethnicity were independently related to BMI in men and women, as was not taking exercise, adjusted for smoking.

Table 4. Prevalence of obesity among men and women by social class and educational levels, EU adults

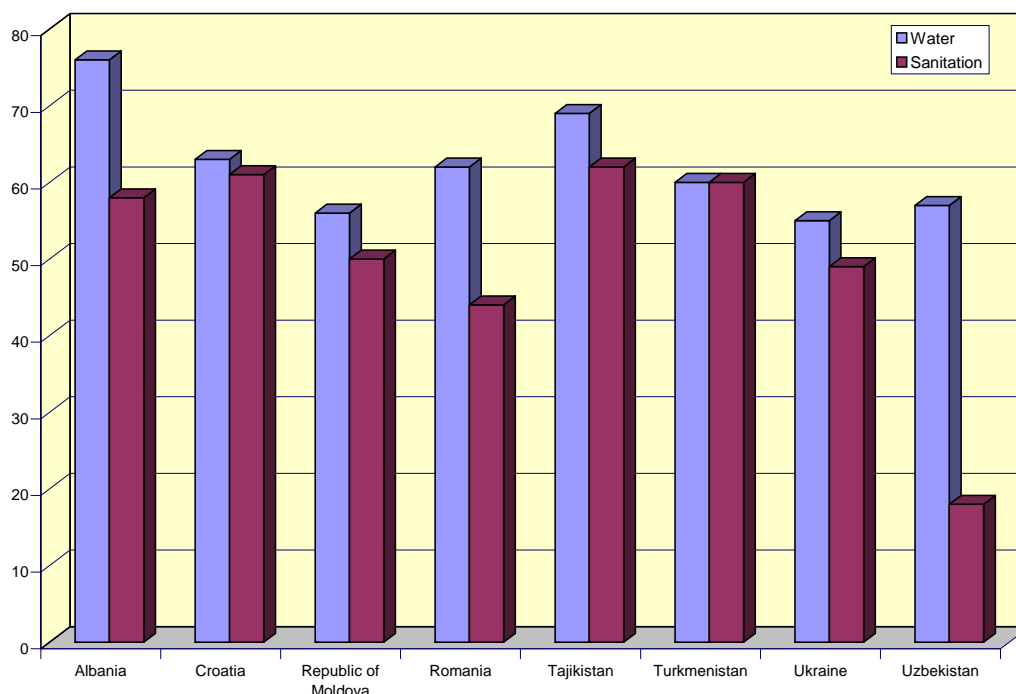
	Men (%)	Women (%)
Economic status*		
Lower	11.1	13.8
Lower middle	8.9	12.6
Middle	8.0	8.0
Upper middle	7.8	5.6
Educational level		
Primary	12.1	15.9
Secondary	8.4	8.5
Tertiary	5.9	4.4

* Measured by household income or by occupation.

Source: Martinez et al. (55).

37. Poor people are more likely to live in an unhealthy environment, without adequate shelter, access to drinking-water or adequate sanitation (57). Limited access to improved water sources is still a significant problem in Europe. It has been estimated that 12% of the population of WHO's European Region, mainly in eastern countries, lack access to safe drinking-water and that a greater proportion is not served by adequate sewage disposal facilities (58). In some countries less than 60% of people have access to safe drinking-water (Fig. 8).

Fig. 8. Percentage of population having access to improved water sources and sanitation in selected European countries, 1996

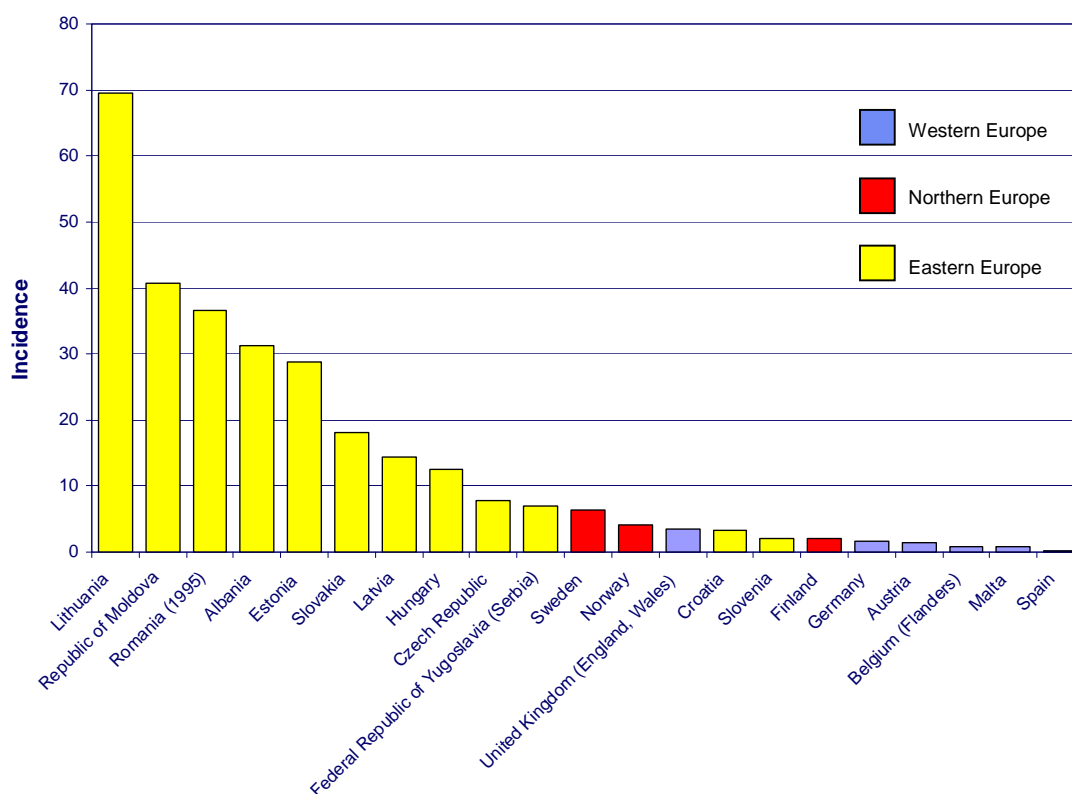


Source: UNDP (3).

38. The domestic water supply can be not only a potential vector of communicable disease but also a protective barrier against infection, by allowing personal and domestic hygiene. Populations with no organized water supply, such as many rural populations in Europe, are at particularly high risk.

39. Various types of diarrhoea (including those related to cholera and typhoid) and hepatitis A are the most important diseases transmitted through microbiological contamination of water in Europe. These diseases largely result in morbidity and temporary disability, although disease outbreaks also have economic consequences. There is a marked heterogeneity in the incidence of bacillary dysentery in Europe, with the highest figures seen in eastern European countries (Fig. 9).

Fig. 9. Incidence of bacillary dysentery per 100 000 population in Europe, 1996



Source: Water and human health in Europe. Copenhagen, WHO Regional Office for Europe (in press).

40. Air pollution is a significant problem in Europe, affecting large numbers of people, especially in poor urban areas. Exposure levels are higher in eastern Europe (59) owing to fuel characteristics, the age of cars and the growing intensity of traffic. It has been estimated that between 102 000 and 368 000 Europeans older than 35 years of age die every year because of high levels of particulate matter in the air. Air pollution is also a significant problem in urban areas in western Europe, causing a large number of health effects (60, 61). However, a descriptive analysis has shown a broad inverse relationship between the distribution of people with two or more cars in affluent census wards outside London and the distribution of NO_x and CO emissions, road density and respiratory mortality in the city (62).

41. Lead poisoning remains the single most significant preventable disease associated with an environmental and occupational toxin (63). The risk of lead exposure varies greatly, depending upon where one lives. In cities, exposure is concentrated in poor areas and stems largely from automotive exhausts, but is also associated with industrial sources such as lead mining, smelting and coal combustion, as well as lead-based paint and lead pipes in water supply systems. Lead is a special hazard for children, affecting their neurological development and intelligence quotient (IQ). Exposure to lead is still common in several European countries. In countries where the use of lead in gasoline has been phased out, it has been shown that up to 60% of blood lead levels were associated with leaded gasoline. Despite the remarkable public health effectiveness of banning lead in fuel, by 1996 only 14 countries had completed phasing out the use of leaded gasoline (64).

POVERTY AND WHO

42. WHO has long recognized that strategies to address poverty reduction are essential for improving health in the broadest sense (65). More recently, poverty has been defined as the most ruthless killer and the greatest cause of suffering on earth (66).

43. WHO's current corporate strategy states that one central task for the whole Organization is to contribute to the reduction of poverty by improving health. In doing so, WHO is placing health in the context of human development, establishing consensus on effective health policy, improving health outcomes through effective partnerships and creating an organizational culture that encourages innovation and accountability, strategic thinking and prompt action.

44. WHO is playing an active role in the "Massive Effort against Poverty", a major international action to mobilize all existing national and international actors, with the aim of sustaining economic development by increasing the access of the world's poorest people to health goods and services. The Massive Effort aims at high-mortality diseases and conditions linked to poverty, such as tuberculosis, malaria, HIV/AIDS, diarrhoeal diseases, acute respiratory infections, measles and unsafe pregnancy.

CONCLUSIONS

45. A number of actions are being proposed at international level that will enhance the efforts being made to reduce poverty throughout the world. These actions are described in "Poverty reduction strategy papers" that are being developed jointly by intergovernmental organizations and national governments in many countries.

46. In its recent *World Development Report 2000/2001* (2), the World Bank has recommended the following initiatives for poverty reduction:

- promoting opportunities
- facilitating empowerment
- enhancing security
 - reducing poor people's vulnerability to ill health, economic shocks, crop failure, natural disasters and violence;
 - helping poor people to cope with adverse shocks when they occur;
 - ensuring that effective safety nets are in place to mitigate the impact of personal and national calamities;
- enhancing international actions.

47. At the 108th session of the Executive Board in May 2001, WHO proposed a "unified framework for action", to enable many different actors to carry through – in a coherent way – proposals for intensifying action by the health sector among poor communities that are being developed by intergovernmental bodies, organizations of the United Nations system, nongovernmental organizations and private groups. The proposed framework comprises six components:

- fresh resources;
- essential global functions, including programmes for research and development of drugs and vaccines, partnerships to reduce the price of medicines, and schemes for the efficient purchase and equitable distribution of vital commodities;
- mechanisms for the transfer of resources;
- building up health systems;

- monitoring results; and
- social mobilization.

WHO is committed to set in motion activities within this framework and to ensure that the framework is clearly understood within WHO and sister organizations.

48. Within this global context and in line with WHO's overall corporate strategy, it is proposed that the WHO Regional Office for Europe (WHO/EURO) addresses the issue of poverty and health along the following four lines of action:

- raise awareness in Europe of the centrality of health in the fight against poverty;
- help countries to make progress towards poverty reduction by improving access to health services (including health care, disease prevention and health promotion) and addressing the most important diseases and determinants linked to poverty;
- improve the information base and the data available to support policy development and monitoring, with special reference to the most vulnerable population groups;
- strengthen the commitment of the international community to invest resources in poverty reduction and research.

49. WHO/EURO will develop a process to gather, analyse and disseminate knowledge on effective action taken by Member States to reduce poverty. To this end, countries are requested to select and provide WHO/EURO with suitable case studies. A first report, including an analysis of the data provided, will be submitted to the Regional Committee at its fifty-first session.

50. In addition to reinforcing its existing action plans, WHO/EURO will initiate activities on poverty and health, making use of the resources available through the newly established WHO European Office for Investment for Health and Development in Venice. The activities outlined above will be carried out in close coordination and collaboration with all other existing WHO/EURO programmes working in the most relevant areas, within a consistent policy context.

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