

# HEALTH STATUS

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## MAIN FINDINGS

- » In Hungary 85% of healthy life-years lost or in other words the disease burden can be attributed to chronic conditions. Overall, all Western European countries lose fewer healthy life years than Hungary, while the countries of the former Soviet Union typically lose more.
- » An international review found that hypertension is the number one risk factor leading to the loss of healthy life years in Central Europe. Smoking is at second place, followed by obesity, diets low in fruits and physical inactivity. Other leading risks include factors associated with diets and the quality of the environment.
- » The prevalence of chronic conditions and/or those requiring especially intensive treatment is very high in Hungary. At least one in thirty adults has neoplasms and one in nine has diabetes. However, the most frequent chronic disease is hypertension that affects one in three adults. One in seven adults is being treated for conditions related to cardiac infarction, and one in 13 for cerebrovascular diseases. Chronic respiratory diseases affect nearly 10% of the adult population.
- » Social inequalities are significant for all diseases and conditions. Hypertension was 25%, diabetes more than 50%, respiratory diseases approximately 100% more prevalent among people with primary education at most compared to those with tertiary education.
- » Alcohol consumption was 11.4 litres/person/year in Hungary in 2011 and its level has been declining for decades. The level of current consumption can be considered high but not exceptional in European comparison. In turn, the prevalence of smoking is especially high among both men and women. Considering a longer period of time, smoking prevalences declined slightly between 2003 and 2009, however the decrease halted in recent years. The prevalence of overweight and obesity is also high in European comparison, particularly among people with secondary education. Obesity is also frequent among school-age children (affects at least one in ten school-age children) and no decline was observed over the past years.
- » Heating methods that carry a high risk of indoor air pollution are especially widespread in Hungary. Forty-four per cent of households where the head of the household has no

more than primary education use solid fuels for heating, while the same proportion for households where the head of the household has tertiary education is only 2%. Overall 14% of households use wood for heating.

» Access to health care has generally improved over recent years; however, the access of the poorest has deteriorated. An increasingly large share of health expenditure is borne by households and this also affects the poorest the most. The availability of certain screening services has increased overall.

» Comparing the social patterns of health status between 2001 and 2012, it appears that those with the lowest education started to fall behind in terms of health from those with higher levels of education at an earlier age (between 35–44 years) in 2012 (compared to 2001).

» According to results for 2008, men in

Hungary can expect to live just over half (55% or 26 years) of their expected life years between the ages of 20 and 74 years (46.9 years) in good health. This 55% represents the lowest proportion among East Central European countries, where the average is 63%. Men in the countries of the former Soviet Union, on average, can expect to live only 47% of their expected life years between 20 and 74 years in good health. Healthy life expectancy for women in Hungary is 26 years, which is 51% of their expected life years between 20 and 74 years; this is also the lowest in East-Central Europe. In these countries women can spend on average 56% of their life expectancy in good health, in contrast to the countries of the former Soviet Union where this average is only 39%.

## INTRODUCTION

Regarding health status, one of the most important questions for the future is whether its improvement can keep up with the almost uninterrupted increase in life expectancy observed over the last decades. In other words, in addition to life expectancy, the number of years that one can expect to live in good health or at least without major disabilities is also important. The quantification of burdens caused by disease or disability is crucial not only from the perspective of individual life chances but also from that of social welfare systems.

Recent research findings from developed Western European countries suggest that the main trends in development point towards an “equilibrium” scenario. According to this, alongside the increase in life expectancy, healthy and disability-free life expectancy is also growing proportionately; although some of the trends available from the 1980s suggest the opposite in some periods and countries (Gu et al. 2015). There is much less empirical research on Central and Eastern European countries, therefore it remains to be seen whether health status here will develop according to the “negative scenario” – whereby life expectancy is increasing but healthy or disability-free life expectancies are not – or it will increase to a smaller extent than life expectancy, at the same rate as the disease burden. It is also possible that change would happen according to the “positive scenario”: in this case healthy or disability-free life expectancies would increase faster than life expectancy, therefore society would be getting proportionately “healthier”. However, it is also possible that the relationship between health and life expectancies will develop according to the “equilibrium scenario” in

our region as well. The present chapter provides an overview of the main data related to these questions, in international comparison where possible.

Recent research results published by the World Health Organisation (WHO) estimate the lost years of healthy life (disability-adjusted life years or DALYs)<sup>1</sup> that is a summary measure of time lost through premature death and life span lived in less than optimal health. As for disability-adjusted life years per 100,000 population, Hungary ranks 33rd among the 50 countries of WHO’s Europe region, where countries with fewer life years lost rank lower. *Figure 1* shows this ranking (every second country selected from the list of 50 countries). Considering all causes combined together, all Western European countries lose fewer life years than Hungary, while post-Soviet countries typically lose more.

This analysis also examined life years lost by main cause of disease or death. According to this, Hungary ranks somewhat more favourably in terms of mortality and morbidity attributable to communicable diseases: it is 24<sup>th</sup> out of 50 countries. The burden of disease associated with “injuries, external causes” can be considered average, Hungary is 29<sup>th</sup> in this. However, the disease burden related to “chronic, non-communicable” diseases is especially high, Hungary ranks only at 39<sup>th</sup> place among the 50 countries.

In the European region disease burdens tend to be dominated by burdens of mortality and morbidity attributable to chronic non-communicable diseases. This is especially the case in Hungary where 85% of the disease burden is due to this disease category. Various known risk factors play an important role in the development of these diseases; nevertheless it is difficult to isolate the contribution of each individual factor.

<sup>1</sup> DALYs (Disability adjusted life years) combines years and years of healthy life lost due to ill health. For the detailed calculation method see: [http://www.who.int/healthinfo/statistics/GlobalDALYmethods\\_2000\\_2011.pdf?ua=1](http://www.who.int/healthinfo/statistics/GlobalDALYmethods_2000_2011.pdf?ua=1)

Figure 1: Ranking of (selected) WHO Europe countries on disability-adjusted life years (DALYs) by disease group, 2012



Source: WHO Global Health Observatory.

Although all known risk factors increase the probability of various different diseases, it is especially important to provide an overview of the available information on different risk factors as well as a realistic assessment of the situation. Different risk factors have a different effect on quality of life and life expectancies – for example smoking mainly shortens life while obesity has a stronger impact on quality of life (Majer et al. 2011). Therefore, future life expectancy and the proportion of healthy life years can only be evaluated in the context of risks. At the same time, the burden of chronic diseases cannot be reduced without alleviating these risks.

Thanks to the analysis quoted earlier, there are comparable and comprehensive estimates on risk factors, although only at regional level. The most recent global analysis from 2010 identified high blood pressure as the number one risk factor for the region of Central Europe as a whole. At second position was smoking, fourth the consumption of alcohol, and at sixth physical inactivity. In addition to these, in the top 15 places of the list there were

factors associated with diet and the quality of the environment. The former include high blood glucose levels, high sodium content of foods, high cholesterol levels, as well as diets low in whole grains, fruits, nuts and seeds, and high in processed meat products. The environmental factors include ambient air pollution as well as indoor air pollution from solid fuels that are showed as especially important risk factors in the Central European region (Lim et al. 2012).

Theoretical approaches to health loss incorporate a growing number of factors and provide an increasingly coherent picture of the social causes of poor health. According to a recent meta-analysis, in addition to biological factors the environment, behaviours, resources, health interventions, as well as socio-economic and ecological factors must also be considered to understand health loss (Gu et al. 2014). The following will provide an overview of the main risk factors (i.e. behaviours) highlighted previously and, within the limitations of this chapter, it will also touch upon resources and

interventions (i.e. some elements of the health care system) as well as some indicators of environmental quality.

## HEALTH STATUS IN THE LIGHT OF DISEASES

### *Chronic, non-communicable diseases*

Disease burdens attributable to chronic, non-communicable diseases are central with respect to health status in Hungary. In this broad disease group the highest disease burden is associated with cardiovascular conditions; however burdens attributable to respiratory diseases, malignant neoplasms and mental health problems are also significant. Statistical data on health care provision show that the number of people under treatment or care has been increasing over the recent years.

It is not easy to determine the number of people receiving care and/or treatment because different diseases can be treated at more than one level of the health care system (e.g. GP practices, outpatient clinics or hospitals). Still, we present the number of patients registered in GP practices by main diseases as a lower estimate for the prevalence of these conditions. For some diseases the figures presented here are

well below the real numbers: for example there are nearly twice as many cancer patients according to information from the National Cancer Registry as those registered by GPs. For other conditions – such as hypertension – the difference is small because the majority of patients are treated in GP practices.

Even on the basis of data from GP services, it is clear that the prevalence of chronic conditions or diseases requiring intensive treatment is especially high in Hungary. Thus, in the adult population at least one in thirty people has malignant neoplasms and one in nine has diabetes. However, the most common condition is hypertension that affects one in three adults. One in seven adults is treated for cardiac infarction, and one in 13 for cerebrovascular diseases. Chronic respiratory diseases affect nearly 10% of the adult population.

The above table (*Table 1*) shows a dynamic growth in the number of people receiving treatment in nearly all disease groups; however this is arguably not due to the rise in the number of people who have these conditions but to increasing access to primary care. In the future – if the prevalence of these diseases does not change – the growth in the number of people accessing treatment will slow down, taking into

*Table 1: Main diseases registered by the GP service/practices (patients aged 19 years and older), diseases per 100 inhabitants*

	Men					Women				
	2005	2007	2009	2011	2013	2005	2007	2009	2011	2013
Cancers	2.1	2.6	2.9	3.0	3.3	2.6	3.2	3.5	3.7	4.1
Diabetes	6.6	8.4	9.7	10.7	11.3	7.0	8.7	9.8	10.7	11.3
Hypertensive heart diseases	22.5	28.5	31.4	32.2	34.0	27.2	33.9	36.4	37.1	39.3
Ischaemic heart diseases	8.6	11.2	12.3	12.3	12.9	9.6	13.4	14.5	14.5	15.6
Cerebrovascular diseases	3.3	4.8	5.4	5.4	5.9	3.5	5.9	6.6	6.8	7.7
Chronic lower respiratory diseases <sup>a)</sup>	3.8	4.4	4.4	4.6	5.3	3.1	3.7	4.1	4.5	5.7
Asthma	1.6	2.3	2.7	2.9	3.2	1.9	2.9	3.5	3.9	4.4

Source: Yearbook of Health Statistics 2013, HCSO. <sup>a)</sup> Excluding asthma.

account that the number of those receiving treatment for hypertension or diabetes is already close to their prevalence estimated for the entire population on the basis of surveys and other statistical sources.

It is worthwhile comparing the prevalence of diseases to similar data from other countries; although comparative international data are only available for some disease groups. Out of the 18 countries that had data for 2008–2009 from national health surveys, the frequency of diabetes and hypertension was the highest in Hungary, and the share of those suffering from chronic respiratory diseases or depression was also among the highest (Eurostat, 2015).

*Table 2: Prevalence of some common conditions in the population aged 15 years and over by education level, age-standardised percentages, 2009*

Education level	Hypertension	Diabetes	Chronic bronchitis	Asthma	Chronic depression
At most 8 years of primary school	32.4	8.9	7.2	7.5	8.8
Vocational school	30.0	8.6	5.3	5.8	5.3
Secondary education	26.8	5.7	4.9	5.2	4.6
Tertiary education	25.0	5.6	4.0	3.6	3.3
Total	32.1	8.3	6.3	6.6	6.2

Source: European Health Survey (EHS), Hungary 2009; authors' calculation.

According to the 2009 health survey (EHS Hungary, 2009), social inequalities in the prevalence of all diseases are large. The frequency of hypertension was 25% and that of diabetes more than 50% higher among people with primary education

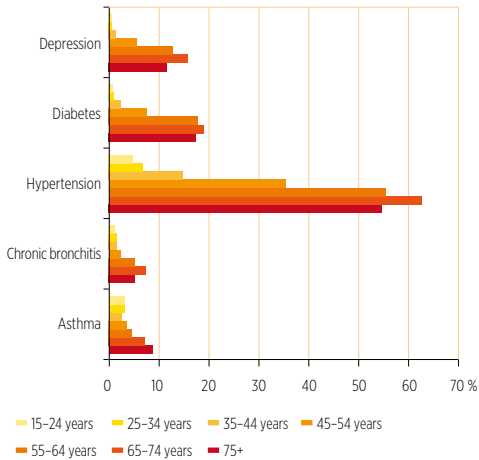
or less compared to those with tertiary education. The prevalence of chronic bronchitis and other obstructive pulmonary diseases is nearly twice as high, and that of asthma is even higher among people with very low education than among those with tertiary education. The frequency of chronic depression is 170% higher among those with primary education or less (Table 2).

The most common health condition in Hungary is hypertension. The number of people reporting hypertension in health surveys is similar to those receiving treatment. According to data from 2009, one in three people with primary education, and even one in four among those with tertiary education were affected. The comparison of data from the 2009 and 2014 health surveys shows no major changes in the proportion of those with hypertension over the last five years. Prevalences were similar, although in 2014 they were somewhat lower (compared to 2009) in younger and older age groups, and slightly higher among the middle-aged. Data for younger age groups might suggest that hypertension will become somewhat less of a problem in the future, although the difference between the values measured in 2009 and in 2014 is within the statistical margin of error.

The comparison of data from the 2009 and 2014 health surveys (EHS Hungary, 2014) highlights no major changes in the proportion of those with diabetes either. At the same time, “disease management” is showing improvements: more people are on diets, and the proportion of those on medication increased from 78% to 90% (HCSO, 2015).

As for the most common respiratory diseases, information is available on the prevalence of chronic bronchitis and other obstructive pulmonary diseases as well as asthma. Smoking and poor air quality can play an important role in the development

Figure 2: Prevalence of some common conditions among men aged 15 years and over by age group, 2014

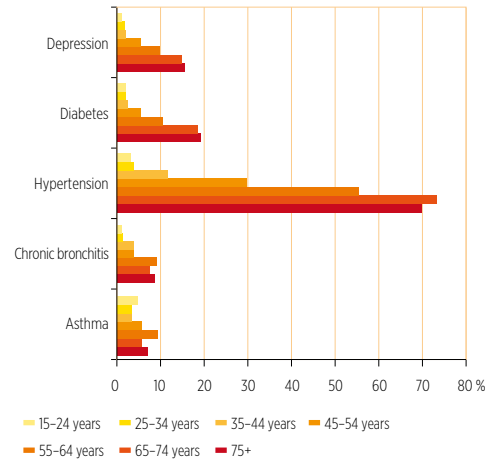


Source: EHS Hungary, 2014.

of both conditions. The proportion of those reporting chronic bronchitis or other chronic obstructive pulmonary diseases among both men and women has decreased on average by 2% each year (to two thirds of its value five years previously). The comparison of 2009 and 2014 health survey data shows that the number of asthma sufferers also fell, especially in younger age groups. There was a 1-1.5% decrease among both males and females; and a marked increase was only observed among older men.

Among mental health conditions, only the prevalence of depression can be examined by age and educational level, although this is the most widespread condition. In Hungary the share of the population affected by depression was around 9% among those with low education, and less than 3% among people with tertiary education in 2009. The prevalence was somewhat lower in 2014 than in 2009, and the decrease was observed mainly across younger age groups. Increase was registered only among men aged 65 years and over.

Figure 3: Prevalence of some common conditions among women aged 15 years and over by age group, 2014



Source: EHS Hungary, 2014.

As for other diseases and health conditions, musculoskeletal and cardiovascular complaints are also among the most important ones in Hungary. Considering the former, 21% of the population aged 15 and over are affected. In 2014 one in 10 people aged 15 years and over had arrhythmia and one in 20 had coronary heart disease (HCSO, 2015).

### Communicable diseases

The disease burden generated by communicable diseases - as presented earlier - is moderate; however trends have become somewhat controversial in recent years. Some communicable diseases (such as tuberculosis, chicken pox, and the majority of food-related infections) have got considerably less frequent, however other communicable diseases (hepatitis, gonorrhoea) and certain food-borne diseases) have become more prevalent and the number of deaths caused by them has also increased. Although, most of the increase is due to changes in the classification system, but it also refers to the spread of antibiotic-resistant infections.

*Table 3: Number of new cases of selected communicable diseases*

Year	Salmonella	Campylobacteriosis	Scarlet fever	Chicken pox	Hepatitis	AIDS	Syphilis <sup>a)</sup>
2005	8,157	8,293	3,543	52,123	481	33	2,282
2007	6,891	5,856	7,202	48,313	384	23	2,427
2009	6,029	6,583	2,356	40,460	250	23	1,258
2011	6,446	6,135	3,185	40,389	249	32	2,273
2012	5,867	6,384	2,744	33,454	522	48	1,404
2013	5,122	7,250	2,339	34,598	1,333	42	1,405

Source: HCSO Statistical Yearbook of Hungary; 2006, 2007, 2011, 2013; <sup>a)</sup> HCSO Yearbook of Health Statistics 2013.

*Table 4: Number of deaths caused by communicable diseases in Hungary*

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of deaths	501	435	480	420	493	521	616	928	904

Source: HCSO, Demographic Yearbook 2010, 2011, 2012, 2013.

## THE IMPORTANCE OF SOME “TRADITIONAL” HEALTH RISKS IN HUNGARY

The most commonly known risk factors associated with health deterioration are alcohol use, smoking, and obesity. Information on these is generally available for multiple years for the member countries of the OECD. This section presents an analysis of the Hungarian figures from an international perspective, by comparing the Hungarian situation in terms of the most commonly known risk factors to the situation in selected OECD countries.

### *Alcohol consumption*

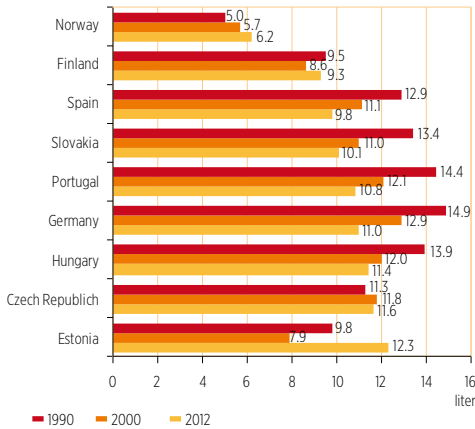
Per capita alcohol consumption (*Figure 4*) was lowest in the North European countries while Hungary was characterised by a high level of alcohol use in 1990. However, trends seem to have converged until 2012, due to the increase/stagnation of alcohol consumption in Northern countries and a decrease in other countries. Estonia is an exception because alcohol consumption

decreased substantially here from the level of 9.8 litres per capita in 1990 then increased significantly resulting in the highest level of consumption in 2012 among the countries considered here. Apart from this exception, European countries converge in this respect whereby previous differences – even as large as threefold – in registered alcohol consumption shrank to twofold.

The latest data on alcohol consumption in Hungary are from 2011; therefore the effects of recent changes in legislation cannot be presented. Alcohol consumption initially fell substantially (from 13.9 litres/person in 1990 to 12 litres/person by 2000), then it continued decreasing gradually at a slower rate (11.4 litres/person in 2011). Among the selected countries, Hungary is characterised by high consumption, however it is not exceptional in European comparison and the declining trend can be considered favourable. Nevertheless, according to data from the 2014 health survey the proportion of self-reported heavy drinkers increased slightly from 4.6% to 5.4% between 2009 and 2014 (HCSO, 2015).



Figure 4: Yearly per capita alcohol consumption<sup>a)</sup> in the population aged 15 years and over, 1990<sup>b)</sup> 2000<sup>b)</sup> and 2012<sup>b)</sup>



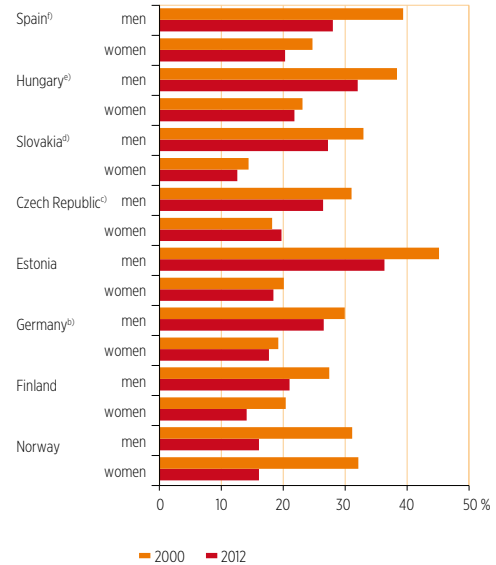
Source: OECD. <sup>a)</sup> Converted to 100% alcohol. <sup>b)</sup> Data from specified or nearest available year.

## Smoking

Compared to alcohol consumption the picture that emerges on smoking is much less favourable. The proportion of smokers decreased considerably in most European countries over the past decade or so (Figure 5); however the decrease in Hungary was small and as a result the position of Hungary became one of the worst by the early 2010s among the eight countries included in this analysis. While the decline was substantial in Norway and Finland (in Norway smoking fell by 50%), in Hungary the decrease hardly exceeded 10%. More than 30% of the adult population in Hungary were still daily smokers in 2000, and this fell to 26.5% by 2009. This put Hungary at the bottom of the ranking.

Generally, the prevalence of smoking is different among man and women. Apart from Norway, men are more likely to be daily smokers in every country. In 2012 the proportion of daily smokers among men was the highest in Estonia (36%), and their share among women was the highest (22%) in Hungary, although the share of male daily smokers can also be considered high (31%) here.

Figure 5: Proportion of daily smokers in the population aged 15 years and over, by sex 2000<sup>b)</sup> and 2012<sup>b)</sup>



Source: OECD. <sup>a)</sup> Data from specified or nearest available year.

<sup>b)</sup> 2003 and 2009, <sup>c)</sup> 2002 and 2012, <sup>d)</sup> 2003 and 2009, <sup>e)</sup> 2000 and 2009, <sup>f)</sup> 2001 and 2011.

According to data from the 2014 health survey, 29% of the adult population smoked, as opposed to 31% in 2009. However between the two time points only the proportion of occasional smokers declined, that of regular smokers stayed basically the same (27–28%). In 2014 42% (36% in 2009) of young adult men (aged 18–34 years); 35% (36% in 2009) of middle-aged men (35–64 years), and 18% (14% in 2009) of older men were smokers. Considering a longer time scale, the prevalence of smoking fell somewhat in younger male age groups from 2000 onwards, especially in the period between 2003 and 2009. Between 2003 and 2009 the prevalence of smoking also decreased in younger female age groups, however this trend was reversed: it increased to 29% by 2014 (from 25% in 2009). The prevalence of smoking did not change among women aged 35–64 years over the past five years: it was 27%

in 2014 (28% in 2009). Smoking is much less common among older women (only 7% in 2014). Trends in smoking, especially the increases in younger age groups, can be a cause of concern for the future development of health status and mortality (KSH, 2015).

### Overweight and obesity

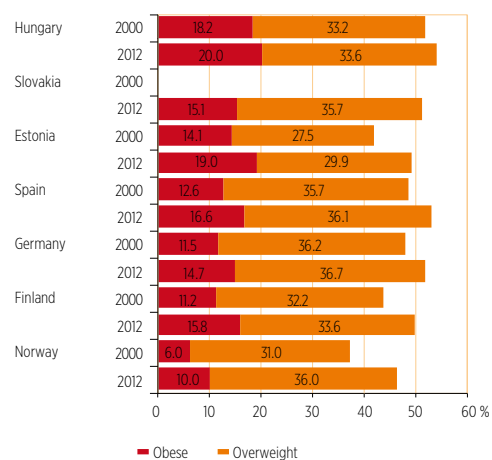
Overweight and obesity have a strong impact on mortality and health status. The leading risk factors characterising the region were typically related to diet, out of which – as a form of summary indicator – excess weight is discussed here. The extent of excess weight overweight is expressed using the Body Mass Index (BMI) that is calculated by dividing an adult's weight in kilograms by their height in metres squared. BMI values between 25 and 30 are considered overweight and those with a BMI value above 30 are considered obese. It is well-known that results based on measurement tend to be less favourable than self-reported values because people often – deliberately or not – report lower weight.

In 2000 and the subsequent period (Figure 6) obesity rate increased further (to 54% in 2009) from an already high level (52% of the population in 2000) in Hungary, although the increase was slower than in other countries. International data show that Hungarian rates are high in European comparison.

According to more detailed information – not reported here – Hungary is not among the countries with worst male obesity rates: its value of 60% is slightly lower than Spain's 62% and Germany's 61%. However, for women there is a clear surplus compared to other countries: 49% in Hungary can be considered high compared to 38% in Norway and 45% in Estonia. At the same time, the rate of obesity and overweight is lower among women than men in every country. If we consider obesity (BMI>30)

that represents a higher risk, available data show that Hungary was the last in the ranking of the countries in this analysis in both periods. Therefore overweight and obesity are especially important risk factors in Hungary and their importance seems to be growing.

Figure 6: Rate of overweight (BMI>25) and obesity (BMI>30) in the population aged 15 years and over (self-reported values), 2000<sup>a)</sup> and 2012<sup>a)</sup>

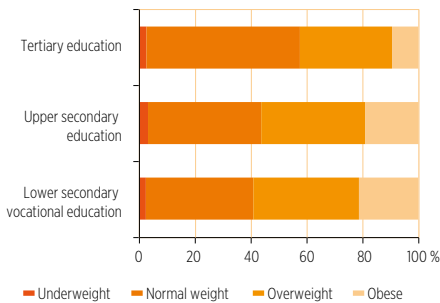


Source: OECD. <sup>a)</sup> Data from specified or nearest available year.

According to data from the European Statistical Office there are large social differences in the prevalence of overweight and obesity in all European countries. In Hungary 38–40% of people with secondary or primary education and 55% of people with tertiary education are of normal weight. While the rate of overweight is similar in the different social groups defined by educational level, the obesity rate is under 10% among those with tertiary education and around 20% among people with lower educational levels. If we consider the Hungarian data in international comparison, the situation of people with low education and especially those with higher educational levels are relatively favourable, but the situation of those with secondary education is clearly

unfavourable. The results show that the rate of overweight (37%) and obesity (19%) were exceptionally high in 2008; and among the 14 countries in the analysis Hungary had the highest rate of obesity in this educational group.

*Figure 7: Distribution of Body Mass Index by education level in the population aged 15 years and over, 2009*



Source: Eurostat.

Health survey data for adults can be complemented by information on childhood obesity from the school health service. This shows that the prevalence of obesity was consistently over 10% among primary- and secondary-school-age children, and variations only amounted to tenths of a percent over the last four years. The prevalence of obesity is somewhat lower among girls in Year 10 and 12 (compared to younger age groups), but for boys it is increasing for those in Year 12. As a result, the overall obesity rate is 2–3% higher among boys as compared to girls (Statistical Yearbook of Hungary, HCSO, 2005–2012). Childhood obesity is an important risk factor for adult obesity and it also increases the likelihood of developing diabetes. The very stable and not decreasing childhood obesity level might indicate that the prevalence of adult obesity and diabetes will continue to be high in Hungary in the future.

## ENVIRONMENT

### *Air quality*

There are limited data on the widely known temporary deteriorations of air quality in Hungary. The indicators of air quality show an improvement over the long run, however according to the latest available data, only one third of the settlements had “excellent” air quality while all the rest had “good” or “adequate”. Only the air of Budapest was considered polluted, particularly due to the level of nitrogen-dioxide pollution. In 2013 the most polluted districts in Budapest were downtown Pest and areas in Northern Pest (OMSZ, 2014).

The level of fine particulates was especially high in some areas of Northern Transdanubia, for example Dorog and its surrounding areas were especially polluted. However, data on air pollution are not complete, relatively few settlements are monitored. Additionally, the monitoring process is sometimes affected by technical issues (HMS, 2014).

### *Heating and indoor air pollution*

Following the transformation of industrial production, indoor air pollution has gained increasing attention over the recent years. This type of air pollution is most often caused by different heating systems, especially those using solid fuels; which can become a direct source of air pollution for the household and the neighbourhood. Data from the 2011 Population Census indicate the proportion of the population that might be the most exposed to potential in- and outdoor air pollution. Within the total population 14% lived in households that used wood as their main source of heating. The same rate was over 44% among those with less than primary education and even among those with primary education it was more than

twice (29%) the national rate, while among those with tertiary education it was only 2%. Thus, the data suggest that those with the lowest education levels and their family members are disproportionately more likely to be exposed to the risk of potentially harmful effects of indoor air pollution (source: authors' calculation based on 2011 Population Census data).

In international comparison, estimates are available only on the use of solid fuel for cooking. The use of solid fuels for these purposes is rare in Western Europe, while in the Eastern European region the proportion of the affected households ranges from 0% to 59%. In Hungary it was 11% in 2013; higher values were recorded only in the countries of the former Soviet Union and the former Yugoslavia (WHO Global Health Observatory).

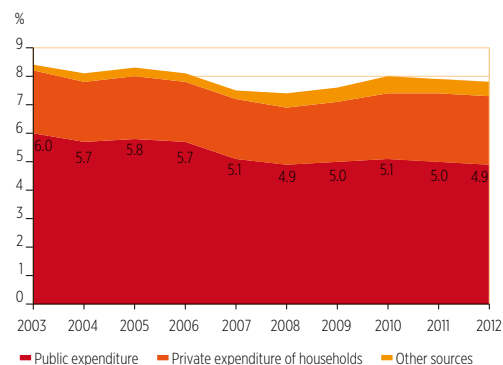
## RESOURCES AND INTERVENTIONS: HEALTH CARE

A crucial proportion of resources serving the restoration of health appear as spending on health care. In Hungary expenditure on health compared to the national income has been low and increasingly reliant on private spending in the last 10 years, putting a growing burden on those with low income. In other

countries cuts in health care spending due to the economic crisis had a negative effect on public health (Karanikolos et al. 2013).

Partly as a result, inequalities in access are growing by income. Access might be limited due to financial reasons, distance, fear of interventions, lack of time, and various other factors. There are no significant differences as to the reasons for the unmet need between Hungary and other EU Member States. At the same time, social inequalities in access are greater in Hungary: the poorest people are much less likely to access the services they need than in other EU Member States, even though differences in access by income are also very large there (Table 5).

Figure 8: Expenditure on health as a percentage of GDP



Source: HCSO, Statistical Yearbook of Hungary 2013.

Table 5: Unmet need for health care by household income<sup>a)</sup>

	2005		2010		2013	
	EU27	Hungary	EU27	Hungary	EU27	Hungary
Bottom income quintile	13.6	21.7	9.6	11.4	10.3	14.3
Low-middle income quintile	10.2	18.1	7.3	8.2	8.0	7.5
Middle income quintile	8.9	15.5	6.2	8.1	6.4	5.3
Upper-middle income quintile	7.5	14.9	5.4	6.4	5.5	4.7
Top income quintile	6.8	14.6	4.5	4.7	4.3	3.0
Total	9.4	17.0	6.6	7.8	6.9	7.0

Source: Eurostat. <sup>a)</sup> The share of the population reporting an unmet need for a health service (medical examination or treatment) from the previous year.

In 2005 access to health services was much worse in Hungary than in the European Union generally, and it was also less equitable even though the poorest people were twice less likely to access health care than the richest in the EU. Data on unmet need from 2010 show a substantial improvement in almost all income groups for Hungary, but inequalities widened. Between 2010 and 2013 access deteriorated slightly in all income groups across the European Union, while in Hungary access improved slightly in the middle three income groups and significantly among the most well-off. At the same time, access deteriorated substantially in the poorest 20% of the population.

The health care system can also promote better health by providing preventative interventions. The most well-known and longest-running of these interventions are screenings. Breast cancer and cervical cancer screening programmes were launched decades ago, still, have not yet reached the desired screening rate (around 70%) in all cases. According to the 2014 health survey, the proportion of women who had attended cervical screening in the previous three years was around 59%. The share of those who had attended mammography screening (in the two years prior to questioning) reached 78% among women aged 45–64 years; however 11% had never attended such screening. Participation in screening is increasing overall, which can be attributed to changes in attitudes towards health (HCSO, 2015).

## THE CONSEQUENCES OF HIGH DISEASE RATES AND PREVALENCE OF RISKS: CHANGES IN HEALTH STATUS

Health – as rated by respondents themselves (usually on a simple scale of 1 to 5) – is considered actually a sensitive measure of

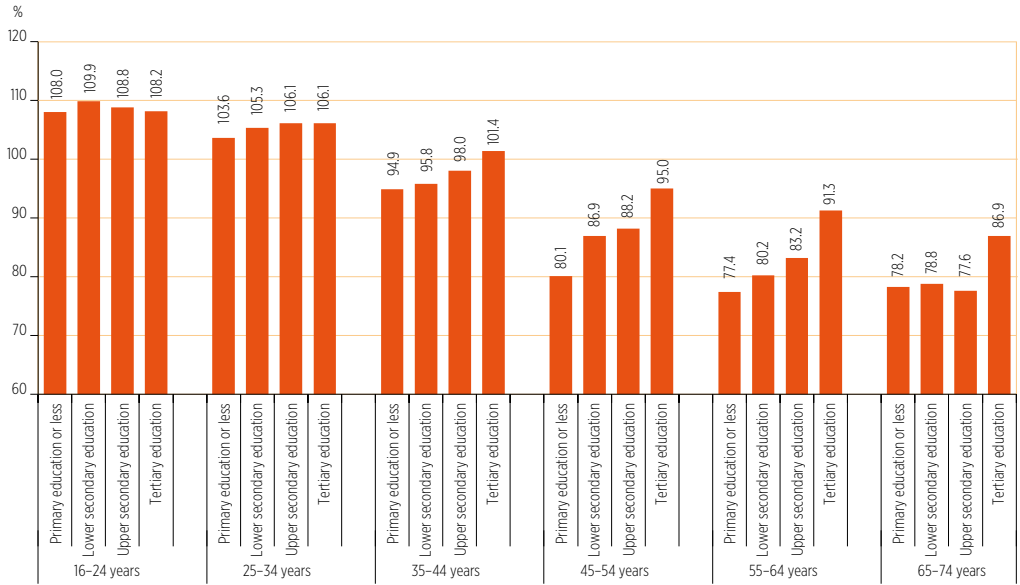
“real” health (if it can be conceptualised at all), which takes into account more aspects of health than those assessed at routine medical examinations. As such it provides a realistic and comprehensive picture of one’s overall health. Research has shown that there is a strong association between self-rated health and the likelihood of future mortality (Idler-Benyamini 1997), which also suggests that it can be considered a reliable measure of health. The comparability of self-rated health between different linguistic communities is debatable; although the use of combined indicators based on self-rated health (e.g. healthy life expectancy) is becoming increasingly widespread. Nevertheless, this measure of health status is certainly adequate to describe inequalities within a society. First, we attempt this on the basis of data from HDRI’s panel survey *Turning Points of the Life Course*. Then we provide an overview of some research findings on healthy life expectancy and its determinants in international comparison.

### *Self-rated health in Hungary*

A large number of respondents provided information about their perceived health in the *Turning Points of the Life Course* survey in 2001 and 2012. The following will examine differences in self-rated health by educational level and changes between 2001 and 2012.

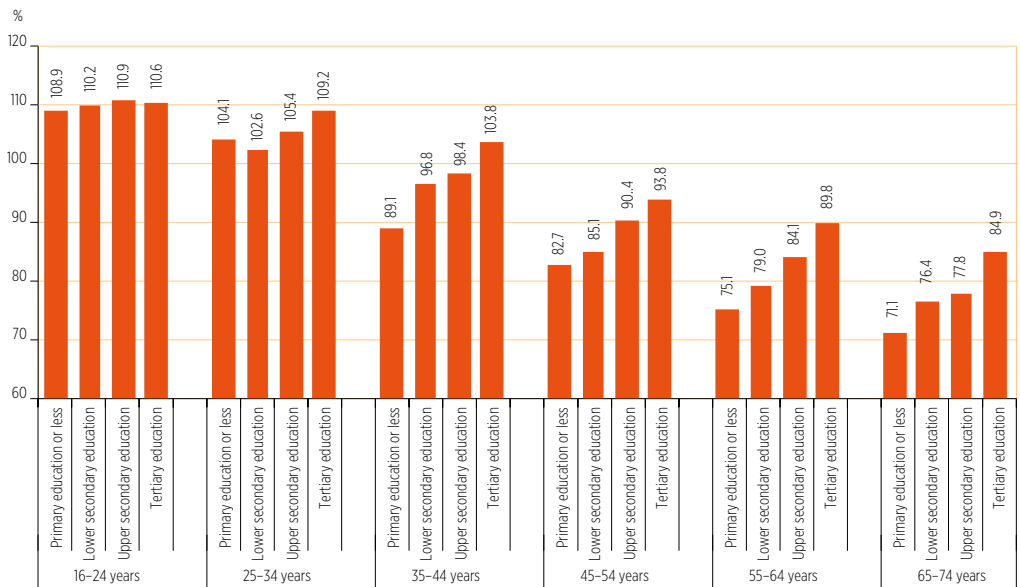
*Figures 9–12* show the relative means of self-rated health by sex. The self-rated health of all 35–44 year olds of the specific sex (i.e. without a breakdown by educational level) was considered 100% and the mean self-rated health for all other groups was expressed as a percentage of this. Health tends to be worse at later ages; however the onset and rate of its decline are not automatic. In Hungary the rate of health decline – both in 2001 and 2012 – seemed the fastest between the ages of 45 and 55 years, however differences by education were substantial in this respect, too.

Figure 9: Self-rated health of men by age group and educational level, related to the mean of 35–44-year-old men, 2001



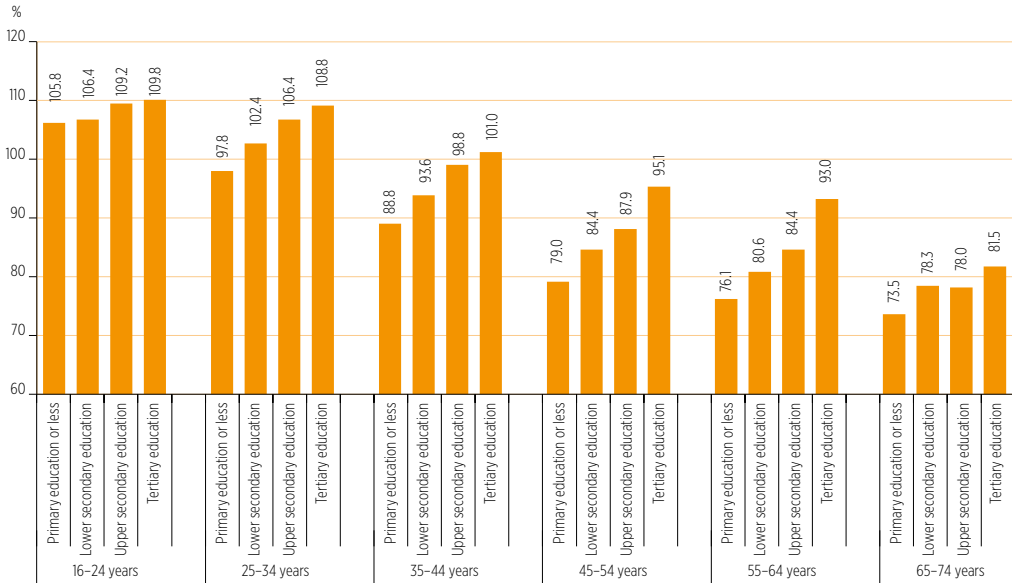
Source: HDRI *Turning Points of the Life Course* panel study, 2001; authors' calculation.

Figure 10: Self-rated health of men by age group and educational level, related to the mean of 35–44-year-old men, 2012



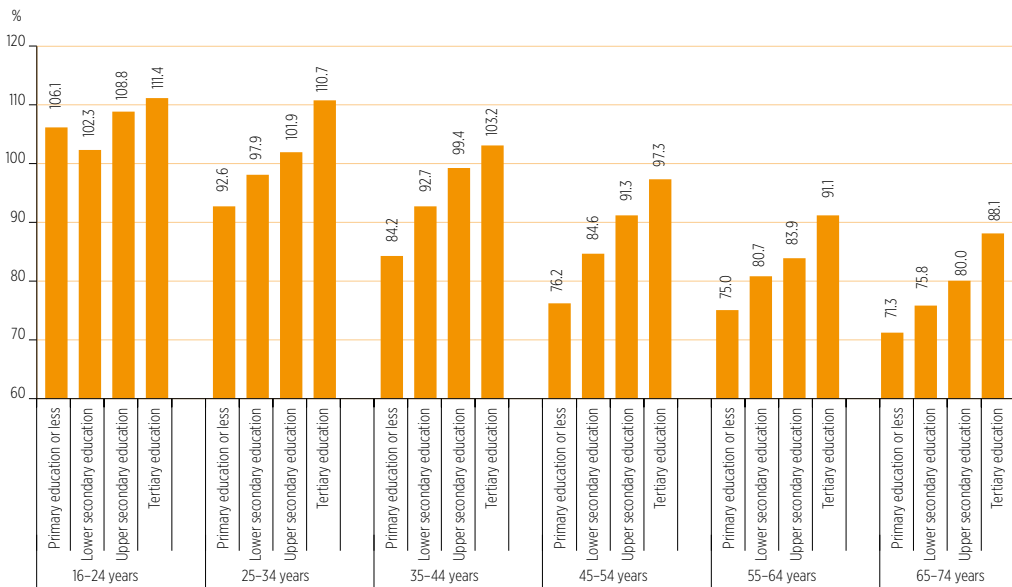
Source: HDRI *Turning Points of the Life Course* panel study, 2012; authors' calculation.

Figure 11: Self-rated health of women by age group and educational level, related to the mean of 35–44-year-old women, 2001



Source: HDRI *Turning Points of the Life Course* panel study, 2001; authors' calculation.

Figure 12: Self-rated health of women by age group and educational level, related to the mean of 35–44-year-old women, 2012



Source: HDRI *Turning Points of the Life Course* panel study, 2012; authors' calculation.

The relative health of people with higher education was better in all age groups compared to those with lower education, but while for men the difference was the greatest among 55–64 years olds, among women the differences were already especially large in the age group 45–54 by 2012. The deterioration of health starts at an earlier age for women with lower education as compared to men, and it was clearly notable among 25–34 year olds as well.

At the same time, it seems that the health disadvantage of women with low education remains in older age groups too, with a consistently low self-rated health from a younger age – 45 years – as compared to men. The figures show that the gap by educational level initially increases with age for both sexes, and then it diminishes in the oldest age groups. However, this decrease might also be due to the “selectivity” of mortality, namely people with poorer health – which is more common among those with low education – die earlier.

According to data from 2001, the decline in health first appears among men aged 35–44 years, and in all groups with less than tertiary education. Those with a primary education at most start lagging behind considerably at the age of 45–54 years. Among the 55–64 year olds all those with less than tertiary education fall behind from people with tertiary education. In the 65–74 age group, the differences among those with lower education level off, while the health of those with tertiary education remains much better and with only a slight decline compared to 55–64 year olds.

The social pattern of health in 2001 and 2012 considerably differ: in 2012 less educated groups started to fall behind in their health status in earlier age than in 2001.

In summary, there is a clear relationship between education and health: those with a higher education tend to have better health. If we compare these results to the findings on life expectancy, it can be concluded that

those with a lower education are clearly disadvantaged both in terms of health status and mortality compared to those with a higher education. Differences between 2001 and 2012 suggest that inequalities by education might have increased in younger age groups.

### *Healthy life expectancy*

A study focusing on Eastern European and post-Soviet countries examined the average healthy life span people can expect between the ages of 20 and 74 years, and how this relates to life expectancy between the ages of 20 and 74 years (Minagawa 2013). According to results for 2008, men in Hungary can expect to live just over half (55% or 26 years) of their expected life span between the ages of 20 and 74 years (46.9 years) in good health. This 55% represents the lowest proportion among East Central European countries – where the average is 63% and it is the highest in Slovenia with 72%. The same proportion is typically lower in the countries of the former Soviet Union where healthy life span between 20 and 74 years ranges from 14 to 24.8 years; with the lowest value observed in Russia and the highest in Georgia. People, on average, can expect to live only 47% of their life span between 20 and 74 years in good health in the region, and just over 33% in Russia.

For women, the expected length of healthy life is similar to that of men, which means a proportionately shorter section spent healthy as compared to total life span between 20 and 74 years. The average length of healthy life for Hungarian women is 26 years, which is 51% of their expected life span between 20 and 74 years, and – similarly to men – this represents the lowest value among East-Central European countries. In these countries women can spend on average 56% of this phase of life in good health, in contrast to the countries of the former Soviet Union where this average is only 39%.



In this study healthy life expectancy was calculated on the basis of self-reported health in surveys. The comparison of health status between countries using such data – although increasingly widespread – is not necessarily reliable because it cannot be assumed that people understand the same by “good health” in all languages. With all these limitations, it is important to note that the situation in Hungary seems to be worse in terms of health status than mortality because healthy life expectancy is even lower here than in Romania and Bulgaria. According to the study, the proportion of healthy life expectancy is greater in countries that provide more economic freedom and freedom in society, have less corruption, and rank more favourably on a number of other indicators, even if national income and the level of health care expenditure are also taken into account.

Hungarian data – all in all – show a large proportion of people with chronic diseases and a high prevalence of risky behaviours

and living conditions. Positive trends (such as the decrease in smoking) appear less characteristic while negative trends (such as the increase in obesity) are similar to international trends. While the prevalence of health problems has changed very little over the last years, public awareness of them seems to be increasing. In 2009 60% of those with primary education or less thought they can do much or very much for their own health, by 2014 this proportion rose to 66%. Among people with tertiary education the same figures were 90 and 93% respectively (HCSO 2015).

Risks are disproportionately high in the disadvantaged social groups (less educated, those living on low income). However, health awareness is already a majority attitude even among those with lower education. Therefore, a reduction of the disease burden can be achieved primarily by improving access of the disadvantaged groups to healthy diet and living conditions, as well as health services.

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## WEBSITES

Eurostat (Health): <http://ec.europa.eu/eurostat/web/health/health-status-determinants/data/database>

OECD: <http://stats.oecd.org/>

OECD, Health Data: Non-medical determinants of health (OECD Health Statistics database): [http://www.oecd-ilibrary.org/social-issues-migration-health/data/oecd-health-statistics/oecd-health-data-non-medical-determinants-of-health\\_data-00546-en](http://www.oecd-ilibrary.org/social-issues-migration-health/data/oecd-health-statistics/oecd-health-data-non-medical-determinants-of-health_data-00546-en)  
(Downloaded: 21 May 2015)

OEP (National Health Insurance Fund of Hungary, data on ambulant medical attendance): [http://www.oep.hu/felso\\_menu/szakmai\\_oldalok/publikus\\_forgalmi\\_adatok/gyogyito\\_megelozo\\_forgalmi\\_adat/ambulans\\_kimutatasok.html](http://www.oep.hu/felso_menu/szakmai_oldalok/publikus_forgalmi_adatok/gyogyito_megelozo_forgalmi_adat/ambulans_kimutatasok.html)

WHO, Global Health Indicators: [http://apps.who.int/gho/indicatorregistry/App\\_Main/view\\_indicator.aspx?iid=318](http://apps.who.int/gho/indicatorregistry/App_Main/view_indicator.aspx?iid=318)

WHO, Global Health Observatory: [http://apps.who.int/gho/indicatorregistry/App\\_Main/view\\_indicator.aspx?iid=157](http://apps.who.int/gho/indicatorregistry/App_Main/view_indicator.aspx?iid=157)

