

# *GENDER AND HEALTH IN ADOLESCENCE*

*by*

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## EUROPEAN HEALTH21 TARGET 4

### HEALTH OF YOUNG PEOPLE

By the year 2020, young people in the Region should be healthier and better able to fulfil their roles in society

*(Adopted by the WHO Regional Committee for Europe at its forty-eighth session, Copenhagen, September 1998)*

## EUROPEAN HEALTH21 TARGET 13

### SETTINGS FOR HEALTH

By the year 2015, people in the Region should have greater opportunities to live in healthy physical and social environments at home, at school, at the workplace and in the local community

*(Adopted by the WHO Regional Committee for Europe at its forty-eighth session, Copenhagen, September 1998)*

## ABSTRACT

The series *Health Policy for Children and Adolescents* (HEPCA) is a WHO document series mainly based on results of the international survey "Health Behaviour in School-aged Children" (HBSC) and on other relevant international studies. It focuses on the implications of scientific results for health policy in developed countries. The target groups are politicians and experts, especially those concerned with the health of young people. The HEPCA series consists of reports on particular topics of high political relevance, including survey data on child and adolescent health, reports on specific health situations and suggestions for future investment in health policies for the young generation.

## Keywords

ADOLESCENCE  
GENDER IDENTITY  
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## Foreword

We are delighted to present the first document of the series *Health policy for children and adolescents* (HEPCA).

Target 4 of HEALTH21<sup>1</sup> focuses on the health of young people. There is no doubt that investment for youth health is a key priority in all countries of the European Region of WHO. These investments must be characterized by high levels of effectiveness, equity and sustainability, and they can be made only when policy-making is based on a careful analysis of current data.

The present document discusses, in a concise yet effective way, the need to consider gender issues when analysing youth health within and among countries. Furthermore, the findings discussed in the document show the importance of taking account of gender issues when planning health-promoting programmes and policies.

This is a period of rapid social, cultural and economic change in Europe, accelerated in part by the European Union's efforts to frame and harmonize myriad public policies and by the changes affecting central and eastern European societies. Now is a propitious time to ensure that these policies, at both pan-European and country levels, are sensitive to the needs and wellbeing of youth. Gender differences should be of particular concern here.

Most of the data and findings outlined in the document come from the Health Behaviour in School-aged Children (HBSC) Survey. This collaborative study, initiated by WHO, is now carried out in more than half of the Member States in WHO's European Region. Its data are of special value for comparisons between countries, as well as for country analysis. WHO is grateful to all the principal investigators of the HBSC survey and to the WHO collaborating centres which are supporting the study: the University of Bergen, Health Promotion Wales, the Health Education Board for Scotland (through an agreement with the Research Unit in Health and Behavioural Change at the University of Edinburgh), and the School of Public Health at the University of Bielefeld. Special thanks go to the authors of the document. The document is also the result of cooperation between two programmes at WHO's Regional Office for Europe: Health Promotion and Investment, and Child Health Development. It is hoped that such collaboration is increasingly being mirrored at country level.

Dr Erio Ziglio  
*Health Promotion and Investment*

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<sup>1</sup> *HEALTH21: the health for all policy framework for the WHO European Region*. Copenhagen, WHO Regional Office for Europe, 1999 (European Health for All Series, No. 6).

## Introduction

Compared with other age groups, adolescents are an apparently healthy group: in no other period of life are mortality rates as low as they are between 10 and 15 years of age (OECD, 1996). Nonetheless, at second glance it is clear that the myth of healthy adolescents cannot be sustained and that this age group, too, is characterized by specific health problems (Millstein et al, 1993; Schulenberg et al, 1997). In recent years, increasing attention has therefore been paid to the health situation of young people, and international studies such as that on Health Behaviour in School-aged Children (HBSC) are looking at health-relevant behaviour and perceived health status (King et al., 1996). In this connection it is noticeable that, while the empirical findings are indeed categorized by gender and gender differences are presented, these findings are only rarely interpreted in comparison with each other and no in-depth consideration is given to the variable of gender as a structural category (for example King et al., 1996). The gender differences presented are explained only in a superficial way and are seldom placed in a common context for discussion purposes. This is surprising, since it is precisely in the period of adolescence that the health-related relationship between the genders undergoes a marked change (Kolip, 1997a): while boys are the “weaker sex” in health terms up to puberty, this situation is reversed in adolescence. In childhood, not only is mortality higher in boys, they also have more physical and mental problems, are presented more frequently to a doctor or for psychological counselling, and are prescribed more medicaments. From puberty onwards, on the other hand, girls are more dissatisfied with their health and take up medical care more frequently. In addition, gender-specific health profiles become more clear-cut: while girls suffer more frequently from psychosomatic complaints and emotional disturbances, for boys the main health problems are injuries caused by traffic accidents (Kolip, 1997b). This shift in health status is commonly observed but only rarely is an appropriate theoretical explanation to be found.

The following paper gives an overview of gender-specific health status in adolescence. In addition to morbidity and mortality indicators, the relationship between genders in terms of health-relevant behaviour is also analysed. In this field, too, numerous gender differences are to be found which disprove the thesis of alignment of the genders in terms of behaviour that poses a risk to, or is protective of, health. Risk behaviour follows the pattern of internalization/female versus externalization/male. As a rule, this polarization is more marked in eastern than in western European countries.

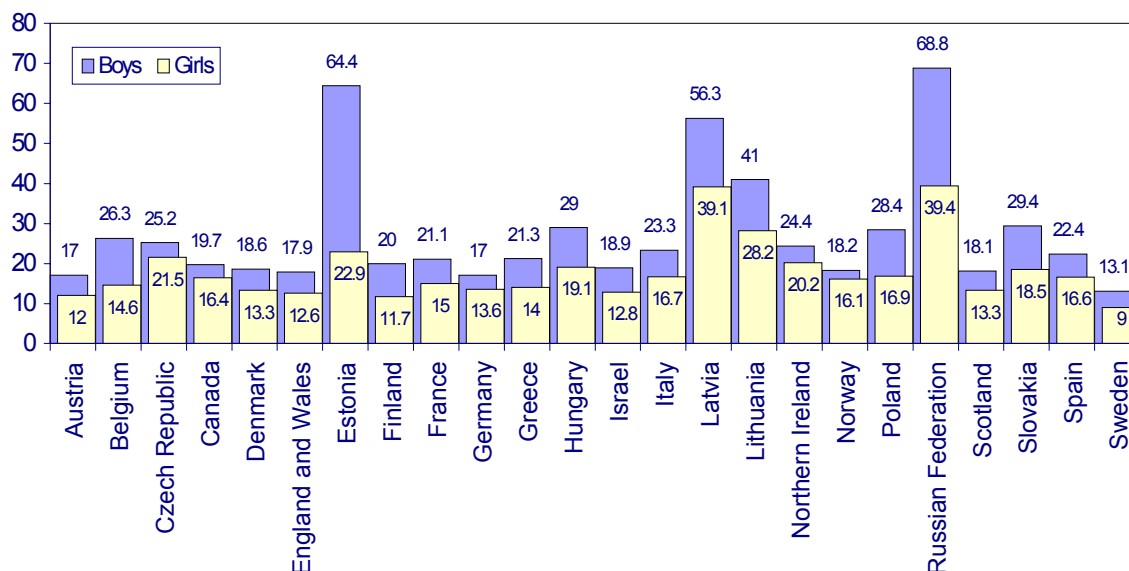
This paper is based on empirical data from various sources. The World Health Organization’s mortality database informs about age-sex-specific death rates on all causes of death included in the International Classification of Diseases (ICD) (WHO; 1998a). Nearly all the following data regarding mortality refer to the year 1995 (exceptions: Belgium, 1992; Italy, 1993; France, Norway and Spain, 1994), to the Ninth revision of ICD (ICD 10 for Czech Republic, Denmark, and Slovakia). The essential information about health-relevant issues was taken from the HBSC study of 1993/1994, an international comparative study which, under the auspices of WHO, has been carried out since 1982 among adolescents in the age group 11–15 years in an increasing number of predominantly European countries (King et al., 1996).

## Gender differences in adolescent mortality and morbidity

Compared with all other groups, mortality rates in adolescence are extremely low. On comparing the mortality rate of boys to that of girls, it is apparent that mortality among boys is substantially higher than that in girls.

In all European countries, more boys than girls in the age group 5–14 years died (Fig. 1). The mortality rates vary considerably between the different countries. In the Russian Federation, nearly 70 per 100 000 boys in this age group die every year, compared with 13 per 100 000 boys in Sweden. The difference is not quite so marked in girls. About 40 per 100 000 girls in the age group 5–14 years die in the Russian Federation compared with 9 per 100 000 girls in Sweden. The biggest difference can be seen in Estonia, where the mortality rate among boys is three times higher than that in girls. The smallest difference is seen in Norway (around 16 girls compared to 18 boys out of a population of 100 000).

Fig. 1. Age-sex-specific death rates (age 5–14) per 100 000 population



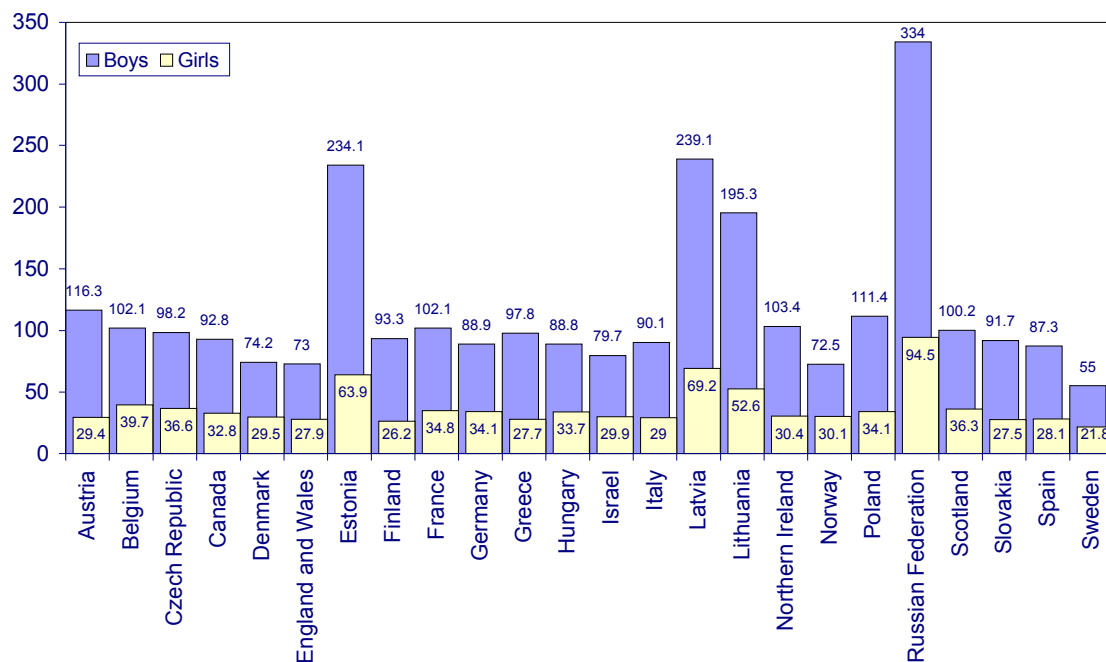
Source: WHO (1998a).

In the age group 15–24 years, to which all the following figures concerning mortality refer, age-sex-specific death rates increase dramatically (Fig. 2). In the Russian Federation, 334 per 100 000 boys and 95 per 100 000 girls die every year, but higher than average mortality rates for boys and girls can also be seen in Estonia, Latvia and Lithuania. Again, Sweden has the lowest death rates. In various (mainly eastern European) countries, death rates for boys are nearly four times higher than those for girls. Gender differences are also very marked in Austria, Finland and Greece.

Gender differences are apparent not only when we look at total mortality but also, and above all, when we analyse causes of death. Injuries account for the bulk of deaths, and neoplasms are the second most frequent cause of death.

In Figs. 3, 4, 5 and 6, the contributions of causes of mortality are each represented proportionally by sex. The figures clearly show that mortality is higher among males than among females.

Fig. 2. Age-sex-specific death rates (age 15–24) per 100 000 population



Source: WHO (1998a).

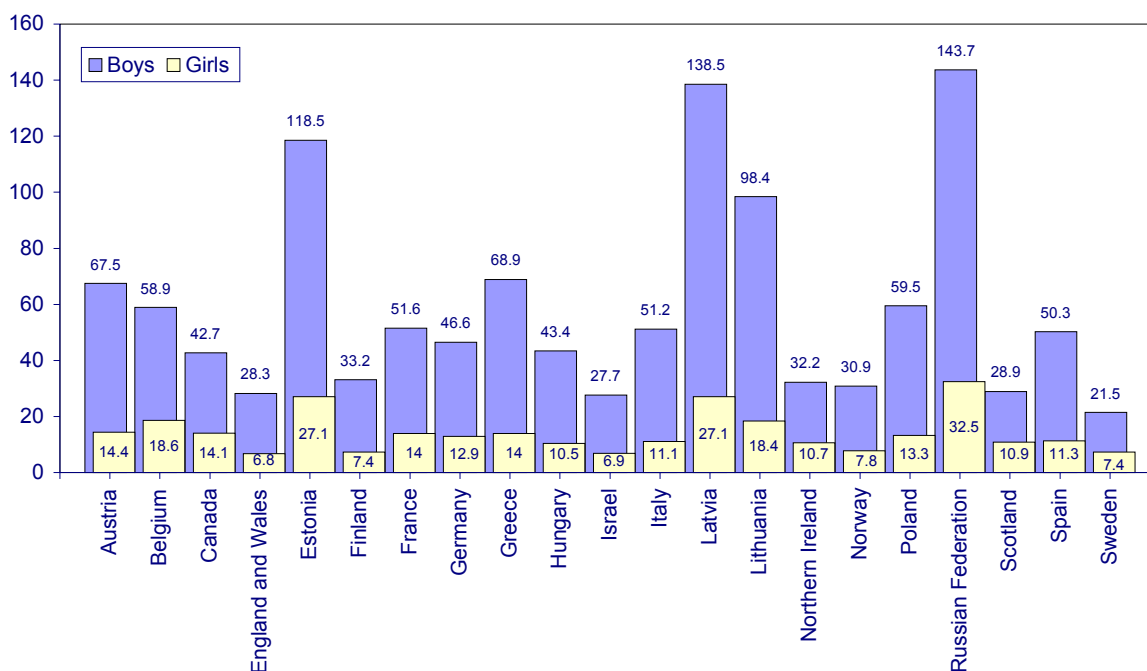
Strikingly high proportions of boys die of injuries in the Russian Federation, Latvia, Lithuania and Estonia (Fig. 3), but this also applies to girls from these countries. The proportion of girls from England, Wales and Israel, as well as of boys from Sweden, who die as a result of injuries is below average.

When traffic accidents are singled out from the totality of accidents, the death rates no longer show the typical pattern (Fig. 4). Apart from boys from Latvia, outstandingly many Greek boys die as a result of a traffic accident, and this is also true of male adolescents from countries such as Austria and Belgium. Similarly, not only girls from Latvia and the Russian Federation but also those from Belgium, Estonia and Germany, experience higher than average mortality rates caused by traffic accidents. Swedish boys and Czech girls have the lowest death rates due to traffic accidents.

The significance of accidents in terms of mortality has already been pointed out. But mortality data give only a limited picture of health status regarding injuries, in that mortality rates in young age groups are very low. The findings summarized below give information on the frequency of diseases and episodes of ill health. Compared with mortality, however, only very few studies are available. This description is thus necessarily limited to illustrative examples.

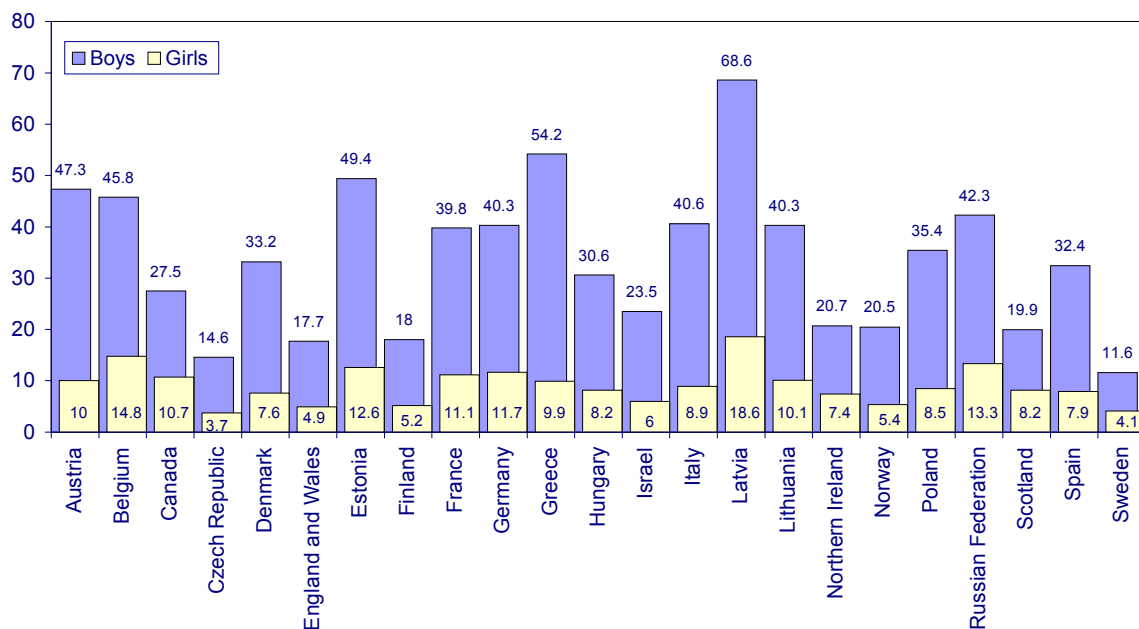
Injuries attributable to accidents also determine the majority of episodes of illness in adolescence. In terms of the number of children under 15 years killed in road traffic accidents (Fig. 5), Portugal is in first place, with 104 deaths per 100 000, while the lowest mortality rate is seen in Sweden, with 23 per 100 000 (Schriever, 1995). In terms of victims of accidents under 15 years old, Germany sadly comes in first place, with 405 accident victims; the eastern European countries show the smallest numbers of accident victims.

Fig. 3. Age-sex-specific death rates for accidents per 100 000 population



Source: WHO (1998a).

Fig. 4. Age-sex-specific death rates for traffic accidents per 100 000 population

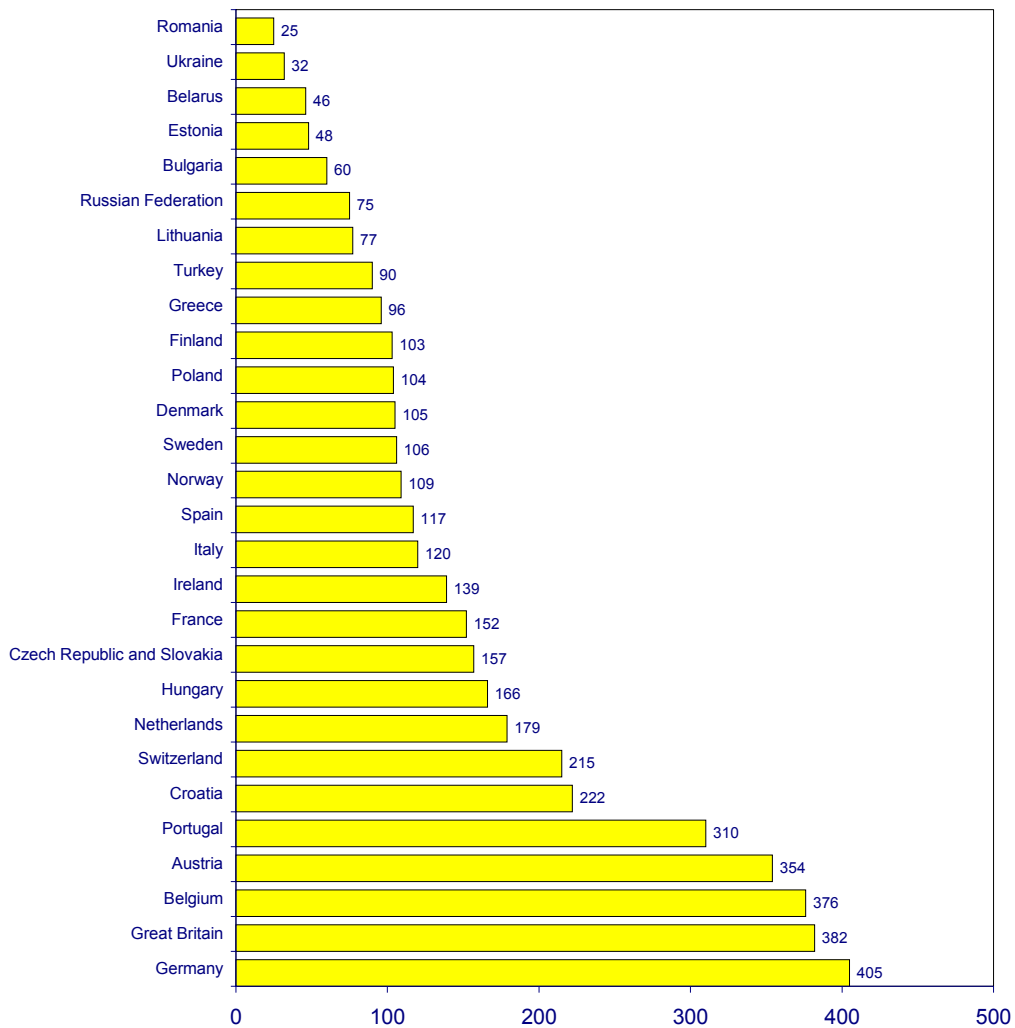


Source: WHO (1998a).

Apart from two exceptions, the HBSC study also shows that in all countries more boys than girls had accidents over a period of one year. Fig. 6 shows the proportional incidence of 15-year-old girls and boys reporting a serious accident last year. Normally boys show clearly higher prevalences than girls. Especially in Wales and France, the rates of injuries are high: more than one third of all boys had a serious accident last year, according to their reports. Girls from



Fig. 5a. Road traffic accident victims in children under 15 years of age (1992)

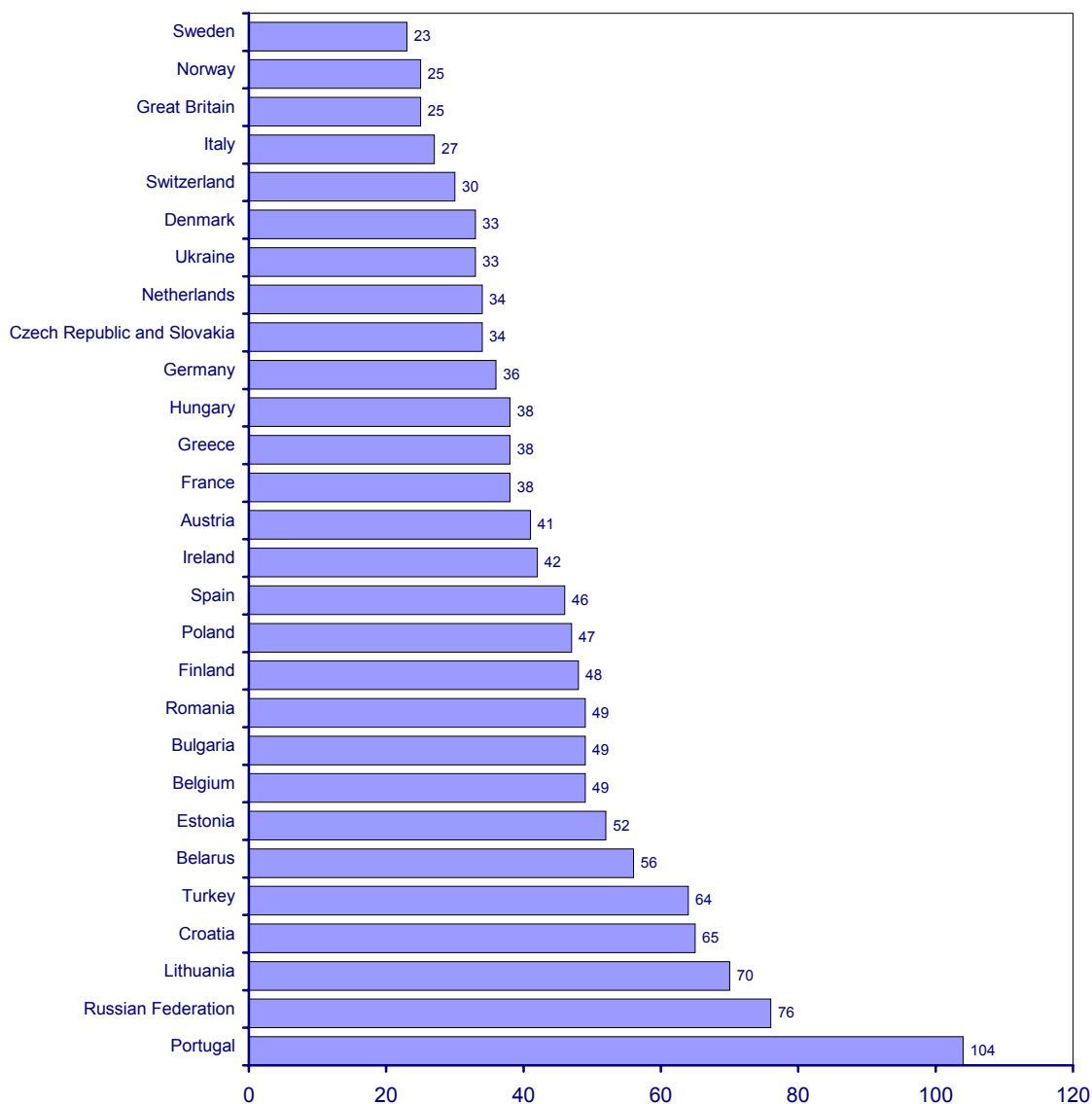


with very untypical numbers: whereas in all other countries boys are more often injured, girls from Denmark and Greece are just as often injured as boys. Girls from the Russian Federation and boys from Greenland are most rarely injured.

Looking at the locations where young people are often injured, the HBSC study shows that boys are injured more often than girls in schools and during sports activities. Nevertheless, the differences regarding the school area are not nearly so consistent: girls have accidents at school nearly as often, on average, as boys. In some cases (e.g. in Spain, Austria, Norway and Wales), 11-year-old girls even have more school accidents than boys of the same age. Only 15-year-old girls from Canada, Spain, France and Hungary have higher accident rates (King et al., 1996).

When it comes to sports injuries, the gender-typical proportions are very clear. Fig. 7 shows the proportional frequency of sports injuries last year. Only 15-year-old girls from Greenland show higher sports injury rates than boys of the same age. 25% of all boys interviewed in Wales report sports injuries that happened last year. However, boys from Hungary, Slovakia, Poland, Greenland and Lithuania have injury rates lower than 10%. It is evident that Danish and French girls run the highest risk of sports injuries, whereas girls from the Russian Federation and Latvia only show a low rate of sports injuries.

Fig. 5b. Road traffic accident deaths in children under 15 years of age (1992)

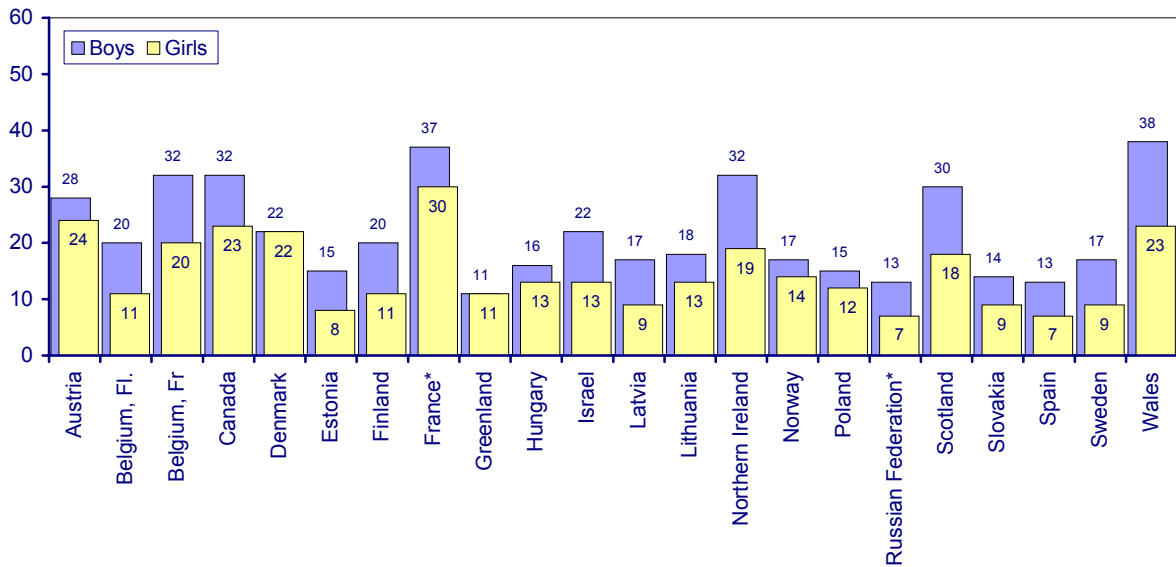


Source: Schriever (1995).

Apart from injuries, there is also a clear gender-specific difference in the prevalence of suicide. A closer look at suicides shows that, apart from in male adolescents from the Russian Federation, Lithuania and Latvia, the suicide rate is outstandingly high among boys from Finland (Fig. 8). Among girls, the highest suicide rates can be seen in Belgium, followed by the Russian Federation and Finland. Greece has the lowest suicide rate.

The gender-specific differences in causes of death determined by behaviour are particularly marked, but there are also typical gender differences in other causes of death. In nearly all European countries, boys more frequently die of malignant neoplasms, for example. Young people from eastern European countries, in particular, are affected by malignant neoplasms, a finding which also applies to all other causes of death (Fig. 9). Male adolescents, particularly from Estonia and also from the Russian Federation, Latvia and Hungary, outstandingly often die of cancer. This is also true of boys from Northern Ireland and girls from eastern Europe. The

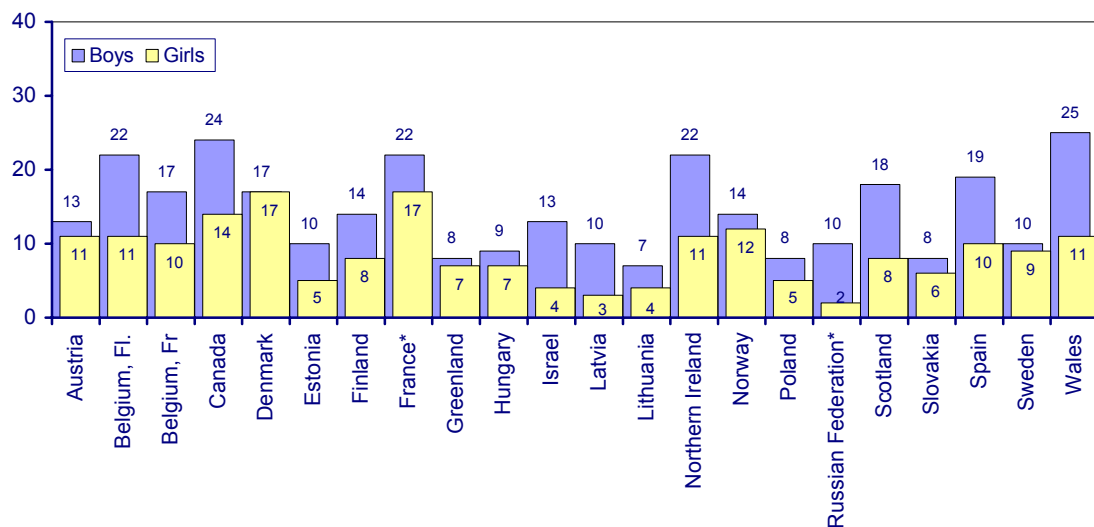
Fig. 6. 15-year-old students who reported severe injuries during the previous year (%)



France and the Russian Federation are represented only by regions.

Source: King et al. (1996).

Fig. 7. 15-year-old students who reported sport injuries during the previous year (%)



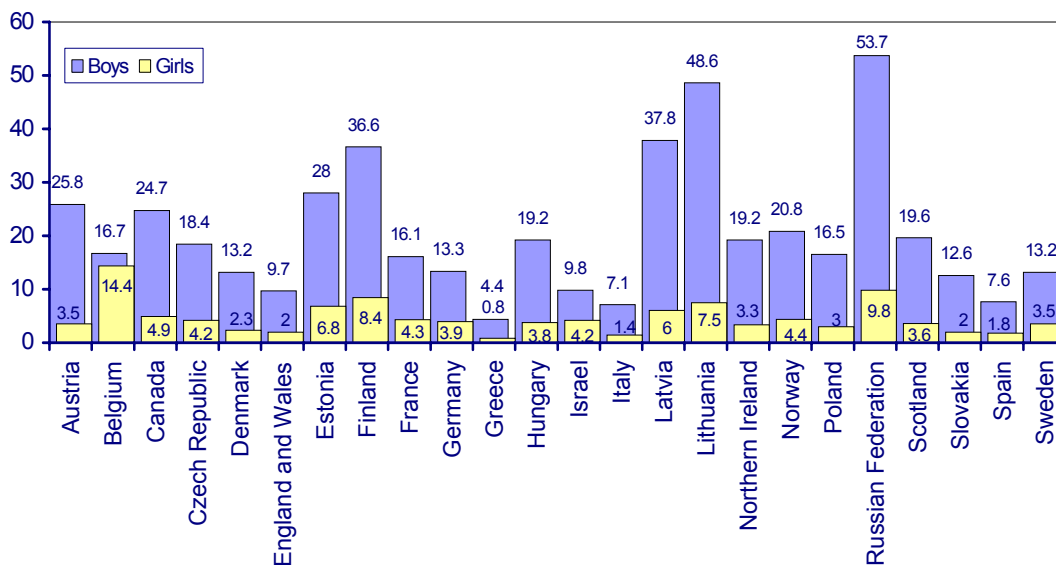
France and the Russian Federation are represented only by regions.

Source: King et al. (1996).

data from Canada, where girls die even more frequently of cancer than boys, are very surprising. The countries with the lowest death rates caused by malignant neoplasms are the Scandinavian countries, Scotland and Austria.

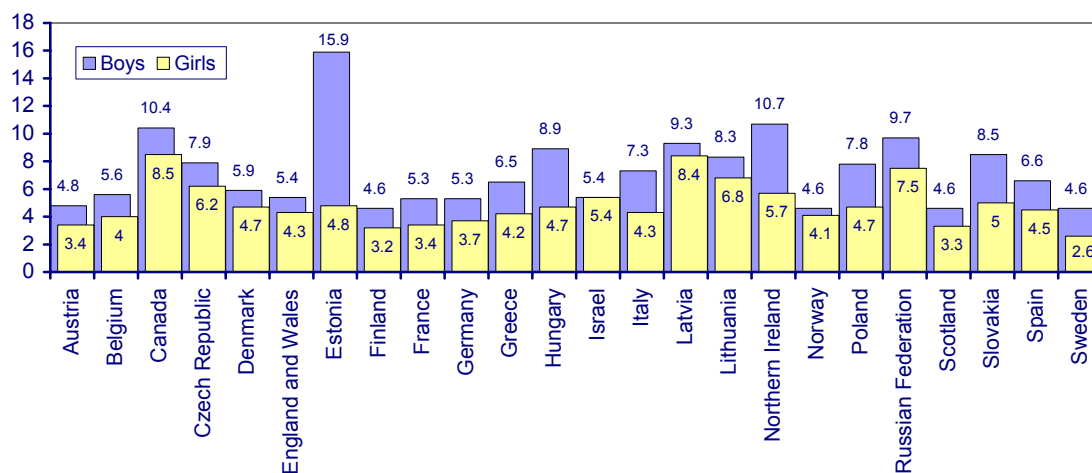
Altogether, a very clear trend can be seen. Male and female adolescents from eastern Europe have dramatically high mortality rates. Young eastern European people clearly more often die of causes of death that are significant for the young age (such as injuries and malignant neoplasms)

Fig. 8. Age-sex-specific death rates due to suicide per 100 000 population



Source: WHO (1998a).

Fig. 9. Age-sex-specific death rates for malignant neoplasms per 100 000 population



Source: WHO (1998a).

than young people from all other European countries. As a rule, the northern European countries have lower than average mortality rates (with one exception, suicide rates in Finland). What applies to all countries is that significantly more boys than girls die of all considered causes of death.

It is well known that the life expectancy in countries of the former Soviet Union has dropped to its lowest level for years. The widening east-west gap can be seen for all age groups and all major causes of death. These high mortality rates can be mainly attributed to socioeconomic living conditions and lifestyle-related factors such as injuries, suicide and drug consumption, as well as to air pollution and the quality of health care (Hertzman & Marmot, 1996). Numerous studies show a close relationship between income and average life expectancy. Apart from socioeconomic deprivation and unemployment, the distribution of income within countries is also related to health disadvantages (McIsaac & Wilkinson, 1997).

Generally, boys in all countries have higher mortality rates than girls. Poverty, social disintegration and crime are seen as major factors for high mortality, especially among men, in eastern European countries (Little, 1998). The high death rates due to injuries for young men are often associated with excessive alcohol consumption and increasing social violence and, in eastern European countries, with increasing stress related to changing social and economic conditions. The higher suicide rates for boys are explained by more often reported symptoms of depression (WHO, 1998b). Women suffer in particular from socioeconomic deprivation, since their economic situation is generally less favourable than that of men, and the latter has serious implications on health. Numbers from Sweden show that lower than average mortality rates for both sexes can be achieved. It seems plausible that the current focus on equity in public health policy in Sweden (Lindholm et al., 1997) may contribute to the falling death rates and the noticeable gender adaptations in mortality. Political aims should focus on achieving lower mortality rates for young people everywhere, and especially for males. This can be very successful for behaviour-related and thus relatively easily avoidable causes of death.

## **Gender differences in perceived health status**

The following section gives an overview of gender differences in perceived health status, as well as in the subjective perception of physical complaints and impaired emotional states.

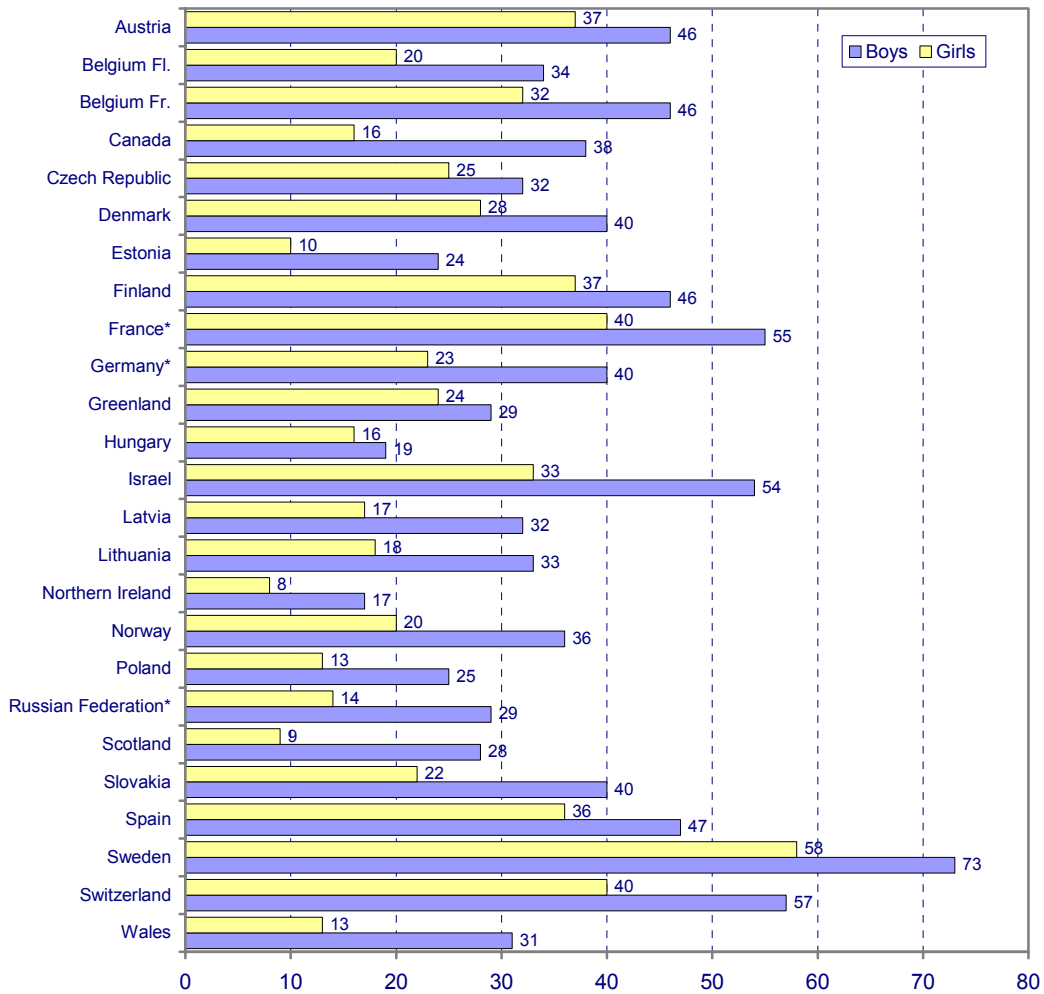
If adolescents are asked to assess their own health status, most representative surveys show that girls are essentially unsatisfied with their health status. As a rule, this gender difference becomes stronger with increasing age.

Fig. 10 depicts the findings of the HBSC study and shows the proportion of 15-year-old girls and boys who are very satisfied with their health status (“students who felt very healthy”). The proportion of adolescents who feel very healthy varies between roughly 10% and over 60%; national patterns of perception should be recognized here. The findings also show, however, that in every country girls assess their health status as poorer than boys do. The difference ranges from three percentage points (in Hungary, where health status is generally assessed to be poor) to 22 percentage points (Canada). In no country do 15-year-old girls assess their health status as better than boys do.

These differences are partly attributable to the fact that girls suffer from more physical complaints and psychosomatic impairments. By way of example, the findings of the Youth Health Survey may be cited as evidence (cf Kolip, 1997a). In order to record physical complaints, we submitted a list with 29 diseases and symptoms. Adolescents were asked to state whether they had suffered from any of these complaints in the previous 12 months. A supplementary question was then asked, namely whether they had seen a doctor for that reason. Table 1 gives an overview of those complaints that were cited by at least 10% of adolescents.

As Table 1 shows, colds and flu (with a 12-month prevalence of 66.3%) are the most common disease in adolescence, followed by fractures/bruises (25.6%) and acne (20.9%). Bronchitis, migraine, cardiovascular and circulatory disorders, as well as joint diseases (growing pains) also occur relatively frequently, with prevalence rates of over 10%. In addition, almost 40% of girls suffer from menstrual pains; 8.4% of girls even saw a doctor in the previous 12 months due to menstruation-related complaints.

Fig. 10. 15-year-old students who felt very healthy



\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

Clear gender differences are apparent firstly in the burden of complaints, or the average number of diseases and symptoms experienced. While girls report an average of 2.8 diseases, boys have 2.3 complaints. For both sexes, the number of complaints rises with age.

Secondly, gender differences are apparent in the individual complaints surveyed. These show a gender-specific disease profile. While boys more often experience fractures and bruises – a reference to the higher prevalence of accidents in boys, which was already apparent in mortality statistics – and have more frequent episodes of hay fever, girls suffer significantly more frequently from colds and influenza, bronchitis, allergic rash, acne, cardiovascular and circulatory disorders and migraine. The last two disorders, in particular, are part of a typical complex of women's complaints, which are even more apparent when one looks at psychosomatic disorders.

The significance of psychosomatic disorders for adolescent's health has only become clear in recent years, since they are increasingly affecting the wellbeing of this age group. Here, psychosomatic disorders should be understood as disorders that show a close connection between psychological and somatic aspects. It does not mean that psychosomatic complaints are

Table 1. Diseases and complaints in 12–16-year-old adolescents (self-reporting; percentages; complaints recorded only if prevalence >10%)

	Girls		Boys		$\phi^a$
	Doctor Yes	Doctor No	Doctor Yes	Doctor No	
Cold/flu	31.3	41.1	24.8	35.1	-.13***
Bronchitis	11.9	6.1	9.0	5.1	.0-5***
Generalized rash/eczema	10.5	6.1	7.5	5.1	.06**
Hay fever	6.8	5.4	7.5	7.6	.04*
Joint disease/complaints	6.5	4.9	3.6	5.2	.04
Fractures/bruises	15.3	8.4	15.7	12.0	.05*
Cardiovascular/circulatory disorders	7.1	9.1	2.1	4.1	-.15***
Acne	9.1	14.2	5.9	12.1	.06**
Migraine	3.8	11.9	2.4	6.8	-.10***
Menstruation pains	8.4	31.2	-	-	-

<sup>a</sup> For a 2 × 2 table (sex × complaint yes/no).

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$ .

always psychological complaints with no somatic symptoms, because this would indicate the danger of psychologizing and minimizing disorders. Psychosomatic complaints are often organic reactions to psychosocial stress and need the same therapeutic care as somatic disorders. For Germany, the Youth Health Survey gives information on the extent of psychosomatic complaints in the age group 12–16 years. Adolescents were given a list of 18 symptoms from various areas. On a four-step scale from “often” to “never”, they were asked to record how frequently they suffered from the symptoms in question.

As Table 2 shows, headaches head the list of symptoms. At any rate, 13.8% of the 12–16-year-olds say that they “often” suffer from headaches. Nervousness and restlessness are in second position, followed by difficulties in concentrating. Back pain, dizziness, sleep disorders and loss of appetite are each cited by more than 5% of the respondents as frequently experienced complaints. 41.4% of the girls and 24.3% of the boys stated in the questionnaire that they had often suffered from at least one of the 18 complaints in the past 12 months; in other words, only about half the girls and three quarters of the boys are free of complaints. Precisely because these data are the result of self-reporting, the findings should be taken extremely seriously. Even if only a relatively small proportion of adolescents saw a doctor because of their complaints, and despite the fact that it must remain unclear what adolescents understand by “often”, the subjective experience of these complaints has serious effects on individual wellbeing.

From these findings, it is clear that girls suffer substantially more often from psychosomatic complaints. Not only do they have a larger average number of experienced complaints, they also suffer substantially more often from the individual symptoms.

The gender difference is most clearly marked in terms of headache: while 19% of girls often suffer from them, less than half as many boys (8.8%) do so. There are clear differences, too, with regard to dizziness; 10% of girls, but only 2.1% of boys often suffer from this complaint. This finding is noteworthy because girls and young women clearly suffer above all from such complaints, which are ascribed to the “women’s syndrome”, i.e. psychovegetative disturbances which do not really

Table 2. Prevalence of psychosomatic complaints in 12–16-year-old adolescents (percentage figures for frequently experienced complaints; data only for prevalence > 5%)

Symptom	Girls	Boys	N
Headaches	19.9	8.8	.15***
Nervousness/restlessness	11.3	6.2	.09***
Difficulties in concentrating	9.4	5.2	.08***
Back pain	9.6	3.9	.11***
Dizziness	10.0	2.1	.16***
Sleep disorders	8.4	3.4	.10***
Loss of appetite	7.3	2.2	.11***

\*\*\*  $p \leq .001$ .

call for classification as a disease but which are related to female gender stereotypes. The socialization of the role of women finds expression in the way they deal with their bodies and perceive specific complaints.

In the HBSC study questions were asked about the frequency of several complaints and impairments of emotional wellbeing. Interest was focused on headaches, stomach-aches, backaches, sleep disturbances and nervousness. Figs. 11–15 show the prevalence rates of frequent complaints in the age group 15 years (for prevalence rates in 11- and 13-year-olds, see King et al., 1996).

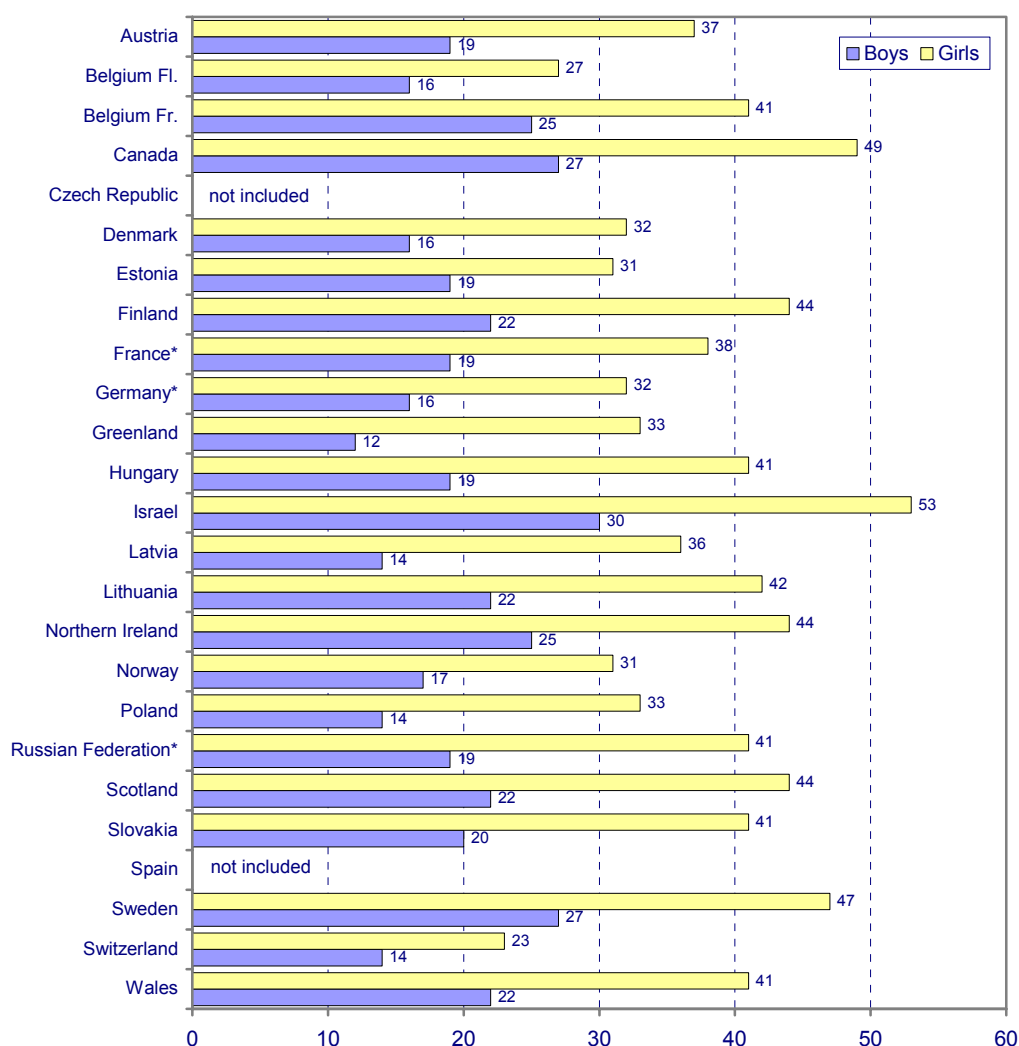
According to these findings, headaches, nervousness and sleep disorders are particularly frequent, while backache and stomach-ache occur somewhat less often. The gender-specific pattern of complaints underlying these findings is striking: for all complaints and almost all countries surveyed, girls suffer substantially more often than boys. The largest differences (up to 20 percentage points and above) are seen with regard to headache. Even in the country with the lowest prevalence of headache (Switzerland), 23% of girls and 14% of boys aged 15 years suffer from headache at least once a week. Clear gender differences are also seen with regard to stomach-ache, whereas the differences between girls and boys are less marked for backache, sleep disturbances and nervousness. Only Greenland deviates from the pattern observed: here, boys suffer substantially more often than girls from backache and sleep disturbances.

## Gender differences in health-relevant behaviour

The behaviour of adolescents that poses a risk to health is of particular interest, both for research on adolescent health and for practical interventions. In adolescence, the way young people deal with their own bodies is formed, initial experience with legal – and often also illegal – drugs is acquired, and health-relevant behaviour patterns are practised and established. Not least, health research is interested in behaviour that poses a risk to, or is protective of, health because it can have a long-term effect on health in adulthood. The overwhelming proportion of premature deaths (mortality before the age of 60) is thus attributable to behaviour-generated causes of death, and especially to diseases of the digestive organs (cirrhosis of the liver), cancers of the respiratory organs, accidents and suicides. One goal is therefore, with the help of targeted prevention programmes and health promotion measures, to urge adolescents to adopt health-promoting and less health-damaging behaviour.



Fig. 11. 15-year-old students who had a headache once a week or more during the previous six months



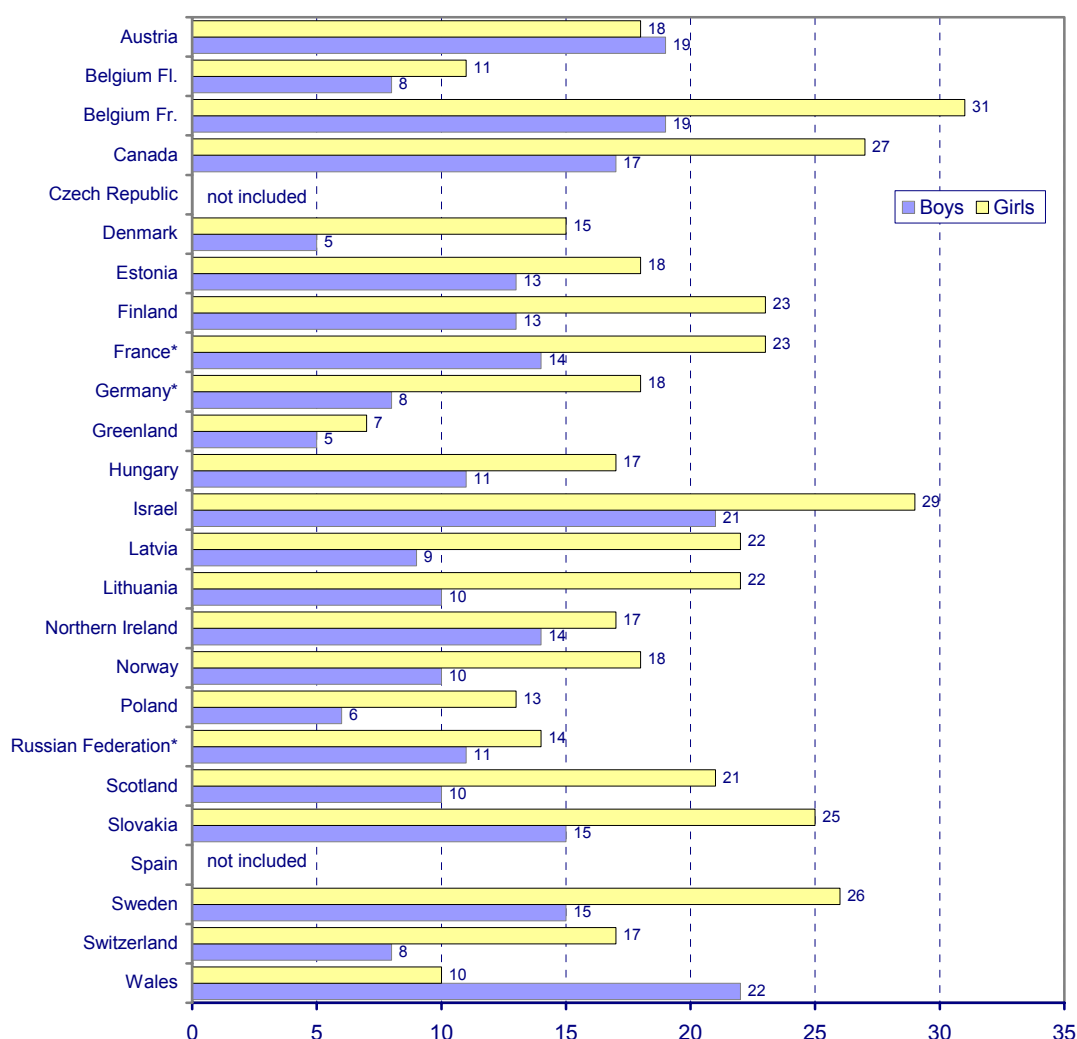
\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

In the course of designing and carrying out intervention measures, the question is asked again and again whether it is at all sensible to adopt a gender-specific differentiation of disease prevention and health promotion measures. Behind this question lies the assumption that the risk behaviour of girls and boys has now become so similar that gender-specific programmes are not regarded as necessary. Recent epidemiological studies have shown that gender differences at the superficial level, i.e. at that of experimental consumption, have indeed become less: in many countries, girls' general experience of alcohol and tobacco use is no different from that of boys. However, when one goes one level deeper and looks at the qualitative differences, e.g. in the intensity and degree of consumption, gender differences do become apparent.

The following section gives an overview of the gender-specific extent of health-relevant behaviour. In doing so, we focus on the use of legal drugs, as well as on behaviour related to physical exercise and diet. Both parts of this section go back to the findings of the HBSC study,

Fig. 12. 15-year-old students who had a stomach-ache once a week or more during the previous six months



\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

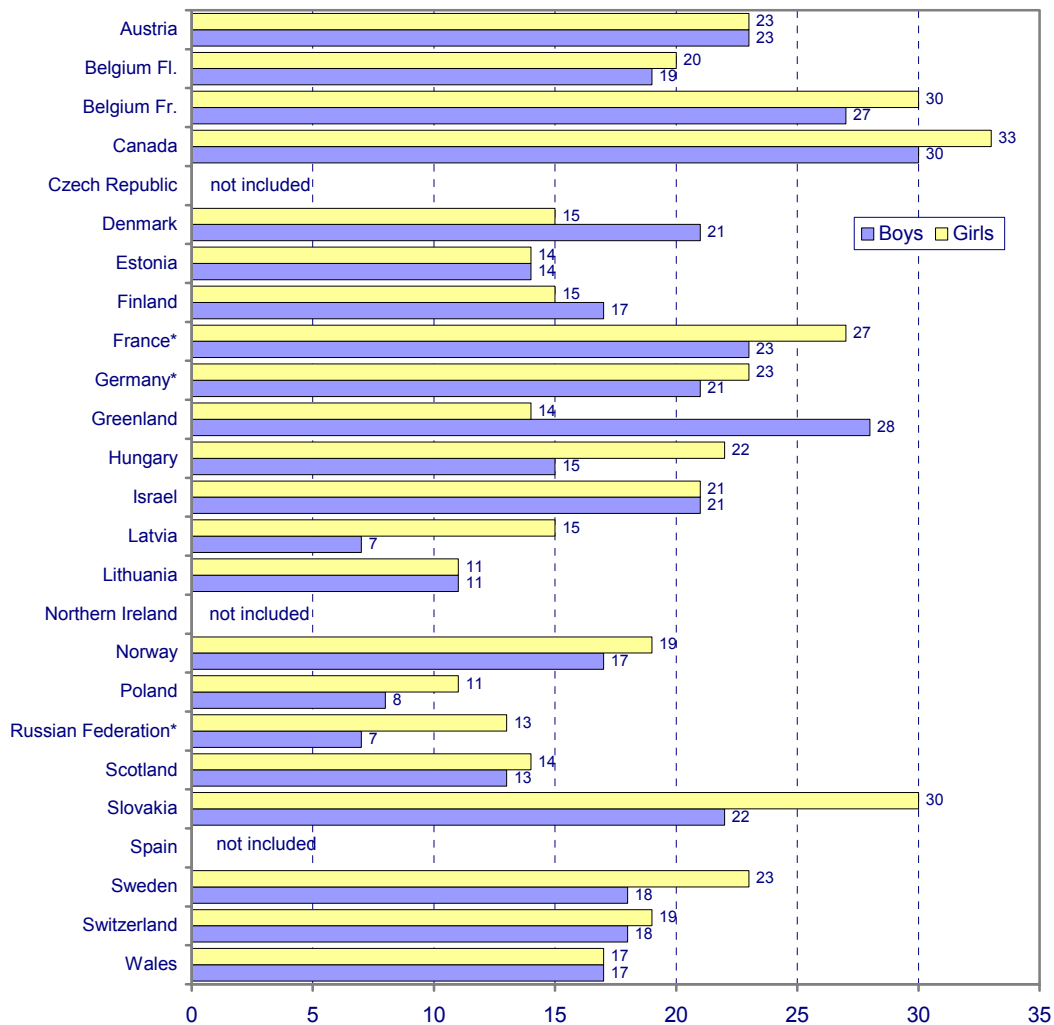
since these enable international comparisons to be made. As above, we consider only the findings concerning 15-year-old adolescents. For figures on younger age groups (11 and 13 years) reference is made to the report by King et al. (1996).

No distinction is made in this section between behaviour which poses a risk to health and that which promotes it, since one is often only the other side of the coin to the other, and there is little difference in conceptual terms.

### Alcohol consumption

In most European countries, alcohol consumption is customary and socially legitimized, so it is no wonder that most 15-year-old adolescents have had at least experimental experience with alcohol (lifetime prevalence). With regard to experimental consumption, hardly any differences between girls and boys are to be seen, although when one looks at the figures for consumption at least once a week, higher prevalence rates in boys are seen for all the countries surveyed (see Fig. 16).

Fig. 13. 15-year-old students who had a backache once a week or more during the previous six months



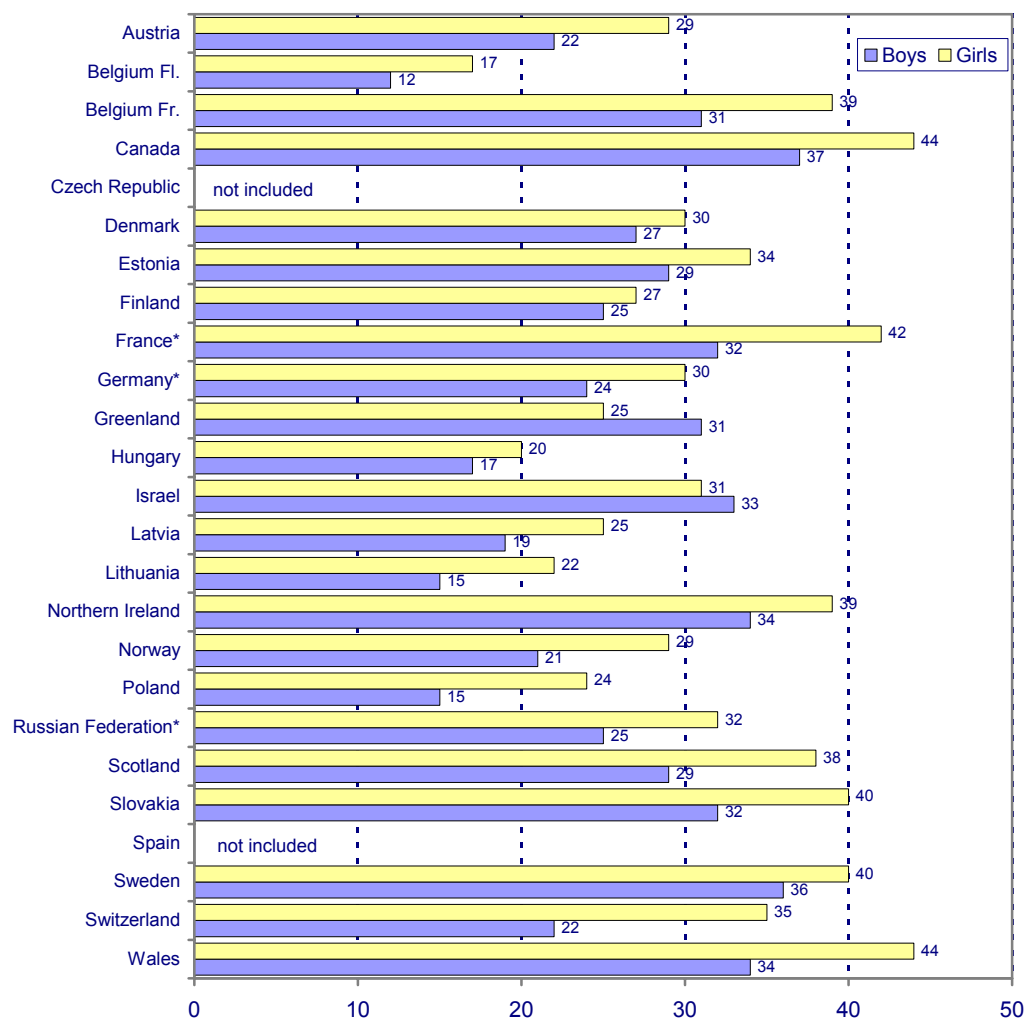
\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

Prevalence rates differ markedly between countries. While in Switzerland only 3% of 15-year-old girls and 4% of boys of the same age state that they drink alcohol at least once a week, the corresponding figures in Wales are 45% for girls and 52% for boys. While prevalence rates are rather low in northern and eastern European countries, they are rather high in the countries that make up the United Kingdom. For all countries, however, the proportion of boys who drink alcohol each week is substantially higher than that of girls. The greatest difference (23 percentage points) is found in Slovakia; here, 10% of girls but 33% of boys drink alcohol at least once a week.

Gender differences are also apparent when we look at how frequently the adolescents surveyed have experienced an episode of drunkenness. Figure 17 shows the proportion of adolescents who have been drunk at least twice. The prevalence rates here vary between more than 65% in Denmark and some 7% in Israel. The rates reflect country-specific practices in handling alcohol.

Fig. 14. 15-year-old students who had difficulty getting to sleep once a week or more during the previous six months



\* France, Germany and the Russian Federation are represented only by regions.

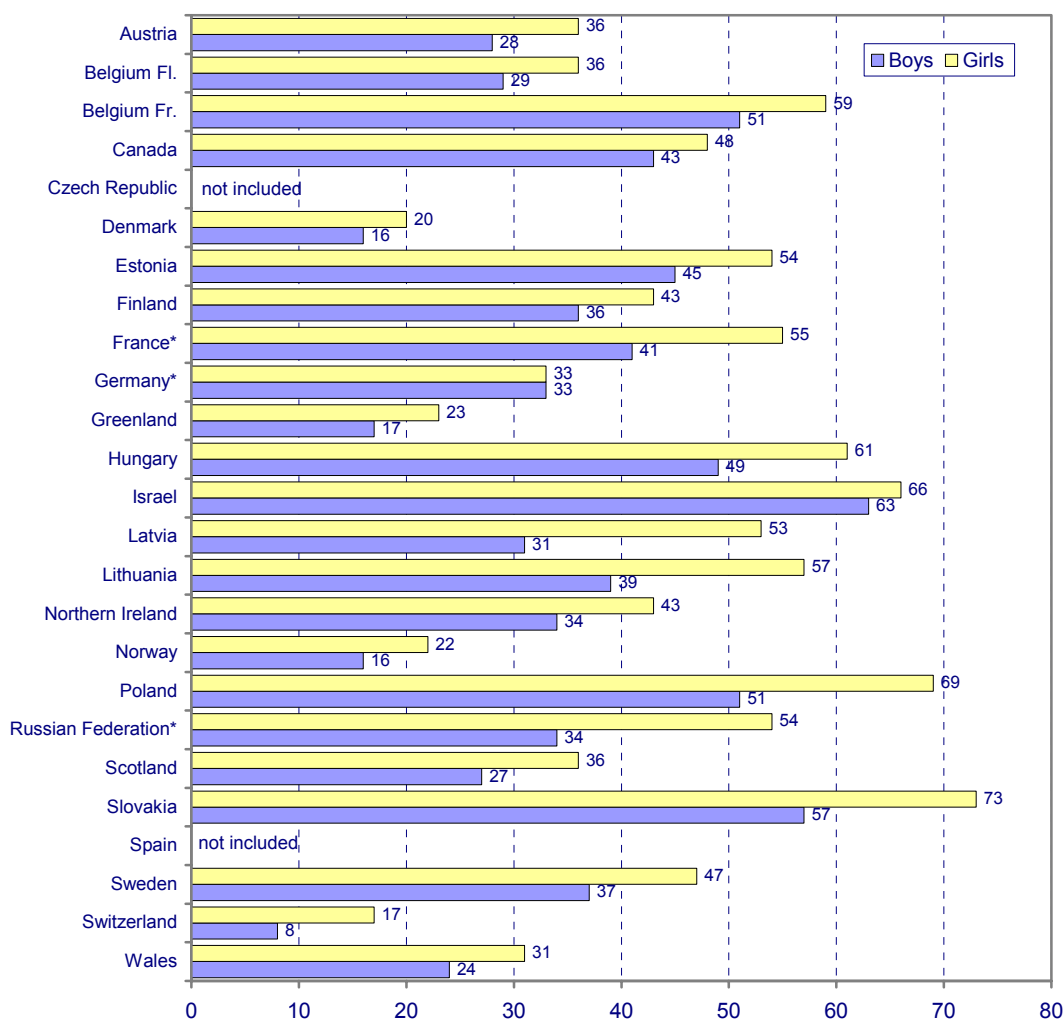
Source: King et al. (1996).

With a few exceptions (Denmark, Greenland, Canada, Norway), where there is no difference between girls and boys in terms of frequency of drunkenness, prevalence rates for boys are here, too, higher than those for girls. Particularly large differences are seen in Austria, Slovakia, Hungary, the Czech Republic, Lithuania, Poland and Flanders, i.e. predominantly in eastern and central European countries.

## Smoking

Tobacco smoking among adolescents attracts particular attention from those responsible for carrying out research and practical interventions in adolescent health, since smoking is accorded crucial importance as a causative factor of premature mortality. Many prevention efforts have been and still are therefore directed towards stopping adolescents from trying tobacco products or forming habits of regular consumption. The aim is to reduce the proportion of regular consumers. The HBSC survey gives information on the proportion of 15-year-olds who have smoked a cigarette once (see Fig. 18).

Fig. 15. 15-year-old students who felt nervous once a week or more during the previous six months

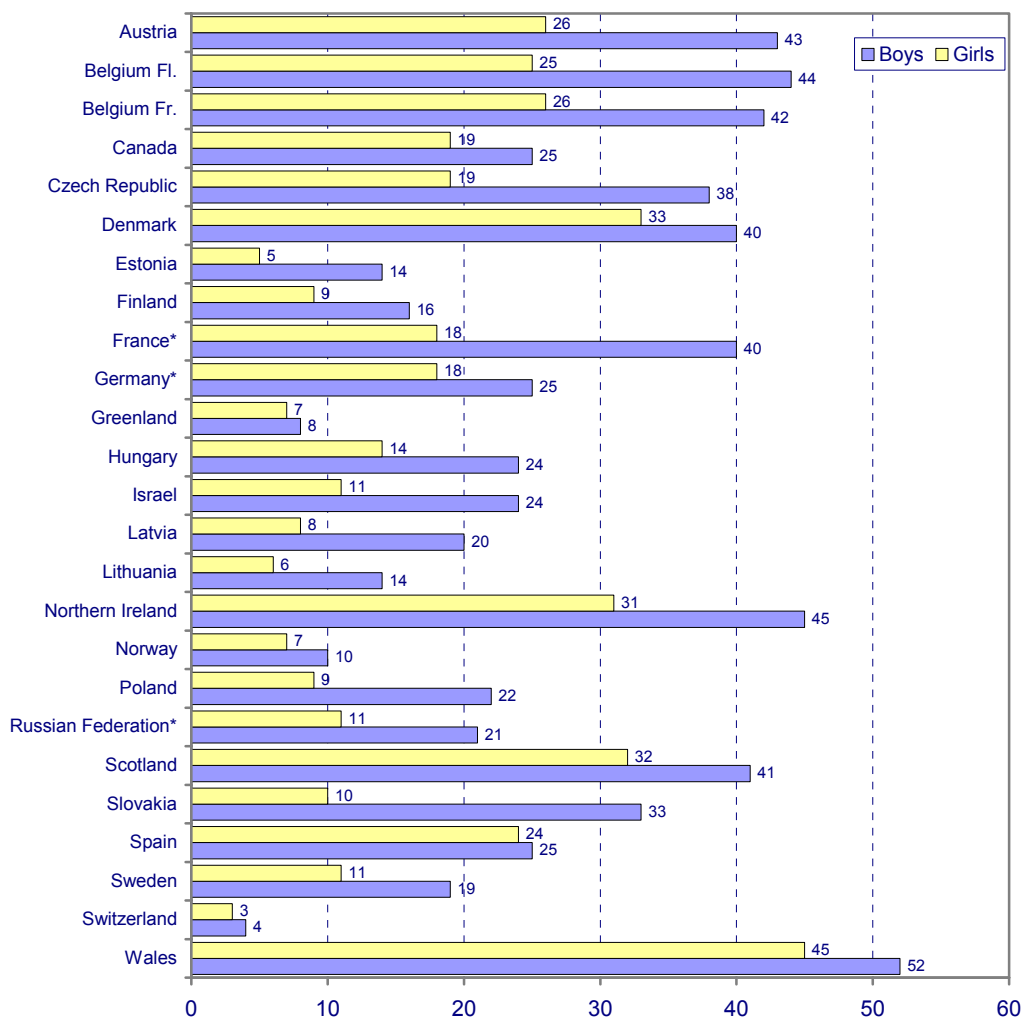


\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

The findings show that experience with smoking is as frequent as that with alcohol consumption, at least so far as experimenting is concerned. The range of prevalence rates is substantially smaller than with alcohol consumption: between four fifths (Finland) and a good third (Israel) of adolescents have smoked a cigarette once in their life. In many European countries, the consumption experience of girls is no different from that of boys, and in some instances prevalence rates among girls are even higher than those among boys. In Greenland, Wales, Denmark, Canada, Germany and Spain, the rates for girls are at least five percentage points higher than those for boys. In the Baltic countries as well as Hungary, Poland, the Russian Federation and Slovakia, a clearly different pattern is seen. Here, the differences are as marked as in the other European countries in the 1960s: far fewer girls than boys have tried smoking. Many prevention experts fear that, in the years to come, smoking rates among girls in these countries will rise and be similar to those among boys. This fear is confirmed by the observation that, following the break-up of the eastern bloc of countries, the western tobacco industry has tried in a more determined fashion to conquer the market, targeting young women and girls to this end.

Fig. 16. 15-year-old students who drank alcoholic beverages at least weekly



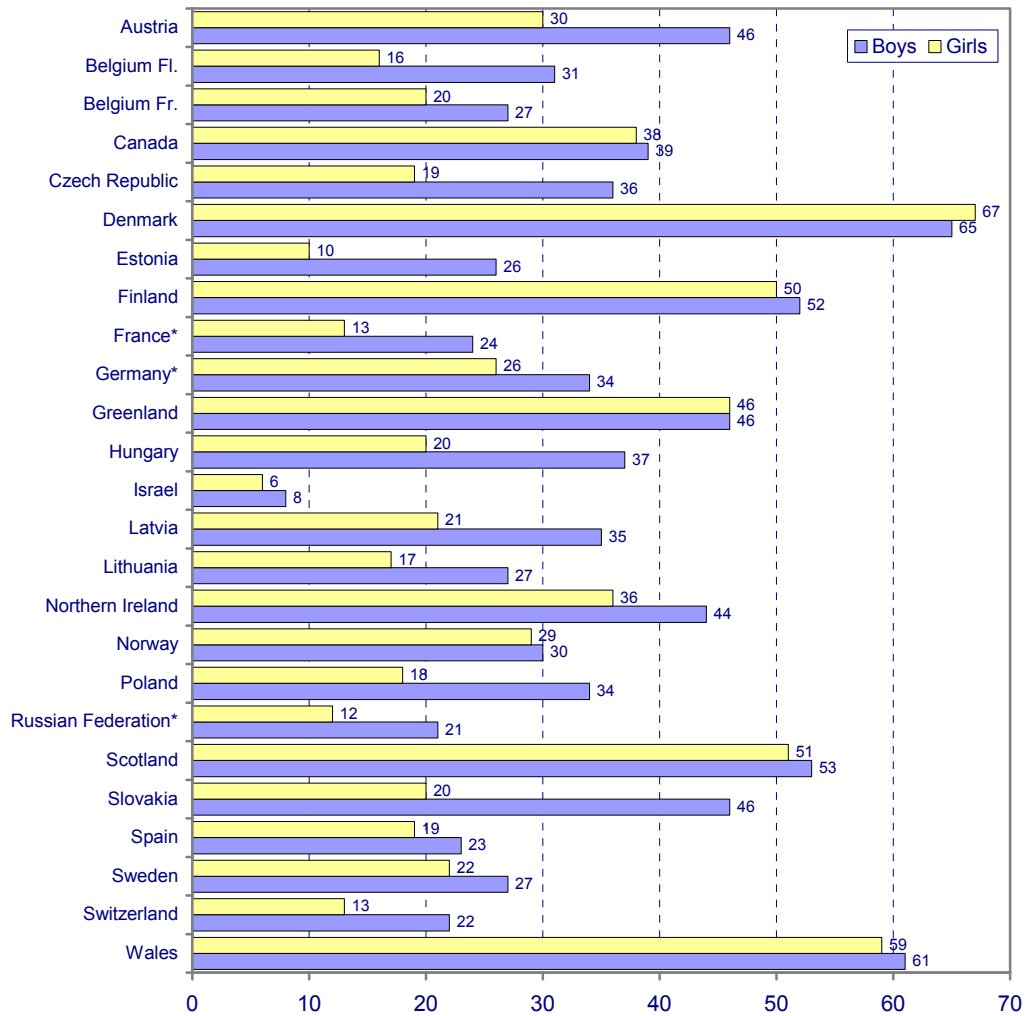
\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

A similar pattern with regard to gender differences and their regional expression is also seen in responses to the question concerning regular smoking. Fig. 19 shows the proportion of adolescents aged 15 years who state that they smoked cigarettes once a week or more. Prevalence rates here vary between 47% (Greenland) and 10% (Lithuania), with an average of some 20–25%. As with experimental smoking, gender differences with regard to regular smoking are rather small in western European countries and show, at least in part, increasingly risky behaviour on the part of girls. In the eastern European countries, however, clearly distinguishable gender differences are to be seen, with markedly higher prevalence of regular smoking among boys.

The prevalence rates conceal the fact that, despite similar experiments with smoking, qualitative differences between boys and girls continue to be identified in western European countries. Epidemiological studies in Germany have thus shown that boys smoke more regularly and prefer “harder” tobacco products (e.g. unfiltered or hand-rolled cigarettes). These qualitative

Fig. 17. 15-year-old students who had been really drunk two or more times



\* France, Germany and the Russian Federation are represented only by regions.

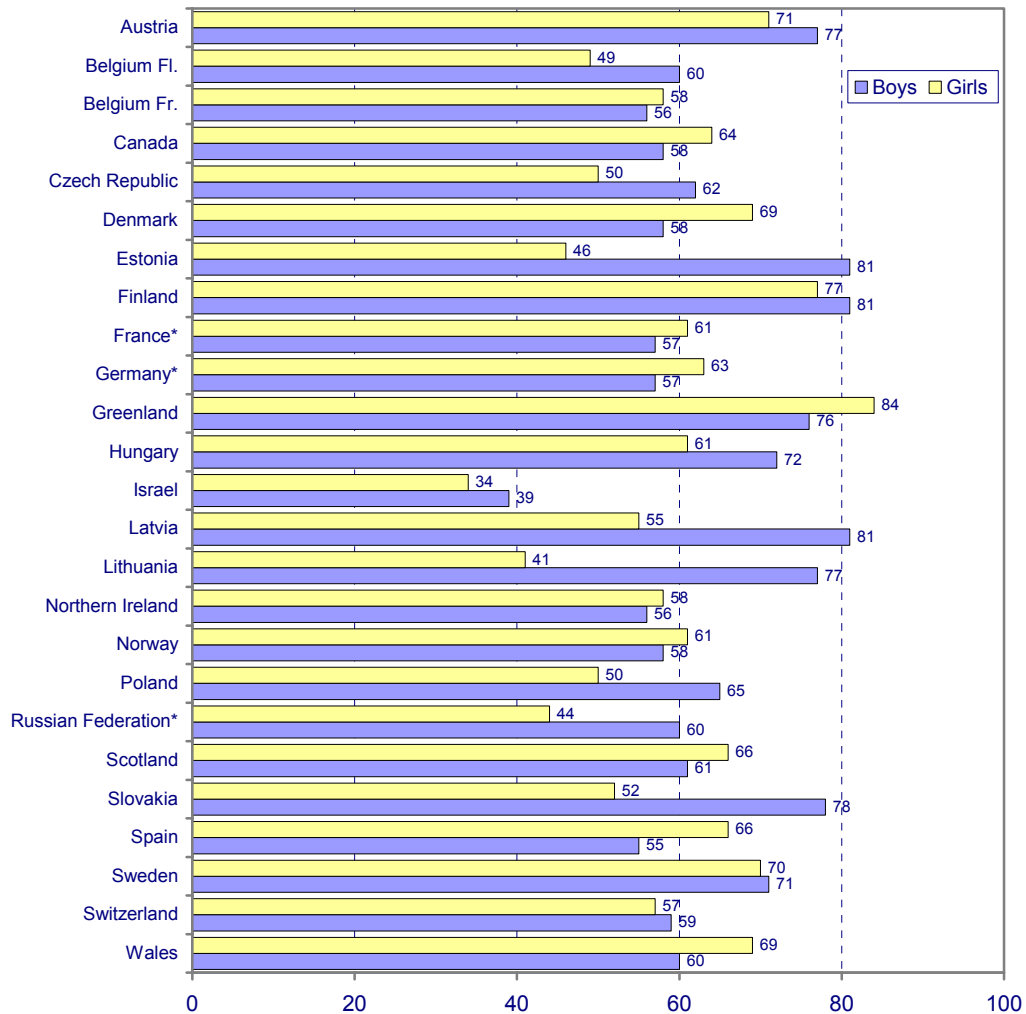
Source: King et al. (1996).

differences clearly show that the question of whether gender-specific prevention is sensible continues to be a topical one, especially since it can be assumed that girls and boys are different not only in terms of the quality and intensity of their smoking but also in terms of their motives.

At the age of 15 the gender difference in medication use is clearly visible in all countries. During the month prior to the survey, girls took three to four times more drugs for stomach-aches than boys. The most significant differences can be noted in Denmark, where the consumption is 15 times higher. The lowest differences in consumption can be found in countries with formerly identical consumer behaviour, such as Czech Republic, where girls do not even take twice as many drugs than boys. In Norway, however, 15-year-old girls take six times more drugs for stomach-ache than boys.

These differences can surely be put down to menstruation complaints that start at this age and which generate a higher demand for analgesic drugs among girls. The international consumption differences are so enormous, however, that the gender differences cannot be attributed to menstruation pains alone.

Fig. 18. 15-year-old students who have experimented with smoking



\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

## Medication use

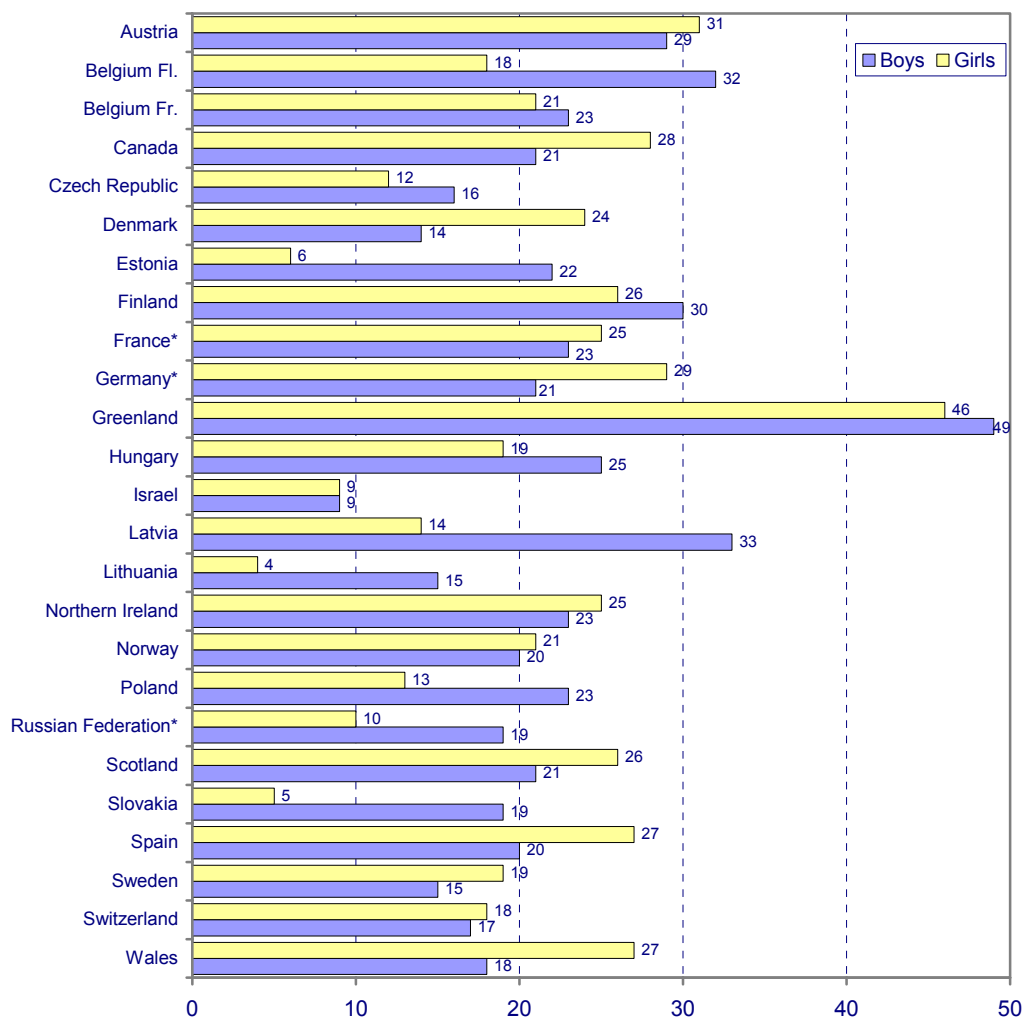
Significant gender differences can also be seen in medication use. Boys generally take more medicaments than girls before reaching the age of adolescence, whereas girls take more than boys afterwards. The HBSC data for different age groups show that the gap between girls and boys regarding medication use is getting wider with increasing age.

There are already gender differences in medication use within the age group 11 years, e.g. girls are more likely to use medication for stomach-ache than boys. In the Czech Republic, Austria and Norway, however, no gender differences can be seen for this age group. Fig. 20 shows the medication use of 15-year-old adolescents with stomach-ache.

Another clear indication for this is that 15-year-old girls from all relevant countries more often take drugs for headache than boys. Mainly in the eastern European countries such as Poland, Latvia and the Russian Federation, twice as many girls as boys in this age group took headache drugs in the previous month.



Fig. 19. 15-year-old students who smoked cigarettes once a week or more



\* France, Germany and the Russian Federation are represented only by regions.

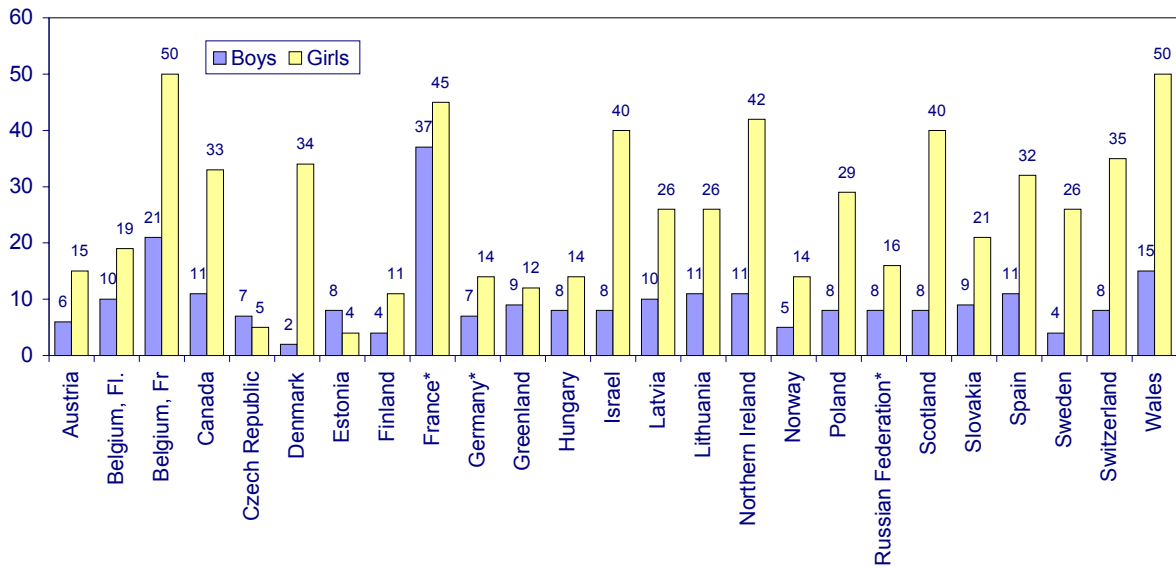
Source: King et al. (1996).

However, the gender differences are not so marked as those in the consumption of drugs for stomach-ache; they are more comparable with those in the use of sleep-supporting medication (King et al., 1996). The consumption of such drugs by 15-year-old girls is somewhat high in nearly all countries, but girls rarely take them more than twice as often as boys. In some countries (e.g. Norway and Hungary), there are no gender differences, which is very interesting. Boys from Northern Ireland, Slovakia and Denmark even take more barbiturates than girls.

### Physical activity

One aspect of the way people deal with their own bodies that is fixed in adolescence is behaviour with regard to recreational physical activity. Adolescents are of course taught sport at school, but many give up the sports activities they pursued in childhood when they reach puberty. This withdrawal from sports activity is particularly marked in girls. As early as 11 years of age, girls and boys show differing extents of physical activity (see King et al., 1996), but these differences increase up to the age of 15 years. The proportion of adolescents who take part in sports outside school at least twice a week varies, in girls, between 28% (Spain) and 68% (Austria), and in boys between 62% (Slovakia) and 89% (Austria). Fig. 21 illustrates these findings.

Fig. 20. Medication use for a stomach-ache during the previous month



\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

## Nutrition and dietary habits

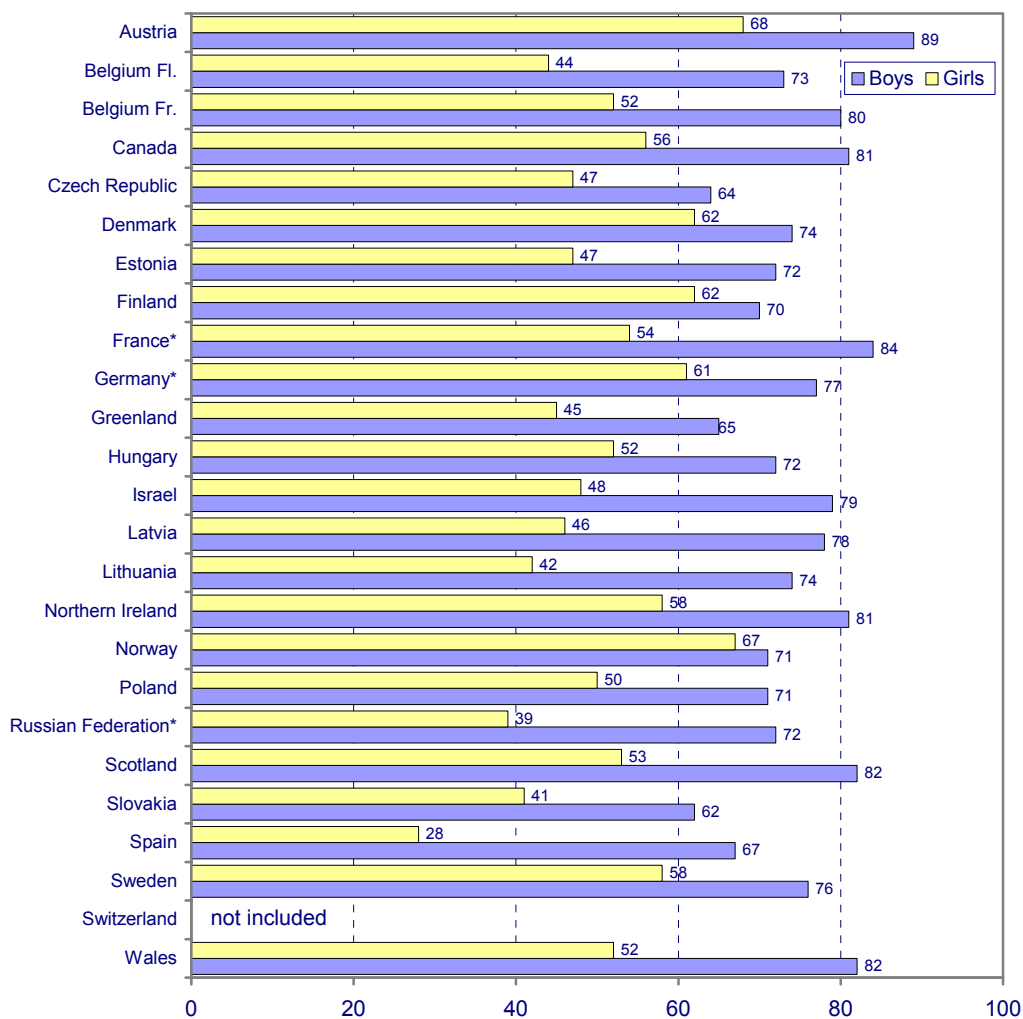
Dietary habits can both promote and damage health; their classification depends on one's point of view. A diet that is low in fat, salt, sugar and cholesterol and high in vitamins and roughage is regarded as health-promoting, while one that is high in fat, salt, sugar and cholesterol while being low in vitamins and roughage is seen as damaging to health. A clear distinction between health-promoting and health-damaging dietary behaviour would require an explicit definition of threshold values. In addition, adolescents as a rule do not have a constant dietary pattern: their dietary behaviour alternates between health-promoting (for instance, when they eat an apple and drink a glass of milk in a school break) and health-damaging (for example, when they eat a "junk food" meal after school).

Two different areas need to be considered to analyse dietary habits in terms of health. Firstly, food content is naturally of interest, i.e. the question of whether adolescents eat "healthy" or "unhealthy" foods. Secondly, however, it is also interesting to see how often adolescents eat meals or skip them.

Girls show much better dietary behaviour than boys. Whereas 15-year-old girls often eat fruit, boys of the same age group more frequently eat hamburgers or hot dogs. Fig. 22 shows selected European countries where more girls eat fruit daily.

In those countries considered in the HBSC study, a balance is found only in young French people. 53% of the girls and boys from France eat at least one fruit daily. Only boys from Lithuania eat more fruit than girls. Apart from in the Flemish-speaking part of Belgium, basically all girls from the countries considered in the HBSC study eat fewer hamburgers and hot dogs than boys. More 15-year-old boys than girls eat chocolate every day, although the differences are not so obvious. In 10 out of 24 countries where the chocolate consumption of 15-year-old girls and boys was checked, girls eat more chocolate than boys or exactly the same amount. In the remaining countries, boys have a higher consumption (King et al., 1996).

Fig. 21. 15-year-old students who took part in physical activity two or more times per week



\* France, Germany and the Russian Federation are represented only by regions.

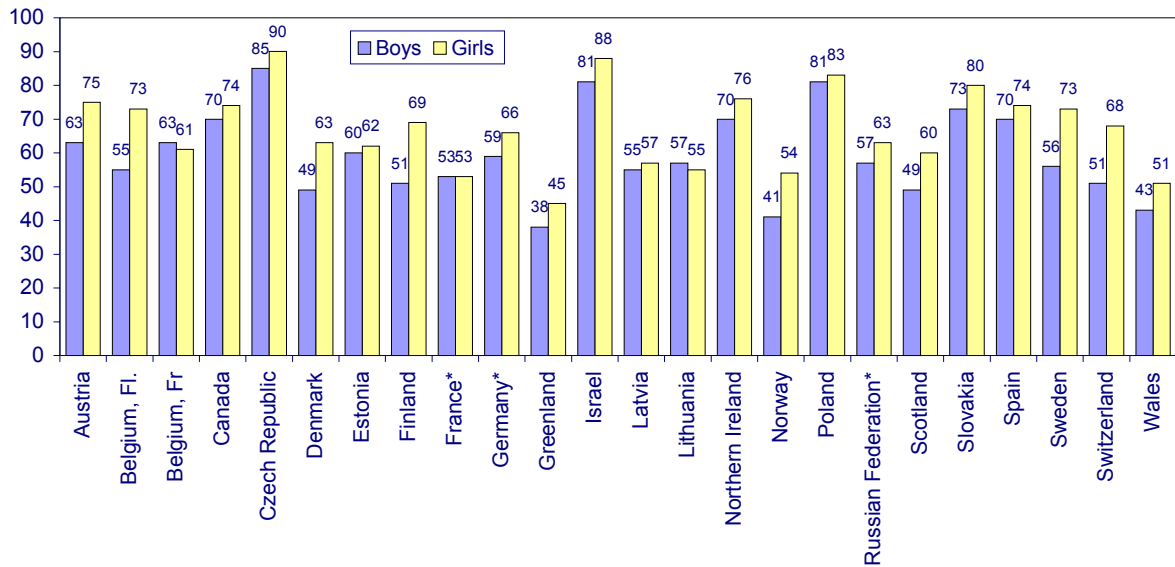
Source: King et al. (1996).

The Youth Health Survey related to Germany supports the international findings: Adolescents simultaneously eat in a healthy and unhealthy way. In the survey, we asked 12–16-year-old adolescents how often they ate certain foods. Table 3 gives an overview of the findings.

Two thirds of German adolescents eat fruit at least once a day, while approximately half eat vegetables, wholemeal bread or black bread and drink milk. One third of adolescents eat fresh salad or raw vegetables daily. On the other hand, there is the intake of unhealthy foods: approximately half of the adolescents surveyed eat sweets daily, and likewise roughly half drink Cola or other soft drinks each day. Some 10% eat salty snacks every day, and 7% eat junk food once a day.

A gender-specific evaluation of the findings shows that girls – with one exception (milk) – eat more healthily than boys. With regard to the intake of unhealthy foods, too, there are gender differences: here it is girls who eat less unhealthily.

Fig. 22. Daily fruit consumption



\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

Table 3. Frequency of consumption of specific foods in Germany (at least once a day; figures in percent)

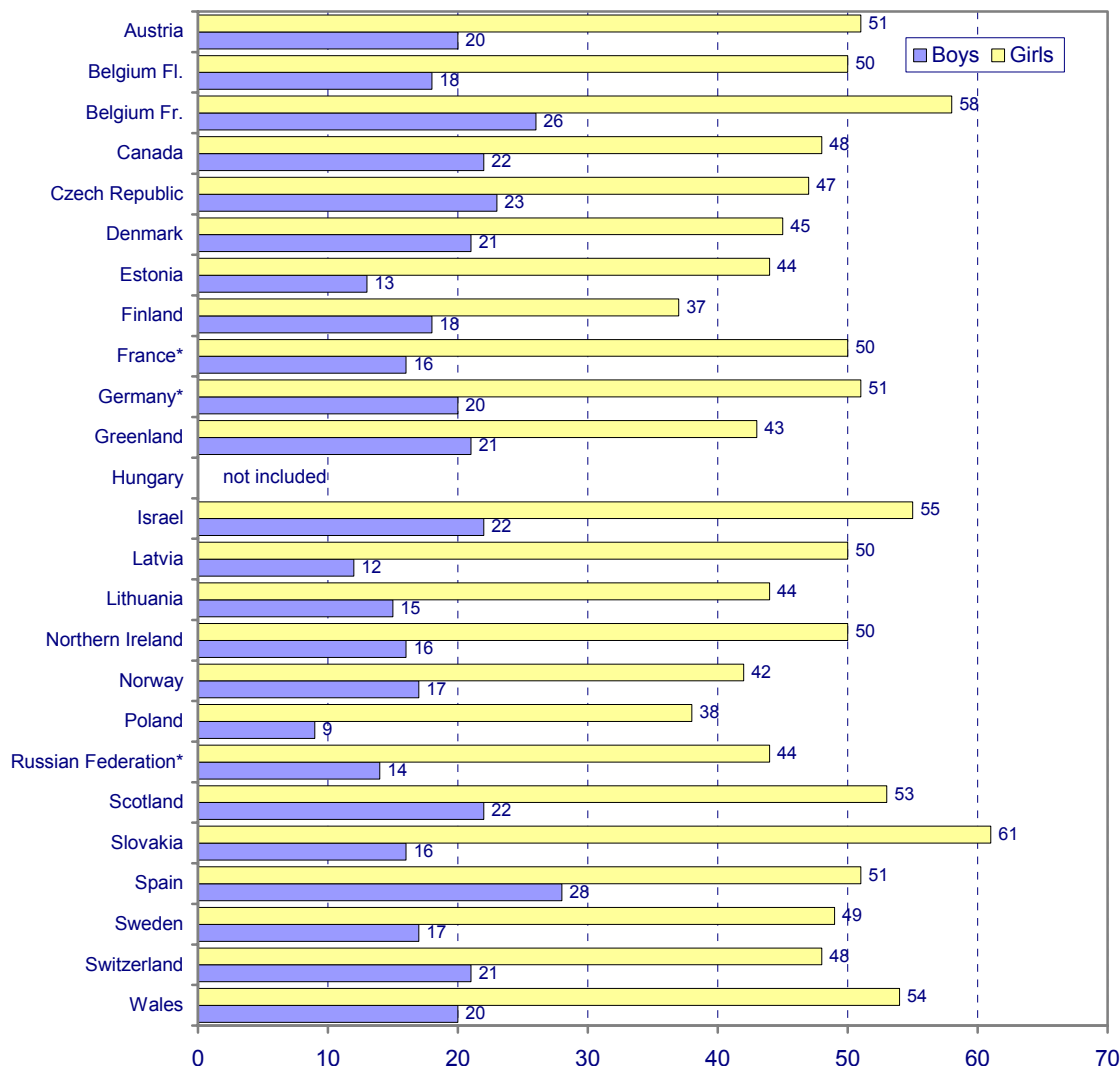
Food	Girls	Boys	N
Wholemeal bread/black bread	44.1	40.1	.04*
Fruit	74.2	66.8	.08***
Vegetables	55.5	49.2	.06**
Milk	59.2	64.4	.05**
Fresh salad/raw food	29.5	25.5	.05*
Sweets	45.0	44.9	.00
Crisps	9.9	14.1	.06***
Chips/hamburger	5.5	8.6	.06**
Cola or other soft drinks	41.6	45.0	.03

\*  $p \leq .05$  \*\*  $p \leq .01$  \*\*\*  $p \leq .001$ .

On the other hand, there are particularly clear differences with regard to skipping meals, and this corresponds to dieting and dissatisfaction with one's own body. Fig. 23 illustrates comparative international data from the HBSC study.

The findings here show that not only are girls substantially more dissatisfied with their own bodies, they also follow a diet more frequently. These differences are apparent as early as 11 years of age and in all the countries surveyed, but they assume dramatic dimensions by the age of 15 years. While boys' satisfaction with their bodies hardly changes in this period – the findings even tend to show that boys become more satisfied with their bodies as they grow older – girls' feelings towards their bodies grow worse. Not only do they want to change their weight, but they also state more often than boys that they are on the whole so unsatisfied with their bodies that they would really like to change something.

Fig. 23. 15-year-old students who were on a diet or felt the need to lose weight



\* France, Germany and the Russian Federation are represented only by regions.

Source: King et al. (1996).

Obviously, this dissatisfaction with one's body feeds on an ideal of beauty that is fixated on slenderness, an ideal that is equally applicable in all European countries. The body's proportions change with puberty, and the percentage of fat increases as a result of biological processes. For girls, entering puberty is thus first of all related to a loss: unlike boys, who grow closer to the physical ideal of the adult male with puberty (e.g. through muscle growth), girls distance themselves from the ideal of female beauty. This process is noteworthy not only because a high level of dissatisfaction with one's body corresponds to a feeling of low self-worth, but also because the measures taken by girls have effects on their health. Restrictive eating behaviour and frequent dieting is in many cases the entry point for eating disorders, in particular anorexia and bulimia. The increase in this type of disease must be seen as an ominous development.

## Synopsis and conclusions

The findings from this gender-specific analysis of numerous indicators of health status in adolescence point to a noteworthy change. While boys are the “weaker sex” up to puberty, since they are more often sick and present to a doctor, this health-related gender ratio is reversed in adolescence.

As clearly shown in the empirical findings, most gender differences can be observed in various countries. Feminist research in recent decades has made it clear that gender is not only a biologically-based category but also penetrates all areas of life as a structure category. Our social environment is characterized by the existence of two – and only two – sexes. Proceeding from biological differences, boys and girls and men and women are given different contexts for social action: while boys and men are still in the productive field and their life planning is marked by continuous employment, girls and women are first of all responsible for the reproductive and private field. It is true that women have increasingly conquered the employment area in recent decades, but this does not alter the fact that they are still responsible for the private area, for the family and the upbringing of children.

Social gender as a structure category not only permeates all social areas such as politics, law, employment and education, it also (and even more importantly) determines individual perception and the way people deal with their own body. Gender is a characteristic feature of social reality and structures essential parts of personality development. Thus adolescence is a particularly important stage of life, since it is the time when all fields of behaviour must be brought into line with future life as a grown-up man or woman. Adolescents must make life plans, find ways of dealing with their body appropriate to their gender, and clearly express their gender with and through the body and body-related methods. In “doing gender” (West & Zimmerman, 1987), the body has a central meaning since it is the carrier of cultural sexual symbols. The health-related way of dealing with the body also contributes to doing gender: “The doing of health is a form of doing gender” (Saltonstall, 1993, p. 12). Health risk behaviour obtains a specific meaning in this context. Adolescents are explicitly looking for gender-loaded body expressions or methods that make the construction of sexuality appear easier for them. Male-connoted alcohol excesses and female-connoted diet behaviour are just the right signs for them, since the expression of femininity and masculinity is thus obviously connected with a special way of dealing with one’s body. Thus health risk behaviour serves particularly to express or confirm that one is (becoming) a man or a woman.

For both girls and boys, health status is thus closely related to gender-specific socialization, which among other things is aimed at a different way of dealing with one’s own body. Girls and boys are prepared for different social fields of action. While boys’ prospects are primarily one of subsequent employment (which should be structured in such a way that boys are in a position to be able to feed a family), girls choose options for the future which make it easier to combine a job and a family. Responsibility for the family, bringing up children and private life continues to lie in the hands of women, despite efforts aimed at emancipation and rhetoric about partnership. Girls therefore start thinking relatively early about the question of whether they can combine a job and a family. Furthermore the chances of having access to the field of employment are unequally distributed. Although the chances of being educated have now become equally distributed in many European countries, and girls obtain as good or better final results in educational terms, it is substantially more difficult for them to find an apprenticeship or job. In many European countries, youth unemployment levels are higher among girls than among boys.

The burdens and problems facing boys and girls in adolescence are heightened in gender-specific ways. Girls and boys must thus solve numerous developmental tasks in a gender-specific way, such as leaving their parents or learning about their own bodies. These gender-specific burdens are not highlighted in most disease prevention and health promotion programmes, just as the link between developmental tasks and sexual development is not made a topic. Girls and boys have qualitatively different social networks, just as they have different strategies for dealing with problems and stress. These different personal and social resources have a different effect on health and illness of boys and girls.

The higher prevalence of complaints is closely related to greater dissatisfaction with one's own body, as well as to dietary experiments and attempts to manipulate one's body. These are part of a specifically female way of dealing with the body, which reflects a somewhat inward-oriented behaviour pattern of internal control. Unlike boys, who are conspicuous for their external control behaviour (especially in its extreme variants such as excessive drinking, downhill biking or "surfing" underground trains), girls overcome the difficult problems of adolescence with modes of behaviour that are externally inconspicuous. "Invisible" eating disorders, such as bulimia, are only one drastic example of this.

As became clear from the overview of empirical findings, there is a contradiction between the subjective assessment of health and objective health risks. Injuries attributable to accidents in road traffic, sport and leisure activities are the central health problem in adolescence. Boys are clearly the more disadvantaged sex in this regard, since they are more frequently involved in injuries, they die more frequently in road traffic and they more often sustain physical damage as a result of injuries. The main cause here is the overall behaviour of boys, which is more hazardous to health and, at the same time, is part of the male socialization process. Boys learn to push themselves to their physical limits, to risk "life and limb" and to endure pain; experiments with physical limits in adolescence are thus part of this socialization process. Boys' health-hazardous behaviour, such as higher consumption of alcohol and "harder" smoking patterns, should be understood in connection with these socialization processes.

However, this approach cannot completely explain the gender-specific pattern. Biological differences also make their contribution. There are thus numerous references to a genetic component of migraine, which may explain the higher prevalence of headaches in girls. The higher incidence of infectious diseases in childhood among boys can also be attributed to biological differences in the immune system.

A further explanatory factor is to be found in the health care system. All social transactions are unconsciously influenced by the gender of the partners in the interaction. This also applies to the interaction between doctor and patient. Possibly girls do not have more complaints than boys but perceive symptoms differently, or it is easier for them to talk about their complaints in a scientific survey or in conversation with a doctor. Representative studies with adults show that men and women differ primarily in the "height" of the threshold beyond which they are prepared to talk about their physical complaints.

Medico-sociological studies also show that in childhood boys' complaints are taken more seriously than girls' and are therefore presented to a doctor more often. In addition they show that already in puberty, doctors treat girls and boys differently. Whereas for girls, the treatment of specific complaints is in the forefront, for boys an attempt is also made to look for psychosomatic influences, whereby the process of becoming a woman is in itself medicalized.

Altogether the data show that boys and girls clearly differ in terms of health status, health behaviour health-relevant risks and protection factors. The aim of healthy public policy must be to prepare girls as well as boys for a healthy life. From the angle of public health, this is less about the individual ability of girls and women and boys and men to live a healthy life, it is more about creating life surroundings and structures that enable them to live the healthiest life possible. “Mainstreaming the gender perspective into the health sector” is the main objective (United Nations, 1998). Some of the goals are equal access to health care services, the establishment of an anti-discriminatory health policy and the equal participation of men and women in the health system at all decision-making levels. To improve the health of populations is not only a question of changed lifestyles. To reduce inequities in health it is necessary to develop and change social, economic and environmental conditions which determine health (Jakarta Declaration on Health Promotion).

To improve health for girls and boys, healthy public policy is needed at different levels. Political strategies should be focused on the reduction of health inequities. Differences in health between girls and boys should be reduced by improving the health of the disadvantaged group. The main goals here should be to reduce the higher than average mortality of boys, the higher than average morbidity and the obviously worse health status of girls, as well as the very different gender-specific risk behaviour, and to enable boys and girls to increase control over and to improve their health. However, it should be kept in mind that giving the necessary consideration to gender-specific aspects does not lead to a gender-neutral point of view but, usually, to a prioritization of male and a neglect of female issues. Therefore it is necessary to pay special attention to girls’ and women’s health and to make significant changes in the social environment and in lifestyle patterns. This is in order to achieve a substantial reduction in health problems that are unique to girls and women, a substantial reduction in the health problems of women related to their socioeconomic status and living conditions, and a substantial reduction in the adverse health consequences of sexual harassment, domestic violence and rape.

It is difficult to make clear distinctions between political actions that mainly support boys’ health and those that mainly support girls’ health. Most of the policies and practices suggested here are to different extents health-promoting for both sexes. In general, there is a great need to mainstream gender issues at various levels within policies and programs in each country. All European countries should formulate specific health research strategies - appropriate for their country – and name relevant actors who should formulate and implement appropriate gender-sensitive health policies. An equity-focused health policy should become an integral part of policy development.

Public health action to mainstream the gender perspective in all health sectors should be integrated into the areas of healthy lifestyles, healthy environment and appropriate care. The separation of these three sectors is not always clear, however, since various aspects of them are found at different levels. Medication use, for example, is an expression of lifestyle but is also part of appropriate health care.

### **Healthy lifestyles**

Policies, structures and programmes which address gender-related lifestyle issues need to be implemented at local, regional, national and international levels. In doing so, it is necessary to be aware of the wide range of lifestyles, including behaviours, attitudes, beliefs, personality factors and social conditions. Lifestyle-related activities should enable girls and boys to develop and to use their own health potential. This refers mainly to the ability of boys and girls to lead a self-



determined life in best health. Adolescents of both sexes should have access to health-relevant information and education and should receive support in developing health-protective attitudes and behaviours, such as productive strategies for coping with problems, raising their self-esteem, resolving conflicts and generating empathy. At the same time, the structural and social environment must guarantee a healthy lifestyle for both boys and girls.

On the individual level it is necessary to enable boys and girls to develop healthy lifestyles. Health promotion at the behavioural level is aimed at fostering social and personal protective factors and tapping health potential. Health-damaging behaviour needs to be prevented in adolescence through the transmission of life skills. Life skills programmes tackle the ways in which adolescents live their lives. It is therefore all the more astonishing that no gender-specific differentiations have yet been made here, although the circumstances under which girls and boys live are markedly different. The question of how gender-specific health promotion and disease prevention can be conceived has long remained unanswered. Helfferich (1995) has formulated four criteria for the purpose of arriving at a definition: 1. gender-specific health promotion and disease prevention tackle gender-typical problems which are connected with health-related behaviour, or they identify gender-specific control behaviour as a central theme (content level); 2. they take account of gender-specific patterns of uptake of medical and psychosocial care (access levels); 3. they work with gender-homogenous groups or choose gender-specific differentiated methodological approaches (methodological level); 4. they take as their central theme health-relevant male/female patterns, the interaction of the sexes or the significance of female and male sexuality in the life of adolescents (thematic level).

Gender-specific health and education campaigns, school programmes or mass media campaigns are useful methods to inform boys and girls about health-risky and health-protective behaviour and enable them to develop a healthy lifestyle. Goals of such programmes could be, for example, to stop girls from developing restrictive eating habits or to prevent boys from solving interhuman conflicts in a violent way.

However promising these attempts are to equip adolescents with competences in gender-specific terms at the individual level, the fact should not be overlooked that the social context is fundamental to gender-specific inequalities in health and disease. The Ottawa Charter has the establishment of health-promoting ways of living as its goal. It is obvious that these vary with gender. Within the underlying social conditions, in particular, numerous factors can be identified that have a negative influence on the health of girls and women: these concern all policy areas, including social and health policy, housing and employment policy and, not least, policy on equity. So long as social resources are distributed unequally between the sexes, those who are interested in improving the health status of adolescents have a need to intervene.

At the political level it is thus necessary to create social conditions which “make the healthy choice the easier choice”. This includes laws and rules that restrict the availability of cigarettes and alcohol, raise their price, prohibit advertising of nicotine and alcohol and make it difficult to drink and drive. While such rules may have similar relevance for both sexes, they can have different degrees of effectiveness for boys and girls. It can be assumed that lowering the alcohol limit for drivers reduces the mortality of young men in particular, whereas banning the advertising of cigarettes in women’s magazines reduces the nicotine consumption of young women. Future tobacco policy of European countries should be aimed at laying down strict rules for nicotine consumption, in order to reduce the widespread legal drug consumption of male adolescents and the increasing consumption of female adolescents. With regard to alcohol, drinking and driving must generally be prohibited, in order to reduce the high mortality caused

by injuries. The simultaneous offering of a comprehensive network of public transport, above all at night, makes it possible for boys and girls to enjoy leisure time activities, even without a car.

The epidemiological data show that girls, at least from puberty onwards, often use medication for different complaints. These higher than average consumption rates can be attributed to the interaction of a willingness to consume, on the one hand, and the promotion of consumption by parents/mothers, as well as by doctors who prescribe medication and the advertising activities of the pharmaceutical industry, on the other. This means that measures to reduce girls' use of medication must be initiated at four different points: the girls themselves, parents, doctors prescribing medication and the pharmaceutical industry all need to be considered in such strategies. Apart from educational programmes for girls and parents, it is important to raise professional standards among those prescribing pharmaceuticals. This means, for example, not prescribing medication for minor complaints straight away, or not interpreting girls' complaints as psychosomatic from the outset and prescribing the appropriate pharmaceutical. The number of over-the-counter (OTC) medicaments has to be reduced in favour of prescription drugs, and the advertising of OTC medicaments must be halted.

Lifestyle is strongly marked by sports activities. Generally speaking girls, when entering puberty, engage in fewer sports activities, whereas boys often do sports in a dangerous way. Increased morbidity and mortality due to illnesses connected with exercise as well as high injury rates, are the consequences of inadequate physical activity. Political measures are needed to motivate boys and girls to do adequate sports. Communities must offer sports activities which are attractive for girls. Sports that require an all-embracing way of dealing with one's body and that are less determined by fastness and strength are more likely to be accepted by girls. Boys must be offered "safe" sports which make it possible for them to meet their needs to take risks and test their limits.

Unhealthy eating habits can also be countered with political measures. Unhealthy diets, overweight, underweight and eating disorders are some examples of the wide range of unhealthy eating habits. Especially girls, but in recent years also more and more boys, show eating disorders. One objective of political activities must be to modify social standards that present extreme slimness for girls and exaggerated physical fitness for boys as the only valid ideals of beauty. Social measures must aim at modifying the widespread values and norms related to restrictive ideals of beauty and promoting positive attitudes in society towards small and tall, fat and slim, athletic and unathletic adolescents of both sexes.

### **Healthy environment**

The environment should be understood here in its broadest sense, including not only physical living conditions but also the sociopolitical and sociocultural environment. Sustainable development, economic and social equality, and justice and political freedom are the basics for a healthy lifestyle of boys and girls. Environmental factors have an obvious influence on the health and illness of populations. Such influences are very apparent in the eastern European countries, for example. In order to improve the health of boys and girls in these countries, environmental living conditions in particular need to be improved. Access to safe drinking-water, improved air quality, and reduced soil pollution could increase the health status of both boys and girls. It is essential to develop programmes that make living conditions in all areas (e.g. the home, school or community) healthier. Cooperation with all relevant sectors, such as labour or industry, makes it possible to formulate and implement effective environment-related strategies for health.

Improvements in societal factors (unemployment, isolation, poverty, social networks, etc.) would have an extremely positive influence on the health development of boys and girls. Health issues are nearly always social issues, too. Poverty, for example, is apparently an important risk factor for health risky behaviour. This becomes very obvious when one looks at mortality and morbidity in the eastern European countries. A fair social policy which prevents poverty and isolation leads not only to sufficient food and safe living spaces for human beings but also to improved health-promoting behaviour. Increases in budgets for social, educational or employment policies can thus also help to reduce gender differences concerning health and illness. Cutting military expenditure yields substantial savings which can be used to improve health promotion and health care for girls and boys.

Guidelines should be developed with the aim of eliminating health-damaging cultural attitudes and practices. Visible health risk behaviour (such as excessive drinking or dangerous sports) is in most cultures linked to masculinity and is seen as an appropriate and necessary way in which boys can demonstrate their own masculinity. Invisible health risk behaviour (such as medication use or excessive dieting) is typical of girls and widespread. Social measures must be taken to decrease the social acceptance of health-damaging behaviour for both sexes. This includes placing violence on the political agenda. Not only girls and women but also men suffer from male-inflicted violence. Whereas girls and women are especially affected by sexual violence, boys and men are mainly subject to individual physical violence. Violence, sexual abuse and rape have a dramatic influence on physical and psychological health, and their perpetrators must be totally ostracized.

Entering into employment is very important for girls and may have implications for their health. Girls are especially affected by the conflict of deciding between job and family, since these roles are hardly compatible within a female biography. The stress this conflict causes for girls can lead to physical and psychological complaints. The jobs which are performed by girls generally impose a strain on their psychological health. Unpaid and “invisible” domestic labour, the generally low status of such work and the over-representation of girls and women in jobs with a low salary have an important influence on health and wellbeing of girls. Government services concerned with labour and the family must try hard to reduce the burdens for girls resulting from this. Sound training, access to male-dominated employment, the participation of women in management positions and in all decision-making processes, the participation of men in providing for the family, the provision of kindergarten places and more flexible organization of the workplace can all make it easier for girls to balance job and family and improve their work situation.

All settings of social life, such as cities, schools and workplaces, should provide greater opportunities for promoting gender-specific health. Concentrating health promotion in settings of daily living involves various disciplines in health promotion. The employees in all settings must be made sensitive to gender-related features, and sexual discrimination in settings must come to an end. It is not enough to offer special health programmes which impart gender-sensitive knowledge: health-relevant gender issues must be considered in all areas of life. This implies, for instance, that local leisure programmes must not involuntarily aim at boy-specific interests such as football or skateboard without offering corresponding programmes for girls.

The long-term steady improvement of boys’ and girls’ health can only be achieved through networks involving all health-relevant actors. It is useful to consolidate partnerships for health between different sectors at all levels of governance and society, with the aims of fostering communication, cooperation, networking, support and solidarity. Local, national and

international networks allow synergetic effects to be achieved through the transfer of knowledge and exchange of views. Joint actions by ministries, administrations, nongovernmental organizations (NGOs) and private institutions in the sectors of health, education, environment, women, youth, law, finance, labour, transport, and industry are valuable ways of promoting the health of girls and boys.

### **Appropriate health care**

As consumers of health care, boys and girls have the right of access to safe services and should be protected from health-damaging products and processes. They have the right to education and to comprehensive information about their health and possibilities for improving it. They have the right to choose from a range of health services, to make the best decision with regard to their needs, and to reject undesired health services. They also have the right to participate and to voice their interests in health-related processes.

All girls and boys should be informed about and have universal and easy access to adequate health care. Comprehensive patient-oriented and gender-sensitive health care should be accessible to all. Numerous health services are adequate for both boys and girls. Nevertheless, some preventive, curative and rehabilitative services need to be specifically aimed at the needs of girls or boys. To implement gender-specific user-friendly health care, it is necessary to empower boys and girls to become stronger advocates of their own health. Active participation in service planning and delivery will involve girls and boys in policy-making and implementation. This guarantees the development of services which are specifically designed to meet their own special needs.

Girls and women are under-represented in health research either as researchers or as subjects. This prevents their needs and interests from being adequately integrated into the health system. The focus of policy should be to increase the number and participation of women in the health sector. The number of female health professionals, particularly in leading positions, must be increased. The training and further training of health professionals must give adequate consideration to gender-relevant issues. Health professionals at all levels of the health sector and in health-relevant organizations should be trained in gender concepts, and the medical curriculum should incorporate a gender perspective not only regarding subjects of studies but also in teaching methods. It is necessary to make health professionals sensitive to gender issues in the health sector and to guarantee that girls and boys receive the same and, above all, appropriate care for the same disorders.

In addition, girls and women are often insufficiently considered within the scope of medical research. For instance, there is less research into typical gynaecological disorders, many studies do not include gender-specific evaluations, and the focus of research is on biological differences, while differential social characteristics are neglected. To stop this unequal consideration of gender-specific health issues in research, we need not only to promote appropriate research but also to build gender sensitivity into the study design. Closer alliances between policy-makers and the research community will guarantee that academic research considers practice-relevant issues, on the one hand, and that practical use is made of research findings, on the other.

Sex and gender are important variables within the whole health process. Health reporting should thus be differentiated according to gender. All health statistics need to be disaggregated by sex. Without detailed information about gender-specific aspects of health, it is difficult to implement effective practices and policies. A survey should be made of all health-relevant sources of information, such as epidemiological data, data about the health care system and health care use,

demographic and socioeconomic data, as well as data about lifestyles, environment, education and work, and the findings should be disaggregated by sex. Sex-specific health statistics allow appropriate conclusions to be drawn for improving the health system for girls and boys.

There is also a need for systematic gender-specific strategies to monitor the health care system, the quality of care, the proper use of pharmaceuticals and technology, patient satisfaction, outcomes and adverse effects. So far, quality assurance in medicine and public health has taken place only on a gender-neutral level. Gender-specific differences, e.g. regarding the effects of medication, have not been sufficiently considered. All policies and practices need to be regarded separately for girls and boys. In addition, all gender-specific policies and practices must be adequately evaluated. The results of such evaluations offer a scientifically based foundation for continuously optimizing policy and practice.

It is only by giving the sufficient consideration to gender-specific issues in research and application that we will be able to build up an extensive theoretical understanding of health and illness in boys and girls. So far, it has not been possible to draw up valid health profiles for boys and girls, because gender differences in health and illness are only poorly understood. Apart from biological causes, psychological, social, cultural and political explanations for these differences must also be considered. Only multidisciplinary work, i. e. involving doctors, psychologists, sociologists and political scientists, offers a basis for a comprehensive understanding of gender-specific health and illness.

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