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REGIONAL OFFICE FOR Europe

# Social determinants of health and well-being among young people

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## HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN (HBSC) STUDY:
INTERNATIONAL REPORT FROM THE 2009/2010 SURVEY


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This report is dedicated to the late Alexander Komkov, principal investigator for the Russian Federation, who managed the HBSC study data collection for the Russian Federation from 1993 to 2010. He was a highly valued member of the HBSC Physical Activity Focus Group, contributing his extensive knowledge and expertise to the scientific work of the group and the wider HBSC study.



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# PREFACE

The Health Behaviour of School-aged Children (HBSC) study provides key insights into the health-related behaviours of young people. Its unique methodology has facilitated engagement with hundreds of thousands of young people in many parts of the world since its inception in 1983, building a data base over time that describes patterns and issues relevant to their health and well-being.

HBSC focuses on a wide range of health, education, social and family measures that affect young people's health and well-being. Previous reports from the study have highlighted gender, age, geographic and family affluence factors. This fifth international report from HBSC focuses on social determinants of health and provides a full description of the health and well-being of young people growing up in different countries across Europe and North America through data collected from the 2009/2010 survey.

The importance of social determinants to young people's health, well-being and development is clear. Theirs is a world of great opportunity in relation to health, education, occupation, social engagement, discovery and fulfilment. But it is also a world laden with risks that can affect their ability to achieve full health both now and in the future, reduce their opportunities for education and occupation, and lead to isolation, frustrated ambition and disappointment.

This HBSC report is a crucial resource in deepening the understanding of social determinants that are known to affect young people's health and well-being. Its broad areas of focus – social context, health outcomes, health behaviours and risk behaviours – encapsulate key factors that influence young people's health and well-being, opportunities and life chances. The report provides strong evidence and data that will support countries in formulating their own policies and programmes to meet the challenges that lie ahead.



The worldwide economic downturn poses risks to systems everywhere, but HBSC results enable countries to focus their resources on the most effective interventions. Evidence is emerging on how HBSC data are influencing policy within countries; this is a very encouraging development that we hope to see continuing into the future, with appropriate support provided to ensure HBSC can progress with its vital work.

Support continues to be provided for HBSC through the WHO/HBSC Forum, which was launched in 2008 through the WHO Regional Office for Europe's European Office for Investment for Health and Development. The Forum aims to maximize the effect the HBSC study can have across countries. It has held three meetings to date, the first focusing on healthy eating habits and physical activity levels, the second on social cohesion for mental well-being, and the third on socio-environmentally determined inequities. Forum meetings employ HBSC data to promote discussion among international partners and facilitate the translation of research findings into effective policy-making and practice.

The WHO Regional Office for Europe is proud of its collaboration with the HBSC study. It recognizes and acknowledges the enormous effort of the research teams who collected, analysed and synthesized data from the countries and regions across Europe and North America that took part in the 2009/2010 survey, and the editorial team who produced this report. And it understands that the continuing value and success of the HBSC study are owed to the 200 000 young people across the world who so generously gave of their time to enable such a strong picture of their lives to emerge. We owe it to them to make sure that the data collected by the survey are now put to maximum use within countries to prepare better futures for young people everywhere.

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# FOREWORD

*Health and health equity are important to the development of all countries. This is the rationale behind the identification of population health promotion and health inequity reduction as key goals in the upcoming WHO strategy for Europe, Health 2020, which the Regional Office is developing in partnership with the 53 Member States in the European Region.*

*Addressing the social determinants of health and reducing related health inequities are centre stage in Health 2020. This is why I welcome so strongly the focus of this fifth international HBSC report on social determinants of health.*

*HBSC recognizes that poor health cannot be explained simply by germs and genes. It involves the circumstances in which young people live; their access to health care, schools and leisure opportunities; and their homes, communities, towns and cities. It also reflects individual and cultural characteristics such as social status, gender, age and ethnicity, values and discrimination. In short, individual and population health is heavily influenced by social determinants.*

*The study of social determinants looks at factors outside what could traditionally be defined as "health" areas but which nevertheless have an enormous impact on health and well-being. It is about identifying and creating the conditions within which population health can thrive, ensuring that health promotion and health inequalities reduction become whole-of-government responsibilities, increasing capacity for strong governance for health within countries and internationally, and positioning health as a crucial asset for the inclusive and sustainable development of populations throughout the European Region.*

*Noncommunicable diseases (NCDs) are the greatest cause of preventable mortality and morbidity in the European Region, and there is growing awareness that NCDs such as obesity and mental disorders are significant factors affecting the health and well-being of young people. Exposure to the risk of NCDs accumulates throughout the life-course, starting before birth and continuing through early childhood and adolescence into adulthood. As the action plan for implementing the WHO European strategy on NCDs moves forward, all must remain vigilant to protect young people from the impact of NCDs and promote positive health.*



*As was the case with previous HBSC reports, this international report shows that, while there is much to celebrate in the health and well-being status of many young people, others continue to experience real and worrying problems in relation to issues such as overweight and obesity, self-esteem, life satisfaction, substance misuse and bullying. The data source for the HBSC survey is young people themselves, and it is vital that policy-makers and practitioners in their countries listen to what they are saying. These voices must drive efforts to address social determinants of health in a way that will have positive effects on young people's health and futures.*

*The report provides a strong evidence base to support national and international efforts to strengthen initiatives that affect young people's health and well-being. All government departments can use it to reflect health needs in their policie,s to define and achieve primary targets and to promote the precious resource that is young people's health.*

*Once again, young people have used the opportunity provided by HBSC to speak – it now falls to us who cherish their aspirations, ambitions, health and well-being to act.*

**Zsuzsanna Jakab**
*WHO Regional Director for Europe*

# ABBREVIATIONS

| | |
|---|---|
| BMI | body mass index |
| CAHRU | Child and Adolescent Health Research Unit, School of Medicine, University of St Andrews, Scotland, United Kingdom (HBSC International Coordinating Centre) |
| deft | design factor |
| EMC | electronic media contact |
| FAS | (HBSC) Family Affluence Scale |
| HBSC | Health Behaviour in School-aged Children (study) |
| IOTF | International Obesity Taskforce |
| ISO | International Organization for Standardization |
| MVPA | moderate-to-vigorous physical activity |
| SES | socioeconomic status |
| STIs | sexually transmitted infections |

**Embargo, 00:01, May 2 2012**

# PART 1.
# INTRODUCTION

**Embargo, 00:01, May 2 2012**

# INTRODUCTION

## HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN (HBSC) STUDY

HBSC, a WHO collaborative cross-national study, collects data on 11-, 13- and 15-year-old boys' and girls' health and well-being, social environments and health behaviours every four years. Full contact details can be found on the HBSC web site *(1)*.

HBSC uses findings at national and international levels:

- to gain new insight into young people's health and well-being
- to understand the social determinants of health
- inform policy and practice to improve young people's lives.

The first HBSC survey was conducted in 1983/1984 in five countries. The study has grown to include 43 countries and regions across Europe and North America. The table shows the growth in the international network over the eight survey rounds.

### Research approach

HBSC focuses on understanding young people's health in their social context – at home, at school, with family and friends. Researchers in the HBSC network are interested in understanding how these factors, individually and together, influence young people's health as they move into young adulthood. Data are collected in all participating countries and regions through school-based surveys using a standard methodology detailed in the HBSC 2009/2010 international study protocol *(2)*.

Each country uses random sampling to select a proportion of young people aged 11, 13 and 15 years, ensuring that the sample is representative of all living in the country within the age range. Around 1500 students in each HBSC country were selected from each age group in the 2009/2010 survey, totalling approximately 200 000 young people (see the Annex). This report uses the terms "young people" and "adolescents" interchangeably to describe respondents to the survey.



Of the 43 countries and regions that participated in the survey, 39 met the guidelines set for publication of data in this report. Those not included were unable to submit data on time or were unable to secure funding. Fieldwork took place between autumn 2009 and spring 2010. Further information on the survey design is given in the Annex, but a more detailed description of the research approach is set out in the HBSC 2009/2010 international study protocol *(2)*. Roberts et al. *(3)* describe methodological development since the study's inception.

### Importance of research on young people's health

Young people aged between 11 and 15 years face many pressures and challenges, including growing academic expectations, changing social relationships with family and peers and the physical and emotional changes associated with maturation. These years mark a period of increased autonomy in which independent decision-making that may influence their health and health-related behaviour develops.

Behaviours established during this transition period can continue into adulthood, affecting issues such as mental health, the development of health complaints, tobacco use, diet, physical activity level and alcohol use. HBSC's findings show how young people's health changes as they move from childhood through adolescence and into adulthood. They can be used to monitor young people's health and determine effective health improvement interventions.

### HBSC research network

The number of researchers working on HBSC across the 43 countries and regions now exceeds 300. Information on each national team is available on the HBSC web site *(1)*.

The study is supported by four specialist centres:

- **International Coordinating Centre**, based at the Child and Adolescent Health Research Unit, School of Medicine, University of St Andrews, Scotland, United Kingdom;

## HBSC SURVEYS: COUNTRIES AND REGIONS INCLUDED IN THE INTERNATIONAL DATA FILES



**1983/1984**

1 England
2 Finland
3 Norway
4 Austria
5 Denmark[a]

**1985/1986**

1 Finland
2 Norway
3 Austria
4 Belgium (French)
5 Hungary
6 Israel
7 Scotland
8 Spain
9 Sweden
10 Switzerland
11 Wales
12 Denmark[a]
13 Netherlands[a]

**1989/1990**

1 Finland
2 Norway
3 Austria
4 Belgium[b]
5 Hungary
6 Scotland
7 Spain
8 Sweden
9 Switzerland
10 Wales
11 Denmark[a]
12 Netherlands[a]
13 Canada
14 Latvia[a]
15 Northern Ireland[a]
16 Poland

**1993/1994**

1 Finland
2 Norway
3 Austria
4 Belgium (French)
5 Hungary
6 Israel
7 Scotland
8 Spain
9 Sweden
10 Switzerland
11 Wales
12 Denmark
13 Netherlands
14 Canada
15 Latvia
16 Northern Ireland
17 Poland
18 Belgium (Flemish)
19 Czech Republic
20 Estonia
21 France
22 Germany
23 Greenland
24 Lithuania
25 Russian Federation
26 Slovakia

**1997/1998**

1 Finland
2 Norway
3 Austria
4 Belgium (French)
5 Hungary
6 Israel
7 Scotland
8 Spain
9 Sweden
10 Switzerland
11 Wales
12 Denmark
13 Canada
14 Latvia
15 Northern Ireland
16 Poland
17 Belgium (Flemish)
18 Czech Republic
19 Estonia
20 France
21 Germany
22 Greenland
23 Lithuania
24 Russian Federation
25 Slovakia
26 England
27 Greece
28 Portugal
29 Ireland
30 United States

**2001/2002**

1 Finland
2 Norway
3 Austria
4 Belgium (French)
5 Hungary
6 Israel
7 Scotland
8 Spain
9 Sweden
10 Switzerland
11 Wales
12 Denmark
13 Canada
14 Latvia
15 Poland
16 Belgium (Flemish)
17 Czech Republic
18 Estonia
19 France
20 Germany
21 Greenland
22 Lithuania
23 Russian Federation
24 Slovakia
25 England
26 Greece
27 Portugal
28 Ireland
29 United States
30 MKD[c]
31 Netherlands
32 Italy
33 Croatia
34 Malta
35 Slovenia
36 Ukraine

**2005/2006**

1 Finland
2 Norway
3 Austria
4 Belgium (French)
5 Hungary
6 Israel
7 Scotland
8 Spain
9 Sweden
10 Switzerland
11 Wales
12 Denmark
13 Canada
14 Latvia
15 Poland
16 Belgium (Flemish)
17 Czech Republic
18 Estonia
19 France
20 Germany
21 Greenland
22 Lithuania
23 Russian Federation
24 Slovakia
25 England
26 Greece
27 Portugal
28 Ireland
29 United States
30 MKD[c]
31 Netherlands
32 Italy
33 Croatia
34 Malta
35 Slovenia
36 Ukraine
37 Bulgaria
38 Iceland
39 Luxembourg
40 Romania
41 Turkey

**2009/2010**

1 Finland
2 Norway
3 Austria
4 Belgium (French)
5 Hungary
6 Israel
7 Scotland
8 Spain
9 Sweden
10 Switzerland
11 Wales
12 Denmark
13 Canada
14 Latvia
15 Poland
16 Belgium (Flemish)
17 Czech Republic
18 Estonia
19 France
20 Germany
21 Greenland
22 Lithuania
23 Russian Federation
24 Slovakia
25 England
26 Greece
27 Portugal
28 Ireland
29 United States
30 MKD[c]
31 Netherlands
32 Italy
33 Croatia
34 Malta
35 Slovenia
36 Ukraine
37 Iceland
38 Luxembourg
39 Romania
40 Turkey
41 Armenia

[a] Carried out survey after scheduled fieldwork dates. [b] National data file. [c] The former Yugoslav Republic of Macedonia (MKD is an abbreviation of the International Organization for Standardization (ISO)).
*Note.* Although Albania and Bulgaria participated in the 2009/2010 survey, they are not listed because the national data were not submitted to the international data centre by the deadline.

- **Data Management Centre**, based at the Department of Health Promotion and Development, University of Bergen, Norway;
- **Support Centre for Publications**, based at the University of Southern Denmark, Odense; and
- **Study Protocol Production Group**, based at the Ludwig Boltzmann Institute for Health Promotion, University of Vienna, Austria.

It is led by the International Coordinator, Professor Candace Currie, and the Databank Manager is Professor Oddrun Samdal. The study is funded at national level in each of its member countries.

### Engaging with policy-makers

The WHO/HBSC Forum series has been developed to increase knowledge and understanding around priority public health conditions from the perspective of social determinants of health *(4),* allowing researchers, policy-makers and practitioners to convene to analyse data, review policies and interventions and formulate lessons learnt.

Beginning with the results of HBSC research, the process compares and contrasts data, experiences and models from throughout Europe. Specific objectives are to document, analyse and increase knowledge and understanding by:

- translating research on young people's health into policies and action within and beyond the health sector;
- scaling up intersectoral policies and interventions to promote young people's health;
- reducing health inequities among young people; and
- involving young people in the design, implementation and evaluation of policies and interventions.



This culminates in the development of a synthesis report and policy statement, capacity-building materials and the integration of outcomes into ongoing support to Member States by WHO and partners. Forum meetings usually coincide with regular WHO ministerial conferences on particular themed areas to ensure that the findings can have the biggest effect during the policy-making cycle.

Further details of the three meetings that took place between 2006 and 2009 can be found on the HBSC and WHO Regional Office for Europe web sites.

## SOCIAL DETERMINANTS OF HEALTH AND WELL-BEING AMONG YOUNG PEOPLE

Evidence gathered over the last two decades shows that disadvantaged social circumstances are associated with increased health risks *(5–7).* As a result, health inequalities are now embedded in contemporary international policy development. The WHO Commission on Social Determinants of Health claims that the vast majority of inequalities in health between and within countries are avoidable *(8),* yet they continue to be experienced by young people across Europe and North America.

Young people are often neglected as a population group in health statistics, being either aggregated with younger children or with young adults. Little attention has been paid to inequalities related to socioeconomic status (SES), age and gender among this group. This report seeks to identify and discuss the extent of these inequalities and highlight the need for preventive action to "turn this vulnerable age into an age of opportunity" *(9).*

In general, young people in the WHO European Region enjoy better health and development than ever before, but are failing to achieve their full health potential. This results in significant social, economic and human costs and wide variations in health in every Member State. Health experience during this critical period has short- and long-term implications for individuals and society. Graham & Power's work on life-course approaches to health interventions *(10)* highlights adolescence as critical in determining adult behaviour in relation to issues such as tobacco and alcohol use, dietary behaviour and physical activity. Health inequalities in adult life are partly determined by early-life circumstances.

The findings presented in this report can contribute to WHO's upcoming strategy for Europe, Health 2020, which is being developed through a participatory process involving Member States and other partners, including the European Union and its institutions, public health associations, networks and civil society. The objective is to ensure an evidence-based and coherent policy framework capable of addressing the present and forecasting future challenges to population health. It will provide a clear common vision and roadmap for pursuing health and health equity in the European Region, strengthening the promotion of population health and reducing health inequities by addressing the social determinants of health. Part of the work being taken forward to drive the Health 2020 vision is a major review of the nature and magnitude of health inequalities and social determinants of health within and across European countries.

Attempts to address health inequalities (and consequently meet the strategic objectives of Health 2020) must include examination of differences in health status and their causes. The HBSC study has collected data on the health and health behaviours of young people since 1983, enabling it to describe how health varies across countries and increase understanding of inequalities due to age, gender and SES. HBSC recognizes the importance of the relationships that comprise the immediate social context of young people's lives and shows how family, peers and school can provide supportive environments for healthy development. Importantly, the study has shown that it is not only health outcomes that are differentiated by age, gender and SES, but also the social environments in which young people grow up.

## DIMENSIONS OF INEQUALITIES



Social inequalities in health are traditionally measured by examining differences in SES as defined by individuals' (or, in the case of young people, their parents') position in the labour market, education status or income. Gender, ethnicity, age, place of residence and disability are also important dimensions of social difference: these have been under-researched in relation to young people's health outcomes.

It has been argued that these determinants need to be researched in their own right to enable fully developed explanations of health inequalities to emerge *(11)*. This is very important in policy terms, as evidence suggests that segments of the population respond differently to identical public health interventions. Researchers can therefore play an important role in advancing understanding of the individual influences of each of the dimensions of health inequalities and how they interact to affect health. This report contributes to developing a better understanding of the social context of young people's health by presenting data from the 2009/2010 HBSC survey by SES, gender, age and country of residence, but it first describes what is known about the relationship between social determinants and health and well-being.

## OVERVIEW OF PREVIOUS HBSC FINDINGS

A review of HBSC evidence presented through academic journals and reports produced key findings on health, as influenced by these dimensions. This work provides a platform for the presentation of the new data in this report.

### Age differences

Young people's health choices, including eating habits, physical activity and substance use, change during adolescence. Health inequalities emerge or worsen during this developmental phase and translate into continuing health problems and inequalities in the adult years *(12,13)*. These findings have important implications for the timing of health interventions and reinforce the idea that investment in young people must be sustained to consolidate the achievements of early childhood interventions *(9)*. This is vital for individuals as they grow but is also important as a means of maximizing return on programmes focused on investment in the early years and reducing the economic effects of health problems.

### Gender differences

Previous HBSC reports have presented findings for boys and girls separately, providing clear evidence of gender differences in health that have persisted or changed over time. Boys in general engage more in externalizing or expressive forms of health

behaviours, such as drinking or fighting, while girls tend to deal with health issues in a more emotional or internalizing way, often manifesting as psychosomatic symptoms or mental health problems *(14)*.

Gender differences for some health behaviours and indicators, such as current attempts to lose weight *(15)* and psychosomatic complaints *(16–22),* tend to increase over adolescence, indicating that this is a crucial period for the development of health differentials that may track into adulthood. Targeting young people's health from a gender perspective has considerable potential to reduce gender health differentials in adulthood.

The magnitude of gender differences varies considerably cross-nationally. Gender difference in psychological and physical symptoms, for example, is stronger in countries with a low gender development index score *(16).* Similarly, the gender difference in drunkenness is greater in eastern European countries *(22).* These findings underscore the need to incorporate macro-level sociocontextual factors in the study of gender health inequalities among young people *(17).*

### Socioeconomic differences

The HBSC study has found family affluence to be an important predictor of young people's health. In general, cost may restrict families' opportunities to adopt healthy behaviours such as eating fruit and vegetables *(23–25)* and participating in fee-based physical activity *(26,27).* Young people living in low-affluence households are less likely to have adequate access to health resources *(28)* and are more likely to be exposed to psychosocial stress, which underpin health inequalities in self-rated health and well-being *(29).* A better understanding of these effects may enable the origins of socioeconomic differences in adult health to be identified and offers opportunities to define possible pathways through which adult health inequalities are produced and reproduced.



The distribution of wealth within countries also significantly affects young people's health. In general, young people in countries with large differences in wealth distribution are more vulnerable to poorer health outcomes, independent of their individual family wealth *(20,30–34).*

### Country differences in health

Variations in patterns of health and its social determinants are also seen between countries. Over the 30 years of the HBSC study, it has been possible to monitor how young people's health and lifestyle patterns have developed in the context of political and economic change. Between the 1997/1998 and 2005/2006 HBSC surveys, for instance, the frequency of drunkenness increased by an average of 40% in all participating eastern European countries; at the same time, drunkenness declined by an average of 25% in 13 of 16 western European and North American countries. These trends may be attributed to policies that, respectively, either liberalized or restricted the alcohol industry *(35)* and to changes in social norms and economic factors. These findings underline the importance of the wider societal context and the effect it can have – both positive and negative – on young people's health.

While geographic patterns are not analysed within this report, the maps allow comparison between countries and regions. Future HBSC publications may investigate these cross-national differences.

## SOCIAL CONTEXT OF YOUNG PEOPLE'S HEALTH

There is some evidence to suggest that protective mechanisms and assets offered within the immediate social context of young people's lives can offset the effect of some structural determinants of health inequalities, including poverty and deprivation *(36–38).* Understanding how these social environments act as protective and risk factors can therefore support efforts to address health inequalities.

Research confirms that young people can accumulate protective factors, increasing the likelihood of coping with adverse situations even within poorer life circumstances *(39).* The HBSC study highlights a range of factors associated with these broad social environments that can create opportunities to improve young people's health.

### Family

Communication with parents is key in establishing the family as a protective factor. Support from family equips young people to deal with stressful situations, buffering them against the adverse consequences of several negative influences *(40).*

Young people who report ease of communication with their parents are also more likely to report a range of positive health outcomes, such as higher self-rated health, higher life satisfaction *(21)* and fewer physical and psychological complaints *(13).* The accumulation of support from parents, siblings and peers leads to an even stronger predictor of positive health: the higher the number of sources of support, the more likely it is that the children will experience positive health *(41).* This suggests that professionals working in young people's health should not only address health problems directly but also consider the family's influence in supporting the development of health-promoting behaviours.

### Peer relations

Developing positive peer relationships and friendships is crucial in helping adolescents deal with developmental tasks such as forming identity, developing social skills and self-esteem, and establishing autonomy.

The HBSC study has identified areas across countries in which having high-quality peer relationships serves as a protective factor, with positive effects on adolescent health including fewer psychological complaints *(42).* Adolescents who participate in social networks are found to have better perceived health and sense of well-being and take part in more healthy behaviours *(21).* Peers are therefore valuable social contacts who contribute to young people's health and well-being, but can also be negative influences in relation to risk behaviours such as smoking and drinking: this is a complex area *(43,44).*



### School environment

Experiences in school can be crucial to the development of self-esteem, self-perception and health behaviour. HBSC findings show that those who perceive their school as supportive are more likely to engage in positive health behaviours and have better health outcomes, including good self-rated health, high levels of life satisfaction, few health complaints *(45–49)* and low smoking prevalence *(50).* These associations suggest that schools have an important role in supporting young people's well-being and in acting as buffers against negative health behaviours and outcomes.

### Neighbourhood

Neighbourhoods that engender high levels of social capital create better mental health, more health-promoting behaviours, fewer risk-taking behaviours, better overall perceptions of health *(39,51)* and greater likelihood of physical activity *(52).* Building neighbourhood social capital is therefore a means of tackling health inequalities.

This review of current research findings stemming from the HBSC study provides an introduction to the latest empirical findings and sets the scene in terms of understanding their importance and relevance to current debates on adolescent health.

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