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jun people are among the major driving forces of society’s development. They are the capital on which tomorrow’s world is built. It is not the young people per se that enhance tomorrow’s quality of life but their ideas, creativity, motivation and energy to move things forward; these are all aspects that are closely intertwined with health and wellbeing. Young people’s health and wellbeing is multi-faceted and several aspects contribute to it such as their physical condition, being overweight, injuries, physical activity, having a good relationship with their parents, not being bullied or stressed by school-related issues, safe sexual intercourse and—most of all—being free of physical or mental complaints and satisfied with life in general. It is one of this supplement’s strengths to bring many of these aspects together in one volume.

But where are we standing in terms of adolescent health and wellbeing and related factors? What can possibly or realistically be achieved in the near future? These questions are crucial for policy makers in charge of improving young people’s health and wellbeing. However, in a world in which most if not all conditions were found to be relative, it is impossible to answer these questions without a ‘fixed point’ or ‘stand point’ for comparison. In this respect, this supplement offers two valuable anchors. First, all contributions include multiple countries. This allows to see where a given country is standing in comparison to the neighbouring countries or to countries in different regions of Europe or even overseas. Second, all contributions include multiple survey years. This allows the comparison of a given age group, e.g. 15-year-olds, surveyed in 2010 with the same-aged peers living in the same country 4, 8, 12 or 16 years ago.

Moreover, both aspects contribute to the assessment of differences in changes of prevalence (differences in trends) of health behaviours and social determinants across different countries. While it is difficult to link a policy measure implemented in a given country at a certain time point or differences in a country-specific policy to observed differences in adolescent health behaviours or related factors, the results presented here nevertheless offer valuable insight on which evidence-based policy can and should be based.

What this supplement has to offer

General aim

As mentioned above, in addition to multiple countries and multiple survey years, the aim of this supplement was to provide evidence on various aspects of young people’s health, wellbeing and related factors. To be able to do so, most contributions are in short report format. In this way, the reader can easily get an overview of prevalence changes across countries for selected outcomes, e.g. fruit and vegetable consumption, overweight, injury-related mortality and morbidity, physical activity, parental communication, bullying, early sexual intercourse and condom use, weekly alcohol consumption and the co-occurrence of tobacco and cannabis use, and life satisfaction, just to name a few of the outcomes included. Full-length papers offer examples of how time trends can be interpreted and explained when dealing with perceived school pressure and health complaints.

Results in a nutshell

Altogether, this supplement consists of 20 contributions. After a general introduction into the Health Behaviour in School-aged Children (HBSC) project by Currie and Aleman-Diaz and its impact over time, Schnohr et al. describe some historical aspects of the HBSC. Their paper also briefly reviews previously published trend papers that emerged from this collaboration. It also describes methodological considerations and analytical strategies on how to produce reliable trends based on an international study. In the paper by Cavallero et al., adolescents were asked to assess their current health condition. The results show that over the last decade an increasing proportion of adolescents rated their health as excellent.

Analyses conducted by Vereecken et al. reveal an increase in daily fruit and vegetable consumption between 2002 and 2010 in a majority of countries, with a decrease noted in only five countries. Honkala et al. demonstrate that the prevalence of recommended tooth brushing (i.e. more than once a day) increased in all countries except in Scandinavia, where it was already high in 1994. This also means that differences between the countries diminished from 2004 to 2010.

Analyses conducted by Ottov—Jordan et al. show that trend patterns in recurrent health complaints vary considerably across countries; i.e. nine countries showed no linear or quadratic trend, seven a linear decrease, five a linear increase, four a U-shape curve, six an inverted U-shape curve and four an unstable trend. Akuwudike et al. document an increase in overweight prevalence (including obesity) predominantly in Eastern Europe. In other countries, overweight rates remained stable albeit at high levels. Also noteworthy is that no decreases from 2002 to 2010 were found in any of the countries. The paper by Molcho et al. reveals that in the same timespan injury-related mortality, but not morbidity, declined over time across all the included 30 countries. Interestingly, risky behaviours such as substance use, physical activity or fighting were...
Conclude that despite a slight overall increase in physical activity from 2002 to 2010 across the 32 included countries, a significant decrease was observed in many countries, most notably in the Czech Republic, Poland, Russia, and Lithuania, Russia, and in four western European countries (Spain, Norway, Scotland, Slovenia, Switzerland, and USA in 2010). There was a lower proportion of adolescents who were physically active on a daily basis compared to 8 years ago. In the same time span, less adolescents found it easy to talk to their mother or father about important personal issues in France, Slovenia, and Poland. Also, in French-speaking Belgium and Finland, there were increasing trends of bullying victimization. Thus, it is not only important to consider the evidence of single countries or groups of countries, but the multiple evidence presented in the various articles included in this supplement can help to better understand the development in a given country in the light of the others.

The fact that not all the examined variables developed positively across the years is something to be concerned about. Despite the results showing that a higher proportion of adolescents ate healthily in terms of fruit and vegetable consumption and were physically active on a daily basis, overweight prevalence including obesity increased from 2002 to 2010, predominately in Eastern Europe, or remained stable in the best case. Furthermore, although a higher proportion of adolescents did not suffer from injuries, did not experience bullying victimization, did not drink alcohol on a weekly basis, lived tobacco and cannabis free, and rated their health as excellent, the prevalence of medicine use for headaches increased in twelve out of twenty countries, most notably in the Czech Republic, Poland, Russia, Sweden, and Wales.

Concerning general life satisfaction, Cavallo et al. found no consistent trends across all countries. Between 2002 and 2010, six relatively affluent western countries (Austria, Canada, Switzerland, Denmark, Finland, and Greenland) and two eastern European countries (Hungary and Macedonia) decreased. In contrast, increasing life satisfaction was observed in six eastern European countries (Estonia, Croatia, Lithuania, Latvia, Russia, and Ukraine), and in four western European countries (Spain, Norway, Portugal, and Belgium). Finally, analyses by Ottová-Jordan et al. reveal that individual factors, especially being a female, being bullied, and experiencing school pressure and smoking, were more strongly associated with health complaints in the different survey years than country characteristics, such as national wealth or income inequality.

Conclusion: is there nothing to worry about anymore?

What emerges as a general picture of the 19 contributions included in this supplement is that, across countries, contemporary adolescents are better off than their counterparts were about a decade ago. In 2010, a higher proportion of adolescents ate healthily in terms of fruit and vegetable consumption, had a good dental hygiene, did not suffer from injury, were physically active on a daily basis, communicated with friends electronically, found it easy to talk to their mother or father about important personal issues, were not victimized in terms of occasional or chronic bullying, used a condom when having sex, did not drink alcohol on a weekly basis, and lived tobacco and cannabis free. Consistently and as a kind of general summary, Cavallo et al. report a higher proportion of adolescents who rated their health as excellent.

The overall optimistic picture seems surprising considering that many countries in Europe and North America faced a severe economic crisis in the last decade. At the same time, however, policies and actions to improve public health were implemented in many countries such as the ban of selling cigarettes to minors and smoking in public buildings including bars and restaurants or the policies aiming to increase physical activity and healthy eating in school children to counteract excess weight and obesity development. However, one has to bear in mind that such trends over time are never the result of a single measure but reflect changes in fashions, behavioural norms, societal values, etc., as well as the diversity of the policy actions that were taken. This is what makes it particularly difficult to come up with sound explanations for the observed trends.

While the overall picture indicates improvements in adolescent health and social determinants this was not the case for all the countries. For example, in Greenland, Norway, Poland, and Denmark an increase in multiple recurrent health complaints was observed from 1994 to 2010. In the Czech Republic, Denmark, Italy, Lithuania, Russia, Scotland, Slovenia, Switzerland, and USA in 2010, there was a lower proportion of adolescents who were physically active on a daily basis compared to 8 years ago. In the same time span, less adolescents found it easy to talk to their mother or father about important personal issues in France, Slovenia, and Poland. Also, in French-speaking Belgium and Finland, there were increasing trends of bullying victimization. Thus, it is not only important to consider the evidence of single countries or groups of countries, but the multiple evidence presented in the various articles included in this supplement can help to better understand the development in a given country in the light of the others.

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Another major concern is that many if not the majority of adolescents living in Europe and North America still do not meet the recommendations for healthy living despite the improvements described above. For example, large proportions of adolescents do...
not meet the recommendations for physical activity (at least 60 min per day), for time spent in front of electronic screens (no more than 2 h per day), or for fruit and vegetable consumption (daily basis).

This demonstrates the need for continued advocacy, policy implementation, and a strengthening of efforts to motivate adolescents and their parents to behave in healthy ways. It is imperative to work with policymakers from various countries to implement health strategies for children and adolescents that take into account social determinants for health cross-nationally.

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