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# Commentary

# Improving Adolescent Health: Translating Health Behaviour in School-aged Children Evidence Into Policy



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The Health Behaviour in School-aged Children (HBSC) study has informed the development and implementation of policy for children and adolescents for over three decades. The growing recognition that adolescence is a critical period for later health and well-being has highlighted the need for, and importance of timely and accurate data. Every 4 years, the HBSC study provides evidence on health behaviors, health outcomes, and social environments of boys and girls across Europe and North America. To maximize the impact of evidence, the HBSC study has a working Policy Development Group that cultivates relationships with key stakeholders, disseminates widely HBSC research, and facilitates discussion and cross-fertilization of ideas and priorities. To date, HBSC data have been central to health promotion efforts and developments in practice, policy, and legislation at both national and international levels.

# **National Policy Impact**

National governments and other national stakeholders have used HBSC data to identify priority areas for adolescent health, set targets for health improvement, and monitor the impact of

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policies and programs. This has led to system changes and targeted policy actions in areas of primary public health concerns such as substance use, healthy lifestyles, and adolescent health and well-being.

## Delivering system change in Wales

The HBSC evidence has helped to underpin system changes within the health and education sectors in Wales (United Kingdom) as part of the *School Health Research Network* led by Cardiff University with inputs from Welsh Government and Public Health Wales. All secondary schools in Wales are covered by the network and benefit from receiving individualized reports based on their own data [1]. The network provides regular evidence to support and monitor regional and local implementation of national policy initiatives.

## Regulating cannabis use in Canada

In 2014, the HBSC survey reported that out of around 40 countries, Canada ranked second highest for past-month cannabis use and highest for early cannabis use initiation among adolescents [2]. These data, together with findings from other student drug use surveys, helped to justify the importance of addressing cannabis use among young people and the steps taken toward a major drug policy reform [3]. In 2018, Canada became the world's second and largest country to federally legalize cannabis for recreational use. The new law, the Cannabis Act, represents a milestone in the legal history of cannabis in Canada, aiming to prevent the youth from accessing cannabis, protect their health and safety, and displace the illegal cannabis market.

Reducing alcohol consumption in Israel, France, and the Netherlands

Together with the European School Survey Project on Alcohol and Other Drugs (ESPAD), HBSC had an important role in raising awareness about high levels of adolescent alcohol use and informing alcohol-related policy actions in Israel, France, and the Netherlands.

Following a considerable increase in alcohol "binge drinking" since 1994, Israel developed a national strategy to reduce alcohol consumption among children and youth. The strategy was implemented in 2010 and included fostering partnerships with relevant agencies, raising awareness through national media campaigns, developing and reinforcing new legislation, and implementing innovative school-based and community-based interventions. In 2014, the HBSC survey reported a decrease of around 50% in alcohol "binge drinking" among young people in Israel, from 21% in 2009 to 11% in 2014 [2], a trend sustained to this day.

The Netherlands responded to high levels of adolescent alcohol use with national public awareness campaigns, a set of targeted interventions for parents and adolescents, as well as more stringent policies on alcohol use, including increasing the legal drinking age from 16 to 18 years. Subsequent HBSC and ESPAD surveys revealed a significant decline in alcohol consumption among Dutch adolescents between 2005 and 2013, and a stable pattern afterward [4].

In France, the HBSC and ESPAD surveys have merged at the national level to monitor adolescent health behaviors and evaluate the impact of prevention programs aimed at secondary school students. The funding, methods, and prevention actions are shared and coherent at a regional and national level. The merged survey "EnCLASS" is now the main source of indicators on adolescents, used to monitor the impact of the new national policy plan to reduce drug consumption and addiction behavior in France [5].

#### Promoting healthy eating habits in Wales and Latvia

In Wales, HBSC data helped to strengthen the case for the Welsh Government's Primary School Free Breakfast Initiative. The program was introduced in 2004, following concerns about relatively low rates of regular breakfast consumption, particularly among girls [6]. The initiative aimed to make free healthy breakfasts available to pupils in all maintained primary schools. The results of an accompanying cluster randomized controlled trial suggested the policy improved the quality of breakfasts and attitudes toward eating breakfast and addressed socioeconomic inequalities [7,8]. In Latvia, HBSC findings helped shape national policies promoting healthy eating habits on two separate occasions. Latvia became one of the first European countries to introduce an excise tax on sweetened drinks in 2004, accompanied by a ban on soft drinks, sweets, and salty snacks in schools in 2006 [9]. These actions resulted in a more than 50% decrease in daily soft drink consumption among Latvian adolescents since 2002 [10].

# Improving sexual and reproductive health in Scotland

As the only source of nationally representative and internationally comparable data on the sexual and reproductive behavior of young people in Scotland (United Kingdom), the HBSC study played a key role in the development of the first Scottish Strategy on pregnancy and parenthood among young people [[11]]. Early sexual initiation in Scotland has been declining over the last 10 years but remains high compared with other countries in the HBSC network, especially among girls [10,12]. The strategy aims to reduce the levels of pregnancy in young people and decrease the intergenerational cycles of inequalities. Since the implementation of the strategy in 2015, teenage pregnancy rates showed a declining trend, with decreasing social inequalities [13].

### Promoting positive mental health in Nordic countries

Since the beginning of the 1990s, the Swedish HBSC study has highlighted an increase in multiple health complaints experienced by adolescents. In response, Sweden has invested heavily in schools and health care systems, held cross-sectoral consultations, and appointed a national coordinator to support the work of agencies, local authorities, regions, and nongovernmental organizations in the area of mental health. Thanks to more than 30 years of data from the HBSC study, the public awareness and understanding of these issues have increased, as well as self-reporting of mental health problems [9]. Sweden is also contributing to a regional project, supported by the Nordic Council of Ministers, with the HBSC teams in Denmark, Finland, Iceland, and Norway. The "Nordic collaboration on positive mental health" aims to improve the well-being of adolescents in the region, identify best policy practices, and channel the HBSC research into effective prevention and intervention strategies. The project also led to a successful completion of selecting, translating, and piloting new indicators of positive mental health for the 2017/2018 HBSC survey [14].

#### International policy impact

The HBSC network is involved in a range of activities that impact international policy related to children and adolescent health. Through its partnership with the World Health Organization (WHO) Regional Office for Europe, the HBSC findings influence European-level policy-making, such as Investing in Children: the European Child and Adolescent Health strategy [15], monitoring [16], and country feedback on its implementation. The HBSC International Report is published every 4 years and provides an overview of adolescents' health and well-being in Europe and North America, allowing the prevalence of adolescent behaviors to be compared across countries and over time. Topic-based reports that provide more in-depth analysis and highlight targeted priority areas are published separately. For example, recent reports on obesity and alcohol use have presented key trends and drawn attention to gender and socioeconomic inequalities across the WHO European Region [17,18]. HBSC data are made available online through the WHO European Data Gateway and in-country profiles, where they provide a basis for policy dialog within member states. Other collaborative reports have been published by United Nations Children's Fund, United Nations Educational, Scientific and Cultural Organization, the European Commission, European Monitoring Centre for Drugs and Drug Addiction, and the Organisation for Economic Co-operation and Development, highlighting important topics such as school violence and bullying, child poverty, and child well-being [19,20]. By influencing the international policy arena,

HBSC promotes progress toward achieving the United Nation's Sustainable Development Goals and the supporting action plans such as the Accelerated Action for the Health of Adolescents [21,22].

#### Conclusions

Data from the HBSC study provide vital evidence to guide and monitor the effectiveness of health policies and programs over time. As young people transition from childhood to adulthood, it is essential to foster their full potential and make their lives visible through policies and actions that are developmentally appropriate, evidence informed, rights based, and sustainable.

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## References

- [1] Murphy S, Littlecott H, Hewitt G, et al. A Transdisciplinary Complex Adaptive Systems (T-CAS) approach to developing a national school-based culture of prevention for health improvement: The school Health Research Network (SHRN) in Wales. Prev Sci 2018. https://doi.org/10.1007/s11121-018-0969-3.
- [2] Inchley J, Currie DB, Young T, et al. Growing up unequal: Gender and socioeconomic differences in young people's health and well-being. Health Behaviour in School-Aged Children (HBSC) study: International report from the 2013/2014 survey. Copenhagen: WHO Regional Office for Europe; 2016. Health policy for children and adolescents, No. 7.
- [3] Wallingford S, Konefal S, Young MM, Student Drug Use Surveys Working Group. Cannabis use, harms and perceived risks among Canadian students. Ottawa, Ont: Canadian Centre on Substance Use and Addiction; 2019.
- [4] Stevens GWJM, van Dorsselaer S, Boer M, et al. HBSC 2017. Gezondheid en welzijn van jongeren in Nederland. Utrecht: Utrecht University; 2018.

- [5] Godeau E, Ehlinger V, Spilka S. EnCLASS: An innovative project merging 2 international surveys (HBSC/ESPAD) among French students. Eur J Public Health 2019;29. https://doi.org/10.1093/eurpub/ckz187.
- [6] Currie C, Roberts C, Morgan A, et al. Young people's health in context. Health Behaviour in School-Aged Children (HBSC) study: International report from the 2001/02 survey. Copenhagen: WHO Regional Office for Europe; 2004.
- [7] Murphy S, Moore GF, Tapper K, et al. Free healthy breakfasts in primary schools: A cluster randomised controlled trial of a policy intervention in Wales, UK. Public Health Nutr 2011;14:219–26.
- [8] Moore GF, Murphy S, Chaplin K, et al. Impacts of the primary school free breakfast initiative on socio-economic inequalities in breakfast consumption among 9-11-year-old schoolchildren in Wales. Public Health Nutr 2014:17:1280-9.
- [9] Health Behaviour in School-Aged Children (HBSC) survey data informing policy: Country examples. Copenhagen: WHO Regional Office for Europe; 2016
- [10] Inchley J, Currie DB, Budisavljevic S, et al. Spotlight on adolescent health and well-being: Findings from the 2017/2018 Health Behaviour in School-Aged Children (HBSC) survey in Europe and Canada. Copenhagen: WHO Regional Office for Europe; 2020 (in press).
- [11] The Scottish Government. Consultation on the pregnancy and parenthood in young people strategy. 2015. Available at: https://www.gov.scot/ publications/consultation-pregnancy-parenthood-young-people-strategy/. Accessed April 16, 2020.
- [12] Inchley J, Mokogwu D, Mabelis J, Currie D. Health Behaviour in School-Aged Children (HBSC) 2018 survey in Scotland: National report. Glasgow, United Kingdom: MRC/CSO Social and Public Health Sciences Unit, University of Glasgow; 2020.
- [13] Teenage pregnancy: Year of conception, ending 31 December 2017. Glasgow, United Kingdom: National Statistics Publication for Scotland. Information Services Division; 2019.
- [14] Eriksson C, Arnarsson A, Damsgaard M, et al. Towards enhancing research on adolescent positive mental health. Nordic Welfare Res 2019; 4:113–28.
- [15] Investing in children: The European child and adolescent health strategy 2015-2020. Copenhagen: WHO Regional Office for Europe; 2014.
- [16] Situation of child and adolescent health in Europe. Copenhagen: WHO Regional Office for Europe; 2018.
- [17] Adolescent obesity and related behaviours: Trends and inequalities in the WHO European region, 2002-2014. Copenhagen: WHO Regional Office for Europe; 2017.
- [18] Adolescent alcohol-related behaviours: Trends and inequalities in the WHO European region, 2002-2014. Copenhagen: WHO Regional Office for Europe; 2018.
- [19] School violence and bullying: Global status and trends, drivers and consequences. Paris: UNESCO; 2018.
- [20] Fairness for children: A league table of inequality in child well-being in rich countries', Innocenti report card 13. Florence: UNICEF Office of Research – Innocenti; 2016.
- [21] Adolescent Health and Development in the WHO European Region: Can we do better? Copenhagen: WHO Regional Office for Europe; 2019.
- [22] Global Accelerated Action for the Health of Adolescents (AA-HA!): Guidance to support country implementation. Geneva: World Health Organization; 2017.