World Health Organization
REGIONAL OFFICE FOR Europe

S·H·E
Schools for Health in Europe

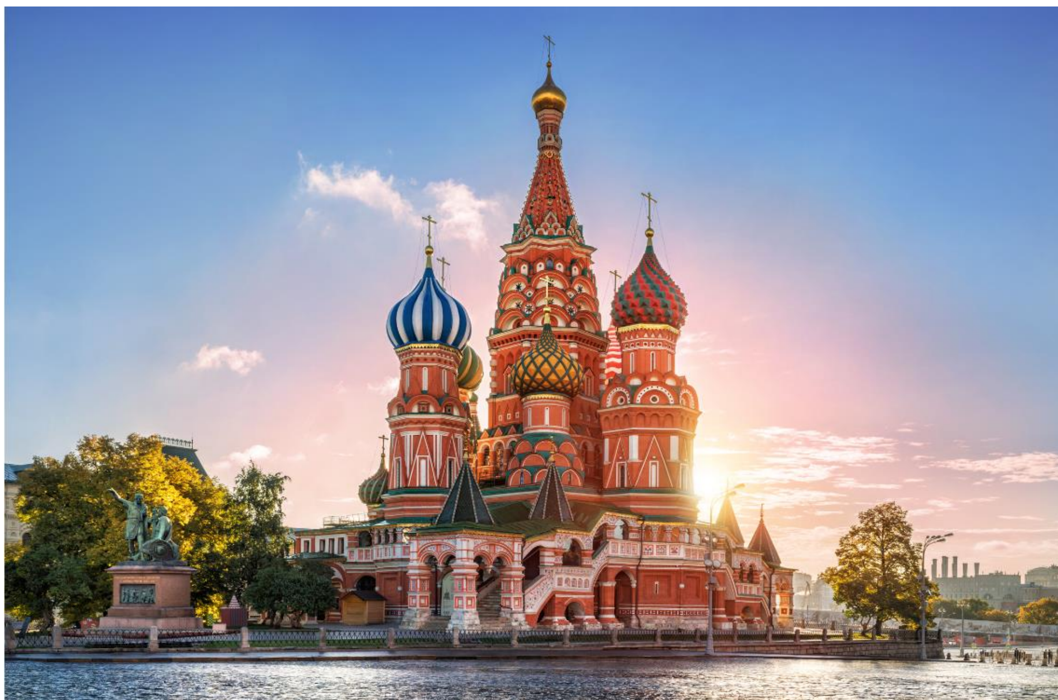
SCIENTIFIC CENTER OF CHILDREN'S HEALTH

School for Health

Health, well-being and education: building a sustainable future

The 5th European Conference on Health Promoting Schools
Moscow, Russian Federation, 20–22 November 2019

Conference report



ABSTRACT

The 5th European Conference on Health Promoting Schools was held on 20–22 November 2019 in Moscow, Russian Federation, with over 460 participants from 40 countries. A range of topics was addressed through over 160 contributions and nine keynote presentations focusing on conceptual aspects of the health promoting school approach, implementation and dissemination, and current social change processes, such as digitization and heterogeneity. As a result of the research and case studies presented and discussions among conference participants, recommendations for action addressed to all actors in governmental, nongovernmental and other organizations at international, national and regional levels that engage with schools and/or school health promotion were developed. The recommendations for action are contained in the Moscow Statement on Health Promoting Schools, which is presented as an annex to this conference summary report.

Keywords

HEALTH PROMOTION
HEALTH PROMOTING SCHOOLS
SCHOOL POLICIES
ADOLESCENT WELLBEING
ADOLESCENT HEALTH BEHAVIOR
SCHOOL HEALTH SERVICE
EDUCATION SECTOR
EUROPE

Address requests about publications of the WHO Regional Office for Europe to:
Publications
WHO Regional Office for Europe
UN City, Marmorvej 51
DK-2100 Copenhagen Ø, Denmark
Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (http://www.euro.who.int/pubrequest).

© World Health Organization 2020
All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

Cover picture: St. Basil's Cathedral, Red Square, Moscow, Russian Federation (iStock).

CONTENTS

Page

Acknowledgements iv

The conference 1

Aims 1

Participants 1

Rationale and process 1

Expected outcomes 1

Opening session 2

Where do we stand with the HPS approach 30 years after Ottawa? 3

Key concepts, developments and milestones of HPS from the SHE perspective 3

Health Behaviour in School-aged Children (HBSC): key results, trends and links with school health promotion 5

Health meets school education 6

Moving forward: upscaling implementation and dissemination of school health promotion 9

Principles for development and implementation of school health promotion 9

Whole-school approaches to health promotion 10

The role of leadership in school health promotion 12

School health services: a key partner in school health promotion 15

Screening for diseases among schoolchildren: the end of an era? 15

Risk factors affecting the health of students in a modern school: identification, assessment and prevention 16

Pairing children with health services: a new role for school health services in the 21st century 19

Closing session 22

Conference highlights: a personal reflection 22

Moments from the past, the present and the future of HPS 24

Moscow Statement 25

The parallel sessions and workshops 26

Annex 1 28

Health, well-being and education: building a sustainable future. The Moscow Statement on Health Promoting Schools 28

Annex 2 32

Programme 32

Annex 3 42

Poster presentations 42

Acknowledgements

The 5th European Conference on Health Promoting Schools was organized by:

- the Schools for Health in Europe Network Foundation;
- the WHO Regional Office for Europe;
- the National Medical Research Centre of Children's Health of the Ministry of Health of the Russian Federation;
- the Ministry of Health of the Russian Federation;
- the Ministry of Education of the Russian Federation; and
- the Russian Health Promoting Schools Network.

The conference was held in the frame of the joint project of the Russian Federation and the WHO Regional Office for Europe, "Development of the Schools for Health Network in eastern European and central Asian countries (2016–2020)", which is funded by the Government of the Russian Federation.

The Scientific Committee for the conference comprised:

- Kevin Dadaczynski (Fulda University, Germany) (Chair)
- Margaret Barry (New University of Ireland Galway)
- Emily Darlington (University Claude Bernard Lyon, France)
- Nanne de Vries (Maastricht University, the Netherlands)
- Aldona Jociute (Institute of Hygiene, Lithuania)
- Vladislav Kuchma (National Medical Research Centre of Children's Health, Russian Federation)
- Peter Paulus (Leuphana University, Germany)
- Venka Simovska (Danish School of Education)
- Marjorita Sormunen (University of Eastern Finland)
- Teresa Vilaca (University of Minho, Portugal).

The quotations that appear in pictorial boxes before each plenary speaker summary were supplied by the speakers and are presented as they were at the meeting.

The conference

The 5th European Conference on Health Promoting Schools – "Health, well-being and education: building a sustainable future" – was held on 20–22 November 2019 in Moscow, the Russian Federation. The main output from the conference was the Moscow Statement (Annex 1).

Aims

Building on the extremely successful experience of the previous European conferences on health promoting schools (HPS) held in Greece (1997), the Netherlands (2002), Lithuania (2009) and Denmark (2013), the conference aimed to consolidate, disseminate and share research, policy and practice in health promotion and education in schools. It focused on delivering better health and well-being education for all through school-based health promotion, with education and health working in partnership towards social progress and sustainable development.

Participants

Over 460 participants from 40 countries who have professional interests in school health promotion and education and the health and well-being of children and young people attended, including:

- policy-makers from health and education sectors;
- researchers and experts from health and education sectors;
- schools, education sector and health sector practitioners;
- students (PhD and MA levels); and
- representatives from youth, parental, governmental, nongovernmental, international, national and local organizations.

Rationale and process

HPS have been playing a leading role in supporting the health and well-being of school-aged children and young people for over 30 years. Today, the Schools for Health in Europe Foundation (SHE) network of HPS expands to 37 countries in Europe and central Asia.

The HPS approach aims to expand collaboration and dissemination of best practices in health promotion in schools and the communities that support them. The main focus of the conference was ensuring the health and well-being of school-aged children and young people by promoting cooperation between education and health sectors as a means of furthering social progress.

The conference programme (Annex 2) featured four main plenary session with presentations from subject experts and discussions, small-group parallel sessions on themed topics, five workshops and poster presentations (Annex 3). Nine keynote speakers presented at the plenary sessions and over 160 presentations were heard at the parallel sessions.

Expected outcomes

It was anticipated that participants would be able actively to share, exchange and discuss current trends in policy, research and practice related to school-based health promotion and education with colleagues from across Europe and beyond. Participation would facilitate the further development of school health promotion and its contribution to equity in health and educational/school quality.

Opening session

Welcome messages were received from ministries and agencies of the Government of the Russian Federation, the WHO Country Office in the Russian Federation, the WHO Regional Office for Europe and the SHE network. Speakers agreed that achieving the desired results in the health and well-being of school-aged children is possible only through governments, national and international institutions and civil society working in synergy. Cooperation between health and education sectors to promote social progress and sustainable development is particularly important.

The action plan developed by the ministries of health and education in the Russian Federation that embraces not only agreed strategic objectives and sharing of experience, but also places the emphasis on children's health promotion through infrastructure, physical development and education programmes that are underway at all levels of education, provides a strong example of effective joint action. The action plan is building on positive results achieved from a school medicine project implemented in several regions of the country.

Representatives from the WHO Regional Office for Europe stressed the importance of international working in the area of children's and adolescents' health, typified by the Heath Behaviour in School-aged Children (HBSC) study, the seventh international report of which will be published in 2020. The report will bring together data on the health, well-being, social environments and health behaviour of over 220 000 11-, 13- and 15-year-old boys and girls collected from 45 countries and regions in Europe and Canada.

SHE has developed into an enduring and sustainable network that now includes 37 countries from Europe and central Asia. SHE believes that this fifth HPS meeting provides an opportunity for people from a wide range of sectors and organizations to share experiences and get inspired by good practice and current research with the aim of building a sustainable future for children and young people.

The culmination of the conference would be the Moscow Statement (Annex 1), which all speakers looked forward to welcoming and using in ministries and agencies to inform ongoing developments in school health and the wider health and well-being of children and young people.

Where do we stand with the HPS approach 30 years after Ottawa?

Key concepts, developments and milestones of HPS from the SHE perspective

> "The Paris Declaration (WHO 2016) says that education is a key determinant of future health and wellbeing. All of us are needed to work for healthier schools together."
>
> DR. MARJORITA SORMUNEN
> UNIVERSITY OF EASTERN FINLAND

Marjorita Sormunen, Adjunct Professor at the Institute of Public Health and Clinical Nutrition, Faculty of Health Sciences, University of Eastern Finland, opened the first plenary by noting that it was exactly 30 years ago that the Convention on the Rights of the Child, the most widely ratified human rights treaty in history, was launched. The Convention has helped transform children's lives around the world.

Schools provide an efficient and effective way to reach large numbers of people. Today, worldwide, more than 90% of primary school-aged children, 85% of lower-secondary school-age children and 65% of upper-secondary school-age children are enrolled in school. The number of out-of-school children reduced between 2000 and 2018, and gender gaps in lower- and upper-secondary education have been closing steadily over the last two decades.

Schools are places for learning, both formally and informally. Cumulative knowledge and experiences influence children's lifestyles in adulthood. By supporting healthy behaviours and increasing health-related knowledge and understanding, schools contribute to building health literacy. School health services (SHS) represent a very common model of service provision in high-, middle- and low-income countries worldwide.

Data show that schools can contribute to reducing the health divide. Increasing the quality of education, developing equitable and inclusive policies and practices, empowering stakeholders, and building stronger links between schools, families and local communities are important steps in reducing the gradient of health inequalities.

WHO calls for all children to have the right to be educated in a health-promoting school that integrates health-related issues into a comprehensive approach. Every child has the right to an education and should also have the right to education that promotes their health.

The Ottawa Charter from 1986 is considered a milestone in global health, especially health promotion. The Charter states that health promotion is about enabling people to acquire competencies to create more control over their own health and environment. WHO developed the HPS approach in the late 1980s, inspired by the Ottawa Charter. WHO advocates for a whole-school approach that focuses not only on health education in the classroom, but also creates a healthy school environment, school policies and curriculum. This has resulted in the current HPS approach, which is defined by SHE as "a school that implements a structured and systematic plan for the health, well-being and the development of social capital of all pupils and of teaching and non-teaching staff".

The whole-school approach to school health promotion can be divided into the following six components:

- healthy school policies that are clearly defined and designed to promote health and well-being;
- school physical environments that promote health and well-being;
- school social environments that promote quality relationships among and between all school community members – students and staff – and is influenced by relationships with parents and the broader community;
- individual health skills and action competencies that are promoted through the curriculum;
- community links between the school, students' families and key groups/individuals in the surrounding community; and
- local and regional SHS or school-linked services that are responsible for students' health care and health promotion through direct services.

SHE originally was initiated by the WHO Regional Office for Europe, the European Commission and the Council of Europe in 1992. Each member country has a SHE national coordinator appointed by the ministry of health and ministry of education. The network has its own research group, which aims to facilitate and coordinate research development in the field of school-based health promotion and education and contribute to research capacity-building of its members.

The SHE approach to school health promotion is based on a set of values and principles, called pillars, that have remained the same throughout the years. These relate to:

- equity, with equal access for all to education and health;
- sustainability, recognizing that health, education and development are linked;
- inclusion, acknowledging that schools are communities of learning where all feel trusted and respected, and diversity is celebrated;
- empowerment, giving all members of the school community support to be actively involved; and
- democracy, reflecting that HPS are based on democratic values.

The pillars are supported by five key principles: a whole-school approach to health, participation, school quality, evidence and community approaches.

Where do we stand 30 years after the Ottawa Charter? SHE values the hard work that has been done by so many to establish the approach and the network and kept them strong. Strengthening

schools' capacity leads to healthy settings for living, learning and working, but SHE must try even more to include the most vulnerable and marginalized groups in all actions. SHE now looks for new opportunities and innovations, better balance between human health and the health of the planet, and better understanding between nations. Health, well-being and education are essential to building a sustainable future.

Health Behaviour in School-aged Children (HBSC): key results, trends and links with school health promotion

> "The Health Behaviour in School-aged Children (HBSC) study provides a high quality evidence base for health promotion in schools."
>
> DOROTHY CURRIE
> UNIVERSITY OF ST ANDREWS
> SCOTLAND

Dorothy Currie, HBSC Deputy International Coordinator, explained that the HBSC study focuses on adolescent health. Young people aged between 11 and 15 are undergoing profound psychological and physical development. The study aims to raise awareness of this period through gathering cross-national data that are used to advocate for adolescent health and well-being and drive policy at international and national levels.

The study started in 1983 with just three countries involved. It was adopted by WHO as a collaborating study soon after and continues to enjoy great support from WHO. The most recent survey, conducted in 2017/2018, involved 47 member countries and regions, with 230 000 young people from across Europe and Canada taking part.

HBSC is a school-based survey undertaken every four years through a self-report questionnaire completed in classroom settings. Each country/region is required to collect a nationally representative sample of around 1500 young people from each of the three age groups – 11, 13 and 15-year-olds – spanning the developmental period in which young people are perhaps moving away from focusing on family and are thinking more towards going out into the adult world and determining their place in it. HBSC has its own standardized international protocol and a standardized international survey instrument (questionnaire). Each country/region is at liberty to add areas they would like to look at in detail to the questionnaire.

The scope of HBSC is the physical, emotional and social health and well-being of young people. It looks at risk and protective factors over a wide range of behaviours, including relationships with families, peers and at school, eating behaviours and physical activity, and bullying and

substance use. The focus is very much on the social determinants of health, taking a developmental perspective across the age ranges. The survey results reveal national insights and enable international comparisons to identify areas where there is scope for improvement.

As well as highlighting differences between countries, HBSC data show what is common in young people's lives across Europe. Young people are the same wherever we go, and some of the similarities relate to gender differences in health. Unfortunately, some very persistent gender inequalities in health continue across the Region. Girls do better in terms of being involved less in fighting and bullying, are less likely to be overweight and obese and more likely to feel supported by their peers. Boys are doing better in terms of their life satisfaction and self-rated health. Their physical activity levels are higher than girls, they are more likely to eat breakfast before going to school and less likely to feel school pressure and have mental health complaints.

HBSC can also show differences and similarities in young people's health in relation to socioeconomic differences and patterns in health. The international reports of the surveys look at health outcomes for young people in each country/region who were in the families with the 20% lowest affluence compared to those in families in the 20% highest affluence category. In most countries/regions, more affluent young people have better self-rated health, better communication with their parents, more social support, lower levels of obesity, fewer health-risk behaviours, are happier with their lives and have more interaction on social media. Persistent social inequalities exist within countries/regions, and the report demonstrates which countries/regions have more socially patterned health behaviours than others.

The longevity of the HBSC study means that some trends in behaviour can be established. In relation to drunkenness among young people, for example, trend data from 2002–2014 show large declines in Nordic countries and Great Britain and Ireland, but little change among girls in Mediterranean countries.

HBSC provides a rich source of data that can be translated into action to improve the lives of all young people, limit the impact of social inequalities and inform and guide policy and practice. The HBSC network cannot do all that work alone, but works very much in partnership with WHO, the United Nations Children's Fund and others. Crucial partners, of course, are young people. There is a strong commitment to engaging young people in the study throughout the whole of the research process.

The next international report, presenting data from 45 countries/regions in relation to over 60 health indicators, will be published in 2020. All HBSC data can be accessed at the WHO Regional Office for Europe health information gateway.[1]

Health meets school education

Peter Paulus, Leuphana University, Germany, stated that experience in recent years suggests that while schools are a traditional setting in which health is promoted, health promotion in general has not been as successful as might have been hoped at embedding health in schools. Schools have other topics on their agendas that are considered more important than health, so health is never a priority.

[1] Access at: https://gateway.euro.who.int/en/.

We must think, therefore, a little bit about how we approach schools, because schools belong to the education system, not the health system. The idea of school health promotion began to change 10–15 years ago to platform health as a supporter, a catalyst and foundation for good education. This means health promotion is supporting schools to achieve their aspirations of being good, academically successful schools. The main message is that pupils who are in good health tend to be good pupils, and teachers who are in good health tend to be good teachers.

> "Health is not everything in schools, but without links to school development it is nothing."
>
> PROF. DR. PETER PAULUS
> LEUPHANA UNIVERSITY
> GERMANY

Health promotion in school is, therefore, not an outcome, but an input and a throughput. Schools become more interested in HPS approaches when they recognize that we want to help them achieve their own priority of promoting quality education. Schools inspectorates are looking at education quality, and they also need to be cognizant of the benefits good health brings to education outcomes.

Health as a driver of education was a main topic of the third European HPS conference in Vilnius, Lithuania in 2009, where participants discussed how schools could be made better through health promotion approaches. Those discussions are continuing today. We are linking the quality of schools to health, recognizing that health promotion will only be implemented successfully and sustainably if it is linked to the essence of the school.

If we show that we can support schools to carry out their core business, schools will listen to us and will want what we can offer. They do not want health to be presented to them as yet another tough topic for an already crowded curriculum, and as a problem that schools are expected to solve. Schools already are exposed to many problems that society expects them to solve. If, however, we can offer health as a support rather than a burden, schools will be our friends; they will listen to what we have to say.

It is important, therefore, that we change the perspective away from giving "health" to schools as a problem they must solve, to presenting health as a support to pupils and teachers in solving education challenges. This means starting from the quality framework of the school and its agenda, criteria, indicators and areas where it must meet the requirements of external assessors and inspectorates.

One such area in the quality framework for schools in several states in Germany is school leadership and management. A good school is adjudged as one in which the school administration ensures a well functioning security system (featuring, for example, measures on health care, safety at work, fire prevention, evacuation plans, and fittings and equipment) and organizes the creation of a team of people responsible for health matters relating to the school. The administration is aware of work-related physical and psychological pressures on staff and implements measures to keep them to a minimum, with staff trained in basic principles and methods of school health promotion. A school check helps schools identify how far they have integrated health interventions within the process of development of quality in the school.

Schools in Germany are supported to become healthy spaces through a range of programmes available to them. The “Mindmatters” mental health programme is carried out nationwide and in the German-speaking parts of Switzerland. Around 1500 schools have now signed up to the programme. In October 2018, a global-level UNESCO chair and UNITWIN network was established to promote research and training and contribute to building, interpreting and disseminating the knowledge base in the field of health education and health promotion in schools and communities. The idea of health as a driver of education is central in this concept.

Moving forward: upscaling implementation and dissemination of school health promotion

Principles for development and implementation of school health promotion

Bjarne Bruun Jensen, Professor of Health Promotion at the STENO Diabetes Centre, Copenhagen, Denmark, stated that the potential for HPS in preventing noncommunicable diseases (NCDs) is enormous.

In essence, health promotion relies on three key principles: participation and co-creation; a positive and broad health concept; and setting and synergy. Participation and co-creation is probably the key principle. Opportunities and possibilities for success are very restricted when projects do not have participation as a key underpinning concept. Involving young people as active partners creates in them a sense of ownership; they make the project their own, which is a precondition for healthy and sustainable change. Health and education professionals are necessary to provide scaffolding for their learning, but children and young people need to be active in constructing their own normality. Participation is, of course, a very complex and multidimensional concept that is not easy to achieve in practice, but it is necessary for success and also good fun to work with in schools. When students are involved, good things happen.

A positive and broad health concept is very much connected to participation. It is about how we speak about health. For instance, if we talk about "meals and food" instead of "nutrition", and "body movement", "dance" and "play" instead of "physical activity", the chances of involving young people are much higher. If we only talk about health as a medical concept, we will exclude people, especially young people, and will face huge difficulties in involving them and encouraging them to take ownership of projects.

The setting is clearly identified as a strong influencer. If you want to promote health, you need to work within an educational principle in which people are involved, but you also need to make

the setting supportive in as many ways as you can. You then need to think of how different settings can create together, aiming to achieve synergy between them.

We at the STENO Centre therefore advocate working within a super-setting approach. This means that different settings need to be supported to work together, to be part of the same intervention, to talk together, and to develop ideas and projects together. In essence, that is what a super-setting approach is about.

Health promotion, especially within a super-settings approach, means working with very complex interventions that include control studies and trials. Qualitative studies are also necessary, however, to achieve a deeper understanding of the issues people face. We need to combine quantitative and qualitative approaches to truly discover where we are and generate evidence to drive change.

These principles – participation and co-creation, a positive and broad health concept, and setting and synergy – should be our main areas of focus in health promotion work. They encourage local involvement and energy, enable tailored approaches that lead to sustainability at local level, and promote powerful intervention strategies in NCD prevention by supporting work across primary, secondary and tertiary prevention. The principles must work together to support effective health promotion. If one of them is not attained, there is a real risk that the whole project will fail.

They are simple principles, but we should not confuse simple with easy: they are not easy to achieve in practice.

Whole-school approaches to health promotion

> "There is increasing evidence that whole-school approaches to health promotion are effective across outcomes. These approaches are likely to be the most pragmatic way that busy schools can promote health in multiple areas."
>
> PROF. CHRIS BONELL
> LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE

Chris Bonell, Professor of Public Health Sociology and Head of the Department of Social and Environmental Health Research at the London School of Hygiene and Tropical Medicine, United Kingdom, presented two pieces of evidence, one from a Cochrane systematic review and the other from a cluster randomized controlled trial of a whole-school health promotion intervention.

The systematic review asked if HPS interventions are effective in promoting different aspects of health. It focused on cluster randomized controlled trials in schools for children and young people aged 4–18 years, looking at HPS interventions that included the curriculum, health education in classrooms, environments, changing the school setting and reaching out to the community and parents. Following screening of thousands of studies for relevance, 67 very high-quality studies were chosen for synthesis. These came largely from North America, Europe, Australia and New Zealand, with few from low- and middle-income settings.

Statistical meta-analysis of the findings revealed strong evidence of the effectiveness of HPS interventions in relation to body mass index, physical activity, fitness, fruit and vegetable intake, tobacco use and bullying victimization. There was promising evidence which did not reach statistical significance for fat intake, alcohol and drug use, violence, bullying others and handwashing. Data on outcomes for mental health and sexual health were insufficient.

This presents very positive evidence that HPS interventions are potentially effective, but the review did not reveal how these interventions work, as they were heterogenous and involved different kinds of methods to address different kinds of issues.

The cluster randomized controlled trial investigated a whole-school intervention in secondary schools for 11–16-year-olds in the south of England, United Kingdom. Forty schools were randomized equally to the intervention and control groups. The intervention aimed to bring teachers and students together to review data about what students liked and disliked about school and then formulate actions to improve the school environment.

Students were surveyed on bullying (the study's primary outcome), smoking and health behaviours and their views on the school's climate and educational environment, focusing on relationships with teachers and their sense of belonging to the school community. Schools were given a manual and teachers were trained in restorative practice, a technique for managing discipline in schools that brings individuals involved in fighting and bullying incidents together to work out what went wrong and explore how it can be restored.

The schools formed action groups made up of six students and six staff that were charged with looking at the data on their school, working out what students didn't like and trying to find ways to make it better. These groups formulated the actions that were implemented. Social and emotional skills curriculum changes were also implemented, as were restorative practice sessions when disciplinary issues arose.

The theory was that students' engagement with and sense of belonging to the school would increase, and that this would have positive health consequences. It was not about telling the students not to smoke or engage in bullying, or to eat more healthily. It was about creating a happier, healthier environment that would have consequences for health. The hope was that these impacts would be even greater for more disadvantaged children.

Some effects were very positive. There was a significant effect for the primary outcome of bullying (measured by the Gatehouse Bullying Victimization Score), but no great effect on school-based aggression. The most promising effects, however, were on secondary outcomes, with reductions in smoking and alcohol and drug use, and improved mental health, psychological functioning and health-related quality of life. There was no impact on sexual risk behaviours. Qualitative data from the trial, drawn from interviews, focus groups, surveys and questionnaires, showed fidelity with the intervention was higher in schools with more management capacity

directed at the project, and the intervention was better delivered in schools that already had an inclusive ethos. It was less successful in schools that were more authoritarian or disciplinarian, as it cut against the grain of the institution.

The qualitative evidence seemed to suggest that the key part of the intervention was teachers and students sitting on the same committee and for the first time realizing that each was human. Previously they had looked at each other as distant, stereotypical figures, but they started to empathize with each other's point of view and see each other as colleagues with shared goals.

Overall, students were more engaged with school than they were before the intervention. It didn't work any better for more disadvantaged students, but did work better for boys (possibly because bullying among boys is more visible and physical, whereas bullying among girls may be less overt and more psychological) and young people with the worst health baselines. Exploratory analysis revealed that truancy and aggression in and outside the school had reduced. The intervention reduced the load of school discipline by shifting to a system using restorative practice rather than just punishments, reducing the time teachers spent dealing with difficulties.

The conclusion from the intervention is that changes to health education in curricula were not important; the environmental intervention was enough on its own, and it is likely to work better in schools that already have an inclusive ethos.

It is not possible for schools to have a different health intervention for every single health outcome they deal with. Schools just haven't got time to have one intervention for smoking, one for drug use and one for bullying, and so on. A programme like the one described above has the potential to improve many health outcomes and is a pragmatic vehicle to help schools to move forward.

The role of leadership in school health promotion

> "Health promotion requires many leaders on different levels that advocate and take over responsibility for sustainable development of health and wellbeing in schools. "
>
> PROF.DR. KEVIN DADACZYNSKI
> FULDA UNIVERSITY
> GERMANY

Kevin Dadacynzski, Professor of Health Communication and Health Information, Fulda University, Germany, and Associate Member of the Centre for Applied Health Science at

Uppsala University, Sweden, is also Co-chair of the SHE Research Group. He spoke about leadership and its potential in school health promotion.

HPS is a very complex approach that requires complex leadership approaches. Leadership in schools obviously focuses strongly on principals, who can reasonably be considered to be gatekeepers for school health promotion issues and actions, yet the evidence suggests they play a very small part in health promotion, and may themselves be vulnerable to poor physical and mental health. They also have the potential to have negative impacts on the health of teachers.

Different leadership styles have been described, including educational leadership (defined as a process of influence leading to the achievement of desired purposes, with successful leaders developing a vision for their schools based on their personal and professional values), transactional leadership (which means having high expectations of performance and rewarding achievement and, conversely, punishing low performance and lack of compliance), and laissez-faire leadership (which can be defined by the absence of any leadership behaviour). Health-promoting leadership has been described as leadership that works to create a culture for health-promoting workplaces and values, and to inspire and motivate employee participation in their development.

To these styles must be added the concept of salutogenic leadership, which refers to the management of an entire organization and its processes, structures and employees with the explicit inclusion of health-related knowledge. A sense of coherence is a main construct within the salutogenic model, with subdimensions of comprehensibility, manageability and meaningfulness. Taken together, this produces the metrics shown in Table 1, which offers formulated reflective questions.

Table 1. Salutogenic leadership

	Interpersonal salutogenic leadership	Organizational salutogenic leadership
Comprehensibility	Am I expressing myself understandably?	Does the school have good information structures and is there transparency?
Manageability	Do the teachers know they have my support?	Are work processes designed economically and are resources used optimally?
Meaningfulness	Have I given a reason or pointed out the significance?	Do we have a common goal or vision to which we work consistently?

This represents an easy-to-use model for everyday decision-making processes. It means health becomes part of daily working routines and daily working decision-making processes, and is not considered an extra.

The distinction between management and leadership is commonly misunderstood in leadership research. Leadership is about influencing other people to follow an idea and organizational aim. It is about inspiring and supporting people, developing a culture with shared goals and values, and helping people to do the right things. Management is more concerned with how the vision

can be realized and translated through every action. It is more a concrete mould that focuses on planning, budgeting, procedures and routines, control and evaluation. It can be translated as doing the right things right.

School health promotion needs both leadership and management, but it may be asked whether leadership and management qualities can be found within the same person. The typical process of the HPS approach starts with initiation, then moves to conceptualization and mobilization, with a focus on implementation and achieving sustainable effects. Visionary leadership is required at the beginning, especially as readiness for change may be low at the start of the project, but as the project advances, the need for efficient management becomes greater; being a visionary leader doesn't necessarily mean that you are an efficient manager, and it may be sensible to involve people who have specific expertise in fields such as project management at the very start of the project.

It would not be wise to consider leadership within a single position; it is better to think of it as a process that involves many people in shared leadership roles. This is called distributed leadership, and its existence depends on the ability of a leader to delegate and support the process. Distributed leadership, however, still requires someone to take overall responsibility.

Professor Dadacynzski ended by briefly describing a qualitative study he conducted recently. It was based on the theory of planned behaviour, which also applies to health behaviour. Health behaviour is always preceded by an intention, which can be explained in turn by variables such as personal attitudes, subjective norms and perceived behavioural control. In the study, this idea was transferred to an organizational context, with HPS implementation status as a dependent variable. It aimed to examine whether the principal's behaviour or attitudes were associated with intention and implementation status. The study found that it was not the school principal's intentions but his or her personal attitudes and competencies that explained implementation status.

We need to put our school leaders more in the focus of health promoting research and practice. Leadership includes elements on interpersonal interaction and organizational development, and both dimensions are linked and should be viewed together. If school leaders are able to establish good interactions with their subordinates, this will have a positive influence on their readiness for change and willingness to engage in health-promoting activity.

School health promotion as a systematic and continuous process requires many leaders at different levels with different abilities (distributed leadership). The requires that school principals have the ability to delegate, and that schoolteachers are prepared take on responsibility.

Attitudes and personal competencies play a very significant role in the implementation of HPS. There is a lack of insight into the working conditions and the health situation of leaders. School principals should not only be regarded as facilitators or enablers; they are normal people within the school setting who require support to stay healthy and promote health. There is almost no research about how this can be achieved.

School health services: a key partner in school health promotion

Screening for diseases among schoolchildren: the end of an era?

> "School health services are vital to improve the pupils' well-being, but must go well beyond screening for diseases and special health conditions"
>
> PROF. DR. PIERRE-ANDRÉ MICHAUD
> UNIVERSITY LAUSANNE
> SWITZERLAND

Pierre-André Michaud, Professor at the University Hospital of Lausanne, Switzerland, started by presenting his two main take-home messages:

- screening is often costly and not necessarily effective; and
- working on health determinants, on well-being and on the school climate impacts on children's lifestyles and health.

Professor Michaud recalled that in the 1980s, he had been invited to redesign the SHS in his region in Switzerland. The SHS at that time essentially focused on screening for conditions and diseases. He was sceptical of the value of this, so decided to look at the effect of one element of screening, for hypertension. The results were striking. Of 3386 pupils whose blood pressure readings were checked, around 100 were identified with hypertension and referred to their doctor. Ultimately, however, only 14 pupils were identified as having a genuine problem, seven of whom were already known to services.

When screening is performed in any population, there is a risk of false negative and false positive findings. In the hypertension screening above, most of the around 100 pupils who were identified turned out to be false positives.

This experience teaches us a few lessons. First, it is useful to have an idea of the prevalence of a condition before screening for it in children; it is not helpful to screen for conditions that are extremely rare. Secondly, the cut-off criteria must be clearly defined to reduce the chance of false positives and negatives. Thirdly, something must be offered to those who are found to have the condition; there needs to be a treatment that children can access, and the health service needs to have capacity to deliver the appropriate care. Lastly, effective follow-up and care needs to be in place following the screening.

We may be at the end of an era for screening. More effective ways of improving the health and well-being of children exist, involving comprehensive whole-school approaches. Research shows that the two most common causes of death in children aged 10–14 years in the European Region are road injuries and drowning. There are no screening tools to use against these and other noncommunicable conditions, such as those caused by binge drinking.

Fifteen years ago, researchers in Australia initiated a large controlled survey of the impact of HPS on pupils' health. The Gatehouse Project had an interesting framework. It did not focus actively on health, but rather on the climate and ethos of the school. The focus was issues like emotional well-being, learning how to be respectful and cooperative, and how to deal with violence in the school setting. Pupils were seen as collaborators in addressing health and well-being issues in the school, and developed life skills in areas such as how to resist unhealthy behaviours.

The Gatehouse Project shows us that the psychological and physical environment of young people has an effect on their health. Researchers looked at schools that were piloting the project two years after implementation and compared them to schools where the project was not being piloted. They found significant reductions in smoking, binge drinking and substance use in the pilot schools. At four-year follow-up, the prevalence of marked health risk behaviours was approximately 20% in schools in the comparison group and 15% in schools in the intervention group, an overall reduction of 25%. The project clearly had an indirect effect in improving the health behaviours of young people.

This concept has now been introduced in Switzerland. Young people are being invited to review their lifestyles, self-reflecting on their health and how they behave. Those who recognize they have problems have access to counsellors on SHS teams, meaning mental health problems are being identified. SHS should link with teaching staff and reflect on how best to improve pupils' health and well-being. There is now good evidence that this works.

Risk factors affecting the health of students in a modern school: identification, assessment and prevention

"Research results on children and adolescent health as well as new technologies should be widely and promptly introduced into the health-saving activities of educational institutions, promoted in the media and established into to the training of pedagogical and medical staff."

PROF. DR. VLADISLAV KUCHMA
NATIONAL MEDICAL RESEARCH CENTER FOR CHILDREN'S HEALTH
RUSSIA

Vladislav Kuchma, Professor at the National Medical Research Centre for Children's Health of the Russian Federation, stated that impairment in students' health indicators in relation to their physical, psychological and social development can be observed even from the time of conception. To be able to identify the causes, it is important to focus on the conditions and organization of academic activities in schools.

Professor Kuchma believes that students' health risks are predetermined by the following factors.

The conditions in which they are educated is the first factor. An assessment of the disease potential in education institutions in Moscow showed that 16–28% of schools had conditions that were considered potentially harmful to children's health. This is higher than was estimated in official statistics from the Federal Service for Surveillance on Consumer Rights Protection and Human Well-being (Rospotrebnadzor). Students face health threats from a number of everyday sources in schools, such as artificial light from luminodiodes, broad-spectrum electromagnetic fields from technology use and even school furniture failing to meet age-appropriate ergonomic standards.

Some teaching technologies are now considered unsafe. Teaching activities, programmes, methods and modes should be evaluated for health-risk factors and certified as safe in areas such as ensuring breaks between lessons, promoting active recreation and safeguarding against overuse of technology. Any teaching technologies or methods that have not been evaluated in this way should be considered unacceptable. The Ministry of Education and Rospotrebnadzor are working to define accessible electronic teaching technologies that will contribute to children's health protection and promotion. This is very necessary today, with intensified educational activity and use of technical means of teaching being widespread.

Maintenance of digital environments in school is very important. Digital technologies intensify educational processes and require high levels of concentration and attention among students that may increase stress and the so-called physiological cost of the learning activity. A system of promoting children's health and safety in digital environments is a prerequisite for their healthy development.

Insufficient physical activity among young people is now recognized as a serious problem across the globe. Physical activity promotes children's growth and development and general level of fitness. Lack of physical activity is one of the leading risk factors for increased body weight and obesity in childhood and cardiovascular and other NCDs in adulthood. Physical activity requirements primarily are determined by the gender and age of the child, but three physical activity lessons a week, which is the norm in many schools, will not meet the needs of any young person of whatever age and gender. Research has shown that increasing physical activity improves children's educational performance in areas such as the number of tasks performed without mistakes and missed school days due to acute illness.

Modern forms of physical activity that have been shown to be effective when promoted in schools include school sport clubs, recreational forms of physical training, dynamic general education lessons and dancing. The volume of physical activity among students can easily be monitored technologically, results of which should be used for assessment and to provide motivation for optimal physical activity.

Strongly linked to low physical activity is unhealthy eating. Many schoolchildren seem to prefer fast food, access to which is facilitated through market globalization and aggressive product promotion to young people by producers. Schools can seek to improve nutritional intakes by providing healthy school meals, banning or restricting the consumption of unhealthy foods and drinks on or near the school premises, and working with parents to encourage healthy eating at home.

Childhood and adolescence are times of exploration and experimentation, which can lead to behaviours that potentially are dangerous to students' health. Studies like HBSC show us that such behaviours are widespread among young people. HBSC surveys conducted since 2001 demonstrate that prevalence of health-risk behaviours are higher for adolescents in the Russian Federation than those of most of their peers in other countries. The Russian Federation, for example, scored highly in the 2013/2014 HBSC survey for the relatively new activity of cyberbullying, with 11-year-olds scoring highest among countries for being cyberbullied by messages at least two or three times in the past year and 13- and 15-year-olds coming third.

SHS, as this session confirms, are a key partner in school health promotion. The organization of SHS in the Russian Federation does not, however, meet society's expectations in relation to child and adolescent health protection and promotion or the health needs of children, and does not promote the prevention of school-related diseases and conditions. Assessments of SHS provided to schoolchildren in various regions of the country have shown a lack of personnel and low staff salaries, insufficient equipment in medical units and lack of information about the service.

Public health decision-makers across the Russian Federation should take responsibility for the health and well-being of the current generation of school-aged children (our future adults) and take political and administrative decisions to improve existing and develop new models of health care for children in education institutions. SHS should be child-friendly, should meet the needs of society, parents and children, should use modern technologies (including digital medicine) and should be adequately resourced (human, logistical and information resources).

Teachers may have insufficient knowledge and competencies in the area of health protection and promotion. They are not necessarily cognizant with concepts of child health development, including physiological changes, and are not using health-protecting technologies and methods of detecting school-related diseases and conditions. This is compounded by insufficient interdepartmental activities in relation to health protection and promotion. Education institutions are not able to ensure optimal or acceptable conditions for education and development, and to eliminate factors that pose risks to children's health at school.

Ultimately, Professor Kuchma believes that all this means both internal and external risk factors to health are common in schools today. Reliable evidence-based data on the levels of child exposure to certain school risk factors (such as electromagnetic fields, artificial lighting, and physical and emotional burdens), their impact on the functional status of children and development of school-related diseases and conditions, and regulations ensuring the safety and developmental well-being of children in education institutions are not available. Executive bodies and the education community do not have information on the health status of children at national, regional and school levels and the prevalence of school risk factors, which makes it difficult to take adequate decisions relating to students' health protection and promotion.

Pairing children with health services: a new role for school health services in the 21st century

"Pairing children with health services to Make Every School a Health Promoting School"

VALENTINA BALTAG
WORLD HEALTH ORGANIZATION
GENEVA | SWITZERLAND

Valentina Baltag[2] of WHO headquarters, considered the history of the public health model for school health. SHS were born at the end of the 19th century out of concerns over poor sanitary conditions in schools and to promote infection control. Medical inspections to detect unhealthy or diseased children and unsanitary buildings were the focus. SHS acted like "medical police", and the strategy to control epidemics was simple – excluding sick children from school or closing schools. Since then, SHS have evolved through several stages, but continue to struggle to find the right balance between individual services and universal approaches.

At the inception of SHS, mass screenings aimed to detect sick children and send them home so they could not contaminate other pupils. Reductions in poverty, improvements in sanitary conditions and implementation of vaccination programmes meant that SHS needed to be redefined. The focus of medical check-ups shifted away, therefore, from detecting infectious diseases to identifying musculoskeletal and sensory conditions that were likely to interfere with children's ability to learn. Screening for scoliosis, growth, and visual and hearing impairments were the backbone of SHS until the 1950s. Gradually, however, it became clear that improved living conditions meant most children were free from defects or disability, and the inspections came to be considered a waste of time. To exacerbate the problem, the data amassed during the mass examinations were poorly, if ever, used.

Consequently, by the mid-20th century, some countries started to question the usefulness of routine universal medical check-ups and either abolished them or decreased their frequency.

What is the status of SHS today in Europe, and globally? A 2018 survey of 30 European countries by the Models of Child Health Appraisal (MOCHA) study showed that all but two had SHS that were either school-based or offered in primary care, or a mixture. A WHO global overview of SHS in 102 countries in 2015 reported that the professionals most commonly employed in SHS are school nurses and school doctors, with others (such as psychologists and

[2] Valentina Baltag's presentation was delivered in her absence by Vivian Barnekow.

social workers) also featuring. There is, nevertheless, great variability across countries in how personnel are deployed with, for instance, the nurse-to-pupil ratio varying from one nurse per 100 pupils to one per 3500, and the doctor-to-pupil ratio from one per 1100 to one per 7500. Such variability can hardly be explained by differences in context only.

The status of a country's level of advancement in SHS can be inferred by how well the governance of SHS is articulated (through, for instance, a national policy on SHS and whether the responsibility of various authorities is described), and how well prepared the SHS workforce is (by having adequate training, quality assurance and multidisciplinary collaboration mechanisms in place).

To fully understand how well SHS are prepared to respond to the needs of school-aged children in the 21st century, it is important to understand the activities in which SHS are involved. The top SHS interventions reported in the literature are vaccination and health education, but screening of vision, hearing, dental status, nutrition, hypertension and mental health status combined comprise a very large proportion of SHS interventions.

Given this high proportion of screening, WHO investigated how screening is being used globally. It found two essentially different forms of mass check-ups described under similar terms. The first related to tests of children at pre-defined ages or school grades to identify a disease or condition of interest, such as school-entry hearing screening and dental screening among mid-teens. The second was a well-child visit that may well include screening for conditions (such as school-entry vision and hearing screening, and height and weight measurements), but also services like counselling and responding to health and well-being concerns raised by young people or their parents.

The WHO investigation found that screening is performed for many reasons. Routine screening for dental, weight, musculoskeletal, hearing and vision problems were reported in most countries. Despite this, reporting on the effectiveness of screening programmes and their costs was lacking: of 204 sources analysed, only 36 reported anything related to the effectiveness and/or cost of screening, and most of these (30 out of 36) were reports from high- and upper-middle-income countries. Countries therefore appear to be spending a large proportion of their SHS resources on screening without knowing what they are getting for their money. Sources that reported on effectiveness tended to measure it by output and process measures (the number of children screened or number of referrals made) rather than whether the screening had an impact on outcomes.

Gaps in SHS service provision are now becoming well recognized, and include: mental health services outside routine provision; problem-solving approaches and motivational interviewing; services for preventing injuries and violence; support for pupils with chronic conditions (seemingly currently available only in high-income countries); and making contraceptives available through SHS.

Each country should look critically at its SHS and the evidence of what is and what should be done, then ask if there is a better way for SHS to operate. They might find that what is required is a paradigm shift in SHS from medical-oriented to social-oriented services, from screening to preventive visits, from scheduled consultations to drop-in arrangements, and from information provision to cognitive and motivational approaches. It may also become clear that better alignment between priority health and development issues in adolescence and the content of SHS

is needed to address new concerns, such as mental health, violence, cyberbullying and support for young carers.

In an era of limited resources and fiscal austerity, SHS providers' time needs to be optimized. Strategies for achieving this include:

- abandoning practices that are not based on evidence of effectiveness;
- simplifying cumbersome and inefficient reporting/documentation systems to free providers' time for more personalized interactions with students; and
- using electronic adolescent-customized psychosocial screening tools to facilitate automated risk stratification, direct discussion during visits with students to the problematic area and channel providers' efforts to the area most in need.

WHO is working on a new guideline for SHS to support countries in making evidence-informed decisions. The guideline will highlight the evidence for multicomponent SHS and provide recommended interventions.

Closing session

Conference highlights: a personal reflection

In presenting her personal conference highlights, **Marjorita Sormunen**, Adjunct Professor, Institute of Public Health and Clinical Nutrition, Faculty of Health Sciences, University of Eastern Finland, reminded participants that they were asked at the beginning of the meeting to reflect on three questions around their experiences at the conference.

- What surprised you?
- What concerned you?
- What inspired you?

Professor Sormunen continued: we have picked up your ideas around these three questions, and here is what we've found.

What surprised you?
When we were asked how many of us are teachers, only a few hands went up. Isn't this a little surprising? We speak all the time about how health and education must work together, so where are the educators? I'm reminded of Bjarne Bruun Jensen's comment, that health is too important to leave to health specialists.

It was surprising to find some new subjects introduced into the sphere of health promotion in schools. I think especially of a parallel session on organ donation among young people. The link with health promotion might not be clear immediately. But when you think about it, isn't this about empowering young people? Isn't it about giving young people the information, the tools and the opportunity to think things through and find their way? And isn't that what the HPS approach is all about? It's exciting to think about how the idea of health promotion might grow over the coming years to include topics that we might not see as a natural fit, or perhaps don't even exist at the moment.

What concerned you?
There was concern about the lack of young people's involvement in the meeting. A video gave us all a chance to hear young people's perspectives and aspirations, but some participants asked – why can young people not be here?

There are some procedural issues around this – young people under 18 years, for instance, need to have an escort with them, which is not always easy to organize.

But while we may not have had young people present in the main plenaries, or in the session rooms or the coffee areas, they were very much present in the area that is at the core of this meeting – the research that has been presented. It is young people who provide our data and, through that data, direct us as we move ahead.

Some participants were concerned that only a few of the HPS projects described were able truly to show great results. Some projects seem to make small impacts, or maybe don't make an impact at all. But I would say that this work has not made a big impact – **YET**. We need to remember that our work is not about short-term fixes – we are in it for the long term, and it is over the long term that the benefits will be found.

Sure, the 16-year-old might decide that taking up smoking is a cool thing to do, or the 14-year-old might think that vegetables just don't taste good. But what might they think when they turn 18, or 21? Will they still feel the same way? Our work is giving them what they need to make sound choices for themselves.

I'm reminded of a quote by the great American writer, Mark Twain. Twain wrote:
"When I was a boy of 14, my father was so ignorant I could hardly stand to have the old man around. But when I got to be 21, I was astonished at how much he had learned in seven years."
Young people grow, and young people change. It takes time for great results to happen.

What inspired you?
The overriding feeling in this group is, I think, a sense of optimism. I think we are seeing that things are changing. They are changing slowly, and sometimes they may be moving in the wrong direction. But great studies like HBSC are showing us where we need to focus our energies, at home and in the wider European Region. Data are our friends, and we need more of them to support our work and, ultimately, feed our optimism.

And the fact that over 460 people are prepared to travel to this conference to spend two and a half days discussing health promotion in schools tells me that our network and our determination are strong. We have had 160 parallel session presentations, nine plenaries and five workshops, with great presentations, discussions and debates throughout – that speaks to me of a committed and optimistic group.

We have always known in our community that student empowerment works. But is it not great – and inspiring – that we actually have the research now to prove it? And it is not just the benefits of student empowerment that we are gathering evidence around. We've also heard about brilliant research on the power of co-creation approaches, and how mixed-methods approaches are helping us to gather the evidence we need.

No one has said it out loud, but I also get a strong impression that research is now helping us truly to understand the positives and negatives of social media for young people. This is a topic that barely existed when the HPS movement took off 30 years ago – now it is near the top of the agenda.

And while we are all aware of the harms social media can do to young people's mental health, self-esteem and relationships, we can also see the wonderful potential it offers to enable young people to make sound choices. Social media is young people's language, and they are teaching us how to speak it.

I find this truly inspirational. I'm very excited not only about how it can help us get beside young people, but also how it can help us as a network to share experiences and knowledge.

Finally, it is truly inspiring to see a new generation of brilliant people immersed in the health promoting school ethos emerging to take the torch forward – people like Kevin Dadacynzski, Chris Bonell and Valentina Baltag – carrying out great research and inspiring others by their example. Some of the people attending and presenting at this conference were not even born when the first HPS meeting was held in Greece. Any concerns the pioneers at the Greece meeting had about the long-term sustainability of the health promoting school idea surely are gone!

Moments from the past, the present and the future of HPS

Vivian Barnekow, consultant at the WHO Regional Office for Europe and one of the pioneers of the HPS approach, reflected on the history of the movement since its birth in the 1980s. Soon after the launch of the Ottawa charter in 1986, the idea of having a conference on HPS arose. This was held in Peebles, United Kingdom (Scotland), later that year, initiated by the WHO Regional Office for Europe and supported by the Scottish Health Education Group, with 150 participants from 28 European countries (the European Region at the time comprised only 32 Member States). From this conference came a report called *The healthy schools,* so-called to complement the WHO Healthy Cites initiative. However, as Ian Young, the Scottish colleague who co-organized that initial event in Peebles, said, "you cannot keep a good name down"; soon after, "the healthy schools" became health promoting schools, and remains so to this day.

The idea of an HPS network was piloted in four countries (Czechia, Hungary, Poland and Slovakia) in 1991, with the European Network of Health Promoting Schools (ENHPS) being created in 1992, a result of collaboration between the WHO Regional Office for Europe, the European Commission and the Council of Europe. It grew from the four pilot countries to 40.

The first ENHPS conference in Thessaloniki, Greece in 1997 can be considered a true pioneering event. Effectively, we were building the ship while sailing it. The evidence base was small, the concept was still being developed, but hopes and aspirations – and enthusiasm – were very high. Despite some mishaps, including a colleague being temporarily put in prison because of a passport complication, the event was hugely successful.

The ENHPS resolution was formalized, stating that every child has the right, and should have the opportunity, to be educated in an HPS. It defined the 10 pillars of an HPS, focusing on democracy, equity, empowerment and action competence, school environment, curriculum, teacher training, measuring success, collaboration and sustainability. The resolution packed much into its three pages.

Following this pioneering conference, we developed the Egmond Agenda, which is a tool to help and establish health promotion in schools and other sectors across Europe, the Vilnius Resolution, with strong input from young people, and the Odense Statement, setting out the ABC for education, equity and health. These documents provide a wealth of information and ideas that are still supporting HPS efforts to this day. They defined different outcomes, but all pointed in the same direction, and today, we have the Moscow Statement to add further support.

It has been a long journey to this point, with many good experiences. Stories and evidence from countries and schools across Europe have been shared and published, and continue to be so under the auspices of SHE.

A new generation is now taking the movement forward and, most important, the voices of children and young people are being heard in societies to a far greater extent than they were when we first set out on this voyage.

Moscow Statement

After participants watched a WHO video in which young people talked about their present experiences and future aspirations in relation to health and well-being,[3] the conference concluded with a reading of the Moscow Statement (Annex 1).

[3] Can we provide a link to the video?

The parallel sessions and workshops

The following highlights key points noted by chairs from the conference's parallel sessions and workshops. These provide just a flavour of the wide-ranging topics presented, discussed and debated at the sessions.

Parallel session 1
A challenge to be overcome in the future is that only a few school-based health programmes attain high implementation levels.

Parallel session 2
Organ donation education is a critical issue for HPS to increase student knowledge, stimulate discussion and support student decision-making.

Parallel session 5
Perhaps the difficulty we have with research is that we either have narrow projects with precise measurements that can't be generalized, or complex research and evaluations where it's difficult to determine precise measurements.

Parallel session 3
We need to strengthen the competencies of leaders involved in various fields of health promotion in schools.

Parallel session 4
We need to emphasize the importance of teacher training in health promotion and empower teachers as researchers of their own practices.

Parallel session 6
Gifted children, especially those from low socioeconomic backgrounds, can experience high levels of stress that affect their mental well-being.

Russian sessions (1)
The introduction of preventive technologies in education organizations is a necessary condition for improving the efficiency of health promotion among students.
Russian sessions (2)
All primary and secondary schools must ensure the delivery of compulsory health and relationships education that is scientifically accurate, age-appropriate, rights-based and gender-responsive.
Workshops (1)
European and global standards for health promotion in schools are coming – countries support a standard-driven approach to HPS.
Workshops (2)
PAL (Physical Activity Level), under which pupils are physically active while learning academic content, is a very promising approach, but we must make sure its implementation involves all pupils, especially those with the lowest skills.
Workshops (3)
Digital tools that provide health and sexuality education and develop skills to prevent and resist bullying and violence should be promoted and used in all schools.

Annex 1

HEALTH, WELL-BEING AND EDUCATION: BUILDING A SUSTAINABLE FUTURE. THE MOSCOW STATEMENT ON HEALTH PROMOTING SCHOOLS

1. Recent societal challenges
Since the establishment of the Health Promoting School approach in the late 1980s, the world has seen constant societal change, with progressively faster dynamics during recent years. The changes have not only altered substantially the conditions in which people grow up and live, but have also affected behaviours in relation to health, social cohabitation, learning and working. Wars and violence, often rooted in cultural and religious differences or political and economic crisis, and climate change alter significantly the environmental and societal determinants of health.

Often it is countries that already are experiencing political and socio-economic instability that feel the effects most. An increase in international migration, commonly in perilous circumstances for migrants and refugees, is the consequence, raising social tensions and challenges in many countries, some of which are undergoing political developments characterized by protectionism and isolationism that can partly be seen as a countermovement to the idea, values and principles of Europe.

In many cases, uncertainty has replaced political, economic, social and individual stability, raising concern and anxiety about the future in young people and adults. This has led to an unprecedented social (grassroots) movement of participation, primarily driven by young people who are demanding social, political, ecological and economic change.

These developments should not be seen as being separate from school health promotion, the aim of which is to support young people to develop healthy and self-determined lifestyles and enable them to co-create their social, physical and ecological environments and the determinants of health positively and sustainably. As the conditions for growing up and living together change, the question arises of how schools, as places for health-related teaching, learning and development, need to adapt.

Where does the Health Promoting School approach stand today, more than 30 years after the Ottawa Charter on health promotion? Can the Health Promoting School, with its holistic orientation, deliver on its promise of addressing health inequalities and improving children’s and young people’s health, well-being and academic achievement? To what extent can school health promotion be implemented systematically in schools and be linked to local communities?

These and more questions were raised and discussed during the 5th European Conference on Health Promoting Schools, culminating in recommendations for the future development of the Health Promoting School approach. Health, well-being and education: building a sustainable future. The Moscow Statement on Health Promoting Schools.

2. The 5th European Conference on Health Promoting Schools

The 5th European Conference on Health Promoting Schools was held on 20–22 November 2019 in Moscow, Russian Federation, with over 450 participants from 40 countries.
A range of topics was addressed through more than 160 contributions and nine keynote presentations focusing on conceptual aspects of the Health Promoting School approach, implementation and dissemination, and current social change processes, such as digitization and heterogeneity.

3. Recommendations for action

As a result of the research and case studies presented and discussions among conference participants, the following recommendations for action have been developed. They are addressed to all actors in governmental, nongovernmental and other organizations at international, national and regional levels, engaging with schools and/or school health promotion.

A. We recognize and reaffirm the established **values and pillars of the Schools for Health in Europe (SHE) network Foundation**. Especially in times marked by uncertainties and ambiguities, the Health Promoting School stands by its inalienable democratic values. This foundation is the basis for all health-promoting activities in schools and reflects a human and social perspective characterized by openness and mutual respect. We therefore recommend that all actions on health promotion and health education involving young people must:

- be based on democratic processes and foster equal access, active involvement and participation;
- take into account the needs and background of all young people regardless of their gender, geographical, cultural and social background, or religion: in that sense, a Health Promoting School can be seen as an inclusive school that celebrates heterogeneity and diversity as an enriching dimension for mutual learning, respect and acceptance;
- reflect a whole-school approach addressing different target groups and combining classroom activities with development of school policies, the physical, social and cultural environment of the school, and the necessary capacities needed: we welcome new and established concepts and approaches within school-based health promotion, such as health literacy, salutogenesis, action competence and life skills, which should complement each other and be integrated in the holistic framework of the Health Promoting School approach; and
- be systematically linked with educational goals and school quality as part of a so-called add-in approach: based on rich evidence, a health promoting school can be regarded as a school that not only promotes and maintains health, but also strives for successful learning for pupils and working conditions for teaching and non-teaching staff, and involves parents and families in the school’s daily life.

B. We recognize that **environment, climate and health are closely intertwined** and cannot be considered in isolation. Climate and environmental problems affect health, and health choices and actions affect climate and the environment. Environmental, climate and health issues are driven by the same fundamental structural determinants in societies. Health promotion and education for sustainable development or climate change have common goals and fields of action. We therefore:

- urge all stakeholders in health and climate/sustainability education to work together systematically to support young people to grow up and live healthily and sustainably;

- urge all stakeholders to support and empower young people to raise their voice and make a lasting contribution to shaping a healthy and sustainable future for themselves and their fellow human beings;
- call for actions to link planetary health and the Health Promoting School approach more explicitly by, for instance, integrating the impact of human action on the environment and its health consequences into school curricula and everyday life; and
- call for realignment of health-promotion research agendas to address environmental challenges in, with and through schools.

C. We advocate for a health-in-all-policies approach. Health should be promoted in all environments in which young people live and are engaged in daily activities. Although schools play a significant role in the lives of young people, school health promotion cannot be regarded in isolation from the **surrounding community**. We therefore call for:

- all actors to move from a single-setting to an integrated multi-setting approach that systematically links actions at school level with actions in the local community: these actions should not be implemented in isolation, but in a coordinated fashion to create synergies and avoid discontinuities;
- intersectoral collaboration among different actors and professions, such as teachers, school health services, and social and youth-care services: this requires professional development and that existing local networks and their leadership capacities be strengthened to align sectoral policies and enable the development of a common vision and language; and
- all actors to strengthen links with existing national and regional cooperation mechanisms, such as Health Promoting School networks and Healthy City or Healthy Region networks, by pursuing joint objectives and actions.

D. We recognize that **Noncommunicable Diseases (NCDs)** including mental illnesses are threatening the future of many countries' health and welfare systems and their economies. As emphasized in the Jakarta Call for Action on Noncommunicable Diseases from 2011, high priority should be given in national health policies and programmes to preventing NCDs. To tackle the rising incidence of NCDs, we need to start early; the Health Promoting School can serve as an appropriate setting in which to address the objectives of the WHO global action plan for the prevention and control of NCDs, 2013–2020. We therefore recommend that:

- a resource-oriented intervention approach (as described in the SHE values and pillars) be taken to tackle NCDs rather than a traditional top-down and disease-oriented approach, which normally dominates interventions related to risk factors;
- young people be viewed as part of the solution and not only as part of the problem of NCDs – we need to work with young people as powerful agents of healthy change and not as victims and recipients of risk factors;
- a school environment that promotes healthy practices in areas like healthy eating, physical activity, social and emotional wellbeing and good hygiene be created; and
- commercial determinants are addressed by empowering young people to become critical and responsible citizens who are able to understand and critically reflect on media advertising and market mechanisms through, for instance, consumer education.

E. We recognize that the Health Promoting School approach will be accepted and implemented more widely if it can provide evidence of its long-term effectiveness. Despite much research on various areas of school health promotion in recent years, further efforts are needed to **make**

visible and further improve the research evidence base for the holistic Health Promoting School approach. We therefore:

- call for evaluation approaches that reflect the complexity of the Health Promoting School by, for example, applying mixed-methods designs and considering graded health and educational outcomes;
- demand that the available scientific evidence be reviewed and evaluated using existing tools and be translated into recommendations for practical action;
- urge that a one-sided focus on outcomes research be augmented by focusing also on implementation to identify the conditions under which interventions can be effective, systematically linking both research perspectives; and
- call for systematic and strong partnerships between researchers and practitioners who develop and implement innovative interventions in school health promotion and those who conduct empirical surveys on child and adolescent health (such as the Health Behaviour in School-aged Children (HBSC) study) and the health of teaching and nonteaching staff; by sharing available social-epidemiological data, previously untried evaluation potential can be exploited.

F. We clearly recognize that growing up nowadays is largely driven by **high usage of digital media** and that digital devices and applications form an essential part of everyday life. The digital transformation of health systems and increasing digitalization of everyday life mean the availability and ubiquity of health-related information has increased rapidly and substantially over recent decades. So far, school health promotion has only partially tapped the potential and challenges of digital media. We therefore:

- call on all actors in school health promotion to use the possibilities of digital media in the context of research, development, implementation and exchange of innovative interventions and good practice;
- urge all actors to use digital media as a supplement to, and not as a substitute for, nondigital (face-to-face) school health-promotion actions;
- call on all actors to ensure that the use of digital media does not lead to a step back to individual and behavioural prevention, but rather is used at organizational level to, for instance, build capacity, communicate with partners outside the school and promote low-threshold participation in change processes within the school; and
- call for actions to empower individuals and whole-school systems to deal effectively with health information complexity, including its critical assessment, selection and use, and to take responsibility for providing suitable and reliable health information.

Source: Dadaczynski K, Jensen BB, Grieg Viig N, Sormunen M, von Seelen J, Kuchma V, Vilaça MT on behalf of the participants of the 5th European Conference on Health Promoting Schools (2019). Health, well-being and education: building a sustainable future. The Moscow Statement on Health Promoting Schools. Haderslev, Denmark: Schools for Health in Europe Network Foundation (https://www.schoolsforhealth.org/resources/conference-statements/moscow-statement).

Annex 2

PROGRAMME

Wednesday 20 November

09:00–10:30	**Conference opening**
	Chairs: Andrey Fisenko, Melita Vujnovic **Co-chair:** Martin Weber
	Valentina Matviyenko Chair of Federation Council of the Federal Assembly of the Russian Federation (on agreement) **Alexandra Levitskaya** Adviser to the President (on agreement) **Anna Kuznetsova** Presidential Commissioner for Children's Rights (on agreement) **Veronika Skvortsova** Minister of Health of the Russian Federation (on agreement) **Olga Vasilieva** Minister of Education of the Russian Federation (on agreement) **Melita Vujnovic** WHO Representative and Head of Country Office in the Russian Federation **Bente Mikkelsen** WHO Director of the Division of Noncommunicable Diseases and Promoting Health through the Life-course **Nina Grieg Viig** member of the SHE board, Western Norway University of Applied Science **Kevin Dadaczynski** Fulda University of Applied Science, Germany
11:00–12:30	**Plenary session 1. Where do we stand with the health promoting school approach 30 years after Ottawa?**
	Chair: Bente Mikkelsen **Facilitator:** Bjarne Bruun Jensen
	Key concepts, developments and milestones of the Health Promoting Schools from the SHE perspective Marjorita Sormunen, University of Eastern Finland, Finland **Health Behaviour in School-aged Children (HBSC): key results, trends and links with school health promotion** Dorothy Currie, University of St Andrews, United Kingdom **Health meets education: the Health Promoting School approach from an educational perspective** Peter Paulus, Leuphana University Lueneburg, Germany **Panel discussion**
13:30–15:00	**Parallel session 1**
	1a. European perspectives on health promoting schools **Chair:** Kevin Dadaczynski
	The SHE network in Croatia: the process of engaging new schools O. Martinis, I. Pavić Šimetin & D. Mayer **Promoting health education in Portugal — an overview** L. Maria Ladeiras

Health-saving activities in schools in eastern Europe and central Asia: problems and prospects of development
V. Kuchma, M. Polenova, S. Balaeva, E. Guzik, B. Kalieva, N. Pashayan & N. Silitrar
The School Health Research Network in Wales: building a data driven translational infrastructure
J. Segrott, J. Roberts & S. Murphy

1b. Studying and preventing risk behaviour in pupils
Chair: Vladislav Kuchma

Emerging issues with alcohol consumption among Croatian youth
A. Belavic, I. Pavić Šimetin, M. Žehaček Živković & D. Mayer
The main predictors of health disturbances in high-school children
S. Sankov & V. Kuchma
The risk of negative effects of cigarette smoke on the health of schoolchildren
N. Efimova, O. Zhurba & V. Tikhonova
A second chance to say no to alcohol and tobacco and yes to HPV vaccination
D. Mayer, L. Vukota, I. Pavić Šimetin, M. Žehaček Živković & A. Belavic

1c. Influences on the implementation of school health promotion
Chair: Maria Teresa Vilaça

Influencing policy-makers by monitoring health policies in Flemish schools and other organizations
S. Steenhuyzen & T. Vansteenkiste
Strengthening Krachtvoer as an instrument to promote integral health promotion at prevocational schools
M.D. Willems, P.van Assema, K.M.H.H. Bessems & S.P.J. Kremers
How can we measure organizational readiness to implement “smoke-free school hours” in Danish vocational schools?
Anneke Vang Hjort & Charlotte Demant Klinker
Do context factors affect implementation of a Danish school-based physical activity programme?
J.D. Guldager, J. von Seelen, P.T. Andersen & A. Leppin

1d. Nutrition status and healthy eating interventions
Chair: Rute Santos

Primary school pupils’ perception of healthy eating and contents of lunch boxes in Ibadan Nigeria
Y. John-Akinola
The character of children’s diet in Nizhniy Novgorod schools
E. Bogomolova, E. Olyushina; M. Ashin, M. Shaposhnikova, T. Badeeva & A. Kiseleva
Healthy, active and happy children
L. Rodrigues

1e. Cooperation and intersectoral partnership in school health promotion
Chair: Emily Darlington

Definition of good practices for health promoting schools: challenges of intersectoral work
V. Velasco, M.C. Veneruso, B. Baggio, L. Stampini, C. Celata & L. Coppola
Experience of cooperation between scientific, educational, medical organizations and school-wide parent committees in maintaining the health of schoolchildren
N. Efimova, I. Myl’nikova, V. Turov, M. Schmidt, S. Zarukina, A. Rudik, I. Andreeva & N. Demidova
The practice of intersectoral interaction in the protection of the health of schoolchildren
N. Shahhuseynbayova, A. Bunyatova, S. Suleymanli, H. Gabulov & S. Balayeva

	About the necessity to develop and realize a pilot project to prevent diseases in educational organisations in Moscow L. Denisov
	Russian session 1 **Chair:** Peter Khramtsov
	Modern pedagogical and medical–preventive technologies for strengthening children's health in schools I. Rapoport **Architecture of school buildings and its influence on pupils' health** V. Kuchma & M. Stepanova **Organization of school meals taking into account climatic, geographical, ethnic and cultural characteristics** G. Degteva **Health and its relationship with education. Who can talk to adolescents about the most important things, and how?** T. Yepoyan
16:00–17:30	**Parallel session 2**
	2a. Health promotion in vocational schools **Chair:** Marjorita Sormunen
	Integrated approach for school-based health promotion and facilitators to its implementation in Lithuanian vocational education and training institutions A. Jociutė **Translation of evidence-and practice-based actions into the whole-school context: programme theory of a complex intervention to reduce smoking in Danish vocational schools** A. Hjort, K. Rasmussen, T. Christiansen, P. Jensen, M. Stage & C. Klinker **The healthy supermarket coach: effects of a nutrition peer-education intervention in Dutch supermarkets in 12–14-year-olds from lower vocational schools** M. Huitink, M. Poelman, J. Seidell & S. Dijkstra
	2b. Information and communication technologies in school health promotion **Chair:** Vladislav Kuchma
	School medicine: problems and solutions R. Aizman **Using Internet-based interventions for children and adolescents in order to prevent bullying and protect minors from Internet threats** S. Suvorova, L. Smykalo, E. Karasyeva & Y. Batluk **On the issue of safe use of digital media** E. Laponova **Hygienic basis of safety for the design e-learning texts presented on laptops for high-school children** S. Sankov, V. Kuchma & N. Barsukova
	2c. Impact and effectiveness of school health promotion: evidence from the Netherlands **Chair:** Maria Teresa Vilaça
	The impact of providing a healthy school lunch at Dutch primary schools on dietary intake and appreciation F. Rongen, M. Vingerhoeds, S.C. Dijkstra, E. van Kleef & J.C. Seidell **The effects of the Healthy Primary School of the future on children's BMI z-score and dietary and physical activity behaviours**

	N. Bartelink, P. van Assema, S. Kremers, H. Savelberg, M Oosterhoff, M. Willeboordse, O. van Schayck, B. Winkens & M. Jansen **The effectiveness of interactive organ donation education for lower-educated students in a Dutch school setting** E. Steenaart, R. Crutzen, M.J.J.M. Candel & N.K. de Vries
	2d. School environment and health **Chair:** Nina Grieg Viig
	Systematic health-forming effects of an innovative form of education P. Khramtsov & G. Kravchenko **Indoor air quality in schools: strategies for monitoring chemical and biological pollutants: the Italian situation** *G. Settimo* **The research of a local immune defence of schoolchildren in different class occupancy** E. Bogomolova, N. Kotova, E. Maksimenko, A. Kiseleva & S. Kovalchuk **Health-saving environment in the educational organization is the main condition for the preservation of schoolchildren's health** O. Filkina, E. Vorobeva, A. Malyshkina & T. Rumyantseva
	2e. Epidemiological findings on healthy lifestyles in pupils **Chair:** Rute Santos
	Health behaviours of schoolchildren in the Russian Federation: main trends V. Kuchma & S. Sokolova **Leading health risk factors for high-school and college students as the basis of preventive programmes for adolescent health** E. Shubochkina **Modern attitudes to strengthening and saving of health for all participants of the educational process** I. Lyakh, N. Fedorova & N. Gembitskaya

Thursday 21 November

09:00–10:30	**Plenary session 2. Moving forward: upscaling implementation and dissemination of school health promotion**
	Chair: Vladislav Kuchma **Facilitator:** Vivian Barnekow
	Principles for development and implementation of school health promotion Bjarne Bruun Jensen, STENO Diabetes Centre Copenhagen, Denmark **Whole-school approaches to health promotion: evidence from Cochrane review, inclusive trial and pilot studies** Chris Bonell, London School of Hygiene & Tropical Medicine, United Kingdom **The role of school leadership in school health promotion** Kevin Dadaczynski, Fulda University of Applied Science, Germany **Panel discussion**
11:20–12:30	**Parallel session 3**
	3a. Student views and participation **Chair:** Bjarne Bruun Jensen
	The student´s view of school: participation and social environment L. Lusquinhos, R. Rosário & G. Carvalho **Factors influencing the popularity of school health services: adolescents' point of view** S. Sokolova, A. Goncharova, N. Abramova & D. Proschenko **When children form the future through empowerment evaluation**

U. Pedersen

Participatory planning and health promotion in physical education classes

L. Collier

3b. Health professionals in school health promotion
Chair: Aldona Jociutė

IT empowered nurses, adding even further advantages to EPS

J. Ruiz Janeiro & G. Soler Pardo

School nurses, information technologies and health education in schools: experience of Armenia

M. Melkumova, Y. Movsesyan & T. Yepoyan

Healthy fifestyle promotion and NCD prevention: school-based interventions and the role of health-care providers

Y. Movsesyan & M. Melkumova

3c. School-based prevention of mental health problems: Russian experiences
Chair: Vladimir Chubarovsky

School without pedagogical violence – schools contributing to the strengthening of health

V. Ganuzin

Existential conditions and methodological foundations of the formation of an individual trajectory of student health preservation

E. Nekhorosheva

Prevention of preclinical neuropsychiatric disorders in schoolchildren

V. Makarova & I. Zorina

3d. Physical activity promotion in children and adolescents
Chair: Kevin Dadaczynski

Vital Schools: how can we stimulate young people to move about and sit down less during classroom learning?

G. Muylle & D. Brunet

A systematic approach to the realization of health-forming technologies in physical education of junior students

P. Khramtsov

Protocol for developing Portuguese 24h movement guidelines for children and adolescents

R. Santos, L. Lopes, E. Sousa-Sá, C. Moreira, C. Agostinis-Sobrinho, S. Abreu, S. Martins, S.C. Póvoas, P. Silva, B. Rodrigues, J. Pereira, Z. Zhang, A. Pizarro, P.C. Santos & R. Rosário

Impact of environmental conditions and learning and teaching activities in kindergarten to the physical development of children in preschool groups

A. Haav, L. Oja & L. Lõhmus

3e. Diversity and inequality in school health promotion
Chair: Catriona O'Toole

Potatoes for Peace: an innovative school-based peace education initiative for children

S. Barmania

Teenage pregnancy is an equity issue

S. Hargreaves

The significance of social capital in the health development of young people

A. Klocke & S. Stadtmueller

Poverty-proofing education – why health and well-being matters

S. Hargreaves

13:30–15:00	**Parallel session 4**
	4a. Working situation and health of schoolteachers **Chair:** Terhi Saaranen
	Promotion of health at the primary school workplace plan M. Fink **Developing the model on the promotion of the occupational well-being of school staff** T. Saaranen, M. Sormunen, T. Pertel & S. Laine **Psychological profiling of teachers from education institutions as a method to improve the educational quality of schools** N. Setko. E. Bulycheva & O. Zhdanova **The teacher within: a holistic approach to supporting teachers' health and well-being through mindfulness and mentoring** S. Baciu, S. Shapiro, D. Shapiro & M. Rosser
	4b. School health promotion and student learning/ school achievement **Chair:** Kevin Dadaczynski
	Well-being, motivation and school achievement in secondary school pupils J. Masson, F. Fenouillet & M. Nekaa **Improving primary school health and well-being through the HAPPEN network (Health and Attainment of Pupils in a Primary Education Network)** E. Marchant **Physical Active Learning (PAL)** J. von Seelen, G. Reseland, A. Singh, T. Tammelin, J. Mota & A. Dale-Smith **Out-of-school physical education: impacts on students' learning and well-being** L. Collier
	4c. Conceptual frameworks and models for school health promotion **Chair:** Maria Teresa Vilaça
	The Healthy School framework helps Flemish schools to develop a (thematic) health policy T. Vansteenkiste, S. Ackaert & R. van Durme **Development of new planned approach for Dutch Healthy School programme** V. Kruitwagen & M. van Koperen **The alignment of key learning competencies and life skills: integration of concepts and language** M.G. Crispiatico, P. Bestetti, V. Velasco, M. Marella, L. Coppola & C. Celata **ProWeB Model: promoting well being. The school as a social network for health promotion** L. Channoufi
	4d. Teacher training and competency development **Chair:** Emily Darlington
	Digitalization requires broad competence of teachers – the development and piloting of a digital learning module Sormunen, J. Kiikeri, K.-M. Kokkonen, L. Ryhtä, I. Elonen, L. Salminen, K. Mikkonen, M. Kääriäinen & T. Saaranen **Teacher training for health promoting schools and sustainable development in Spain** M.J. Miranda Velasco **Experience in the development and implementation of technology training for pedagogical teams promoting health and psychological well-being in schools in Moscow** E. Nekhorosheva

	4e. The promotion of health literacy within the school **Chair:** Marjorita Sormunen
	Turning school health education upside down – lessons learned from second language teaching to improve health education S. Harsch & U. Bittlingmayer **The textbook of natural sciences as a teaching resource for health literacy: perspective of teachers and students** A. Coelho & C. Faria **Lesson study and the promotion of health literacy: a new approach to pre-service science teachers' education** C. Faria, I. Chagas & C. Galvão **Subjective health literacy among school-aged children: first evidence from Lithuania** S. Sukys, L. Trinkuniene & I. Tilindiene
	Russian session 2 **Chair:** Evgenia Shubochkina
	Assessment of quality of health care provided to students in school V. Kuchma & S. Sokolova **The practice of ensuring the well-being of children in the "Digital school"** M. Stepanova, M. Polenova & I. Aleksandrova **Continuity in organizing the physical activity of children in health promoting schools and in camps** A. Sedova **Mental health of teenage students 15–17 years: prevalence, risk factors, and preventive measures of emotional and behavioural disorders** V. Chubarovsky
16:00–17:30	**Parallel session 5**
	5a. Family and parents in school health promotion **Chair:** Marjorita Sormunen
	Relationship of parental perceptions of children's shape with nutritional status of children: a population-based study in Vietnamese preschool children T.T.D. Le, N.V. Savvina, N.K. Do, T.T.H. Ngo & T.T. Le **Preferences of Dutch parents for a school lunch programme on primary schools and their willingness to pay** S.C. Dijkstra, F.C. Rongen, M.H. Vingerhoeds, J.C. Seidell & E. van Kleef **Promoting family health literacy of vulnerable populations in education settings – the role of second language courses** S. Harsch & U. Bittlingmayer
	5b. Experiences and practices in implementing school health promotion **Chair:** Emily Darlington
	Leading towards the future – public health and life skills: a new cross-curricular theme in the Norwegian National Curriculum N.G. Viig & H.N. Abrahamsen **Experience in the implementation of the project "School is a health territory" in the Republic of Belarus** E. Guzik **Health promotion in SEK Education Group international schools** J. Barrio Cortes, M. Díaz Quesada, M. Ruiz López, M.T. Beca Martínez, C. Lozano Hernández, E. Corral Pugnaire & M.A. Pérez Nieto **Theory and practice of schools contributing to health promotion**

	I. Rapoport & S. Sokolova
	5c. Cooperation and intersectoral partnership: school health promotion II **Chair:** Aldona Jociutė
	Cooperation between youth-friendly health services and the educational sector in adolescent health promotion: the experience of Republic of Moldova G. Lesco **Cooperation between health and education in Flanders. A testimony of the Flemish Institute Healthy Living in cooperation with the Department of Education and Training** R. Van Durme, T. Vansteenkiste & S. Ackaert **Health-saving activities implemented in the general educational institutions of Nizhny Novgorod region: innovative approach** O. Gladysheva, M. Yakovleva & E. Kuzovatova **Building an infrastructure to support public involvement in research on whole-school approaches: a case study of the DECIPHer Centre, Wales, United Kingdom** J. Segrott, P. Gee & S. Murphy
	5d. Complex evaluation approaches in school health promotion **Chair:** Jesper von Seelen
	Mixed methods evaluation of a school-based intervention promoting sleep in adolescents: a cluster-randomized controlled trial M.-B.M.R. Inhulsen, V. Busch & M.M van Stralen **An intersectoral short-term evaluation on the social return on investment of the Healthy Primary School of the Future initiative** M. Oosterhoff, O. van Schayck, N. Bartelink, H. Bosma, M. Willeboordse, B. Winkens & M. Joore **Design of a three-level evaluation study of the Dutch Healthy School Programme** G. Vennegoor, P. van Assema, G.R.M. Molleman, M. Levels, J. Lezwijn, S. Mujakovic, T.G.W.M. Paulussen & M.W.J. Jansen
	5e. School mental health and well-being **Chair:** Peter Paulus
	Young people's mental health and well-being: findings from a school-based longitudinal study of 13–15-year-olds in Norway M. Thurston, H. Eikeland Tjomsland & I. Barth Vedøy **Healing schools? Making a case for trauma-informed practice within school health promoting frameworks** C. O'Toole **Can mindfulness-based interventions in breakfast clubs bolster learning and enhance psychological well-being in primary education across the United Kingdom and Europe**? T. Hughes Creating a network for better bystanders: no more indifference **E. Cappelletti, C. Pirotta, E. Bertolini, S. Brasca, P. Duregon, S. Ferrari, E. Giovanetti, A. Meconi, R. Tassi & N. Iannaccone**

Friday 22 November

09:00–10:30	**Plenary session 3. School health services – a key partner in school health promotion**
	Chair: Kevin Dadaczynski **Facilitator:** Bjarne Bruun Jensen
	Screening for diseases among schoolchildren: the end of an era? Pierre-André Michaud, University of Lausanne, Switzerland

	Risk factors affecting the health of students in a modern school: identification, assessment and prevention Vladislav Kuchma, National Medical Research Centre of Children's Health of the Ministry of Health of the Russian Federation **Pairing children with health service: a new role for school health service in the 21st century** Valentine Baltag, WHO headquarters **Panel discussion**
11:00–12:30	**Parallel session 6**
	6a. Heterogeneity and inclusion in school health promotion **Chair:** Peter Paulus
	Peculiarities of physical development of students in the inclusive boarding schools I. Setko & E. Bulycheva **Steps to Safety programme: building skills of safe behaviour among children with intellectual disabilities** L. Smykalo, I. Zinchenko, S. Suvorova & D. Navolskaya **Study of educational barriers for the total inclusion of children with rare diseases in the Spanish school setting** J. Miranda Velasco María **Fostering health and human rights education by inclusion in schools** G. Okcu, L. Heinemann, J. Gerdes, U. Bittlingmayer, K. Papke, A. Knoll, C. Jentsch, J. Kleres, S. Kirchhoff & S. Markovic
	6b. School-based promotion of healthy lifestyle and skills **Chair:** Jesper von Seelen
	The effectiveness of a healthy lifestyle programme on childhood self-regulation, creative thinking and problem solving: a protocol for childcare centres R. Rosário, C. Augusto, M.J. Silva, E. Sá, L. Lopes & R. Santos **Building community capacity to stimulate physical activity and dietary behaviour in a school-setting: perceptions of students, school personnel and parents** B.M. van Dongen, M.A.M. Ridder, I.M. de Vries, I.H.M. Steenhuis & C.M. Renders **Lessons learned from a sexuality and health education community of practice: w hat prospects for the future?** I. Chagas, M. Caseirito, D. Mourato & P. Costa **Using evidence-based programmes with a health promoting school approach: Life Skills training programme in Lombardy Region** V. Velasco, F. Mercuri, S. Brasca, L. Coppola & C. Celata
	6c. Professional development for health promotion **Chair:** Maria Teresa Vilaça
	Association among self-efficacy to promote healthy schools, health literacy, environmental and professional variables of Brazilian elementary school teachers R. Iaochite & A. Nunes **Assessment of a facilitator training on co-creating school-based well-being and health promotion** M. Vilaca & G. Carvalho **Health of the PE teacher as a factor in development of his/her professionalism** V. Gulyeva, V. Osik & N. Romonenko
	6d. Curriculum approaches to school health promotion **Chair:** Terhi Saaranen
	Health-saving technologies as means of improvement of quality of education at foreign language lessons

	O. Shirshova **The subject of health education in the Finnish matriculation examination in 2007–2019** M. Sormunen, H. Turunen, J. Sormunen & T. Saaranen **Formation of health-oriented educational background at the lessons of mathematics in the process of preparing high-school students for state final examination (SFE)** E. Slavgorodskaya **Health saving educational school background: pedagogical approach** N. Deshina
	6e. Epidemiological findings on pupils' health **Chair:** Rute Santos
	Peculiarities of noncognitive functions of gifted students associated with academic progress E. Bulycheva, N. Setko, A. Setko & O. Zhdanova **Health of students as an indicator of the effectiveness of health-saving activities of educational institutions** S. Balayeva, S. Hasanova, Z. Ismailova & Q. Amrahli **Complex approach to health preservation and health promotion in Moscow senior pupils** I. Rapoport & L. Sukhareva **Role of parents and teachers in children's stress expression and genome instability development** F. Ingel, V. Yurchenko, E. Krivtsova & N. Urtseva
12:30–13:30	**Conference closing**
	Chair: Andrey Fisenko **Co-chair:** Vladislav Kuchma
	Conference highlights: a personal reflection Marjorita Sormunen, University of Eastern Finland, Finland **Moments from the past, the present and the future on health promoting schools** Vivian Brigitte Barnekow, WHO Regional Office for Europe **Today's reality and visions for tomorrow – statements from young people** Video presentation **Moscow Statement** Kevin Dadaczynski, Fulda University of Applied Science, Germany

Workshops

Wednesday 20 November	13:30–15:00	**Life skills education: a key feature of health promoting schools** **Chair**: Scarlett Stor
	16:00–17:30	**Global standards for health promoting schools and their implementation guidance (regional consultation)** **Chair:** Valentina Baltag
Thursday 21 November	11:00–12:30	**Physical active teaching and learning – why and how** **Chair:** Jesper von Seelen
	16:00–17:30	**Tackling future NCDs through the work with single health topics in a health promoting school – potentials, barriers and pitfalls** **Chair:** Bjarne Bruun Jensen
Friday 22 November	11:00–12:30	**Health education. Doing a reality check and using multiple media** **Chair:** Tigran Yepoyan

Annex 3

POSTER PRESENTATIONS

Presenters	Title
N. Babok	Increasing organizational efficiency in education of medical students
N. Bobrisheva-Pushkina, L. Kuznetsova & O. Popova	A study of adolescent awareness of depression in the Moscow region
E. Bogacheva	The regional school project, “Be Active!“
V. Cesarini, F. Piunti, M.C. Carmignani, F. D’Aloisio, S. D’Onofrio, S. Greco, M. de Felice & M. Scatigna	Parental misperception of child’s body weight: cross-sectional survey in an Italian sample of preschoolers
G. Goncharova	Psychophysiological view of the mental health and development of school students
Zh. Gorelova, Y. Solovyeva & T. Letuchaya	Modern opportunities and effectiveness of alternative nutrition in schools
V. Juškelienė & A. Lisinskienė	Does the attachment to mothers, fathers and peers influence adolescents´ engagement in physical
L. Lipanova, G. Nasybullina, E. Anufrieva, E. Kislyakova & A. Lyapin	Implementation of the project of the Russian Schools for Health Network in Yekatarinburg
T. Mamazhunusova	School Health and Nutrition programme
G. Muylle & D. Brunet	Vital Schools: how can we stimulate young people to move about and sit down less during classroom learning?
N. Pankova, S. Romanov, M. Karganov	Negative trends in the dynamics of physical development of primary school students (by body mass index)
S. Prosheva & E. Kosevska	Evaluation of the effectiveness of the HBSC 2018 data and the SHE tools in school-based health promotion
I. Ryabova, S. Stepanov & T. Sobolevskaya	On the issue of public health monitoring of Moscow schoolchildren: the view of participants of educational relations
A. Sedova, E. Laponova, I. Peresetskaya & Yu. Loshchakova	Trajectories between school settings – camp in the sphere of strengthening the health of children
A. Shishova & L. Zhdanova	Experience in medical, psychological and pedagogical support of pupils in the school of early development of the Ivanovo city Palace of children and youth
V. Shlyapnikov	The impact of social networks sites’ usage on the state of volitional regulation in adolescents

Presenters	Title
T. Sobolevskaya, I. Ryabova & D. Chernogorov	Prevention and correction of posture by the teacher in the learning process with the help of pedagogical means
M. Stepanova, I. Aleksandrova & N. Berezina	Digital devices and their role in health formation of children in kindergartens and schools
E. Tolasova, I. Melnikova, E. Khramtcova & V. Shapovalov	Telemedical questionnaire screening of the patient to identify the risks of major chronic diseases as a tool for remote assessment of somatic health of children and adolescents
E. Tsukareva, A. Avchinnikov, D. Avchinnikova, I. Alimova, E. Nesterov, O. Stunzhas	Experience in the implementation of the educational programme for the development of rational nutrition skills for primary schoolchildren in Smolensk
O. Vyatleva & A. Kurgansky	Daily use of mobile phones and its impact on the health of younger schoolchildren
N. Zhamlikhanov, A. Fedorov & Z. Grigorieva	The improvement in children from risk groups with cause of neuromental disorders in initial school classes

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
North Macedonia
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan