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Improving the lives of children and young people: case studies from Europe
Volume 3. School

Editors: Vivian Barnekow, Bjarne Bruun Jensen, Candace Currie, Alan Dyson, Naomi Eisenstadt and Edward Melhuish

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ABSTRACT

The WHO Regional Office for Europe commissioned a European review of social determinants of health and the health divide. The case studies published in these three volumes arise from the review's early years, family and education task group. The task group commissioned experts in the European Region to write case studies addressing childhood and inequality in their contexts. Contributors were asked to identify promising developments that would also have international resonance, to describe the issues they addressed and how they were led and operationalized, and to set out emerging evidence of effectiveness. The result is a diverse collection of case studies presented over three volumes reflecting a "life-course" approach: early years; childhood; and school. Some review major national policy developments and frameworks, others deal with specific national initiatives or with local projects driven by community organizations, and a few focus on transnational initiatives. They do not set out to offer a comprehensive overview of childhood and health in the Region, but provide examples of innovative practice that will inform and inspire policy-makers, practitioners, managers, educators and researchers at country and European levels.

Keywords

CHILD WELFARE
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Abbreviations and acronyms, volumes 1–3

ADHD	attention-deficit hyperactivity disorder
A PAR	Association Aprender em Parceria [Learning in Partnership Association] [Portugal]
Arabkir MC–ICAH	Arabkir Medical Centre–Institute of Child and Adolescent Health [Armenia]
ASL	azienda sanitaria locale [local health unit] [Italy]
AVall	Alimentation and Physical Activities in the Eastern Valles [Spain]
BA (Hons.)	bachelor's degree with honours
BMI	body mass index
BRÅ	Bråttsförebyggande rådet [Complaints Prevention Council] [Sweden]
BZgA	Bundeszentrale für gesundheitliche Aufklärung [Federal Centre for Health Education] [Germany]
CHIP−AE	Child Health and Illness Profile – Adolescent Edition
CI	confidence interval
CINDI	Countrywide Integrated Noncommunicable Disease Intervention [programme]
CIS	Commonwealth of Independent States
CoE	Council of Europe
DAK	Deutsche Angestellten Krankenkasse [health insurance company] [Germany]
DG SANCO	[European Commission] Directorate-General for Health and Consumers
DHS	demographic health survey
EC	European Commission
ECEC	early childhood education and care
ECERS	Early Childhood Education Rating Scale
ENHPS	European Network of Health Promoting Schools
EnRG	Environmental Research framework for weight Gain prevention
EPODE	Ensemble Prévenons l'Obésité des Enfants [Let's Prevent Childhood Obesity Together] study
EPPE	Effective Provision of Preschool and Primary Education [project] [United Kingdom (England)]
ESF	European Social Fund
EU	European Union
EU27	countries belonging to the EU after January 2007
EU−SILC	EU Statistics on Income and Living Conditions
FAS	[HBSC] Family Affluence Scale
FAST	Families and Schools Together [programme]
FNP	family–nurse partnership [United Kingdom (England)]
FSME	free-school-meal entitlement
GCSE	general certificate of secondary education
GDP	gross domestic product
GP	general practitioner
GRSP	Global Road Traffic Safety
HBSC	WHO Health Behaviour in School-aged Children [survey/study]
HEEADSS	home, education, eating and employment, activities, drugs, sexuality, suicide/depression

HEO	Health Education Office [of the Ministry of Education and Culture] [Cyprus]
HPS	health-promoting school [approach]
ICAPS	Intervention Centred on Adolescents' Physical Activity and Sedentary Behaviour [programme]
ICT	information and communications technology
IMCI	integrated management of childhood illnesses
INCA	Etude Individuelle Nationale sur les Consommations Alimentaires [survey]
INPES	Institut National de Prévention et d'Éducation pour la Santé [National Institute for Prevention and Health Education] [France]
IRTAD	International Road Traffic and Accident Database
ISCED	International Standard Classification of Education
IVAC	investigation−vision−action−change [approach]
JOGG	Jongeren Op Gezond Gewicht [Young People at a Healthy Weight] [the Netherlands]
KEDKE−EETAA	Central Association of Municipalities and Communities of Greece−Hellenic Agency for Local Development and Local Government
KiGGS	Studie zur Gesundheit von Kindern und Jugendlichen [National Health Interview and Examination Survey for Children and Adolescents] [Germany]
LLBT	"Learning to live better together" [programme] [France]
MMR	measels−mumps−rubella [vaccination]
MOVE	Motivierende Kurzintervention für Jugendliche [brief motivational intervention for young people] [Croatia]
NCD	noncommunicable disease
NESS	National Evaluation of Sure Start [United Kingdom (England)]
NFP	nurse family partnership [programme] [United Kingdom (England)]
NGO	nongovernmental organization
ns	not significant
OECD	Organisation for Economic Co-operation and Development
OKE	Wet Ontwikkelingskansen door Kwaliteit en Educatie Act 2010 [Law and Development Opportunities through Quality Education Act 2010] [the Netherlands]
OMCYA	Office of the Minister for Children and Youth Affairs [Ireland]
OR	odds ratio
ORIM	opportunities, recognition, interaction and model
PE	physical education
PEEP	Parents Early Education Partnership [programme]
PFS	[JUMP-in] pupil follow-up system [the Netherlands]
PISA	Programme for International Student Assessment [study]
PPP	purchasing power parity
PNNS	Programme National Nutrition-Santé [France]
SD	standard deviation
SES	socioeconomic status
SGBII	Dritte Buch Sozialgesetzbuch II [Social Code Book II] [Germany]
SHE	Schools for Health in Europe [network]
SHS	school health service[s]
SWOT	strengths, weaknesses, opportunities, threats

UNCRC	United Nation's Convention on the Rights of the Child
UNICEF	United Nations Children's Fund
WOŚP	Wielka Orkiestra Świątecznej Pomocy [Great Orchestra of Christmas Charity] [Poland]

Foreword

The population of children and young people up to age 18 in the WHO European Region is around 204 million. Most enjoy a high standard of health and well-being, with some countries in the Region having the lowest infant and child mortality rates in the world. The rate in other countries, however, is 25 times higher. This means that every year, more than 160 000 children in the European Region die before reaching their fifth birthday, 40% of them in the first month of life.

Children and young people represent the future of our Region: it is they who will drive the economies, create the prosperity and develop the conditions for healthy living on which Europe will depend as we progress through the 21st century.

As the new policy framework for health and well-being in the Region, Health 2020, explains, ensuring that children have the best start in life – through provision of good nutrition, immunization against vaccine-preventable diseases and access to environments that enable them to be safe and physically active – establishes a solid base for good health and contributes to healthy behaviour for years to come. Young people access new opportunities in education, social activity and occupation as they approach adulthood, but also face fresh challenges to their health and well-being status. Recognition of this is at the heart of the "life-course" approach advocated by Health 2020.

The case studies in these three volumes present a tool to support the implementation of Health 2020, taking their place among a range of interventions and resources being designed for this purpose. They describe how countries have used local, national and international evidence, partnerships and know-how to support children and young people at three vital stages of development – early years, childhood and school. The central pillars of Health 2020 − investing in health through a life-course approach, facing health challenges, strengthening health systems and creating suitable environments and resilient societies – feature large in the approaches adopted.

The case studies also have direct relevance to the European review of social determinants of health and the health divide. Some, such as the description of early childhood services and family support in Portugal, the National Nutritional Health Programme for children in France and innovative approaches to transforming school canteen meals in Denmark, will already be familiar to those who have read the review's final report, although much more detail is presented here. Others will be new, but the areas of concern they address and the approaches they describe will be instantly recognizable to those who are familiar with the social determinants of health agenda.

The case studies in these three volumes provide vivid and memorable examples of innovative practice from countries across the Region that will inform and inspire policy-makers, practitioners, managers, educators and researchers at country and European levels.

Zsuzsanna Jakab
WHO Regional Director for Europe

Preface

The WHO European Region, like much of the world, is beset by significant inequalities in health outcomes. The extent to which people enjoy good health is dependent not only on individual characteristics and experiences, but also on their gender, ethnicity and socioeconomic status, on where they live, on the resources available to their countries and on the global forces that help shape what happens locally. In other words, there are significant "social determinants" of health inequalities which – in principle at least – national policy and frontline practice can help to address.

The WHO Regional Office for Europe has commissioned a European review of social determinants of health and the health divide, chaired by Sir Michael Marmot, to explore how these social determinants work and, more particularly, how they might be tackled. The case studies published here arise from the work of the Early Years, Family and Education task group, one of a range of such groups contributing to the European review.

What happens in childhood has a profound effect on the lives of adults. In particular, health outcomes are shaped by the circumstances in which children grow up, the extent to which their families can offer them a nurturing environment and the experiences they have in and out of the home, including preschool and school. The job of the task group was to explore what policy-makers, practitioners and community groups can do to ensure that all children grow up in the most supportive environment possible, so that inequalities in childhood are addressed before they translate into inequalities in health outcomes.

There is a substantial research literature in this field, and many transnational organizations have produced their own (more-or-less) evidence-based reports on how childhood inequalities might be tackled. Research evidence and generalized guidance, however, always need to be translated into local contexts: what works in one place may not be so effective – or, indeed, may not be possible at all – somewhere else. This is particularly true in the European Region, where the 53 Member States offer a highly diverse range of contexts in terms of social structure, culture, political environment, availability of resources, policy frameworks and professional skill levels. Locally developed initiatives are in many cases more effective than imported solutions and may provide a rich source of ideas from which practitioners and policy-makers elsewhere can draw to develop their own provision.

With this in mind, the task group wanted to find out what promising practices were already emerging in European countries. We therefore commissioned experts in different parts of the European Region to write case studies raising issues around childhood and inequality in their contexts and describing initiatives to address them. Contributors were asked to identify developments they considered promising in their situation that would also have international resonance. They were asked to describe the issues these developments were aiming to address, how they were being led and operationalized, and what evidence of effects on child experiences, development and health was emerging.

The result is a diverse collection of case studies presented over three volumes:

- Volume 1. Early years
- Volume 2. Childhood
- Volume 3. School.

Some of the case studies deal with major national policy developments or offer an overview of the situation of children or policy frameworks. Others deal with specific national initiatives or with local projects driven by community organizations. A few deal with transnational initiatives and many with work based in and around schools. The choice of focus was left to authors, who were simply asked to share with the task group examples of the "best" their country had to offer. Readers therefore should not look to these case studies for a comprehensive overview of childhood and health in the European Region, but they will find a wealth of ideas that may help stimulate their own thinking.

There are some inevitable limitations in a collection such as this. We activated our own networks of childhood and health experts, trying to ensure we had coverage from different parts of the Region. Other experts in the same countries would quite possibly have chosen different foci for their case studies, and other networks would have involved other countries. We are particularly aware that our range was limited by the need for contributors to write in English, and that it proved easier to find contributors in the north and west of the Region than in the south and east. We are also aware – as were our contributors – that the availability of data and evaluation evidence differs widely from country to country and initiative to initiative. The combination of high-quality national monitoring data and properly funded, well-designed evaluations seems to be rare across the Region. Identifying key issues and determining the effectiveness of initiatives consequently relies on partial evidence and on practitioners' expertise. But problems are usually too pressing for policy-makers and practitioners to wait until gold-standard evidence appears.

What the task group made of these case studies is set out in detail in evidence we submitted to underpin the final report of the European review of social determinants of health and the health divide, chaired by Professor Sir Michael Marmot. Not surprisingly, we point to the need for better evidence, but we also argue for cross-sectoral action, for the political will to make such action effective, and for high-quality staff to implement it. The recommendations we presented to the review are based in large part on what we learned from the case studies, which in turn will help readers contextualize the recommendations. Equally important, however, is what readers make of these cases and the ways in which they encourage them to think creatively about what might be done in their own situations.

Finally, we would like to thank all of those who made the publication of these case studies possible: Candace Currie (University of St Andrews, United Kingdom (Scotland)), Bjarne Bruun Jensen (Steno Health Promotion Centre, Denmark) and Edward Melhuish (Birkbeck College, London, United Kingdom (England)), who assembled and led the teams of authors; Philip de Winter Shaw (University of St Andrews, United Kingdom (Scotland)), who edited many of the case studies; Vivian Barnekow of the Regional Office, who oversaw the publication process; and, above all, the case study authors, who met our demands with unfailing patience to make their considerable knowledge available to a wider audience.

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Naomi Eisenstadt
Co-chairs, Early Years, Family and Education task group

Editors

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Manager, Child and Adolescent Health and Development programme, the WHO Regional Office for Europe
Ms Barnekkow started her professional career as a teacher, completing postgraduate education in health promotion. She joined the Regional Office in 1994. Her main involvement for many years was with the European Network of Health Promoting Schools, where she was responsible for the technical secretariat. She is the WHO focal point for the Health Behaviour in School-Aged Children: WHO cross-national collaborative study (HBSC).

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Professor in Health Promotion and Education, and Director, Steno Health Promotion Centre, Denmark
Professor Bruun Jensen's research areas include conceptual development in health promotion and prevention, with a strong focus on action competence and participatory and innovative approaches. Recently he was one of the coordinators of the European Union-funded project "Shape Up – towards a healthy and balanced growing up". He has authored and edited many journal and book publications.

Candace Currie
Professor of Child and Adolescent Health, School of Medicine, University of St Andrews, United Kingdom (Scotland)
Professor Currie directs the Child and Adolescent Health Research Unit and is HBSC international coordinator. Her research interests are in social inequalities in adolescent health and developmental aspects of health during adolescence.

Alan Dyson
Professor of Education and Co-director of the Centre for Equity in Education, Manchester Institute of Education, University of Manchester, United Kingdom (England), and Co-chair, Early Years, Family and Education task group
Professor Dyson works in the field of educational disadvantage and inclusion, with a particular interest in community schools and in area-based initiatives. He is currently working with Save the Children on the development of a series of "children's zones" in the United Kingdom.

Naomi Eisenstadt
Senior Research Fellow, departments of social policy and education, University of Oxford, United Kingdom (England), and Co-chair, Early Years, Family and Education task group
Dr Eisenstadt was formerly a senior civil servant in the United Kingdom Government, where she was in charge of all early years, child care and family policy. She has authored a book on United Kingdom (England´s) Sure Start programme and advises the governments in England and Scotland on early years and child poverty issues.

Edward Melhuish
Professor of Human Development, Birkbeck, University of London, and Research Professor, University of Oxford, United Kingdom (England)
Professor Melhuish researches environmental influences upon human development using longitudinal studies. He has over 200 publications and has been an adviser to several government and nongovernmental agencies.

Authors

Volume 1. Early years

1.1. Family support and early childhood education and care in Greece

Konstantinos Petrogiannis is associate professor of developmental psychology at the Hellenic Open University. His research includes early child care and education, parent−child relationships, children's resilience and socioemotional development.
Thalia Dragonas is professor of social psychology at the Department of Early Childhood Education, National and Kapodistrian University of Athens. Her research includes psychosocial identity and intergroup relations, intercultural education and ethnocentrism, promotion of early psychosocial health, transition to parenthood and construction of fatherhood.

1.2. Early childhood services and family support in the Netherlands

Paul Leseman is professor of education at Utrecht University and a researcher in early childhood education and care and family support. He is undertaking a national cohort study of the effectiveness of provision for young children. His publications focus on language development, multilingual development, emergent literacy and mathematics, and effectiveness of preschool education and care.
Micha de Winter is professor of education at Utrecht University. He researches youth (health) care, family support and school-based programmes for social development. He is the author of books on citizenship development and is an adviser to the government on youth health care and to The United Nations Children's Fund (UNICEF) on refugee children.

1.3. Early childhood services and family support in Portugal

Maria Emília Nabuco has recently retired as a professor at Lisbon School of Education. She is president of the Association Aprender em Parceria [Learning in Partnership Association] and has undertaken research on parental support in Portugal.
Claudia Costa is a psychologist and lecturer at the Lisbon School of Education and has undertaken research on early childhood and parent support for disadvantaged families.

1.4. Well-being of preschool children in Sweden – the role of early childhood education and free health care

Ingrid Pramling Samuelsson is professor in early childhood education at the Department of Education, Communication and Learning at Gothenburg University. Her research concerns young children's learning and curriculum questions in early years education. She has a United Nations Educational, Scientific and Cultural Organization (UNESCO) Chair in early childhood education and sustainable development and is World President for the Organisation Mondiale pour l´Èducation Préscolaire.
Sonja Sheridan is a professor in education at the Department of Education, Communication and Learning at Gothenburg University. Her research includes quality issues and children's learning, and teacher competence in preschool. She has undertaken several research projects and has been employed as a consultant by the Ministry of Education and Science on the revision of the Swedish preschool curriculum, and as an expert for the Organisation for Economic Co-operation and Develpopment (OECD) and the Norwegian Agency for Quality Assurance in Education.
Margareta Blennow is a paediatrician and head of child health services in southern Stockholm County. She has served as president of the Swedish Paediatric Society and chaired the Stockholm Advisory Committee on Paediatrics and Child Health. Her research areas concern vaccinations and the effect of outdoor environment in preschools on the health and well-being of children.

1.5. Developments in early years services in United Kingdom (England)

Naomi Eisenstadt was a civil servant in the Department for Education from 1999 to 2006 and was the senior officer in charge of many of the developments described in the case study.
Edward Melhuish is a research professor in human development at Birkbeck College, University of London and the University of Oxford. He has over 200 publications and his work has had substantial impact on policy for early childhood services in the United Kingdom and other countries.

Volume 2. Childhood

2.1. The role of health education in addressing the health divide: evidence from two European health-promotion projects employing a participatory and action-oriented education approach

Venka Simovska is professor in health education and promotion at the Department of Education, Aarhus University. She is research director for the programme on "Learning for care, sustainability and health" at the department and leader of the research centre "schools for health and Sustainability". Professor Simovska has published extensively in the field of school-based health promotion and health education. Her latest publications discuss research findings from the Shape Up project, featured in the case study.

2.2. Socioeconomic, education and family-related determinants of health and development of Armenian children and adolescents

Sergey Sargsyan is associate professor of paediatrics at the Medical University and Head of the Institute of Child and Adolescent Health at the Arabkir Medical Centre. He is WHO Health Behaviour in School-aged Children (HBSC) study principal investigator for Armenia, director of the "Healthy start" programme on child development and rehabilitation of the Arabkir Medical Centre and Vice-president of the Armenian Paediatric Association. He has participated in many activities and programmes in Armenia in relation to policy development, control of acute respiratory infections, health education, child immunization, health statistics, adolescent health and child advocacy and protection since the early 1990s.
Marina Melkumova is an adolescent health specialist at the Arabkir Medical Centre–Institute of Child and Adolescent Health (Arabkir MC−ICAH) and HBSC deputy principal investigator.
Eva Movsesyan is a coordinator of public health programmes and an active member of the HBSC team. Dr Movsesyan and Dr Melkumova also participated in most key developments in Armenia in relation to adolescent health, policy development and public health interventions.
Ara Babloyan is professor at the Medical University, Head of Department of Paediatrics and Paediatric Surgery and Scientific Head of the Arabkir MC−ICAH. He is also a consultant for the HBSC team and a member of the National Assembly of Armenia, where he is Head of the Parliamentary Commission on Health, Mother and Child Issues. He is President of the Armenian Paediatric Association and chief consultant to the Ministry of Health; he was Minister of Health from 1992 to 1997. He has been actively involved in the most significant health sector programmes in Armenia since the 1990s in relation to policy development and implementation, health care system reform, health financing and child and adolescent health. Currently, he is a member of the Executive Board of WHO.

2.3. The nutrition policy framework in France

François Beck is a statistician and sociologist who heads the Survey and Statistical Analysis Unit at Institut National de Prévention et d'Éducation pour la Santé [National Institute for Prevention and Health Education] (INPES) and is a researcher in the Cermes3, a sociology unit of Sorbonne Paris Cité (Paris Descartes University/CNRS UMR 8211/Inserm U988/EHESS). He is the principal investigator for the French Health Barometer survey.
Emmanuelle Godeau is a public health professional. She belongs to the Ministry of Education and to a research unit (UMR INSERM U1027, research team on perinatal epidemiology and childhood disabilities and adolescent health, University Paul Sabatier, Toulouse) where she works on the health and health behaviours of adolescents with a focus on special-needs students. She has been the principal investigator for the French HBSC survey since 2000, working in close contact with INPES experts.
Hélène Escalon is an economist and head of study at INPES, where she works on nutrition and physical activity. She is the principal investigator for the French Nutrition Barometer survey.
Pierre Arwidson is a public health professional who is Director of Scientific Studies at INPES. He specializes in public health intervention evaluations and represents INPES in the main French public health commissions.

2.4. Overview of national health policy and interventions on reducing social inequalities in health in children and adolescents in Germany

Veronika Ottova, Carsten Rasche and **Ulrike Ravens-Sieberer** are researchers in the field of mental health, well-being and health-related quality of life, working at the Child and Public Health Research Unit at the University Medical Centre Hamburg-Eppendorf, headed by Professor Dr Ravens-Sieberer. The research unit is involved in several national and international projects, including the BELLA study, a large representative study of mental health and well-being in children and adolescents in Germany, and the WHO collaborative HBSC study. The research unit has been involved in past WHO/HBSC forums on social cohesion for mental well-being and socio-environmentally determined health inequities.

2.5. Progress in implementing the national child and youth safety action plan in Hungary

Gabriella Páll, Ágota Örkényi, Emese Zsíros, Ildikó Zakariás, Dóra Várnai and **Ágnes Németh** work for the National Institute for Child Health, a governmental organization coordinating the national infant and child health programme and child and youth safety action plan, supported by the Ministry of Health. It also coordinates the Hungarian HBSC survey, through which it is able to focus on investigating and analysing the prevalence and determinants of medically treated injuries in adolescents in line with the priority of child safety.

2.6. The development and use of a set of children's well-being indicators in Ireland

Michal Molcho is a university lecturer in the Discipline of Health Promotion, School of Health Sciences, and a researcher in the Health Promotion Research Centre at the National University of Ireland, Galway. She has been a member of the HBSC study since 1997 and co-authored two of the "state of the nation's child" reports that are among the outcomes of the children's well-being indicators discussed in the case study.

2.7. Actions to equalize social and health opportunities in Norway through schools

Oddrun Samdal has worked at the Research Centre for Health Promotion at the University of Bergen since 1993. She has collaborated with national health and education authorities and governments throughout her academic career, starting when the ministries of health and education asked the research centre to be the coordinating centre for the Norwegian part of the European Network of Health Promoting Schools. Professor Samdal was selected to be the national coordinator for the project and worked closely on planning and implementation with the ministries for 10 years. She was a member of the first national board for physical activity between 1999 and 2007 and sat on the committee that evaluated school meal arrangements in 2004/2005. Her role as Norwegian principal investigator for the HBSC study and her responsibility for several evaluations of school-based interventions means she is constantly in dialogue with national authorities, providing inputs on policy developments. She was recently part of an advisory group on how to promote daily physical activity in school.

2.8. Improving education and health outcomes for children with chronic disease in Poland – from social campaigns to systemic changes

Joanna Mazur and **Agnieszka Małkowska-Szkutnik** work at the Department of Child and Adolescent Health, Institute of Mother and Child in Warsaw. They authors have been conducting research on chronically ill children's functioning in school environments for several years and participate in planning and implementing new intervention programmes and contributing to expert teams, including those dealing with issues of inequality.

Volume 3. School

3.1. MOVE: motivating brief interventions for young people at risk in Croatia

Ivana Pavic Simetin, Iva Pejnovic Franelic and **Marina Kuzman** work in the National Institute of Public Health, Zagreb. Dr Kuzman is also on the staff of the University of Applied Health Studies, Zagreb.

3.2. Building capacity for health-promotion activities in schools in Cyprus

Soula Ioannou is coordinator of school health programmes and **Andreas Kleanthous** works at the department that grants funds for schools' health promotion activities, both in the Health Education Office, Ministry of Education and Culture in Nicosia. The Health Education Office is responsible for developing and coordinating policies, actions and programmes that foster students' well-being. The main task is to encourage schools to adopt a more structured approach to promoting healthy behaviours, including paying attention to the roles of social, cultural and physical environments in influencing students' well-being. The strategies used for empowering the health promotion approach are described in the case study.

3.3. Can school meal provision contribute to the reduction of social inequalities in health and improve learning outcomes? The case of Sweden and Denmark

Bent Egberg Mikkelsen is professor and research coordinator of the Meal Science and Public Health Nutrition Reaserch Group, Denmark.

3.4. Promoting social, emotional and physical well-being, child participation, educational attainment and parent engagement in later childhood – the Finnish perspective

Kerttu Tossavainen is head of the Schools for Health in Europe (SHE) research group in Finland and a member of the SHE research core group. She is responsible for Master's-level teacher education in health sciences (nursing science as a main subject) at the University of Eastern Finland and supervises PhD students. She chairs the board of directors of the Finnish Health Association and is a member of the scientific committees

of the Finnish Centre for Health Promotion and the Mannerheim League for Child Welfare. She is an associate member of the Finnish matriculation examination board in health education, led by the Ministry of Education and Culture, and a member of the board that plans, implements and evaluates basic and advanced-level health education and health promotion studies at the Open University of the University of Eastern Finland. Her work has been instrumental in ensuring the inclusion of health education as an independent subject in the national curriculum for basic education.
Hannele Turunen is a senior researcher in the SHE research group in Finland and a member of the SHE research core group. Like Professor Tossavainen, Professor Turunen is responsible for Master's-level education in health sciences (nursing science as a main and leadership and management as a secondary subject) at the University of Eastern Finland and is a supervisor for PhD students. She is also a member of the administrative board at the university's Faculty of Health Sciences, an associate member of the Finnish matriculation examination board in health education and a member of the board that plans, implements and evaluates basic and advanced level health education and health promotion studies at the Open University of the University of Eastern Finland.

3.5. Vocational college health promotion pilot project experiences in Finland, 2008–2011

Maria Leppäkari and **Bengt Lindström** work for Folkhälsans Förbund, Helsinki, a Swedish-speaking nongovernmental organization that has been active in the social welfare and health care sector in Finland since 1921. It performs scientific research and provides services, information and counselling to promote health and quality of life.

3.6. "Learning to live better together": enabling schools and communities to implement a health promotion policy and minimize health inequalities in France

Didier Jourdan is professor at the University Blaise Pascal in Clermont-Ferrand, France. He is Vice-president of the Commission on Prevention, Education and Health Promotion of the French High Council for Public Health.

3.7. Joint development of healthy schools in Germany

Merle Strigl, Elena Burrows, Ina Cramer, Silke Rupprecht and **Katrin Schwarzenberg** are research assistants at the Centre of Applied Health Sciences at Leuphana University, Lüneburg. They were part of the team for the nationwide project "Developing healthy schools together".

3.8. Reducing health inequalities in schools in Italy

Francesca Ramondetti, Niccolò Lanati, Maria Sacco and **Alessia Varetta** are physicians specializing in hygiene and preventive medicine at the Community Medicine Research Centre for Human Health Promotion, Department of Public Health and Neurosciences at the University of Pavia.
Marisa Arpesella is Dean of the Research and Study Centre in Community Medicine for Human Health Promotion at the University of Pavia and coordinates the team.

3.9. Health-promoting schools in Lithuania

Aldona Jociutė is an associate professor and researcher at the Mykolas Romeris University in Vilnius and has been national coordinator for health-promoting schools in Lithuania for over 10 years. She is a member of the international planning committee for the SHE network, of the panel of judges for the national competition for young scientists and of the commission that accredits health-promoting schools.

3.10. JUMP-in: promoting daily physical activity in the Netherlands

Judith de Meij is senior health promoter of the Epidemiology, Health Promotion and Documentation cluster of the Municipal Health Service of Amsterdam and team leader of youth health promoters in the field of healthy nutrition and physical activity.

3.11. Reducing child obesity: assessment of a school-based intervention in Spain

Esteve Llargués Rocabruna is director of internal medicine and specialties, Granollers General Hospital.
Pierre-Antoine Ullmo is the founder of P.A.U. Education, a Barcelona-based entity that designs educational projects based on participatory schemes and community-building processes. He co-designed the Shape Up project that is recognized as a European good-practice exemplar in the field of health education.

School: introduction

Bjarne Bruun Jensen
Steno Health Promotion Centre, Denmark

Schools matter for health as well as education.

This collection of promising practices demonstrates that schools have many potential roles to play. Ensuring enough school places is, of course, critical, but beyond numbers, what happens in school can make a difference in addressing inequity. Schools can play a key role in working directly with children; they can also work with other services to provide parents with support and advice and influence the local community and its health determinants.

A number of strategies are covered by the case studies in this section. First, the education system for any nation should support all pupils in developing skills and competences to take action to live a healthy life. A second approach that aims to tackle the gap in achievement between more and less advantaged children is priority policies in education. Typically these target additional resources at points of greatest need, either by individual risk or by particular groups at high risk of low attainment.

Similar to priority policies has been the use of area-based initiatives that target extra resources to particular disadvantaged neighbourhoods with a range of interventions: physical regeneration, community development, school improvement and child care provision. Finally, inclusive education policies in schools aim to take on wider challenges of social exclusion, including poverty and ethnic minority status.

Many of the interventions and strategies reported in this section have a significant and strong local component. Actors at local level – school principals, teachers, primary care workers, local politicians and the like – often understand best what is needed and what is possible in their own situations. A few overarching principles seem to improve outcomes across the different cultures in Europe.

- Children and young people are not simply the passive recipients of services, but are agents in their own development. Approaches that involve children in making sense of their worlds and develop their capacity for informed decision-making seem particularly promising.
- Participatory and action-oriented teaching and learning approaches (inspired by, among others, the European health-promoting schools approach) seem to work, even in communities with fewer resources and among vulnerable young people, although more intensive approaches may be needed for those facing the greatest difficulties.
- A whole-school approach, in which the physical, social and cultural setting and educational activities are aligned, helps to ensure synergy.
- Adequate professional skills and competences to facilitate participatory learning approaches and cross-disciplinary collaboration are – together with the commitment from management – prerequisites for an effective contribution from schools.

3.1. MOVE: motivating brief interventions for young people at risk in Croatia

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Context

Young people at risk

Children and young people in Croatia, as in most industrialized countries, face problems that require specific and carefully tailored approaches. Youth is a period of relative health and low mortality, but also defines a time when behaviours that compromise young people's short- and long-term health and well-being can be adopted *(1,2).*

The socioeconomic circumstances in which young people live influence their risk behaviours through exposure to smoking *(1, 3–6),* alcohol use *(1,6–8),* cannabis use *(1,6,9),* early sexual initiation *(1)* and violence *(1,10,11).* Young people who are prone to one type of risk behaviour often exhibit complex clustering of risks, with smoking, drinking, illicit drug use, aggressive behaviour and involvement in early and risky sexual activities being associated *(12)*. Their subjective health and well-being is protected by lower rates of risk behaviours in relation to smoking *(13–18),* alcohol use *(15–19)* and drug consumption *(16,17).*

Smoking rates among Croatian adolescents is stabilizing, although girls are slowly catching up: in 2007, 29% of boys and 27% of girls were considered regular daily smokers *(20).* The same study revealed that almost every pupil (93% of both sexes) had tried alcohol at least once and that 37% of boys and 21% of girls had drunk alcoholic beverages 40 or more times. Around 20% of boys and 16% of girls had tried marijuana at age 15.

Young people and the education, health and social welfare sectors

Eight years of free elementary education is compulsory for all children between ages six and fifteen with permanent residence in Croatia, irrespective of their citizenship. Secondary education is free for everyone upon completion of primary school and is based on individual capability. Student dormitories (education institutions within the secondary education system) include provision of board and lodging as part of their programmes *(21).*

A network of social welfare homes provides support for children without adequate parental care (26 dormitories, 1655 pupils), those with behavioural disorders (14 dormitories, 1394 pupils) children with severe development difficulties, drug addicts and family violence victims *(22).* Schools and dormitories also support pupils' and parents' development and education through programmes delivered by teachers and other professionals, such as psychologists, school doctors and nurses *(21,22).*

The need for organized health care for children and young people is stressed in the *Dubrovnik Declaration on School Health Care in Europe (23).* Public health and social medicine started more than a century ago in Croatia with Andrija Stampar and the School of Public Health. The network of institutes of public health, consisting of the Croatian National Institute of Public Health and 21 county institutes, remains population-oriented despite the process of

privatization in primary health care and the growing number of private clinics and practices. All services integrated in the institutes are financed through national insurance by the Croatian Health Insurance Institute. They provide traditional services such as communicable disease epidemiology and microbiology, but also those aimed at population health promotion and noncommunicable disease (NCD) prevention, including school health, drug addiction prevention and mental health *(24)*.

SHS provide preventive health care for schoolchildren, young people and university students, specific parts of which focus on health education and counselling. Multidisciplinary "open-door" youth counselling centres are established in the country's three biggest cities, Zagreb, Rijeka and Split. The public health institutes' network hosts addiction prevention and mental health services that provide outpatient counselling and treatment. These two services collaborate closely, particularly in relation to young people at risk or who indulge in risky behaviours. They also collaborate with the education sector and NGOs through prevention programmes provided in schools and dormitories *(24)*. The education, health and social welfare sectors therefore have facilities and provide services that aim to protect and promote pupils' health and development.

Ongoing coordinated professional activities with strong local community support are suggested as means of dealing with risk behaviours, complex psychosocial pathology and specific problems of adolescence *(25)*. An education programme for professionals working with young people at risk was organized and implemented as part of the CARDS project 2004,[1] "Strengthening the Croatian capacity to combat drugs trafficking and drugs abuse", delivered by the Office for Combating Narcotic Drugs Abuse between September 2006 and February 2008. The overall objective was not only to enhance knowledge and skills, but also to promote collaboration among professionals in different sectors. Acting as coordinator of the education programme, the Office for Combating Narcotic Drugs Abuse worked jointly with the Ministry of Health and Social Welfare, the Croatian National Institute of Public Health and local communities on a brief motivational interventions programme for adolescents called "MOVE".

MOVE, which stands for "Motivierende Kurzintervention für Jugendliche" [brief motivational intervention for young people], was developed in the Federal State of Nordrhein-Westfalen, Germany, in 2000 by the coordinating authority for addiction prevention, the NGO Ginko, professional authorities in the state and the University of Bielefeld's Faculty for Addiction Prevention *(27)*. The MOVE curriculum is shown in Box 3.1.1.

Box 3.1.1. MOVE curriculum

The curriculum includes:

- introduction to the transtheoretical model of change *(28,29)*;
- introduction to motivational interviewing *(30)*;
- motivational brief interventions (handling ambivalence; empathy; detecting and integrating discrepancies; entering into dialogue; handling resistance; setting objectives; making agreements);
- further help and cooperation;

[1] The CARDS programme provided assistance to the countries of southeastern Europe with a view to their participation in the stabilization and association process with the EU *(26)*.

Box 3.1.1 contd

- surroundings, family, school and other key determinants of young people's health behaviours (salutogenic theory *(31)* and resilience theory *(32)*);
- attitude of the counsellor; and
- legality and law.

Approach

Young people who consume or experiment with addictive substances need counselling to avoid addiction. Those who are already facing negative consequences of their behaviours rarely seek counselling or adult advice, but instead will talk with their peers or older adolescents who have some experience with substances. MOVE programmes working with young people who consume drugs and demonstrate high-risk behaviour try to support professionals by addressing the following questions.

- What should be done for a young person who is consuming addictive substances?
- Is counselling appropriate to the situation?
- How should counselling be shaped to be effective and sustainable?
- How can young people be helped to correct their behaviour or to develop appropriate attitudes to their consumption that will protect them from negative health and psychosocial consequences *(33)*?

The transtheoretical model of change *(28,29)* defines stages that each person goes through when faced with a need to change or take action:

1. precontemplation (the person is unaware of problem, is not planning to change or is not wanting to change);
2. contemplation (he or she is aware of the problem and is thinking about taking action within the next six months);
3. preparation (the person is ready to change and intends to act);
4. action (taking the necessary action); and
5. maintenance (sustaining the necessary action, not backing out or slowing down).

Change in behaviour is understood by MOVE as a flexible and dynamic process characterized by achievement and relapse *(27).*

Motivational interviewing is also a dynamic process. The stage of motivation of each young person (according to the transtheoretical model of change) should be identified through dialogue. The type of intervention, based on motivational interviewing, then has to be tailored to the individual, reflecting the stage at which the young person is located. The motivational interviewing is therefore moulded to fit the young person, not the other way round *(27).*

Classical transtheoretical model of change and motivational interviewing practice involves adjusting interventions to fit each case. Interventions depend on the phase of risk behaviour and the young person's stage of change readiness and are orientated to motivating harm reduction. MOVE is very suitable for people who do not show symptoms of addiction, but who nevertheless manifest risky patterns of drug use. A young person's low readiness to change is no reason not to persevere; it is a starting point for dialogue *(28).*

Evidence

A pilot training course was offered at the beginning of the project, involving 40 experts whose scope of work involved meeting young people with risky behaviours. Participants were employed by addiction prevention services, SHS, social welfare centres, social welfare

children's homes and NGOs. Twelve professionals (six tandem pairs) were selected and educated to be MOVE trainers.

The Office for Combating Narcotic Drugs Abuse, working with the Ministry of Health and Social Welfare and the Croatian National Institute of Public Health, continued to organize training for professionals who worked with young people at risk after completion of the CARDS project. Three-day MOVE training events were held in June 2008 in six counties (Split, Slavonski Brod, Varaždin, Daruvarske toplice, Zagreb and Rijeka), run by the newly prepared trainers described above. Participants were professionals who were similar in profile to those who attended the pilot training course. The exercise was repeated in Rijeka, Dubrovnik, Stubičke toplice, Pula, Zagreb and Bizovačke toplice in December 2008. In total, 189 professionals were educated on the MOVE concept. The Office for Combating Narcotic Drugs Abuse organized a two-day supervision seminar for 12 licensed MOVE trainers in June 2009, facilitated by supervisors from the German NGO Ginko.

The MOVE training was evaluated through anonymized questionnaires, with the following results.

- Sixty-three per cent of participants in the June 2008 cohort and 59% in December 2008 were "completely satisfied" with the MOVE training (the options were "completely satisfied", "mainly satisfied", "mainly unsatisfied" and "completely unsatisfied"). Other participants were "mainly satisfied", with only one from the December group being "mainly unsatisfied". No participants were "completely unsatisfied".
- Fifty-four per cent in June and in 58% in December were "completely satisfied" with the theoretical element of the training, 2% were "mainly unsatisfied" and there were no "completely unsatisfied" participants. The equivalent percentages for complete satisfaction with the practical part of the training were 68% in June and 69% in December.
- Participants were asked if the MOVE training was of benefit in their everyday work (response options were "yes", "a little", "very little" and "no"). Over 80% in both cohorts answered "yes", 16% (June) and 20% (December) answered "a little", and no one answered "very little" or "no". Around 80% of participants were satisfied with their trainers and 99% would recommend MOVE education to their colleagues.

Implementation

Best practice in health promotion needs to be disseminated widely not only throughout the health sector, but also within other public and private sector areas to promote necessary policies, infrastructure and programmes *(34)*. Many programmes, actions and policies that aim to address social determinants of health have been enacted in Croatia, but no sustainable, systematic, strategic direction for health promotion is in place. Gaps between policy and practice, and between practice and policy, still exist.

Organizational structures within the health and welfare and education sectors provide opportunities for promoting healthy lifestyles, improving young people's health and supporting intersectoral collaboration. MOVE's initial target group was young people with high-risk behaviour and those who consumed drugs, with tackling socioeconomic and health inequality not a primary focus. In the process of adapting and implementing the MOVE programme, it became evident that reducing risk behaviours required social determinants of health behaviours to be taken into consideration.

The MOVE programme therefore now aims to increase professionals' knowledge and skills in addressing factors related to young people's social surroundings and to help them recognize which adolescents are at higher risk and in need of additional professional support. Professionals' simple acknowledgement of unfavourable living circumstances can be highly motivating for adolescents. Participants at the MOVE training identified issues not only with young people from socially deprived backgrounds, but also among those from more-affluent circumstances, with high-risk adolescents being identified from high-affluence families with disturbed family dynamics and low parental control (through fathers being absent for long periods because they work abroad, for instance). Poor school achievement and absenteeism inevitably followed for these adolescents.

Associations between risk-taking behaviour and higher SES have also been described in the literature. A higher percentage of regular hashish users was found among Belgian (Flemish) pupils of higher SES, after controlling for type of school *(4).* In an investigation of data from 28 countries, repeated drunkenness was found to be lower among low- and/or medium-affluence families for girls in Latvia and for boys in 9, including Croatia *(7).* Low-affluence families were connected to lower risk for drunkenness among 15-year-olds in a study of the role of school, peers and family affluence among Croatian pupils *(12).*

The MOVE programme aims to increase professionals' knowledge and skills in recognizing and employing resources from social surroundings that could help young people to resist unfavourable influences and maintain healthy behavioural change *(32).* This might involve identifying people adolescents trust (such as teachers, coaches in sports clubs or priests) and involving them in the process of behavioural change. These key people can have active roles of varying intensity at every stage of the transtheoretical model of change through positive role-modelling, showing disapproval of problematic behaviour and providing favourable activity options. A sports coach, for example, could increase training opportunities and include adolescents in organizing events and supervising others, diverting their attention from problematic behaviours and increasing their compromised self-esteem. Key people should be informed about individuals' behaviour-change aspirations and specific action plans they develop with their MOVE therapist to enhance the chances of adherence.

Equally important is professionals' ability to recognize and enhance adolescents' personal assets *(32).* MOVE therapists should constantly reinforce each adolescent's strengths and interests, whether they be in science, technology, arts or sport, and promote their development in positive ways. They should also encourage individuals to identify factors or people in their communities that lead them towards risky behaviours.

Fundamentally, professionals need to understand the positive expectations from risk behaviour that underpin adolescent ambivalence towards behaviour change and how these expectations can be influenced by social networks. Adolescents are very often unaware of "the problem" and do not plan to change their behaviour. If MOVE therapists focus only on the damaging effects of risk behaviours, the young person may respond by rejecting their approach or even with anger, distancing him- or herself from the therapeutic change process. A more productive approach is to work with the young person to identify their positive expectations from risk behaviours, encouraging him or her to lead discussion of, for instance, the influence of peer-group or boyfriend/girlfriend approval. This calls for MOVE therapists to employ all the knowledge and skills acquired from the empathy element of the MOVE curriculum, as they need to be able to demonstrate understanding but without supporting or encouraging risk behaviours.

Overall, MOVE has been welcomed as a tool in the everyday work of a wide range of professionals in Croatia. Those who have trained in MOVE technique advocate its dissemination to a greater number of fellow workers. Follow-up evaluation is now required to assess the longer-term benefits of the MOVE programme and the need for ongoing supervision and additional education.

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3.2. Building capacity for school health-promotion activities in Cyprus

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Ministry of Education and Culture

Context

This case study describes a Ministry of Education and Culture programme that provides funding for schools at all education levels (primary, secondary and technical) to support them to initiate and implement health-promotion activities. Once a school has devised a proposal, it can apply for financial support and will then be responsible for putting its plan into action.

Schools use their creativity in developing their own projects. Many have used the funding to:

- create supportive physical and social environments (such as improving unappealing indoor recreational areas by purchasing new games equipment, transforming extra school rooms into recreation spaces or decorating rooms where lessons about health issues are given);
- offer lessons in creative subjects such as film, drama, music and computers for parents and pupils; and
- provide summer-school activities in key target areas experiencing social and economic deprivation.

The programme provides guidance to schools on applying for funding support but does not prescribe procedures that all must follow. Instead, schools are empowered to foster pupils' well-being using a methodological framework of health promotion *(1)* that focuses on social determinants of health.

Health promotion, as a core concept of the approach, emphasizes the role structural factors such as physical, social and cultural environments play in influencing children's and young people's health-related behaviours (in addition to individual lifestyle factors) *(2,3).* At school level, this broader emphasis refers to a shift away from "persuading" the individual to make behavioural changes towards implementing environmental strategies that promote healthy lifestyles *(1).* Schools are encouraged to identify their own needs and to undertake appropriate initiatives based on their resources and capabilities. The funding programme aims to empower schools to work in a way that promotes health by enabling pupils, parents and teachers to actively set health-related goals and take action at school and in the community to tackle social inequalities in health.

Approach

The funding programme is organized by the Ministry of Education and Culture's Health Education Office (HEO). The HEO sends a circular each year to directors of elementary, secondary and technical schools to explain the programme. General specifications for suitable health-promotion programmes are attached to the circular, as are the criteria used at the ministry to evaluate proposals.

Schools electing to take part submit a written application that describes their programme and its rationale, identifies who will coordinate the plan and specifies to which group or groups it

will be targeted. Applications also state with which bodies the school cooperates or intends to cooperate, define the programme's projected time frame and duration and frequency of activities, and provide a detailed assessment of how the funding will be allocated. Schools are asked to explain how the programme will be evaluated and what results are expected: more specifically, they are requested to state what indicators and evaluation tools will be used.

It is stressed that the HEO does not expect schools to develop health-promoting action based solely on the information in the circular. Paragraph 4 describes how the HEO supports schools to apply for funding with proposals that accord with health-promotion methodology. These activities are deemed important to avoid "stereotypical" health education actions that base behaviour change solely on individual empowerment.

The HEO uses codified indicator criteria to evaluate applications (Box 3.2.1). Evaluation criteria were selected on the basis of internationally recognized good practice in health-promotion interventions *(1,4,5)*.

Box 3.2.1. Evaluation criteria

1. The application emerges from the school's action plan on health education and prevention of delinquency.[1]
2. The application for action concerns school units belonging to zones of educational priority (ZEP) or is documented as referring to high-risk groups in relation to health issues (social, physical, psychological, mental).
3. The application describes how the action reflects the needs of the school unit, teachers or children.
4. The proposed action offers the possibility for involvement and cooperation with other bodies (for instance, parents' associations, school board, communal bodies, local government, police, school medical services and bank organizations).
5. The action has the potential to change the school environment, children, teaching staff or the community and the change is sustainable.
6. The application clearly defines functional targets corresponding to specific activities.
7. The budget is justified, analysed and includes a detailed breakdown of its allocation (including an action timetable with information on participating teaching staff, numerical data and lists of people benefiting).
8. The application for action is based on active learning methods (like the active involvement of students in decision-making, collaborative learning, hands-on learning, critical thinking and problem solving, and handicrafts).

[1] Every school is obliged to develop an action plan on health education and the prevention of delinquency. This criterion is considered important in ensuring that the school's action is not isolated, but is integrated with its general policy on health-related issues.

The criteria are designed to guide schools on how to proceed with preventive action as defined philosophically (actions that focus on factors influencing health and how students' immediate environments can be driving forces in improving choices) and methodologically (good practice in health education, active involvement of various groups and use of a holistic approach with targeted action) within health promotion. Criterion 2 facilitates the HEO to prioritize funds for underprivileged areas (those defined by the ministry as ZEP) or for high-risk groups defined by the school, consequently steering schools to prioritize high-risk groups or areas.

The HEO evaluates the applications individually and collectively at the beginning of the school year and makes recommendations for acceptance, which are forwarded to the Permanent Secretary for final approval. The following examples provide an idea of the kind of actions being undertaken in schools that have received funding.

Funding the operation of a multipurpose cultural venue in the community

This action was funded in a ZEP and aimed to:

- provide a quality multipurpose venue for children living in the deprived centre of Nicosia;
- keep them away from dangers outside the school area; and
- offer a quality programme of creative and educational activities throughout the week (mornings and afternoons) and at weekends: it therefore targeted groups at risk during those hours.

Activities, which were chosen by teachers, parents and students, included sewing and designing, handicrafts, board games, listening to and playing music, developing a love for reading, sports, learning about astronomy, healthy eating and taking part in theatrical games, discussions and mathematical games. Each group had up to 15 children, taking into consideration their special characteristics and cultural environment.

Quality recreation during breaks

This intervention programme purchased special equipment for schoolyard games during breaks, including a double basketball hoop with a "big red base" system, poco ball games, plastic hurdles, a hockey set, lacrosse set and foam baseball bats and balls. They were used throughout the school year to give children opportunities to communicate, improve language skills and reduce social exclusion. Teachers were granted time to work creatively with children, specifically those from a different cultural and linguistic background. Funding priority was given to ZEP schools or those producing evidence that their parents' association could not meet the expense. Successful applications described in detail students' active participation.

Creative afternoon activity

Examples of this kind of programme tend to focus on efforts to deal with extremely aggressive behaviours by channelling energy and self-expression through sports such as tae kwon do or karate, swimming or modern dance, or through other interests. Young people in the programmes developed enhanced self-confidence and self-esteem and acquired knowledge and skills. Occupying at-risk children during afternoon hours also provides an opportunity for them to use their time productively.

Summer school

Summer programmes belong to the same category as those providing opportunities for creative activities during high-risk hours. Long-term absence from routine activities can be problematic, especially when parents are unable to be with their children because of work or other factors. Structured programmes during summer months offer a range of activities such as biking, hiking, swimming, beach games like volleyball or football, five-a-side football, painting and handicrafts, cooking, field trips, computer games and performance art (dancing, acting and music). Reports from the programmes show that they broaden children's interests and experiences and strengthen their character and skills (cognitive, mental and social). The

programmes are free of charge, creative, long-term, extracurricular and social, enabling acquired skills to be sustained and positively influencing future choices.

Offering creative occupation to high-risk students during the summer

The Immediate Intervention Group (Paragraph 4 of the circular) attempts to reduce unacceptable behaviour and promote the acquisition of social skills by the students it monitors during summer vacations. The group's staff work with schools and parents to identify community organizations that offer activities reflecting students' interests and coordinate the funding application process where necessary. Examples include opportunities for children:

- who love art to meet with fine-art therapists;
- interested in sports being able to participate in various academies (including football and athletics);
- being able to attend courses addressing academic needs or other interests (intensive private courses to cover learning gaps, or activities such as guitar or drum lessons); and
- being able to go to camps and/or summer schools.

School partners

School partners are sought to work with the Immediate Intervention Group to address aggressive and delinquent behaviour. A school partner, who might be a fine-art therapist, civil servant or physical educator, uses specialist knowledge, skills and expertise to offer personalized support for the student in his or her school environment. Most students receiving this support also face family, emotional and financial problems, and the Immediate Intervention Group is involved in actions outside the school environment in cooperation with the welfare office and state mental health services.

Parental support

The target group extends in some cases beyond students to include parents. Actions for this group aim to improve their parenting and develop particular skills, most of which are identified by parents themselves. Examples include teaching students and their parents how to use a computer (a shared opportunity for creative learning), counselling or mediation between the family and school, and language development. The programmes focus on using existing skills and experience to improve family functioning, reinforce relationships between families and school, foster families' engagement with the school community and improve relationships between parents and children.

Evidence

The funding programme has not been subjected to rigorous evaluation, but "safety valves" have been put in place to ensure, to a degree, the quality of actions. Evidence in relation to quantity and quality of applications is provided below.

Quantity

Schools' involvement in creating health-promotion programmes developed gradually over time. Table 3.2.1 shows the increase of annual health promotion applications since school year 2006/2007. The parallel action of HEO programmes has contributed to the increase. The numbers illustrate the volume of schools actively involved in addressing structural determinants of health and promoting change in living conditions and lifestyles.

Table 3.2.1. School health promotion applications

School year	Number of applications	Cost (€)
2006/2007	58	112 000
2007/2008	103	208 000
2008/2009	176	660 000
2009/2010	193	778 012
2010/2011	248	625 806
2011/2012	430	581 165
2012/2013 (to January 2013)	410	385 881

The annual rise in applications is connected to the spread of the programme and its positive welcome from teachers and schools management, but also to the HEO's efforts to systematically promote targeted actions in as many schools as possible. While the year-on-year increase in actions is considerable (for example, a 35% increase between 2009/2010 and 2010/2011), costs have been stabilized during recent years and actually decreased in 2010/2011 by approximately 14%. Increasing numbers of schools, teachers and students are therefore becoming involved in targeted actions at no greater cost.

Quality

Evaluative criteria

Evaluative criteria are underpinned by evidence-based health-promotion standards. Proposal evaluation by the ministry is guided by these standards and schools also use them to ensure their proposed programmes or actions meet the basic elements of an effective health-promotion programme.

Research shows that effective health education and health-promotion programmes support ownership and empowerment *(6,7)* and encourage students, teachers and parents to work together to develop and implement action plans. Action-oriented knowledge about health emerges through individual or collective health-promoting actions, which could involve collaboration between a school and the local community *(8–10).* Funding encourages schools to collaborate with others and develop their own actions to meet their own needs. Teachers are encouraged to collaborate, critically explore and improve living conditions, health-related practices and choices at family, school and community levels. It can therefore be suggested that the funding programme supports schools to develop action competence and act as health-promotion agents, addressing structural determinants of health and promoting changes in living conditions and lifestyles.

Evaluative process from schools

Each school has to describe evaluation methods and project procedures in the application form, submitting an evaluation plan for the proposed action. The HEO attempts through the funding application to encourage project participants, such as teachers, students and community partners, to also carry out critical reflection on processes and expected outcomes.

Implementation

Historical context for the approach

The HEO had only two employees, both teachers, at the beginning of 2005. It was focusing on health and social problems such as smoking, drug-taking, sexually transmitted infections, delinquency and truancy by implementing health education programmes (educational packages) that had predefined objectives and procedures. This approach (and the small employee base) allowed the HEO to reach only a small number of schools, teachers and children, and the predefined activities inhibited teachers' creativity and ability to reflect individual school contexts in their actions. After visiting schools to discuss the issues, the HEO created an application form for financial support and circulated it to all schools in Cyprus.

The initial circular provided only general information about health-promotion programmes: criteria for effective health-promotion practice was included at a later stage. The criteria, along with other information in the circular, guide schools to develop health-promotion activities focused on providing a supportive environment for the many, rather than the few.

HEO programmes

The HEO's strategic plan to encourage and support all schools to develop and implement an action plan for students' well-being has been in place since 2007. Schools are encouraged to identify their own needs and to undertake appropriate initiatives appropriate to their resources and capabilities. Pupils, parents and teachers are encouraged to collaborate and to critically assess and improve their lives. To this end, all schools are expected to evaluate their students' needs and develop a health-promotion action plan. The HEO tries to support schools to develop the plans by engaging with school agents and the community and addressing physical conditions for students and teachers within school. Apart from the funding programme, the HEO supports schools to develop and implement effective health-promoting actions in the following ways.

Staff development

In-service workshops, seminars and conferences on developing a health-promoting programme are organized for educators at all levels. Training focuses on topics such as bullying, empowering schools, promoting self-esteem, emotional health, social skills and developing a health-promotion action plan. Participating teachers have opportunities to discuss practice in their schools and exchange ideas. HEO staff also visit schools to help teachers and support the sharing of successful practice. School advisers and headteachers receive special training.

Advising schools

Schools can request assistance from the HEO in developing health-promoting actions. They seek advice on how to approach students, teachers and parents, ask for ideas for appropriate actions or seek further information to complete the funding application. Teachers are provided with materials to use or further develop, consisting of teachers' and students' books and posters and leaflets with ideas on how to develop a health-promotion lesson or school action. The HEO strives to shift schools towards health-promoting actions that focus on reducing social inequalities and away from traditional health education activities emphasizing personal behaviour change.

Sharing good practice

Various competitions run by the Ministry of Education and Culture allow schools to present their health-promotion action plans and policies on issues such as increasing children's self-esteem and implementing antismoking actions, with financial awards offered to enable schools that have implemented effective programmes to develop them further. Evaluation criteria include evidence of systematic application of whole-school approaches, community engagement in developing health-promoting actions, effectiveness of the action plan and children's active participation. Awards are mainly given for actions that aim to tackle social determinants of health.

The sections below provide information about initiatives supported by HEO funding that contribute to the promotion of actions aimed at reducing social inequalities in health.

Support for ZEP schools

ZEP areas are economically and socially deprived. Local kindergartens, primary schools and gymnasiums in each district form a network, with stakeholders working to develop programmes to support pupils' socialization. Extra measures are provided in these facilities, including decreasing the number of pupils per class and offering free breakfast to all. Other interventions are decided by each unit in cooperation with local communities.

Eight kindergartens, ten primary schools and four gymnasiums participated in the funding programme in school year 2008/2009, developing and implementing action plans aimed at preventing social exclusion, school truancy/dropout, violence and juvenile delinquency. Participation has expanded every year, with nine kindergartens, ten primary schools and four gymnasiums involved in 2009/2010 and nine, twelve and six respectively in 2010/2011. Funding requests from ZEPs tend to meet evaluation criteria, resulting in a high submission success rate: in school year 2009/2010, for example, €358 471 was granted to 71 ZEP schools, representing 46% of the total €778 012 awarded.

The Immediate Intervention Group

The Immediate Intervention Group, part of the HEO, focuses on providing early support for actions aiming to combat in-school delinquency. It includes representatives of various departments and services of the ministry, such as primary and secondary teachers, educational psychologists and social support workers. The aim is to develop, promote and follow up an action plan that provides schools with a holistic approach to a specific aspect of violence and/or juvenile delinquency they face. Teachers, educational psychologists, social support workers, parents and the local community are encouraged to be actively involved in developing and implementing the plan. The group has the authority to support each school by accelerating processes and promoting financial subsidies where needed to tackle problems and activate the action plan. It also promotes prevention programmes whose objective is to minimize juvenile delinquency in schools. In almost all cases, the group deals with students who need particular support (financial, social and psychological) and helps their schools to complete the application forms.

Health education curriculum

The health education curriculum relates closely to health-promotion philosophy. Its main emphasis is not on persuading individuals to change behaviour, but on empowering individuals to collaborate, develop partnerships and create supportive environments conducive to health *(11).* The goal is to enable students, in collaboration with others in the

community, to act as health agents, address determinants of health and promote changes that facilitate healthy choices. The health-promotion philosophy of the new curriculum gives direction to teachers to work towards eliminating determinants of poor health.

Limiting factors

The HEO supports the funding programme and contributes to promoting ideas that are not limited to traditional preventive or health-promoting interventions (which often focus exclusively on modifying individuals' behaviour and are based on the implicit assumption that the locus of responsibility lies with the individual). The basic difficulty HEO has faced in getting schools to develop health-promoting actions, particularly during the first years of the funding programme, is first and foremost the traditional understanding of "health education".

The word "health" presented an obstacle to encouraging schools to make plans for health-promotion activities. As Ioannou *(12)* argues, "health" is embedded conceptually and empirically in the "conventional" health education orientation, which is "the need for 'patient compliance' in changing behaviours" *(13)* by attempting, through epidemiological information, to stop people developing dangerous or risky behaviours. Although health promotion, as a critical term in public health, argues for the need to "engineer" knowledge gained from social perspectives, it is difficult to overcome its strong biomedical origins. Social, economic and cultural factors associated with health were therefore largely treated as reinforcing or limiting factors to individuals' health compliance. Applications at the beginning of the funding programme were mostly associated with the conventional health education model. HEO activities and changes to the application form have been gradually empowering schools to address social determinants of poor health.

Lack of rigorous evaluation is also seen as a limiting factor. The funding programme responds to each school's special conditions, resources, creativity and ability to develop a project that it is context related, but intervention programmes require evaluations that compare study and control groups; schools are incapable of undertaking this kind of evaluation on their own and often abandon the endeavour altogether.

Conclusion

The funding programme supports schools to act as health agents and tackle social determinants of poor health. It provides opportunities to their constituents (parents, students and teachers) to develop partnerships for health, encouraging them to collaborate and make changes based on their own circumstances on matters that are important to them.

The funding assessment favours applications that encompass strategies which address the determinants of poor health and not activities that aim to persuade individuals to make behavioural changes. The application form, along with HEO's activities, directs schools to address the structural determinants of poor health and bring about changes in living conditions that can support changes in lifestyles.

The following proposals have emerged from school responses to the question of interventions contributing to the eradication of social inequalities.

1. The school is the epicentre of inspiration and promotion of actions. Each school unit has to demonstrate trust in promoting the philosophy behind health promotion. Showing trust and giving complete moral support promotes self-confidence, energy, vitality and strength among participating individuals and organizations. Flexibility

and autonomy enable participants to develop, protect and promote "their own child" and their own business.

2. Schools are encouraged to use existing local structures and work with social, financial, cultural, education and other bodies supporting and surrounding them. The more they involve and work with other structures or bodies, the more chance they have of being funded. Substantial participation of the entire local network is achieved through recognizing its importance and role, developing interactive relationships and strengthening each school's social protection net.
3. Scientific organizations should prepare indicators and action guides and make them available to all to offer guidance on developing, implementing and completing programmes. Self-evaluation tools should be prepared for each activity from the outset, redirected and reoriented over time as necessary. Evaluation indicators should encourage schools to target their actions towards reducing social inequalities.

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3.3. Can school meal provision contribute to the reduction of social inequalities in health and improve learning outcomes? The case of Denmark and Sweden

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Context

This case study focuses on school meal provision and its potential contribution to reducing social inequalities in health and improving learning outcomes among children and adolescents, using national approaches to school food services in Denmark and Sweden as examples. It describes the overall structure of the provision of school meals in the two countries and presents three cases in which participation, social inequalities in health and learning outcomes have been addressed. These cases contribute to the debate on the future of school meal provision and the potential for such provision to play a more active role in shaping young people's health and promoting health equality by making healthy choices more widely available to those from disadvantaged families.

Approach

The idea that school should contribute to protecting children's health by promoting healthy diets and physical activity is not new and has been pursued increasingly by policy-makers and experts in recent years *(1–4).* Young people spend long hours in school for up to 10 years. Schools have obligations to educate about life skills and contribute to social inclusion. Recognition that the school food service can contribute not only to improving childhood health outcomes but also to reducing health inequalities has been reflected in some school food policies and programmes at local, regional and national level.

Studies show that the "captive" nature of the school environment and its position within society makes establishing norms for nutritional quality a relatively easy task. School food in most cases is subject to strict quality and composition regulation. Nutritional quality of school lunches is significantly better when it is provided by school *(5,6).* Consequently, the idea of providing food at school to support healthier eating patterns for young people from across social groups is being applied in many parts of the world, including the United Kingdom, India and the United States *(7–9).*

Data on health outcomes describe clearly the effect of the health divide among children and young people. In Denmark, 22% of children and adolescents living in single-parent households report themselves as being overweight, while only 14% in two-parent families do so *(10).* The prevalence of overweight among 7-year-olds whose mothers are unskilled blue-collar workers is 12.6% but only 6.7% when mothers are white-collar employees *(11).* A similar pattern emerges for poor cognitive development (the figures being 11.3% and 8.4% respectively *(11)*). Inequalities are also apparent for children and adolescents whose mothers have a low level of education. Prevalence of children reporting several symptoms of poor health or well-being each day is 4% in social class 1 compared to 10% in social class 5 *(10).* Other statistics show that children with disadvantaged parents have more problems in nonlinguistic communication and social behaviour during their early development than those from economically advantaged families *(12).*

Schools provide better opportunities for nonstigmatizing interventions compared to, for example, family settings and have the potential to reach a large proportion of the population through a standardized mass-strategy approach (healthy eating and lifestyle habits tend to track into adulthood) *(13)*. Although the ways in which food is provided in European schools show considerable variability *(14)*, the trend seems to be in the direction of increasing public engagement in this area. Studies show that foods consumed at school might contribute to 35−38% of total daily energy intake *(15,16)* and, as a result, have considerable effects on health outcomes.

School food provision in Denmark

Parents have traditionally been responsible for providing lunch for their children during the school day in Denmark, but this is gradually changing. Longer school days and tight family schedules are driving a trend towards school-based meal provision. Although government policy aims to ensure publically provided food in school *(17)*, there is no mandatory provision. Instead, developments are primarily driven by municipal and local initiatives resulting from pressure from food, nutrition and health practitioners, parents and students.

Increasing numbers of schools consequently are providing some kind of food service, although only around one in four offers complete meals based on a food and nutrition policy and provides a dining environment with seating facilities. State support for food provision was defined in the child nutrition programme developed under the Fiscal Bill in 2001, which allocated substantial funding to develop healthy and nutritious food provision in schools between 2001 and 2003. The evaluation showed that programme-related school projects had created an increased focus on healthy food and meal habits among parents, management and staff.

Meals offered by school food services are expected to comply with official guidelines *(18)*. The Danish Parliament has been discussing national legislation on school meals provision but has so far favoured a market-driven approach in which schools, in cooperation with municipalities, can decide on whether to provide food or not. School meals are generally financed by parents, with only a few municipalities (including Copenhagen) offering free-school-meal entitlement (FSME) schemes. The market-driven approach has seriously limited participation, with average uptakes below 10% (reportedly 6.5% in Copenhagen *(19)*). These problems have fuelled many schools' interest in developing socially oriented models of school lunch provision that promote participation. Local initiatives based on students' active involvement and integration of food, health and nutrition in the school ethos and curricula have consequently emerged.

School food provision in Sweden

Sweden has a long tradition of providing free school meals in primary and secondary school, regulated by state law. Elementary school pupils have had a statutory right to free school lunches since 1997 through the Education Act and subsequent amendments. The general picture of provision is therefore much more uniform than in Denmark, although state regulation is interpreted differently by municipalities across the country.

School meals are funded by municipal taxes and municipalities operate the services in most areas (private-contract caters do so in some). Headteachers, municipal dietitians or private-contract caterers are responsible for school meal staff. The focus is on lunch, but a growing number of schools now also offer breakfast. School food must comply with official Swedish Government Food Agency quality criteria and guidelines *(20)* based on national nutrition

recommendations *(21)* that address nutrient content, menu planning, hygiene, eating environment and integration of the school food service within curricular activities. Guidelines target decision-makers in municipalities, headteachers, catering managers, catering staff, teachers and school nurses and also address parents' responsibilities.

The quality of school lunches varies between municipalities and schools despite state regulation, and only around half of municipalities have adopted food and nutrition policies for the school food service. The main focus in the Swedish approach is on food provision. The Swedish Food Agency hosts a web site in which pupils, parents, school meal personnel and decision-makers can rate meals *(24)* and quality assurance tools are under development.

Evidence

Three cases of local best practice approaches to promoting health through school food services are presented in this section. The cases should be seen as examples of particularly successful interpretations of the different national paradigms that exist in Sweden and Denmark: the Swedish collective and state-guaranteed model, and the Danish market- and consumer-driven approach that places responsibility at municipal or school level.

The evidence is based on case studies supported either by interviews or documents or a combination of the two. It should be noted that there is a fair amount of evidence reported in reviews from different countries that school food interventions can improve eating habits among students, although studies in general fail to show effects on health status outcomes such as BMI and biomarkers. No such quantitative evidence exists for the cases presented here due to the fact that controlled and randomized trials are extremely costly and rarely carried out in practice. Instead, a narrative qualitative approach in which the testimony and voice of practitioners are used to inform the study has been adopted.

City of Gladsaxe (Denmark) – Værebro School

The school has 370 students and a school meal system participation rate of 70%.

Værebro School is located in Gladsaxe municipality in suburban Copenhagen. The municipality policy is that food should be available to all children. Municipal health advisers have developed a nutrition manual for schools and responsibility for the school food service lies with headteachers. Værebro School prioritizes food and nutrition and has set an outstanding example of best practice for some years, aiming to make a difference through its approach.

The school is situated in a mixed neighbourhood with both high-rise apartments and villas. Students come from very diverse ethnic and socioeconomic backgrounds, with approximately 40% having an ethnic background other than Danish. The school has chosen to use food as a way to build bridges across socioeconomic gaps through, for instance, respecting different culturally determined dietary requirements and encouraging a participatory approach in which students have responsibilities for cooking and serving food.

The idea is to limit operational costs and use cooking as a means of developing social bonds among students. School staff believe this creates a sense of ownership and that students are likely to prefer meals that they or their classmates have cooked. Classes participate in the cooking teams on an alternating schedule and receive training in food, nutrition and health subjects. Dietitians have been impressed by children's levels of knowledge about healthy

eating and raw materials. Canteen and curricular activities are integrated through themed project weeks and teaching in home-economics classes.

Værebro School has run its food and nutrition activities since 2003 and has been engaging with practitioners and researchers to improve its service and to create the necessary evidence to influence future policy. The school has managed to develop cooperation between canteen and teaching staff in pursuit of the overarching principle of the school taking responsibility for pupils' health and promoting their and teachers' ability to participate in nutrition issues.

All students in grades 3–8 work with the canteen project for three weeks in each academic year, with individual classes taking responsibility for planning, cooking and selling the canteen food. The class is divided into three teams during a canteen project period, each working in the canteen from 08:00 to 13:00 for a week while the other two teams receive classroom training. The initiative is anchored by a team of teachers/canteen supervisors, managers and school board members, with the principles of management and operation described in the school food and nutrition policy. To strengthen links between school and families, students receive a "family cookbook" to take home.

School staff report that students have been less "fussy" and more health-conscious as a result of the initiative. Students are well motivated and enjoy the experience, with only a few conflicts. The school believes the development of a salad bar in the canteen is contributing to influencing preferences.

City of Copenhagen (Denmark) – Hillerødgade School
The school has 220 students and the school meal system participation rate is 87%.

Hillerødgade School belongs to the municipality of Copenhagen and is situated in a previously working-class neighbourhood in the Outer Nørrebro area. The school has a special focus on increasing opportunities for children and young people in vulnerable areas of Copenhagen and 99% of students have an ethnic background other than Danish. Parents are among the poorest in the city: approximately 82% of students come from homes where one or both parents are on welfare benefits.

The school is a whole-day establishment with a special emphasis on food and nutrition practice and education and has its own catering-production kitchen. It offers four meals daily, with children participating in kitchen activities as part of their home-economics studies. Meals are partially paid by parents (families with three or more siblings enjoy discounts), but a FSME scheme is available. The municipality partly finances the initiative and running costs of the kitchen.

The overall aim of the scheme is to promote health among school students. Provision of school meals supports this in different ways: "passively", by complying with official nutrient guidelines for health; and "actively", by engaging in shaping children's and adolescents' eating patterns. A clearly stated objective is to encourage children to eat a more varied diet that includes an increased intake of meat, fish and vegetables. Positive signs of behavioural change in eating habits have been seen as a consequence.

The concept is based on developing action competence in relation to health. Children are expected to engage in a learning process in which the cooking results in the acquisition of knowledge about healthy meals and healthy lifestyles. In doing so, they develop experience

in how to use food to promote their health. The ability to make active and informed choices and create and cook healthy meals actively enhances the life skills of the children and young people involved.

Participants making choices on behalf of their fellow students is an important part of the concept and calls for the development of appropriate social competences. Social inclusion is promoted through supporting cooperation around preparation and cooking, with meal times prioritized as opportunities to enhance social interaction among students and with teachers. It is standard procedure for teachers to engage all children in conversation during meal times to convey a caring and comforting attitude and create a sense of belonging to a group.

School staff report that meals are considered an important element in developing and maintaining the school's social life and that they see the school food service initiative as contributing to counteracting health inequalities by supporting vulnerable groups to make healthy choices and adopt healthy habits in their daily lives. Students are less disruptive, have more energy and enthusiasm for learning during afternoon sessions, are involved in fewer conflicts and are performing better in compulsory school tests.

The school acknowledges that food and meals should be an integrated part of the school experience for students and staff, with the four daily meals being considered as opportunities for learning and social engagement. The initiative enjoys broad approval from teachers who are happy to support students' participation in the kitchen even if it means delays to their education programmes.

City of Malmø (Sweden) – Djupodal School

Djupodal School is a primary school, one of 82 schools in the Municipality of Malmø. All schoolchildren participated in the initiative.

Providing a school food service has been mandatory in Sweden for many years, but quality is variable and general population support is now being questioned. The municipality has consequently made considerable efforts to revitalize this important service through its environmental protection agency, which has been tasked with linking nutrition and health with sustainability, taking a particular focus on climate effects of food. Goals include the provision of 100% organic food to all public schools.

Three projects have been launched, with the Djupodal School identified as the primary site for initiatives. An important element of participation is creating links to the curriculum and integrating issues about organic foods and climate effects of food consumption and sustainability as learning objectives.

The food service is based on local school food preparation. As in all other Swedish schools, the primary health deliverable is achieved through supplying meals that comply with guidelines, but the school has made a special effort to expand the range of foods eaten by children, contributing to healthier eating. As an example, it has developed new recipes based on a range of pulses to reflect nutrition and climate advice and seasonal produce has been used to a greater extent. Aspects of local food supply and school garden-based learning facilities have been added to enhance initiatives. An important challenge was to continue to comply with nutritional guidelines while introducing organic produce and meeting students' preferences.

The school kitchen was rebuilt in 2005/2006 to support these innovative activities and to enable Djupodal to act as a reference school for developing new recipes based on organic produce. This involved careful planning, additional education for staff and a strong commitment from the school headteacher. The school has reported increased support and demand for school meals since the revitalization effort began, which runs contrary to the often low popularity of school meal services in Sweden.

The percentage of organic food served at Djupadal School has decreased from 100% to 85−90% since 2007, and other signs of lack of sustainability have been experienced. Despite this, the school and municipality agree that the project has been a success and provides a good example of protecting and improving the image of Swedish school food. School and municipal practitioners attribute their success to the wide participation of catering and education staff, with systematic efforts to offer education opportunities for staff to support implementation being seen as particularly important.

As the case studies indicate, publically provided food services at school hold the potential to contribute to the promotion of health among young people. There are also some indications of the potential such provision has in contributing to the reduction of social inequalities in health, but ensuring school food plays an active role in promoting health for all is not an easy task to complete.

Two distinct and different approaches to school food provision are identified: the consumer approach, as applied in Denmark, and the citizenship approach, applied in Sweden.

The **consumer approach** is characterized by a range of voluntary and local solutions and is financed primarily by parents through pay-per-meal arrangements, as illustrated in the case of Copenhagen and Gladsaxe municipalities. It is also typified by explorative and sometimes experimental bottom−up approaches often involving children in operating the systems. In special cases, such as in Copenhagen, entitlement schemes for disadvantaged young people are available.

The **citizenship approach** is characterized by compulsory state-regulated solutions and is financed by municipalities through taxes. It also features bottom-up approaches but its operations are delivered through a professional workforce, with limited involvement of children. Although the Malmö case stands out in many respects, the basic design of the system resembles those in most other municipalities.

There are also two pathway mechanisms through which food provision at school can be assumed to work in relation to promoting good nutritional behaviour and positive health outcomes in a way that contributes to bridging the health gap across socioeconomic groups.

The first pathway is related to the ability of the publically organized school meal system to guarantee availability of, and accessibility to, healthy lunch or breakfast options that students would otherwise not get. Participation in the school food scheme is key for this pathway to work. Only by ensuring that all students have access to one or more healthy meal options during their school day can it be assumed that health issues are being addressed evenly across socioeconomic borders. The different national approaches adopted in Sweden and Denmark illustrate that the configuration and design of the school food system creates two very

different approaches to participation. The pathway assumes that the "foodscape"[2] of the school can be regarded as a protected food environment, unlike the one that young people encounter when out of school. As a result, there is little disagreement on the idea that the food environment at school should follow strict guidelines on nutritional quality: well-established nutritional guidelines are in operation in both countries and meal options generally comply well with them.

The second pathway is related to how school food might promote health over a longer time frame. This pathway uses the collective practice of students cooking, learning and eating at school as a mediator to strengthen social cohesion among students. As was suggested above, participation in nutrition-friendly school food schemes can be seen as a key factor in promoting individuals' health, and user-driven and participatory approaches to the delivery of school food systems seems to be key to students taking advantage of meal options.

The cases from Gladsaxe and Copenhagen municipalities clearly show that participatory approaches to school "foodscapes" seem to have the power to create very high compliance rates and a sense of ownership. The two cases also show that student involvement and participatory approaches can be used to exploit the learning opportunities created through growing, preparing and consuming food. It can be assumed that the life skills developed this way might help students from all social backgrounds to adopt a healthy lifestyle and good eating patterns in later life, but it can be speculated that the success of these approaches is partly due to the commitment of "champions" and the bottom-up approach employed. Success may be strongly dependent on contextual factors and the school ethos and achievements might not be readily transferable to other settings. The case of Malmö can be seen as typical of Swedish municipal school food systems that are based on a professional workforce with little student participation.

Implementation and recommendations

The following recommendations on the design of future school food initiatives, based on the two national approaches and three case studies discussed above, are offered to exploit the opportunities publically provided school food offers in promoting health across socioeconomic borders.

National level

- Food should be available to all students regardless of socioeconomic background, with appropriate payment options and entitlement schemes in place.
- Policies should exist at national level to support local and bottom-up approaches to school food.
- School "foodscapes" should be made protected environments by developing, adopting and maintaining a food and nutrition policy.

[2] "The physical, organizational and sociocultural captive space in which individuals encounter meals, food, food-related issues and intermediaries" *(23).*

School level

- Multidisciplinary cooperation among teachers, food-service staff and management involved in the design of school "foodscapes" should be promoted.
- Shildren and adolescents should be involved in the development and, if necessary, operation of the school food service.
- The school "foodscape" should be an environment for learning about food biodiversity, with diversity supported through menu-planning procedures.
- Coherence between food service practice and classroom activities should be ensured by integrating food and nutrition issues within the curriculum, using the whole-school approach.
- Learning and social cohesion opportunities created by the local food environment should be exploited through providing insight into local food, farming and food chains.

Conclusion

The cases show that participation in, and exploitation of, meal options is key if school food is to make a difference to health. Although the Danish cases enjoy high participation rates, making school food a consumer-driven choice generally results in very poor compliance and participation. In some cases, only a small minority of students take lunch at school *(19)*, with most opting for commercial fast-food outlets or lunchboxes or simply skipping the meal.

In the case of the Swedish citizenship approach, free school food for all has been defined as an integrated part of the "folkhäms"[3] welfare model and, as a result, compliance and participation are very high, as was seen in the case of Malmö. Poor participation in public school meal schemes resulting from a consumer-driven approach may be considerable among vulnerable groups of students, although it can be partly counteracted through financial instruments and FSME schemes, as in the case of Copenhagen. Such schemes, however, carry the risk of stigmatizing the individuals who might benefit from them.

Participation rates of 5−10% in school food in Denmark is not going to lead to any significant effect on public health or contribute to diminishing the socially determined gap in health, even though publically provided school meals may comply with official guidelines for healthy eating. An important step is therefore to make sure that school food is made available at schools and that it is accessible to all. This is especially important since studies of the Copenhagen school food system show that 76% of young people skipping lunch belong to social class 2 or 3 *(24)*.

The Swedish collective approach to school food might serve as an example. Although Swedish school meals in some cases are being criticized for their quality, the citizenship-based approach is providing a way to ensure food is available to all. School food should be for all, in the same way as the curriculum is for all. One way to facilitate this would be to decouple provision from payment. Costs are met from public taxes in the Swedish case, but in Denmark, most costs are paid by parents. The Copenhagen case gives some insight into how this can be done.

It is clear that the broader policy framework in Denmark within which the agenda of public school food sits is not currently favouring a citizenship-based approach. The financial crisis

[3] Roughly translated, this expresses the idea of Sweden being a "home" for its people.

makes it unlikely that this is going to change in coming years. Instead, innovative ways to promote health through school food tends to arise from local bottom−up approaches that adopt a participatory approach. The Copenhagen and Gladsaxe cases illustrate this: even in a market-driven environment that involves payment considerations, they have been able to successfully address the gap created by inequalities in health, lifestyle and living conditions and achieve high rates of participation. They have also shown that it is possible to regard food and meals as a mediator for social interaction, that cooking and preparation present opportunities for learning, and that school food can be used to refine students' preferences. This has been illustrated in a Danish study in which Benn et al. *(25)* showed that school food services seemed to create knowledge and skills about food and a willingness to try out new options and dishes. The study also showed that the school food service contributed to the development of affective and sociocultural aspects of learning that were related to pupils' critical reflection on new dishes and experiences of eating the same food together in class.

The Swedish case illustrates clearly the potential of a national, regulatory, top−downapproach to using school food as a mediator of good nutrition for students. Swedish schools do not face the challenge of attracting students to eating at school; in most cases, the integration of school meals in the school culture takes care of that and contributes to very high participation rates. The Swedish case also shows, however, some of the pitfalls of relying on a top−down, "one-size-fits-all" approach. In many cases, school food is unappealing to students, teachers and parents. The Malmö case suggests one way to revitalize the service and how a more integrated approach to linking food services with learning opportunities for young people can be achieved.

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3.4. Promoting social, emotional and physical well-being, child participation, educational attainment and parent engagement in later childhood – the Finnish perspective

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Context

The basic right to education and culture and to welfare, health and security is stated in the Constitution of Finland. Finland became a member of the UNCRC in 1991, with the Children's Ombudsman overseeing implementation of children's rights.

The Ministry of Education and Culture is responsible for education. Legislation guarantees compulsory education and the right to free pre-primary and basic education. Most other education is also provided free of charge to students, including postgraduate studies at universities. The National Board for Education works with the ministry to develop education aims, content and methods for primary, secondary and adult education, and each of the six Finnish provinces has an education and culture department that deals with these issues. Responsibility for local administration lies with local authorities (municipalities), which play a prominent role as education providers *(1).*

Education system

Day care and pre-primary education

Children in Finland have a right to attend day care from birth until the age of six, with reasonable fees dependent on parental income being charged. In 2009, 61.6% of children aged 1–6 years attended day care, which was lower than in other Scandinavian countries. Six-year-old children have a right to free pre-primary education provided by schools, day-care centres and other appropriate locations in the year prior to beginning compulsory education. Participation in pre-primary education is voluntary, but every municipality is required to provide it. Nearly all children (99.4% in 2009) attend pre-primary education *(1).*

Compulsory basic education

All children permanently residing in Finland are subject to compulsory education under the Basic Education Act (628/1998). Compulsory education starts in the year when a child reaches seven years and ends either when the syllabus of basic education has been completed or 10 years after the beginning of compulsory education. Parents or guardians are required to make sure that children comply with this obligation. Basic education is completely free of charge (including teaching, school materials, school meals, health care, dental care, commuting, special-needs education and remedial teaching). Additional basic education is provided for pupils who have failed to obtain a position in a secondary school or who need additional time to make future plans for studying at the so-called "tenth grade" *(1).*

Children who have reached the age of compulsory schooling have the right to receive remedial instruction and special-needs education when necessary. Special-needs education is also provided in pre-primary and upper-secondary education and training. The objective is to

support pupils to ensure they have equal opportunities to complete their schooling alongside their peers and according to their abilities. Pupils with minor learning or adjustment difficulties receive part-time special-needs education from a specialist teacher in conjunction with mainstream education. In 2008, 8.4% of children in basic education were admitted or transferred to special-needs education and 22.5% to part-time support *(1).*

The current national core curriculum for basic education was verified by the National Board for Education in 2004 and includes objectives and assessment criteria. Schools and local authorities form curricular regulations to reflect the local context within this framework. Teachers choose their own teaching methods and have the freedom to select their own teaching materials. Compulsory core subjects in basic education include mother tongue (Finnish or Swedish) and literature, second national language, foreign languages, environmental studies, health education, religion or ethics, history, social studies, mathematics, physics, chemistry, biology, geography, physical education, music, visual arts, crafts, home economics and pupil counselling. Health education is taught through grades 1–6 within a broader subject group and through grades 7–9 as a standalone subject *(1).*

Teachers at all basic-education school levels are highly qualified and committed. A Master's degree is a requirement, and teacher education includes teaching practice. Teachers who deliver health education as a standalone subject at secondary school are required to have obtained a special qualification by having studied 60 credits' (1600 hours') worth of advanced-level studies in health knowledge and health promotion. The teaching profession is very popular in Finland, so universities can select the most motivated and talented applicants. Teachers work independently and enjoy full autonomy in the classroom.

Upper-secondary and tertiary education

After completing compulsory basic education, a young person (starting at age 16) can continue studying in general upper-secondary school or in vocational education and training. At tertiary education level, higher education is offered by universities of scientific research and teaching and universities of applied sciences, which are vocationally oriented higher education institutions. Fig. 3.4.1 presents the structure of formal education in Finland by the ISCED.

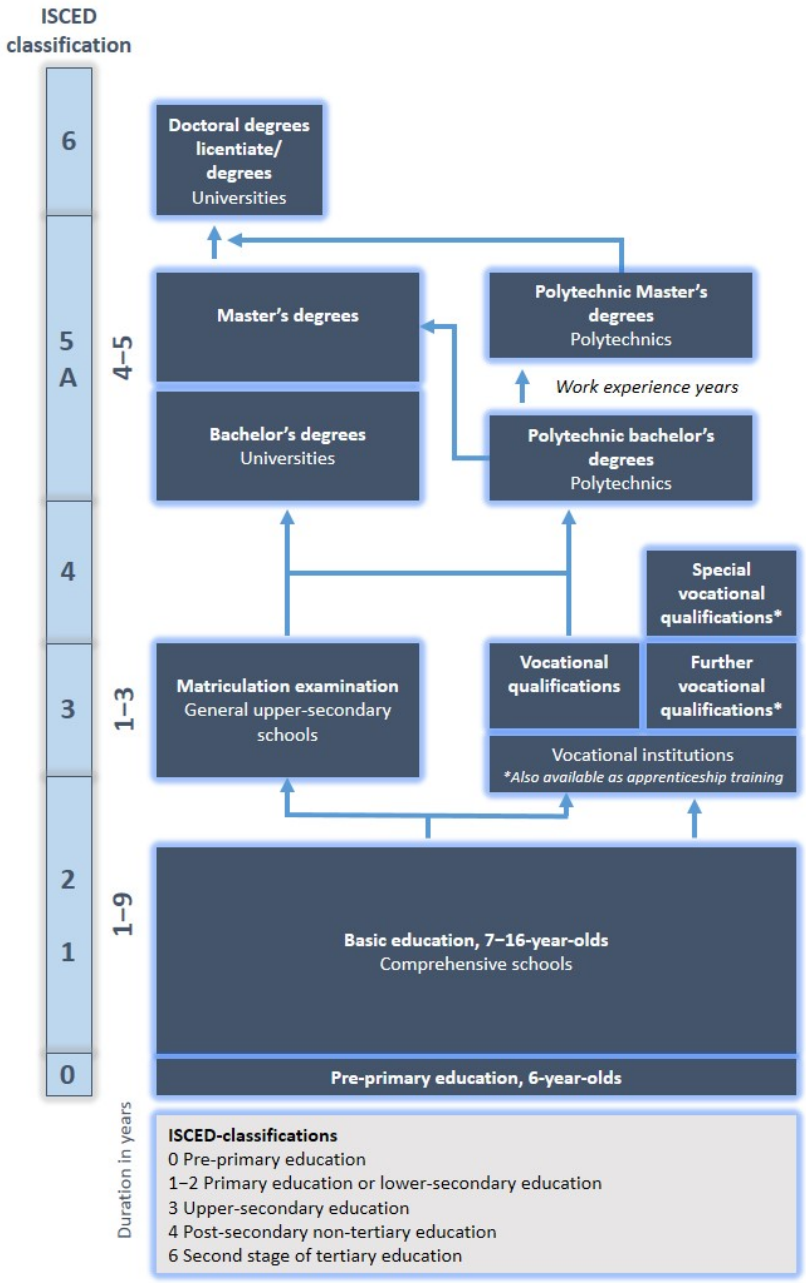
Education is valued in Finland and there is broad political consensus on education policy in Finnish society.

Health services for children, young people and families

The Ministry of Social Affairs and Health is responsible for developing and maintaining family policy and ensuring the welfare of children, youth and families in collaboration with other government ministries. Health services for children, young people and families are organized according to the revised Health Care Act (1326/2010). The Ministry's particular area of responsibility is in developing social and health services and ensuring income security for families with children. In this respect, its main areas of focus include:

- preventing problems and providing support through: early primary action provided by municipal health centres; health guidance and disease prevention through, for example, child health clinics which monitor and support the physical, mental and social development and health of children under compulsory school age; oral health clinics (free of charge for people under 18); school health care (located mostly at schools); mental health services; and vaccinations (with parental consent) at child health clinics and within school health care;

Fig. 3.4.1. Formal education in Finland



Source: Finnish National Board for Education *(1).*

- addressing the costs of childrearing through providing financial support;
- adjusting the working hours of parents in full-time employment, enabling them to have more time with their children and as families; and
- providing family centres, a service being developed to lower the threshold between services and interlink services that support child development, problem prevention and problem-solving across different administrative sectors *(2).*

Special-care hospitals offer care and treatment for children with chronic diseases such as diabetes, rheumatoid arthritis and other long-term illnesses.

Childhood and health outcomes

Children and young people aged 0–17 years comprised 20.2% of the Finnish population at the end of 2010. Most (89.8%) were Finnish speakers; 5.7% were Swedish speakers and the remaining 4.5% spoke another language as their mother tongue. The birth rate has recently increased to higher than that in many other European countries, and the fertility rate in 2010 was 1.87 *(3)*.

Finnish comprehensive schools' learning outcomes perform favourably in PISA international comparisons *(4)*.

Newborn Finnish children are among the healthiest in the world. The neonatal mortality rate (the number of deaths during the first 4 weeks of life per 1000 live births) is 2.0. Life expectancy at birth increased for both sexes between 1979 and 2009 and can be considered fairly high *(3)*. Fewer than 40% of respondents to a survey of eighth-grade pupils, however, rated their health as "very good" *(5)*.

Approaches to improving equalization of childhood outcomes

Family structures in Finland have changed over recent decades. While many children (70.7%) live in families with two parents, the proportion of single-parent (20.1%) and blended (9.2%) families has increased. Both father and mother were employed in around 70% of two-carer families with children in 2009. It is common for the father to work and the mother to stay at home when the children are very young, but this arrangement lasts for a relatively short time. Both parents are employed in nearly 80% of two-parent families where the youngest child is over three years *(3)*. Finland is one of the Scandinavian welfare societies, although the amount of government money allocated to families with children has decreased in recent years *(2)*. Poverty among families with children has increased alarmingly.

Finland, like other Nordic countries, differs from most countries participating in PISA in the pace at which pupils enter academic life. Finnish learning results fare well in international comparisons *(4)*, with the high quality of teacher education being proposed as one of the reasons for this success. Teacher education has a long academic tradition in the country: it is university-based and teaching degrees are offered at Master's-degree level. Teaching is an attractive profession with many applicants for training courses, and the admission rate is low.

The Finnish education system is a mixture of state-controlled (or state-steered) relatively autonomous elements. The number of basic education-level lessons is small compared to other countries and less money is spent per student in basic education than in other Nordic states. Finland's third national information-society strategy for 2007 to 2015 *(6)* states that teachers have high-quality education and information-society skills that are being increasingly utilized in renewing teaching and learning methods in schools. The goal for 2015 is to further encourage schools to harness innovative learning methods *(6)* and the Ministry of Education and Culture has outlined education and research strategies to eliminate the boundaries between school- and home-based learning environments *(7)*.

It is nevertheless worrying that in spite of excellent learning outcomes, Finnish pupils' well-being at school is not as good as in other countries, with vast differences in individual children's health and well-being status. The number of children taking part in special-needs education has also notably increased (2.9% of pupils in primary schools had accessed special education in 1995, but this had risen to 8.5% in 2009) and significant geographic differences in the number of pupils taking part in special education within the country have been noted.

Improvement in (and research into) health education is consequently significant to the information society, new health-knowledge policy and recommendations for the improvement of school health care.

Evidence for improvement and equalization of childhood outcomes

Numerous health- and education-related improvement proposals and modifications have been made to health education in schools to change adolescents' health behaviour, and some positive results have been achieved. There is now more research data and statistical information on the health and well-being of children and adolescents than ever before, but they are not sufficiently utilized in decision-making at municipal and government levels.

Research results confirm notable positive developments in the health and well-being of children below the compulsory school age (under 7) and those attending comprehensive school (7−16 years).

Positive outcomes for children and young people

Most children aged 0–6 are healthy, feel well and live in families that include two parents. Almost all infants are cared for at home up until their first birthday and a little over half stay at home until they turn three. High-quality day care is available for all children and nearly every family expecting a baby who has a child below the compulsory school age uses maternity and child health clinic services: there is general satisfaction with the services they receive *(2).*

Most children and adolescents attending compulsory education (7–16 years) are (and consider themselves to be) healthy and feel well and almost all parents of children in this group consider the health of their child to be good or very good. The number of young people smoking cigarettes on a daily basis has clearly decreased and the number of parents who smoke is reducing slightly. Young people's binge drinking has declined and engagement with sports is slowly increasing *(2).*

Negative and threatening outcomes for children and young people

Threats to children's and adolescents' healthy development and safety tend to come from outside the upbringing environment and are influenced by wider societal issues.

Children aged 0−6

More than 10% of babies have a mother or father who is suffering from depression. Ten per cent of children in the 0−6 age group suffer from a long-term illness and between 10% and 20% are overweight. The oral health of children in this age group has deteriorated, with tooth brushing becoming more irregular and consumption of sugary snacks more commonplace. One tenth live in single-parent households, roughly one fifth of those in families facing divorce do not meet their father regularly, and families with children aged up to six are particularly prone to be living in poverty, especially one-parent households.

Two fifths of parents with children aged 0–6 consider the amount of time the family spends together to be insufficient and feel that the help provided by close relatives and friends is insufficient. Just below one third of fathers of children in this age group live with the risk of health damage due to alcohol-related disease and more than 10% of mothers and 33% of

fathers are daily smokers. The number of visits to maternity and child health clinics per year per child in 2007 was about 10% lower than in 1994 *(2)*.

The number of children in day care needing special assistance grew by three percentage points between 2001 and 2008. Domestic aid for families with children has plunged: in 1990, at least 8% of families received these services, but this had reduced to 2% by 2007. Two thirds of day-care centres do not meet the recommended children−adults ratio and there is lack of supervision at national level *(2)*.

Children and young people aged 7−16

Children and adolescents attending compulsory education face several challenges to their health behaviours and lifestyles. The older the pupil, the more likely he or she is to be overweight (just under one fifth of all pupils are overweight). Some children, especially those in the upper level of compulsory school, do not get sufficient sleep, and physical and mental symptoms, particularly those linked to depression, are fairly common. Young people's smoking and substance abuse habits still leave much room for improvement in spite of the trends suggesting progress in these areas. Just over half of pupils brush their teeth according to guidelines, but they spend a lot of time in front of computer and television screens and a substantial proportion do not engage in sufficient physical activity *(2)*.

The number of 7−16-year-olds receiving treatment for mental disorders is on the rise, with a large increase in numbers attending for specialist outpatient treatment in mental health units and being admitted to hospital for mental disorders, especially among pubescent and teenage girls. Parental unemployment, which is recognized as having a negative effect on children's and young people's mental health, has increased markedly in recent years. Many parents use alcohol profusely, with a quarter of fathers of children and young people aged 7−16 being at increased risk of alcohol-related disease: one third of pupils attending classes 8–9 state that someone near to them uses too much alcohol. In addition, socioeconomic health differences are apparent among children *(2)*.

The number of 7–16-year-olds who have been taken into custody and who have received outreach care from child welfare units is continuing to rise: the proportion of teenagers taken into custody doubled between 1990 and 2007. Special-needs education was supplied to increasing numbers of pupils for several years, but has stabilized recently. Violence, the thread of violence and bullying have not declined and accidents, even in schools, are commonplace, with efforts to reduce them proving unsuccessful *(2)*.

Families of pupils attending compulsory education face many challenges and require support in a number of areas. About a quarter of pupils live in families in which a divorce has taken place, time spent together as a family is often deemed insufficient and a quarter of families are finding it difficult to make financial ends meet *(2)*.

Services to promote learning, physical and mental health and social well-being for children and youth are subject to regional and school-based variation. According to a 2009 survey by the National Board for Education and the National Institute for Health and Welfare, only 34% of comprehensive schools had a sufficient number of school health nurses to meet quality guidelines for school health and only 4% met quality guidelines for medical involvement. Appointments with primary care doctors and dentists have become rarer, particularly in relation to dental visits. At the same time, appointments with specialist doctors in paediatric care and child and adolescent mental health services have increased *(8)*.

These threats to health and well-being often originate outside the school environment in wider society. Schools cannot be expected to anticipate and cope with societal threats and need more participation and commitment from pupils, parents and families in meeting the challenges presented. Additionally, the national (and global) economic recession has had many effects on the everyday life of children through parental unemployment and retrenchment of education and health services.

School health personnel are significant players in the school community, but the availability of school health services and their active collaboration with teachers, other members of the school community and parents have deteriorated. There is an apparent inability to produce sufficient easily-accessible support services to promote children's and adolescents' well-being. School health nurses lack resources for managing acute health threats and identifying families with children with special needs or who are in crisis situations. New technologies (such as Adobe® Acrobat® Connect Pro, which is a secure and flexible web-communication system for web conferencing and e-learning) are urgently required in SHS.

Facilitators and barriers to children's and families' health and well-being

Disparities in health and well-being in Finland are vast and have substantial effects on childhood and adolescence. The growth in alcohol consumption, for instance, has exacerbated problems in families with children and is a significant factor in increasing health disparities. Excessive alcohol use by parents highlights the need for child welfare services. Systematic and target-oriented health-promotion work must be taken forward in maternity and child health clinics, day-care centres and schools and must not only improve children's and adolescents' well-being, but also decrease health differences caused by socioeconomic factors.

Health behaviours adopted in childhood and adolescence continue to have an effect later in life. Family income level and parents' educational background, occupational position and job-market status influence children's health and well-being behaviour. Welfare services for the entire child population play a central role in reducing socioeconomic differences in health and well-being, but pre-emptive health services for children, such as maternity and child health-care centres, school health care and oral health care, have been the targets of cuts in many municipalities, making early detection of, and intervention for, children's health problems increasingly difficult.

Reducing health disparities must be a goal for education and social and health care, and sufficient resources must be ensured for pre-emptive work. Municipalities are responsible for providing schooling and maternity and child health care services in compliance with regulations and national guidelines. Nevertheless, while development work for school health and pupil care services has been taken forward, deficiencies in resources and in the organization of services continue to exist, making it impossible to progress with pre-emptive work and to sufficiently meet children's, adolescents' and families' support needs. Cuts in pre-emptive services have increased demand for specialist services and special assistance.

Conclusion

Childhood is a special phase of life and carries an intrinsic value. Lifestyles that build a foundation for health and well-being as an adult are developed during childhood and adolescence. Securing the preconditions necessary for well-being and growth in children and young people is one of society's most important tasks. Government therefore needs to provide sufficient high-quality services, support for parenting and for families with children,

and child-friendly legislation. Securing the well-being and growth of children and adolescents is profitable on humane, societal and economic levels.

Required action at societal level

Research data and statistical information must inform target-oriented health promotion and work to reduce health disparities. Decisions made at municipal level should, for instance, be based on evaluations of their effects on the welfare of families with children and on children's growing environments and living conditions. Decision-makers must take responsibility for the effects their choices will have on children.

Decisions taken at municipal level affect health promotion at school level and should aim to reduce the cost of addressing children's problematic behaviours. Teachers' and school principals' workload related to pupils' risky behaviour will decrease as the focus moves to preventive work and schools become more "open" in creating functional relationships with the community. Partnership indicators between school and homes should be developed and used to improve communication and children's well-being. Children need a social safety net provided by the adults nearest to them, and their opinions must be heard at decision-making levels of society.

Required action at community level

The school community culture will slowly but surely become more open to parents and collaboration will evolve into real partnerships with mutual understanding of each other's potential and strengths in rearing and teaching children. Collaboration will open new opportunities for planning health-promoting interventions together. Collaboration between classroom teachers and school nurses on health education needs to be strengthened, with systematic, detailed and ongoing health subjects within the curriculum for those aged 7 to 16.

Evidence-based, tested and suitable home–school partnership programmes targeted at promoting the health of children in schools are basically lacking in Finland. There is a pressing need to develop new models and methods to support partnerships between schools and homes (through, for example, the SHE network) and to evaluate them through longitudinal action research. There is evidence that the overall health- and work-related well-being of school personnel supports the creation of better learning achievements for pupils and increases teachers' willingness to progress in their work and change school cultures. Teachers have a very important role in children's health education, so the most effective school health interventions will be put into practice by increasing teachers' proficiency and skills.

Required action at individual level

Pupils' and parents' health-related skills and knowledge need to improve and they need to become more willing to apply what they have learned. Pupils can play a central role as health promoters, be more committed to addressing health issues and exhibit less disruptive behaviours. School personnel should be able to access the latest research-based data and good practices in diversifying the health-related skills they use in teaching and providing health guidance, planning schoolwork and evaluating their practice. Their ability to support children's health and health learning needs to develop and they should become more aware of their importance in preventing children's and adolescents' risky behaviours and in facilitating health-promoting factors. Parents, regardless of their gender, education or SES, need to be more engaged and motivated to promote the health of their children and the whole family.

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3.5. Vocational college health promotion pilot project experiences in Finland, 2008−2011

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Context

This case study relates to the two-year pilot project "På rätt spår" ["On the right track"], a health-promotion fieldwork initiative focusing on the experiences of vocational college students aged 15−20 in two Swedish-speaking colleges in Finland. The project was designed to have an effect on premature termination of vocational education.

The case study is not based on research: rather, it presents an ethnographic account focusing on first-hand experiences from the pilot project. Some additional perspectives on violence in schools[4] are also presented *(1)*.

Finland has a number of children's rights-based programmes promoting equality in schools. Folkhälsans Förbund [the Public Health Foundation] *(2)* has made great efforts to support these programmes through, for example, arranging seminars and publishing educational resources. The indications from this project, however, are that delivery of health promotion in everyday vocational college environments is being hampered by issues related to time and money. The question that needs to be asked, particularly in view of national data which suggest a decline in adolescents' health and well-being, is how can student and teaching staff motivation be maintained for the future? The fieldwork experiences suggest that the ostensibly simple process of students completing their studies, improving their future employment prospects and enhancing their sense of well-being is not as straightforward as it may appear.

Project organization

Folkhälsans Förbund is a Swedish-speaking NGO that has been active in the social welfare and health care sector in Finland since 1921. It performs scientific research and provides services, information and counselling to promote health and quality of life. The organization's activities are based on a holistic perspective of health that views the individual as an indivisible whole and which decrees that work to improve people's health should include not only social and health care services, but also other sectors of society. Health and well-being underpins all Folkhälsan's activities with volunteers (1600 members), education projects, older people, housing and municipal planning.

Folkhälsans Förbund has decades of experience in applying approaches to health-promotion collaboration with schools. The ESF-supported development project "På rätt spår", which was active from 2008 to 2011, aimed to create regional models for preventing marginalization and feelings of being an "outsider" among students aged 16−21 at the Axxell and Prakticum vocational colleges in västra Nyland region and Helsinki capital area and to

[4] The words "school" and "college" are used interchangeably, as the project dealt with transactions between comprehensive and upper-secondary schools (vocational colleges).

identify best practice for health promotion among adolescents. Regional models for health promotion in vocational education settings were designed for the project.

The idea of having "coaches in college" was grounded in the project partners' wish to progress primary intervention work. The project's working processes included: identifying weaknesses and strengths; mapping challenges; promoting local support networks by supporting existing networks and building new ones; and creating working models for vocational colleges to support individuals' opportunities through coaching methods (self empowerment) and practising communication skills in student groups *(3)*.

Project participation was as follows:

- 1149 people participated in project information events;
- 1314 vocational college students (551 women, 763 men) participated in project activities;
- 87 student groups were involved in the project;
- 3780 students participated in group coaching; and
- 34 individuals were recommended for personal coaching.

The project budget from 15 October 2008 to 31 May 2011 was €542 523.

"An additional adult resource": the coach's role

Lee *(4)* defines "empowering roles" as those of partner, collaborator, co-teacher, co-investigator, conversationalist, critical question-poser, bridge-builder, guide, ally and power-equalizer, co-builder, co-activist and co-worker. Lee states that these roles are necessary to the enactment of an empowerment approach to social work practice and are additional to those used in direct social work practice, such as mediator, advocate, resource broker, clinician, mobilizer, organizer, innovator, coach, facilitator and enabler.

The prefix "co-" indicates a sharing of roles with clients, with each partner bringing their expertise and perspectives to the process of empowerment. The concept of "co-teaching" therefore implies that students and coaches teach each other what they know about the presenting problem and about the "oppressions faced" *(4)*.

Four coaches were employed full time and assigned to closely collaborate with the colleges. The coaches – Rebecca Karlsson, Petteri Pitkänen, Kim Meller and Mikaela Nyholm – were placed in the college campuses and functioned as "an additional adult resource". Pairs of male and female coaches were assigned to the two colleges to work in collaboration with college personnel in designing interventions to promote a safer and more sustainable college environment, consequently allowing individual students to enjoy positive experiences. In Antonovsky's words, they aimed to "work towards a sense of coherence in school environments" *(5,6)*.

The project team had the privilege to collaborate with Professor Bengt Lindström and Dr Monica Eriksson at Folkhälsan Research Centre, receiving support for their practical work tasks and ensuring their work could be defined and given a theoretical explanation through salutogenic *(7)*[5] research. The project team was then reassured that what they delivered could

[5] This is an approach focusing on factors that support human health and well-being, rather than on factors that cause disease. The "salutogenic model" is concerned with the relationship between health, stress, and coping *(7)*.

be described as health promotion in practice, and they opted to focus increasingly on the salutogenic perspective as the project developed.

In the vocational context, the salutogenic perspective came to signify the project's effort to address questions of inequities by establishing dialogue with decision-makers in local municipalities and the administrative leadership in each college environment. The team approached sensitive matters in an encouraging and positive way which, alongside engaging in face-to-face dialogue with a very challenging group of teenagers, was not an easy task. A sense of desperation occasionally emerged, but the team was fortune to receive professional work counselling and project managers made efforts to keep the work positive at all times, promoting the salutogenic perspective and seeking to ensure a sense of coherence at every level. Their efforts resulted in a positive project atmosphere, with several initiatives becoming integrated into everyday practice and identifying further avenues for the collaboration to pursue.

Project interventions

The goal was to provide extended support and guidance for adolescents at risk of quitting college prematurely by promoting flexible cooperation among colleges, authorities, community officials, *verkstäder* [youth workshops] and other actors. This, it was hoped, would ease the transition from comprehensive school to vocational college and promote the students' will to study. The specific target group was students at risk of falling out from their studies and who were in danger of becoming socially marginalized, but the work became broader in practice and came to include everyone through the theories and methods of health promotion.

The challenge of keeping the focus of the work on health promotion rather than risk prevention was substantial during the first year, in which the project coaches searched to define their role in the colleges. To maintain a salutogenic perspective, the focus was placed on first-year students commencing their studies in autumn 2009 and 2010. The coaches encouraged them to progress with and enjoy their studies and supported them to adopt an active role in determining their own futures through participation in creating a positive college environment. The coaches were accessible to all students and had a basic mission to enhance students' overall life management skills and support them in taking responsibility for their lives and education careers by using counselling and coaching methods.

Working methods with student groups and individuals included:

- dynamics, motivational coaching and stress management
- activity coaching (sports, games, events)
- collaboration and dialogue with teaching staff
- observation in class
- collaboration with regional network companions (medical and social agencies)
- individual coaching (face-to-face dialogue)
- spontaneous meetings with students on campus
- arranged meetings with students in collaboration with teaching staff
- arranged meetings with students in collaboration with regional network companions.

The project work was divided into several phases and subprojects. Coaches worked across three main themes: active citizenship; leisure time; and the coach in class/on campus. New

forms of guidance and support methods were developed from the perspective of an "outsider" within the college community.

Several regional development projects to support educational management and development had been introduced in previous years *(8)*, but "På rätt spår" was the only one focusing specifically on health promotion.

Project results and future work

The project raised awareness of health promotion matters in the colleges and in wider areas through networking and had a positive effect on the lives of many students. The team produced a 90-minute multimedia DVD report called the *Tipsbanken [The tips bank]* which includes a description of best practices experienced through the project. The DVD report consists of interviews with team members and collaborators in which practices and synergistic effects of collaboration and networking are discussed and integration of results are presented in the form of future scenarios. Sensitive topics are addressed through filmed group discussions.

The synergistic effects of the project gave rise to two new projects, one on coaching for vocational teachers and the other for students in vocational college settings in central Finland. Collaboration with involved parties was consequently deepened.

Reflections on school violence

Leppäkari & Berghäll took their project experiences a step further by collaborating on a joint presentation on tools for preventing violence and aggression in schools at a major conference on school shootings in Helsinki in November 2009 *(1)*. This section focuses on aggression and violence in education settings and how they may be tackled from a health-promotion perspective.

The Mannerheim League for Child Welfare released a report on bullying in Finnish schools in June 2009. The report showed that many Finnish children were afraid to speak with adults in school: indeed, they seemed to think that addressing issues with adults worsened their situation *(9)*. This reflects what is known as "the code of silence", which is regarded as one of the most threatening cultures within school environments *(10)*. In short, the code of silence means that students and staff do not discuss matters with each other. Problems are not identified in schools with such a culture, so violence and bulling can, in the worse cases, flourish and lead to what has been called the "bystander phenomenon" *(10)*.

A study in the United States examined 37 targeted cases of school violence stretching from December 1974 to May 2000 *(10)*. Students' reactions before the school shootings were investigated and compared in two groups: one consisted of students with prior knowledge of the attack who had shared this information with school staff; the other had the same information but chose to keep quiet. Briefly, results indicated that incidents of targeted violence at schools were rarely sudden, impulsive acts: other people knew about the attacker's idea and/or plan prior to most incidents. Most perpetrators did not, however, threaten their targets directly before the attack.

No accurate or useful profile of students who engaged in targeted school violence emerged, but the study showed that most attackers engaged in some behaviour prior to the incident that caused concern or indicated a need for help. Most were known to have difficulties coping with significant losses or personal failures, and many had considered (or even attempted)

suicide. Many felt bullied, persecuted or injured by others in school prior to the attack. Other students were involved in some capacity in many cases. Despite prompt law enforcement responses, most shooting incidents studied had been stopped by means other than law enforcement intervention.

Bråttsförebyggande rådet BRÅ [the centre for knowledge about, and prevention of, crime in Sweden] released a report on severe violence in school in May 2009 which stressed the importance of students having "safe connections" with school staff *(11)*. It recommended that a student should have good connections to at least one staff member and suggested that punishment of pupils for acts of aggression is not only ineffective, but is also counterproductive. The focus, according to BRÅ, should be on identifying and preventing "daily aggression and acts of violence" in schools. Violence and crime committed by young people outside of schools, the report suggested, occurred because of school expulsions; adults are on site within school premises to intervene and stop violence, but not outside the school environs *(11)*.

Bullying prevention is an important tool in creating a safe and secure school environment. A school with a functional antibullying programme can reduce incidence by 20% compared to schools that lack such programmes *(11)*. Reducing bullying at an early stage promotes feelings of safety and comfort in school and promotes study. People who bully are at risk of engaging in criminal behaviour in adult life and bullying-prevention programmes can reduce this risk: according to BRÅ, people who are bullied are also at risk of continuing to be victims of violence and crime *(12)*.

Constructing an atmosphere in school/college in which there is respect for all individuals and where communication between students and staff is open and honest is fundamental to promoting safety. Risk assessment that aims to identify possible perpetrators at an early stage, before violent acts are committed, should be used in preference to profiling *(11)*. Authorities and personnel should react to behaviour that is connected to possible violent acts – things a student says and does – and not to any specific type of recognized profile characteristics. Based on the authors'experiences, it can be recommended that open communication can and should be used as a strategic tool in preventing violence in education institutions.

The school shootings in Jokela in 2007 and Kauhajoki in 2008 shocked Finland deeply and caused many to ask: why here? Perhaps this question should be rephrased to: how can such acts be prevented in the future? The issue is complicated and needs to be studied from a wide perspective, taking a range of views and interdisciplinary theoretical approaches into consideration. There are perhaps no definite answers to the questions such terrible incidents present, but "På rätt spår" unearthed some perspectives that are useful in the quest to seek understanding of the complex phenomenon of violence in education institutions.

Aggression and violence

Aggression is a powerful emotion that can either be positive or negative. A person with sufficient personal skills to handle his or her emotions can find aggression useful as a motivation for personal processes to move forward in life. A person without such skills, who lacks emotion, has social and personal problems, resents his or her social environment and cannot handle emotions appropriately, becomes a risk.

Violence is a natural part of human activity. It is not to be considered an anomaly, but a fact *(13).* Violence is connected to power and the use of power and can be physical, psychological, symbolic or rhetorical *(14).* Many forms of entertainment accessed by young people (such as television shows, films and games) feature aggression and violence, some of which is graphic.

Aggression is also present in the mechanisms of bullying. It may be tolerated to a certain extent within a group and, if used regularly, can become part of the group culture *(15).* Aggressive defence from the person being bullied often gives satisfaction to the person perpetrating the harassment. In some cases, bullying is seen as one of the triggering factors for school shootings. Recognizing the existence of aggression and bullying and understanding their potential to escalate into acts of extreme violence is therefore paramount, with prevention of bullying playing a key role in preventing escalation of aggression.

Some of the problems around extreme violence in schools can be examined with the help of Viemerös' reflections on aggression and its situational, personal, environmental and biological factors *(16,17).* A clearer overall picture of the complexity of the problem is gained by considering the topic through these four perspectives. Related situational factors include frustration, pain, uncomfortable situations and social stress. Access to firearms is also a crucial triggering factor, as is violent gaming and media. Home conditions, use of alcohol and parental unemployment play a significant role, and high levels of provocation and stress combined with alcohol and drugs can trigger violent actions.

Personality factors such as lack of empathy and moral sensitivity and impulsivity are related to aggressive behaviour. Viemerö *(16,17)* emphasizes that people who exhibit impulsive aggression may have mental health problems such as schizophrenia, depression, antisocial behaviours and alcohol and drug abuse. Environmental factors (culture, living conditions, friends, role models, family and childhood experiences) are also relevant, as are real experiences of physical violence and vicarious experiences through the media. Aggression and violence is deeply connected to society and economic and ideological values. People who become frustrated by "the system", for instance, can develop aggressive feelings that manifest in social violence. Biological factors (brain tumours, testosterone levels, genetic makeup and intelligence) also play a significant role *(16,17).*

Some intriguing aspects of the complexity of interdisciplinary work on phenomena related to school violence were described by Hoikkala *(18),* who identified nine approaches to explaining the Jokela School shootings. Among these explanatory approaches, the "Internet factor", in which a "lone" school shooter finds online communities and groups that provide new perspectives and ideas about school killings, is especially interesting, although further discussion of this approach is beyond the scope of this case study.

Violence, including killings and murders and assaults with weapons, is common in Finland and other countries. Finland has the second highest number of firearms per capita in the world, after the United States. Over 2300 people died through firearms incidents between 1998 and 2007.[6]

[6] Based on data from the Finnish Centre of Statistics. The number includes people who committed suicide with firearms.

Violence is present in the everyday lives of children and adolescents. The Police College in Finland surveyed 13 515 pupils aged 12−15 in January 2008 about their contact with violence *(19)*. One of the questions asked was: “Has anyone hit or attacked you in the past 12 months?” Twenty per cent of boys answered “yes”, suggesting that violence among children is more common than among adults. The study also showed that contact with violence was more common among boys than girls outside the home, in school, on the streets and in recreational settings, and 10% of children reported being recipients of violence perpetrated by an adult.

Future challenges

What, then, can be done to create safer, more equal and more open education environments in the future? How can children’s safety inside the school perimeter be guaranteed every day, and how can those who are bullied, intimidated, threatened or assaulted be encouraged to speak out?

It is not possible to present cast-iron guarantees against the occurrence of bullying and aggression or to protect children’s safety at all times, but ideas that may have an effect on matters of inequity can be developed, despite municipalities reducing financial support for children’s and youth work and making redundancies in education institutions.

Leppäkari & Berghäll *(1)* have suggested that open dialogue and networking based on trusting relationships and working towards common goals present effective means of creating safer education environments. To achieve this, the following ideas, based on health-promotion work in practice, are suggested as working strategies. The health promotion approach emphasizes intervening at an early stage to prevent problems escalating and to anchor ongoing work in a positive educational culture that results in safer and sustainable learning environments.

Inviting outside support

Schools can invite a third party (additional adult resource) to be involved in pedagogical work through their collaborative networks. Teachers have limited time for individual contact with students due to their teaching commitments, but additional adults, here referred to as “outsider adults”, can make contact with students and support them. Such additional coaching brings potential benefits such as allowing smoother transitions from comprehensive school to vocational college.

Premature termination of vocational education can be reduced where there is time, resources and the requisite skills to monitor students’ individual development and support their learning. Education institutions have limited resources but the “På rätt spår” project suggested benefits when vocational colleges access outside organizations to support personnel to acquire the necessary resources, skills and knowledge. Most important, however, is the dialogue between the “outsider adult” and the individual student. This takes time to develop and, of course, requires very careful assessment of who is considered to be suitable for the role.

Coaching and outdoor education

Coaching and outdoor education support students’ problem-solving skills through enabling them to practise critical thinking and social skills in groups and in different social settings. It is important to provide adolescents with additional tools to support non-violent approaches and to create a safe environment for coaching and outdoor education. An emphasis on

training social and problem-solving skills is an intrinsic part of daily routines that can easily be achieved. Where a school/college has limited resources, it can invite external organizations to support staff to develop their coaching capability and capacity. Support of this kind not only improves the school's/college's knowledge and skills base, but also creates a positive atmosphere among teaching staff and a better working environment.

A positive learning culture, climate and environment

Developing a common culture that pervades the school cycle from students' first to last year of studies creates feelings of comfort and security. Education institutions that promote good, honest and open communication will benefit from creating a sense of belonging that increases students' attachment to the school. Students who are, and who feel, accepted are more likely to achieve academic success and feel positively about school experiences.

Education institutions and political decision-makers should be challenged to collaborate and adopt new methods to promote equality, encouraging adolescents to speak up and break the "code of silence". Folkhälsans Förbund's working experience at grass-root level suggests that outdoor education and coaching are promising tools. Most important, however, is that students and teachers are being encouraged to speak openly in schools about problems and to work collectively towards creating an organization in which students feel a sense of belonging and are genuinely involved in decision-making processes.

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3.6. “Learning to live better together”: enabling schools and communities to implement a health promotion policy and minimize health inequalities in France

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Context

Reducing health inequalities is an issue of fairness and social justice, and action should be focused on reducing the gradient. Giving every child the best start in life is crucial to reducing health inequalities across the life-course *(1)*. Family, local communities and schools have a key role to play in achieving equity from the start *(2)*.

This case study provides an account of work taken forward in France at regional and national level through the “Learning to live better together” (LLBT) programme, the aim of which was to develop sustainable health-promotion projects in school settings by empowering local stakeholders. LLBT was a health-promotion programme adapted to the French education context and was developed in three stages commencing 1998. The last stage (2008−2012) involved 115 primary schools in 6 regions, involving 650 teachers and 12 000 children and their families. Most resources for teacher training and implementation of health-promotion programmes in schools produced at national level by INPES *(3)* and the network of French teacher education colleges for health education and health promotion *(4)* are based on the LLBT programme.

Schools’ contribution to students’ health and well-being is increasingly recognized *(5)*. Evidence shows that a whole-school approach to health education (in which school practice reflects school policy) promotes a sense of belonging and openness within educational experiences, resulting in improved learning, increased emotional well-being and reduced risk behaviours *(6)*. Essentially, schools are most effective in health promotion when actively engaged in promoting health among students, staff, families and community members *(7)*.

The broad concept of the health-promoting school emerged from this evidence, but only a few studies on health promotion in the school setting have analysed differential effects across socioeconomic groups or the effects of specific programmes for disadvantaged groups. There is currently no evidence in the literature on the contribution of the health-promoting school approach to reducing health inequalities. This explains why one of the objectives of the LLBT project was to assess differential effects across socioeconomic groups and why data from the project have been stratified by the SES of schools.

Provision and services for children

Early years

Mothers and babies are closely monitored and cared for during pregnancy and in the months immediately following birth by a specialist team of professional health care providers who implement preventive (mostly parental support) and curative measures. The key health care providers are GPs and specialist physicians, the mother and child protection service and hospital neonatal and paediatric departments *(8)*.

Schools

Specific health personnel (nurses and doctors) are deployed in schools. Health education is not taught as a separate subject, but as a part of citizenship education. It does not, therefore, require specialist teachers, but is part of the everyday activity of all school staff and is focused on developing students' ability to make informed and responsible decisions. Government guidance on health education in schools and colleges *(9)* states:

> Unlike conditioning, health education aims to help young people gradually build personal capacity in terms of making decisions and adopting responsible behaviour for themselves and with respect to other people and the environment. It also makes it possible to prepare young people for playing a responsible role in society where health matters are of major concern.

Schools have been able to access an additional resource, the Health and Citizenship Education Committee, since the early 1990s. The committee provides a coherent articulation of school health policy from a health-promotion perspective and aims to "bring together prevention actions, mobilize those involved in the education community, strengthen links with other services [and] improve the climate and relations within schools" *(10)*.

Major health issues

Life expectancy in France at age 65 is one of the highest in Europe but is significantly lower for men at 16 and 20. There are also major differentials between regions and socially based inequalities in health remain a priority. Inequality and premature mortality (death before 65 years) remain important areas for improvement *(9)*.

Approach

The health-promotion intervention *(11)* was developed to address health issues within school settings and to give school staff the means to implement a relevant health-promotion policy whatever the socioeconomic context of the school *(12)*. It aimed to promote children's social, emotional and physical health by contributing to their well-being at school and enhancing their life skills. The objective was to develop sustainable health-promotion projects in primary schools through empowerment of local stakeholders. The main strategy, which was based on relevant international data *(5,13)*, was to develop teachers' health-promoting practices and schools' health-promoting environments.

Professional development was offered to teachers by support services to ensure health promotion was included in the everyday life of the school. This included teacher education, school team support, resources, tools and institutional lobbying. Support-service development officers were backed by the department of teacher training of the Institut Universitaire de Formation des Maîtres [University Institute of Teacher Training]. The initiative was based on evidence suggesting that education can positively influence teachers' practice *(14)* and schools' health-promoting environments, enhance the well-being of children and teachers at school, improve the relationship between schools and families *(15)*, develop children's health knowledge, attitudes and skills, and possibly improve children's social, emotional and physical health *(16)*.

Three types of evidence were used to develop the intervention: scientific, "professional"−contextual, and "critical". The evidence was embedded within the programme through the training and support process.

The training process included the development of health education activities within the existing curriculum (French, science, arts, physical education, etc.) with a special emphasis on oral and written expression in the mother tongue (using recommended children's literature from the national list). Teachers initially undertook one week of training and all teachers participated in half-day sessions three times a year over the course of the next four years. All were supplied with resources, including teaching materials and mapping and assessment tools.

School participation was on a voluntary basis, the choice to take part being made by staff after a vote. This meant that while some schools reached consensus on their decision to participate, others did so only through a majority vote. The fact that a school participated did not mean, therefore, that all teachers were willing to be involved. Schools had different teacher participation patterns, which was considered permissible out of respect for teachers' ontological positions.

The programme was implemented in six French regions. Each had a steering committee, consisting of representatives of school boards, parents and other relevant regional stakeholders, and a support team (teacher trainers, pedagogical advisers, members of health-promotion services and local NGOs) which was in charge of programme implementation. The six support teams, one per region, were trained to deliver training and support to teachers and schools concerning the programme, its principles, values, resources and evaluation. Pedagogical resources were provided to each school. The project was supervised by a scientific committee of health and education experts and practitioners and an ethics committee was put in place to deal with questions raised through the implementation and evaluation of the intervention.

The main features of the health-promotion programme are shown in Table 3.6.1.

LLBT, in common with other health-promotion programmes, could be defined as any activity undertaken to protect or improve the health of all school users. This means that its activities and outcomes were numerous and complex. "Health", the ultimate goal of health promotion, cannot be achieved directly, but is attained through intermediate stages. In this sense, health promotion is understood to be a social learning process taking place at individual, group and organizational levels *(17).* Different outcomes then become possible: improvement in the health of a population is the desired outcome, but intermediate outcomes include changes in health determinants and change in factors influencing health determinants *(18).*

To understand the different factors having an influence on the implementation and outcomes of the LLBT programme, what Chen and Rossi *(19)* define as the "theory-driven" approach to evaluation was taken into consideration. This approach:

> ... is not the global conceptual scheme of the grand theorists, but more prosaic theories that are concerned with how human organizations work and how social problems are generated […]. What we are strongly advocating is the necessity for theorizing, for constructing plausible and defensible models of how programs can be expected to work before evaluating them.

Table 3.6.1. Main features of the LLBT programme

Objectives	The programme objectives were to: • promote children's social, emotional and physical health by contributing to their well-being at school, enhancing their life skills and reducing health inequalities; • develop relevant teaching practices and a health-promoting environment in schools; and • develop sustainable health-promotion projects in schools through the empowerment of local stakeholders.
Theoretical background	The programme reflected international publications and data concerning the development of school health-promotion programmes. It was therefore a progressive sustainable programme that: • took children's development into account; • linked health to educational issues and integrated them into ongoing school activities; • communicated with parents and communities; and • provided training and support for school professionals, making resources and other methodological tools accessible. It also took into account the special features of the French system. The programme featured a combination of top–down and bottom–up approaches, so the characteristics of the actions implemented in each school tended to vary.
Implementation	The programme was firstly implemented in the Auvergne region (first stage 10 schools, second stage 21 schools). The last stage was implemented in 115 schools in 6 regions. It started in 2008 and continued to 2012. A support team was in charge of implementation in each region. These teams were trained to provide training and support to teachers and schools concerning the programme, its principles, values, resources and evaluation. Pedagogical resources were provided for each school and an ethics committee was established.

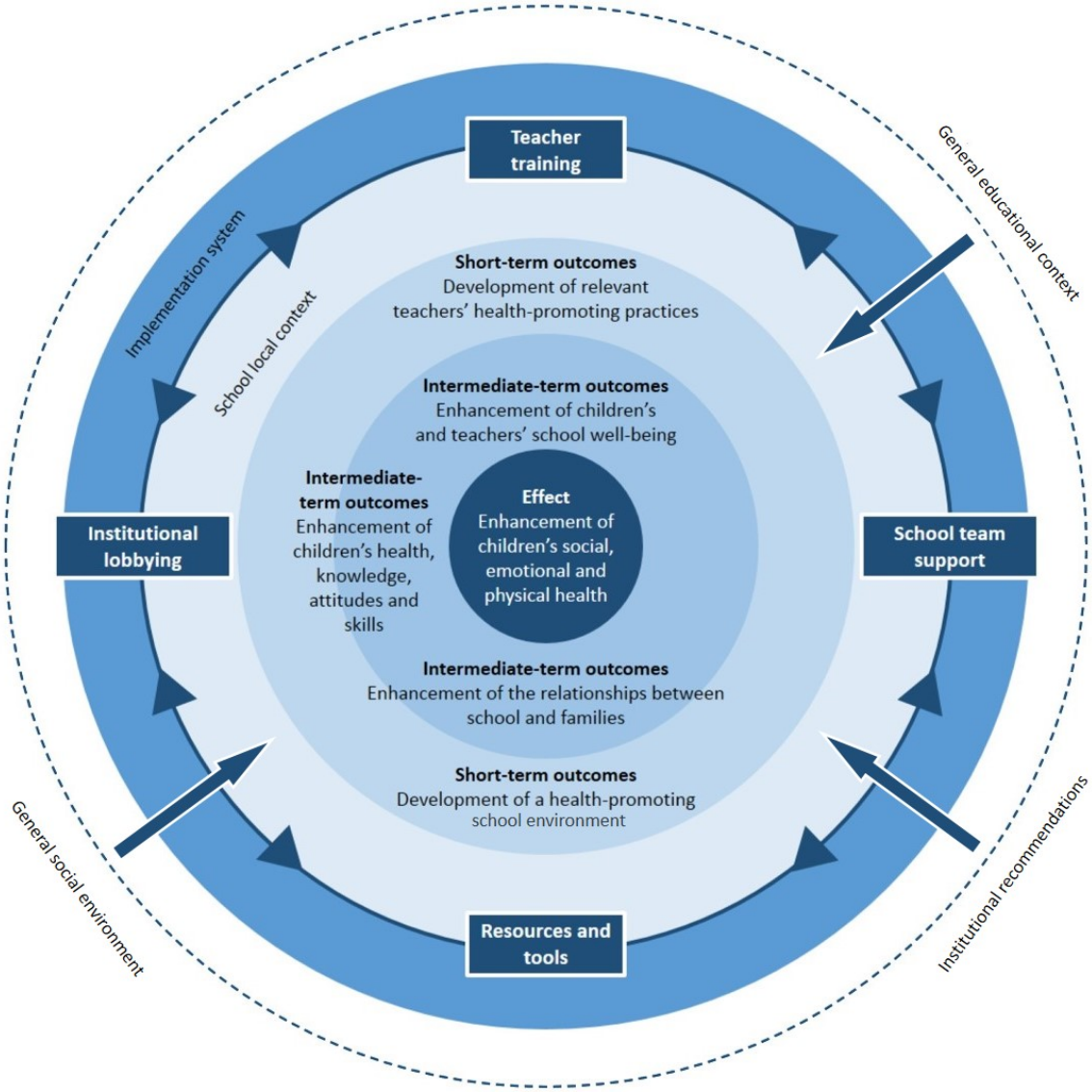
Source: Pommier et al. *(11).*

This implies a need to identify theory consistent with social science knowledge and theory, which drove the development of a theory-of-change logic model to underpin the intervention. Fig. 3.6.1 suggests that strategies developed through the intervention (teacher training, school team support, resources and tools, and institutional lobbying) can positively influence teachers' practice and schools' health-promoting environments to enhance children's and teachers' school well-being, the relationship between school and families and, eventually, children's life skills. The model assumes that outcomes and strategies interact with contextual factors (institutional recommendations, community requests and school context) and the implementation system (rules, organizational structures and personnel who have been given responsibility for the intervention) (Table 3.6.2).

The programme assessment was based on a mixed-method approach that combined quantitative and qualitative methods to provide a wider understanding. The literature shows that mixed-method approaches:

- provide strengths that offset the weaknesses of quantitative and qualitative research;
- provide more comprehensive evidence for studying a research problem than either quantitative or qualitative research alone;

Fig. 3.6.1. Theory-of-change model underlying the health promotion programme in school settings



Source: modified from Pommier et al. *(11).*

- help to answer questions that cannot be answered by qualitative or quantitative approaches alone;
- encourage researchers to collaborate;
- encourage the use of multiple worldviews or paradigms; and
- are "practical" in the sense that the researcher is free to use all methods possible to address a research problem *(20).*

Four questionnaires were developed for children, teachers, parents and school communities. Two forms were used to collect contextual information and semi-structured interviews were performed throughout the implementation process.

Table 3.6.2. Categories of general mechanisms and contextual factors that may play a role in desired outcomes

Mechanisms	Contextual factors
Outcome 1. Development of a health-promotion approach at school level	
Development of collective work skills Integration of health promotion in the school's project Common perception of health promotion with the school Presence of a leader	National institutional will Local institutional support Training means and trained resources Availability of resources Community involvement – desire to support
Outcome 2. Development of teachers' practice	
Development of personal skills Perception of health promotion Perceived self-efficacy Capacity to use resources Capacity to integrate health-promotion considerations in their practice Motivation and interest Teachers' empowerment	Local institutional support Health promotion integrated in the school's project Training means and resources Availability of resources Existence of a health-promotion approach within the school Perceived needs of children
Outcome 3. Development of children's school well-being	
Health education activities Involvement of children in health-promotion project Development of personal life skills	Development of a global health-promoting school approach involving parents and the wider community Teachers having health-promotion practices Development a supportive psychosocial and physical environment

Evidence

Evidence was collected in relation to health determinants (well-being in schools, communication about health and health knowledge). The key findings are as follows.

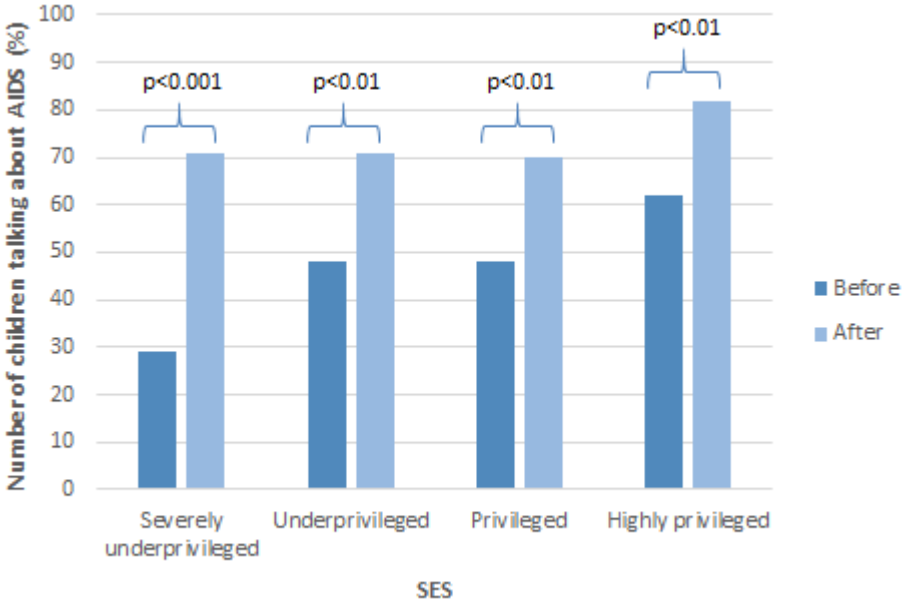
The approach proved successful in reducing social differences in some outcomes after one year of implementation

Four subgroups reflecting the social environment of schools were formed in the first implementation stage (involving 10 schools and 350 children age 9-11). They were established using criteria from the National Institute of Statistics and Economic Studies *(21),* which are based on the profession of the head of the family. Population A (14%) was severely underprivileged, B (31%) was relatively underprivileged, C (30%) was privileged and D (25%) was highly privileged *(22).*

Before the intervention, population A (severely underprivileged) scored the "dangerousness" of AIDS less than the other subgroups (p=0.007), but there was no difference after. This was also the case concerning the way people living with AIDS were seen and in the perception of the absence of risk of infection in everyday life.

Fifty-one per cent of the children had talked about AIDS with adults before the intervention. In the second series, 76% had done so, either before the first session or between sessions one and two. The effect of the programme was all the more important as the school was underprivileged (Fig. 3.6.2).

Fig. 3.6.2. Influence of SES on the effect of the intervention on children's communication about AIDS with teachers



Note: ** p<0.01; ***p<0.001.
Source: modified from Berger et al. *(22).*

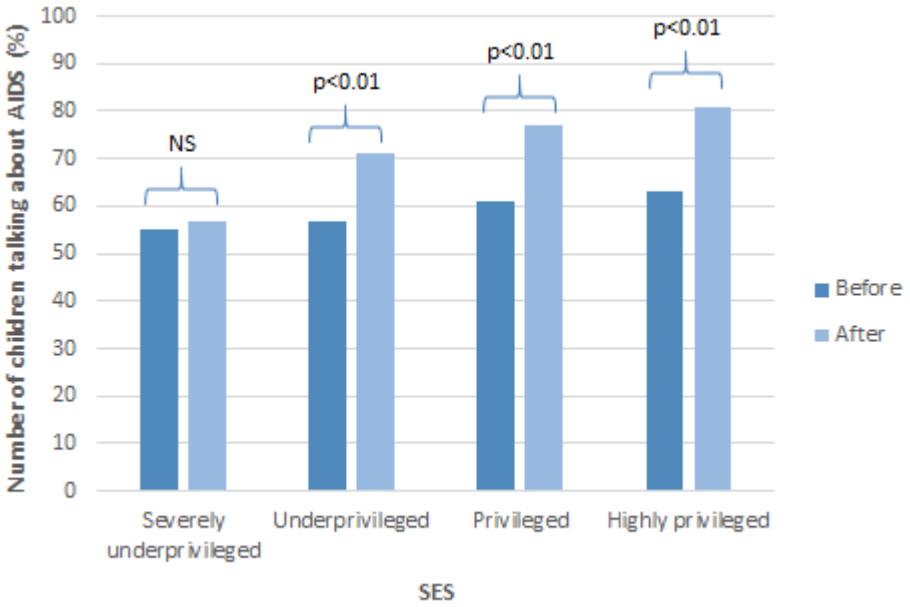
In some cases, the programme reduced differences between social groups. For example, the highly-privileged group referred to sex and sexuality more than the severely underprivileged group before the intervention (p=0.0001), but one year after implementation, the difference was not so marked (p=0.05).

The programme had no positive effect on outcomes closely related to the environment or integrative variables such as school climate after one year

Data from the first implementation stage showed the programme had an effect on outcomes closely related to the environment (communication about AIDS in the family), but the effect differed among groups. The effect of the programme was all the more important, as the school was privileged. Social inequalities for this variable were increased by the programme after one year of implementation (Fig. 3.6.3).

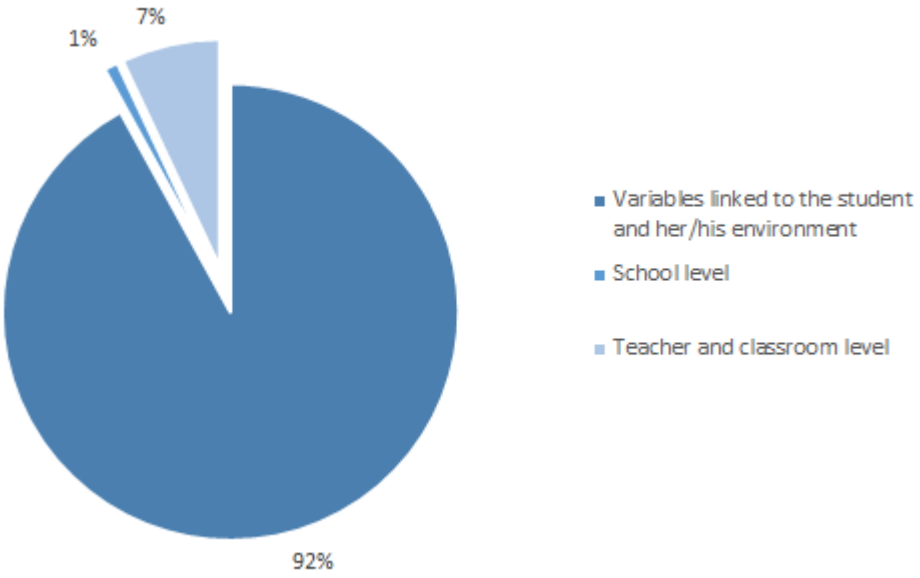
The second phase of implementation (age 9−11, n=936, 21 schools) was focused on school climate. School scores in the highly-privileged group before the intervention were higher than in the underprivileged group and were more marked after a year of implementation: the increase in the highly-privileged group was 3.36 compared to 1.42 in the underprivileged, leading to an increase in inequalities. This result can be explained by the strong influence of student-related and environment-related variables in comparison to school-related variables. The multilevel model showed only 8% of the variance could be explained by variables linked to the school: the dependant variable in the model was the perceived school climate and the hierarchical analysis was made on 43 variables (Fig. 3.6.4). These data clearly show the importance of strong connections between school and the environment *(23).*

Fig. 3.6.3. Influence of SES on the effect of the intervention on communication about AIDS in the family



Note: NS: not significant; ** p<0.01; ***p<0.001.
Source: modified from Berger et al. *(22).*

Fig. 3.6.4. Hierarchical analysis of the variance of the school climate

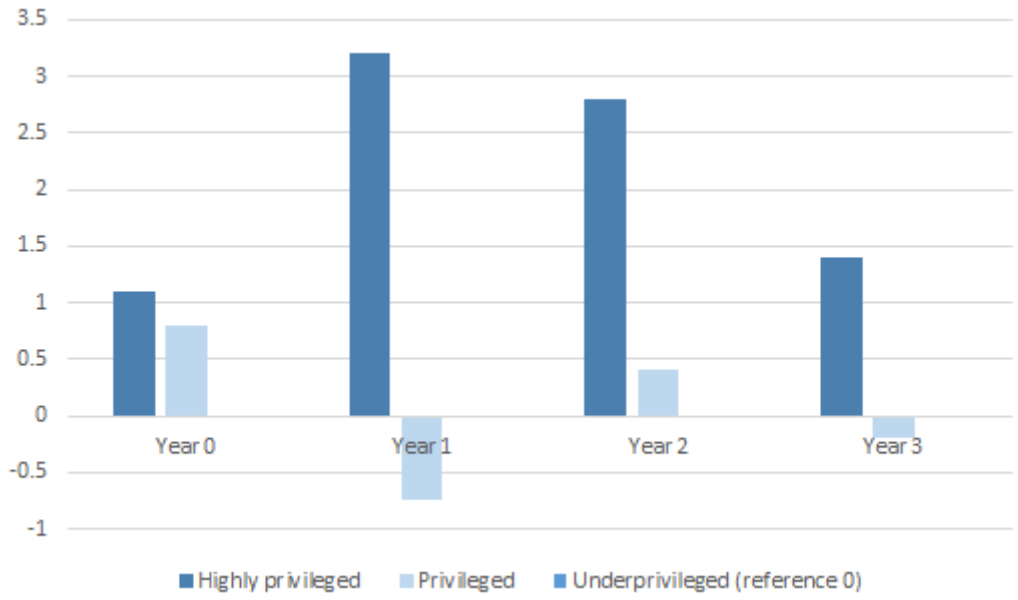


Source: modified from Jourdan *(23).*

Sustainable implementation is necessary

The effect of the programme was faster and more powerful if the school was in a privileged environment (Fig. 3.6.5). Three years of implementation were required to equalize the programme's effect on schools for different socioeconomic groups (second phase, n=936).

Fig 3.6.5. Differences in scores on school climate between schools (three groups of schools by family SES)



Implementation

Implementation could not be considered a top−down process in which the stakeholders were simply required to do as they were instructed. The LLBT approach, resources and management tools were adapted to reflect the stakeholders' concerns and contextual constraints throughout the process.

The training and support process provided the main implementation strategy at national and local levels. Local stakeholders implemented the health-promotion approach differently, according to their positions, and challenged it at different levels *(24)*.

The evidence helped teachers to adjust their pedagogical practice in some areas, such as responding to conflict in the classroom and developing children's self-esteem. It also helped teachers to develop a global approach to health promotion that reflected collective work within the school team.

Getting involvement from parents was often difficult. Historically, parents' roles within schools has been unclear and was only recognized officially a few years ago. Work with a research group *(25)* and new resources were taken forward during stage 2 to address this challenge.

The evidence helped to emphasize the need for collective practice and partnerships with local stakeholders at school-team level. Characteristics of partnerships with local stakeholders were variable within the schools (partnerships are not a common way of working within the French school system, especially at primary level). A teacher trainer who is also a researcher specializing in partnerships at school level organized a training session that addressed the difficulties of partnership implementation and potential strategies that can be developed at school level. The evidence also led school teams to take a more global perspective of children's health that reflected all of the children's health determinants at school. This evidence was essential to secure schools' commitment to the programme.

At regional level, the evidence helped support teams to develop a transversal approach to health promotion, in addition to thematic approaches. Regional teams had participated in the tool validation process and contributed to the development of the evaluation approach, but the objectives and evaluation process were challenged during the data collection and the process had to be renegotiated to ensure not only scientific rigour, but also acceptability to local stakeholders.

Despite existing evidence and compelling arguments for school health promotion, getting teachers involved in implementing the programme remains a challenge. Teachers are currently squeezed between the social pressure to participate in health-promotion initiatives and institutional pressure to complete school programmes. It remains very difficult for teachers to clearly identify the nature of what is expected of them and what their core business actually is in the face of massive overprescription of objectives *(26).* Their involvement in different modalities of the LLBT programme depended on factors specific to individual teachers *(27),* three of which were shown to have a significant effect on health-promoting teaching practices:

- personal interest in health promotion (odds ratio (OR) 1.97, p=0.001)
- training (OR 3.74, p=0.03)
- collective work at school level (OR 2.97, p=0.05).

Involvement in the LLBT programme was classified under three main headings:

- classroom practices (specific pedagogical sequences, adaptation of certain methods): *"I am working with 'Le petit humain'[7] and so on basic human needs, and I asked them at the start to write out for me what they themselves needed to feel good physically and mentally"* (primary-school teacher, stage 2);
- "way of being" in the classroom (specific attention to development of personal and social skills): "*Living in the community is, of course, an everyday concern, but the fact of focusing on it a little more means that I go a bit more deeply into things; I still do the classroom work as usual, but I feel I have another perspective – emphasizing certain things that I used to do more superficially up to now"* (primary-school teacher, stage 2); and
- management of "living in community" at whole-school level from a health-promotion perspective: "*What is important is that we actually took stock of things … last year … we realized that there were issues, for example about the toilets, that the little ones were being pestered by the older ones, and so we made changes to improve things, based on listening to the children themselves"* (primary-school teacher, stage 2).

Participation in LLBT therefore had individual and collective dimensions.

Conclusion

LLBT is an approach that has been implemented in the French school system for more than 12 years. It is well designed from a theoretical perspective and is being shared by more and more practitioners at national level. Numerous resources developed by INPES *(28)* and others are now based on experience developed through the programme.

The work shows schools can contribute to reducing the health divide, but do not possess a "magic bullet". Their contribution is only one among several that can make a difference.

[7] *Le petit humain [The little person]* is a children's book used as a resource in the training.

Empowering stakeholders and building stronger links between schools, families and local communities are important steps in reducing the gradient of health inequalities.

Four recommendations that might inform policy development at European level can be made. Reducing health inequalities requires strong political will and the development of education policies for schools based on the following principles. Such policies should:

- reflect a comprehensive approach
- have deep roots in the education culture of the country
- be perceived as a priority, empowering local stakeholders
- be sustainable.

A comprehensive approach

Education and health have shared interests. A whole-school approach to enhancing children's and adolescents' health and education outcomes through learning and teaching experiences initiated in school *(29)* has the best potential to contribute to reducing health inequalities. A comprehensive approach that covers teaching health knowledge and skills in the classroom, changing the social and physical environment of the school and creating links with families and the wider community is even more important when schools' budgets are under threat, as they are currently.

An approach deeply rooted in the educational culture of the country

Education contexts vary throughout Europe. France, like Portugal and many countries in eastern Europe, has a national, centralized education system. Its primary aim is knowledge building, and schools give low priority to health promotion. Schools are not primarily concerned with improving children's health, so health promotion must be assimilated within teachers' existing responsibilities and must reflect the constraints of the school setting. National institutional will, local support from school inspectors and availability of resources linked with daily classroom activities are key factors in implementing a health-promoting school approach.

A priority, empowering local stakeholders

Local stakeholders are the most competent people to address inequalities. Providing ongoing capacity, building opportunities for teachers and associated staff, parents, social workers, doctors, nurses, town councillors and volunteers of local NGOs is the priority. The main strategy in the LLBT approach is to develop teachers' health-promoting practices and schools' health-promoting environments. The results show that three factors have a significant effect on health-promoting teaching practices: personal interest in health promotion, training, and collective work at school level.

A sustainable policy

A major finding is that health-promotion programmes have quicker and stronger effects in schools in privileged areas. The project shows that the programme needs to be running for three years to have similar effects in schools for different socioeconomic groups and that the effects of the programme differs across outcomes. School-centred outcomes are less sensitive to social differences, but those more closely related to the environment or integrative variables such as school climate are very sensitive to social differences and need a long implementation process to achieve equalization.

It is hoped that policy-makers and practitioners across Europe will learn from the case study, especially those living in highly centralized countries in the southern and eastern parts of Europe.

The next generation of the LLBT programme, now called "Schools/Health/Communities", is being developed in disadvantaged areas on the basis of the findings presented above.

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3.7. Joint development of healthy schools in Germany

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Context

Germany is a federal republic in the middle of Europe with 16 states and 81.8 million inhabitants . The overall life expectancy at birth is 79.9 years. The fertility rate of 1.4 children per mother is one of the lowest in the world.

Around 19% of the population has a migrant background, with the rate among under-25s being 27.2% *(1)*. This means schools and kindergartens are important settings for facilitating integration of young people from migrant families.

Education system

Responsibility for education lies primarily with the states, with the Federal Government playing a minor role. Education systems consequently differ across states.

Early childhood education is optional from ages 3−6 and compulsory education has a minimum duration of 9 years. Primary education is usually offered through the Grundschule [elementary school] and lasts 4−6 years. Most states have different levels of high school:[8]

- Hauptschule [primary school], which ends after 9 years of education
- Realschule [secondary school], which ends after 10 years
- Gymnasium, which ends after 12 or 13 and enables further study at university.

School education is free, although kindergarten places incur a fee.

International education research, such as the PISA study, has shown some deficits in the German education system. Fifteen-year-old pupils achieve only average or below-average results in international comparisons of basic competency in areas such as reading, mathematics and natural sciences. PISA suggests that the German education system is extremely selective in character, with pupils' social background having a strong influence on educational achievement.

The German education report in 2006 showed that children with migration backgrounds attended Hauptschule more often than Gymnasium: 31.8% attended Hauptschule (48.3% of those of Turkish descent) and fewer than a quarter (24.6%) Gymnasium (the percentage for children from Turkish backgrounds was 12.5%) *(1)*.

Fifty-one per cent of schools had converted to whole-day status by 2010 *(2)*, offering lessons and care until late afternoon in an effort to widen and improve education opportunities. The remaining schools are scheduled to follow suit.

Social inequalities are an issue in schools, relating not only to inequalities in education opportunities, but also to health outcomes.

[8] A few states are attempting to combine different types of secondary school.

Child health outcomes

Health-promoting behaviour is created and shaped in childhood and adolescence. Long-term health risks are established at early ages and prove resistant to change in later years.

Nutrition, physical exercise and mental health are important issues affecting child health outcomes and have a strong effect on the development of lifestyle-related diseases later in life. Conditions such as cardiovascular disease and cancer, which are the most important causes of early mortality in Germany, are influenced and affected directly by nutrition and physical activity and indirectly by mental well-being. Mental health is also significant in relation to developing successful coping strategies, such as forming a strong social and professional identity, and in addressing serious life crises (including parental divorce and the trauma caused by experiences of neglect and migration).

The KiGGS survey of 17 641 children and adolescents aged 0−17 years conducted between 2003 and 2006 included the following information about their health *(3)*.

Overweight and obesity

Overall, 15% between ages 3 and 17 were overweight and 6.3% obese. The proportion of overweight increased with age: 9% in the 3−6 group were overweight against 15% of those aged 7−10 and 17% of 14−17-year-olds. Children and young people from socially disadvantaged or immigrant backgrounds and those whose parents were overweight carried a higher risk.

Sports and physical activity

Many children in the youngest age group (3−10 years) took part in regular physical activity and 84% of those aged 11–17 were physically active at least once a week. Strong gender differences were found, with girls (especially those from migrant families and with low SES) being less active during their leisure time.

Mental health

Evidence of mental disorders was found in about 15% overall, with conduct disorders (10%), anxiety (7.6%) and depression (5.4%) being most frequent. Mental health problems were identified in around 20% of 11−17-year-olds. Low SES and a migration background were risk factors.

The KiGGS survey also identified protective factors that contribute to healthy mental development:

- personal assets such as optimism, a sense of coherence and self efficacy
- family assets (strong family bonds and family status)
- social assets (number of close friends and being on good terms with others).

Children with low SES had fewer personal, family and social assets, with those with migration backgrounds having the lowest rate of social assets. Approximately 90% of those with good personal protective factors showed no mental health problems in relation to anxiety and depression, aggressive antisocial behaviour, hyperactive and inattentive behaviour and peer problems, compared to 71.3% with very low personal assets.

The survey showed a strong connection between SES and health outcomes. Children and adolescents with low SES had more health deficits (such as overweight and mental disorders)

and engaged in less health-promoting behaviour, including taking part in physical activity. Those with higher SES had greater opportunities to access personal, social and family assets.

School has significant potential to reduce health risks and shape health-promoting behaviours. Education and health are strongly interrelated. Education plays an important role in successful personal, social and professional development, facilitates access to meaningful and fulfilling experiences and increases the potential for positive conduct. It imparts health-relevant knowledge and consequently influences health-promoting behaviour.

In turn, mental and physical well-being can promote learning and education processes. Children and young people who grow up in a healthy environment have a more positive self-image and greater confidence in their creative powers and abilities, which places them in a strong position to take advantage of education and life opportunities.

SES has a very strong influence on education and health outcomes. Successful strategies to reduce social inequalities in health and in education must therefore address both aspects.

National health objectives

Germany has been attempting to make health policy more evidence-based over the last 15 years or so. As an example, the forum "gesundheitsziele.de" ["health goals"] *(4)* was founded in 2000 as a Federal Ministry of Health initiative. More than 70 German health service organizations are currently represented, including policy-makers, scientists and social welfare, professional, patient and self-help organizations. They develop paradigm health objectives based on national and international initiatives and make recommendations for policy-makers and other health service actors on how they can be achieved.

Seven national health objectives have been developed since 2003, one of which, "Growing up healthy", focuses on children and adolescents. First published in 2003, it concentrates mainly on three essential areas – food, movement and coping with stress, the last of which was extended in 2011 to "life competence". It aims to prevent or reduce poor nutrition, increase physical activity and develop stress-coping competence among children and adolescents and forms the basis for the specific health-promotion activities implemented in the project described in this case study.

Approach

The Gemeinsam gesunde Schule entwickeln [Developing healthy schools together] project

"Developing healthy schools together" (2008–2012) *(5)* supported 30 schools nationwide to develop into healthy and powerful organizations. It was financed by Deutsche Angestellten Krankenkasse (DAK), a German health insurance company, with scientific support provided by the Centre for Applied Sciences in Health and the Institute of Psychology at the Leuphana University of Lüneburg.

Participating schools were provided with ongoing support over three-year periods to develop health-promotion and quality-development initiatives to promote their progression to "good and healthy schools". The project focused on three main objectives:

- promoting teachers' health
- promoting students' health
- improving the quality of the school as an organization.

The underpinning assumption was that school is an important setting for reducing health inequalities through an approach that links health promotion and quality education simultaneously.

The project worked on three levels to reduce social inequality in relation to health opportunities.

1. School as an organization: a school that reflects quality and health elements in its processes and results will have positive effects for all stakeholders. Disadvantaged children and adolescents particularly benefit from a good and healthy school, which provides an environment in which deficits can be identified and rectified.
2. Project participation (processes): having opportunities to shape the environment can positively affect children's and adolescents' development, particularly in relation to self-efficacy, self-confidence and willingness to assume responsibility. Socially disadvantaged children and young people begin to recognize their own competence and gain more confidence.
3. Specific health interventions for pupils (behavioural prevention): the explicit promotion of health-related resources and positive behaviours can be assumed to have a positive effect on all students. Students who previously did not receive such interventions can be supported to gradually improve their personal and health-related skills and resources.

Theoretical background

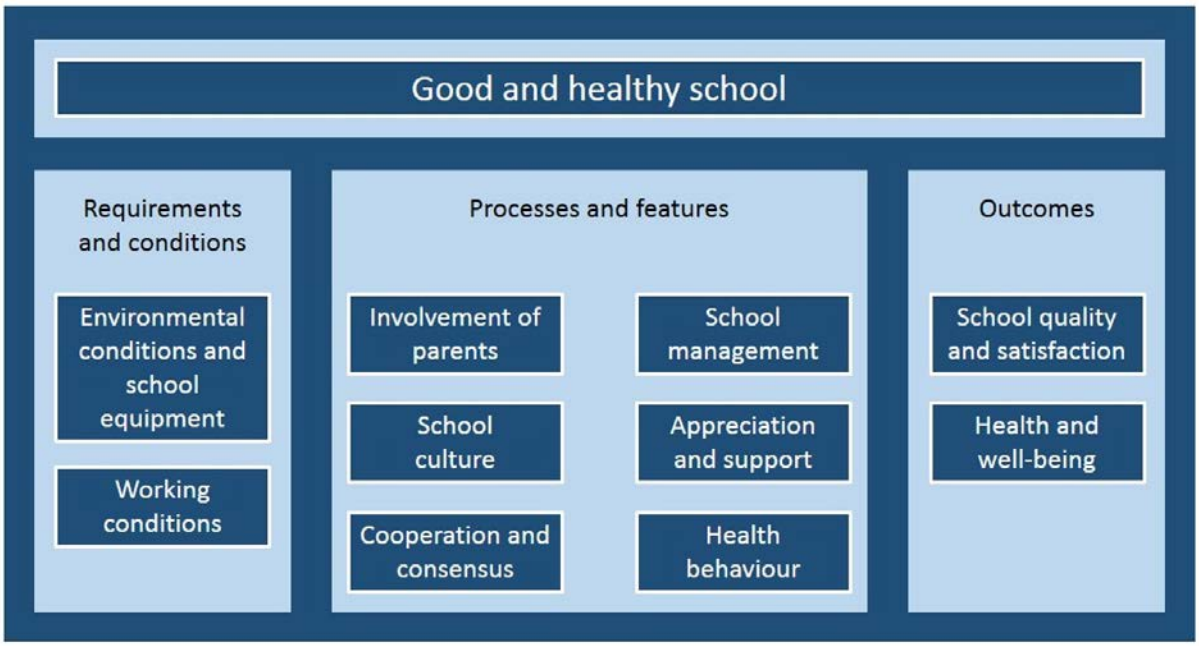
The project was based on the concept of the "good and healthy school", which describes a school that not only fulfils its education responsibilities, but also provides a healthy environment in which the school community can live well and learn optimally. Schools' primary responsibility, and the factor against which their performance is ultimately measured, is to educate, but promoting appropriate health behaviours and age-appropriate health characteristics (such as resilience, self-efficacy and optimism) supports the achievement of education objectives. The good and healthy school is committed to quality dimensions and uses health interventions to achieve its education objectives.

The objective was to support school-setting projects that promote health and education. The setting approach focuses on the conditions under which people live, learn, work and consume, going beyond the provision of information and training programmes to influence living and working conditions. The aims were to increase people's knowledge of health-promoting behaviours and create a positive environment in which the potential for good health and well-being is enhanced. It is therefore a particularly useful approach for reaching children and young people from socially disadvantaged families and can contribute to reducing social inequalities related to health opportunities.

Quality fields for good and healthy schools

All states are encouraged to develop a quality framework for schools to clarify expectations and demands, identify key areas of activity and explain relevant quality criteria. The quality framework for the project (Fig. 3.7.1) followed this frame of reference and provided guidance for schools on improving school health and enhancing quality. It also offered the basis from which schools chose themes on which to focus.

Fig. 3.7.1. Project quality framework



The framework assumes that school conditions (provision of equipment and appropriate space and working conditions, the quality of contact and relationships within the school, the school organization and individuals' health behaviour) have a strong effect not only on education outcomes and satisfaction, but also on health and well-being. It also assumes that these factors have a positive overall effect on children's and adolescents' healthy development. Performance, motivation and social skills are encouraged, with positive implications for professional and personal development, both of which contribute to health.

Method

The project method was based on three main principles.

1. Integral approach: behavioural and situational prevention
The organizational structure of the school should be designed to ensure a positive effect on the health of the school community ("situational prevention"). Specific health-promotion measures for students and teachers should be developed at school level to improve health-promoting behaviour ("behavioural prevention").

2. Self-determination
Changes are effective and sustainable if initiated and implemented by individuals. The project therefore has in-built flexibility: while it defines set methods and procedures, each school chooses its own priorities and themes. The principle of self-determination helps members of the school community to directly participate in their own change processes. Activities designed to create a good and healthy school are consequently experienced as meaningful and effective, and identification with the school increases individuals' motivation to achieve long-term success.

3. Participation
Teachers, pupils and parents should be involved continuously in decision-making and school-shaping processes. They perceive their views, wishes and expectations to be important and connect themselves with the development of their school.

The project pursued a two-stage approach to implementing these guiding principles. The first focused on creating a school setting that has a positive effect on the performance and health of all members of the school community. Organizational development provided the main focus for building a successful and healthy school, emphasizing the significance of relationships among stakeholders and the conditions under which they worked and learned. It aimed to create a pleasant and supportive culture of communication among stakeholders and to improve conditions for successful learning and working. Teachers and students had to participate actively: they decided for themselves how best they could improve their health and performance at school. Supported by training and external consultation and mediation, schools could discover which organizational areas could be improved and be enabled to develop appropriate measures to bring about change and improvements.

The second stage aimed to implement specific health-promotion measures for children, students, teachers and other staff. The focus here was on identifying and reducing health risks and strengthening health-promoting behaviours and resources. Intervention and prevention measures focused on specific health risks for students, such as nutrition and physical activity and prevention of alcohol abuse and bullying, but the decision on which themes to explore remained with the schools.

Actors and procedures

Schools

The project was open to all types of schools (primary, secondary, special and vocational), with a special focus on those in social "hotspots". Thirty took part between 2008 and 2010.

The project centre

Project management was provided by three professors from the Institute of Psychology and Centre for Applied Sciences of Health at the Leuphana University of Lüneburg (the "project centre"): Professor Dr Peter Paulus, leader of centre, Professor Dr Lutz Schumacher and Professor Dr Bernhard Sieland. Centre staff members from the fields of psychology, pedagogy and sociology supported the implementation process.

The project centre was responsible for:

- developing the concept;
- overseeing the school selection process;
- developing the evaluation;
- supporting schools in implementation;
- advising schools on specific health issues;
- providing training for school steering committee members and internal school moderators;
- promoting schools and the project among the public;
- providing research, training and consulting services for schools;
- building a knowledge base on specific health interventions;
- supporting networking between schools; and
- enabling cooperation with DAK regional offices.

Implementation

The project ran from January 2008 to December 2012, with each school participating for three years. Information about the project was presented to various partners, such as

ministries of education in participating federal states and regional health-promotion NGOs, one year before the project began in the schools.

The approach in schools followed the survey−feedback method, which has proven to be an effective, systematic and comprehensive development process in organizations and is also used successfully in school health promotion development. Fig. 3.7.2 shows the project approach in schools.

Fig. 3.7.2. Project approach in schools

Preparing for the project

This aimed to create the organizational framework for a successful start by focusing on the following steps:

- checking whether the schools had the required time, personnel and financial resources to implement the project;
- providing all school staff with an opportunity to vote on participation to confirm their support;
- creating a central steering committee at school level and preparing them to assume project management and coordination roles; and
- training internal school moderators.

Diagnosis: survey

It was important to collect objective and reliable information on topics such as quality and individuals' health status. The diagnosis was made in accordance with criteria for school quality in participating federal states, with the survey and evaluation being conducted by the project centre team. The team focused, if possible, on including all school groups (teachers, pupils, parents and non-teaching staff) in the survey. Survey results were presented to the school steering committee who, in partnership with the project centre team, defined strengths and weaknesses and possible areas for change. These findings were then presented to the school community for a vote.

Formulating goals and action plan

The aim was to develop a shared understanding of school problem areas requiring change through the following procedure:

- survey results were presented to the entire school community in a "kick-off" event;
- relevant areas and subjects for change were selected through a democratic process;
- working groups were formed for the chosen subjects; and
- the working groups commenced under the moderator's guidance, defining objectives with the steering committee and planning first actions.

Intervention phase: "work"

This phase involved the implementation, verification and amendment of various working group measures. The goal was to change specific areas of school life through concrete actions. First effects of the interventions were tested after 18 months through a survey and the implementation process was evaluated. These quality-control measures were necessary to optimize the implementation process and directly examine intervention effects. Particular emphasis was placed on:

- achieving working group objectives;
- promoting networking and exchange of information among the working groups and with the project centre team, school and external stakeholders;
- monitoring the effectiveness of the implemented measures; and
- providing further training for the steering committee and moderators.

Evaluation

This final part of the project is about sustaining positive results for the future by, for example, introducing new curricular activities to the school programme. The central issue is about evaluation of, and reflection on, the entire project and its effects. A differentiated survey of project processes and effects is being carried out by the project centre team as a final quality-control measure. Its particular focus is on actions that have been implemented for a sufficient time to be reasonably evaluated, are proving successful and are being adopted within the school programme or other fixed structures attached to the school. Activities that have been less successful will be subject to a more reflective process.

The final survey is aimed at the same groups who took part in the initial survey, thereby collecting information about changes that have occurred in the school. Results will be presented at a closing event for the school community at which the steering committee will provide an overview of how the school intends to deal with health and quality issues in the future. Ongoing reflection about the project is encouraged.

Monitoring quality

The surveys at the beginning, middle and end of the project involving students, teachers, other school staff and parents form the basis of control and evaluation of the project. Quality control features in the second and final surveys, providing information on important issues such as acceptance, participation opportunities, quality of communication and information flow that positively affect implementation of the change process. The approach supports project implementation and the ongoing contact it has created between participating schools and the project centre enables ongoing implementation review. Qualitative methods of process monitoring include regular school visits, telephone calls and protocol development.

Financing

Participation in the project was free for all schools, financed by DAK. Section 20 of the German Social Insurance Code states that health insurance companies have to include primary prevention in their statute with a view to "improv[ing] the general state of health and

contributing to the decrease of social inequality of health opportunities" *(6)*. All companies are therefore obliged to spend money on primary prevention for all their members every year.

Evidence

Project outcomes

Working group topics are shown in Table 3.7.1.

Table 3.7.1. Working group topics

Topic	Number of working groups
Environmental conditions and school equipment	18
Examples: building up opportunities to move in the schoolyard; establishing relaxation rooms; painting the school walls; noise reduction through structural changes in the school building	
Working conditions	21
Examples: improving personal work organization; ergonomic working stations; stress management	
Appreciation and support	2
Example: creating a feedback culture	
Cooperation and pedagogic consensus	3
Example: improving cooperation among school staff	
School management	13
Examples: improving information flow; improving organization of the school timetable; improving work organization	
School culture	41
Examples: promoting pupil participation; improving mutual respect; developing common school rules; addressing bullying	
Health behaviour and life skills	41
Examples: drug prevention; healthy nutrition; physical activity at school; teachers' health; pupils' self-esteem; exam nerves; students' school stress	
Parental involvement	4
Example: improving communication between school and parents	
Other	2
Fundraising and public relations	

The following conclusions can be drawn at time of writing (prior to the final evaluation), with 19 schools still actively working on project implementation:

- all schools have established working groups (five per school on average)
- 145 working groups have been established

- all working groups have formulated goals and worked in areas of school quality.

Intended outcomes are that:

- working groups' outcomes reflect their aims and objectives; and
- the final evaluation shows changes in various areas of school quality, especially in relation to the issues on which the school has worked.

There is as yet no information about how many project groups completed their work without achieving their aims and objectives, but there are many examples of schools where groups have successfully implemented exciting projects. Table 3.7.2 shows some examples.

Table 3.7.2. Working group examples

Topic	Examples
Environmental conditions and school equipment	Building opportunities for physical activity in the schoolyard
School culture	"One day for our health" Planning regular days for joint activities at school Antibullying workshops
Health behaviour	Fruit in schools weekly New sports groups
Students' school stress	Suggestion box Feedback sheets Training on how to learn Psychological advice for teachers on how to address students' fears
Life skills	Toolbox for teachers on how to develop pupils' social competence

No statements about changes in the various areas of school quality and on effects on social inequalities can be made, as they have not yet been fully evaluated.

Limitations

One of the project's goals was to improve students' experiences at school and their health-related behaviours through targeted work on relevant student issues. This was not easy to achieve, as the schools commonly chose teacher-focused topics or issues affecting school quality. The fact that relatively few students were invited to the "kick-off" events, at which the issues the school chose to address were defined, influenced this finding.

Student involvement in working groups and steering committees was also suboptimal: while the aim was to include them throughout the process, only a few schools achieved this consistently. Possible causes include the lack of student-friendly presentations of survey results, working group meetings frequently being held in afternoons (making student attendance difficult) and schools' lack of experience in engaging students as equal partners in decision-making processes.

The project also did not succeed in reaching the original target group. The aim was to focus particularly on schools in socially sensitive areas or with socially disadvantaged students, but this was not fully achieved. Possible reasons include not using the right wording to reach such schools at the recruitment stage (they probably focus on issues other than health and quality) and other pressures on teachers depleting their ability to sustain involvement in a

long-term project. Schools in areas of greater advantage, conversely, tend to focus more on issues such as school development and health promotion and have a named person expressly responsible for promoting health, meaning he or she is much more likely to be responsive to opportunities presented by health-promoting projects.

Specific aspects of implementation

The following aspects have been particularly significant in the practical implementation of the school projects.

Project management within schools

Chances of success are enhanced when the central actors controlling projects are school members.

School steering committees should represent all school groups, be highly credible and acceptable to the school population and have sufficient motivation, skills and contacts to drive the project positively. School management involvement in steering committees has been very important, as has parental and student participation.

The committee has overall responsibility for coordination of various activities and for:

- selecting priority areas for further development work;
- coordinating, supporting and promoting networking among working groups;
- securing resources;
- providing information about relevant external support options;
- evaluating specific activities and the overall project process;
- facilitating internal and external communication (including promoting activities, presenting achievements and exchanging information with other schools and external partners); and
- creating sustainable structures for further work on important issues for the school.

Steering group members are key figures. They are expected to act as role models, motivate the school community and complete essential project management tasks. Members should take part in two training programmes to prepare them for their roles in this complex project, one prior to the project launch and the other in the second year. These 1.5-day workshops offer solid theoretical and practical preparation on core issues such as motivation for change and development, information and project management, and promoting a feedback culture.

A close connection to the school administration is key to the committees' work. Many decisions concerning actions or structural change in the education process can only be taken by the school administration, so close coordination promotes the rapid progression of larger projects. Many schools consequently include the entire school management team (or a large part of it) in their committee.

Each school had to assign a contact person for the project centre to ensure regular communication between the steering committee and scientific project coordination at the Centre for Applied Sciences in Health.

Working groups and moderators

Working groups on selected topics were formed after the presentation of survey results in the schools. Their task was to develop specific measures to improve the situation in the selected

areas. For example, the initial survey at one secondary school showed poor eating habits among many students. They were consuming lots of fast food every week, very often had no breakfast before school and were taking only sweetened drinks. The school community decided to work on this issue at the "kick-off" event, and a working group on "Healthy eating and nutrition" was created.

Working groups are led by a moderator whose task is to focus the work and ensure the process develops as efficiently as possible. Moderators oversee the preparation and reporting of meetings, communicate with the steering committee and support efficient and successful working in the groups.

Moderators emerge from the school community. Interested individuals (teachers, pupils or parents) are trained for their work by the project centre over two two-day events focusing on issues such as moderation and communication techniques, project- and time-management skills and team-building methods.

Participation and collaboration

The project aimed to strengthen those involved, particularly children and adolescents, through its participatory approach. Student involvement was promoted at various levels, from the "kick-off" meeting, through voting on issues to be addressed, to membership of the steering committee and working groups.

Existing structures, such as mechanisms for identifying class or student council representatives, were often used as means to recruit students for voting and participation. This meant that students who were already involved in school activities tended to come forward, but there was a desire to also involve those who had not previously participated. Low-threshold options for selective participation and targeted invitations have proved effective in engaging these pupils.

Generally, only a few schools succeeded in sustaining student involvement, particularly in steering committees and working groups. This possibly reflects the nature of student participation in schools: while all schools have established formal class representatives and pupil councils, they very rarely have a real influence on decision-making. The project also showed that students found the pressures of, in particular, steering committee membership, where they were required to work in equal partnerships with teachers and parents (a situation that was not usual to many), a real challenge.

Active participation nevertheless enables students to develop awareness of their interests and how to articulate them. Students must be empowered through capacity building, but also through appropriate structures within the school that allow sustained approaches to meeting the challenges of participation.

Specialist and consulting services

Schools report that it has been particularly helpful for school-level project structures – steering committees, moderators and working groups – to have ongoing support from the project centre at Leuphana University. Consulting services for steering committees on project management and comprehensive school development processes, expert advice on the design of effective health-promotion activities for working groups and advice and support for moderators are being provided. Expert advice builds from current scientific knowledge in

relation to health risks and protective factors in key areas. Schools are also directly supported in implementing effective intervention measures through advice on suitable measures.

The fact that each school has a contact person for the project centre has been a real strength, enabling rapid and informed responses to questions about, or difficulties in, implementation from an expert who has good insight into the particular school and its projects.

The project centre has supported participating schools by:

- moderating 10 steering committee meetings in which specific issues about successful project implementation were discussed;
- preparing the three surveys, in partnership with steering committees;
- preparing major events to present the survey results, in partnership with steering committees;
- advising schools on selection of focus areas in which change could be effective and possible;
- consulting on project implementation at school (target topic(s), selection of appropriate methods, public relations, mobilization of project assets);
- researching and advising on health-related interventions;
- providing training sessions for various project personnel in schools;
- providing support, information and feedback to working groups;
- supporting public relations activities;
- advising on internal school issues arising from project implementation; and
- mediating in conflict situations, when necessary.

Communication between the project centre in Lüneburg and the schools is very strong, with regular phone conversations with the contact person to discuss current developments. A report template for working groups helps the schools to develop a good overview of the groups' activities; the reports also present an effective means of enhancing communication between the working groups and project centre, enabling rapid responses to problems.

Health insurance support

In addition to scientific advice from the project centre, participating schools also had access to DAK regional offices and financial support for specific activities.

DAK regional offices supported participating schools with advice, other offers on specific health issues and school exhibitions on subjects such as alcohol and smoking. They should become the schools' regional advisers on health interventions.

The project has shown that implementing health-promotion activities, providing training and making environmental and structural changes costs money that schools very often do not have. DAK therefore allocated specific budgets to schools that could be used during the project for health-related training, consultation and material resources.

Conclusion and recommendations

Experience to date from the first three years of the "Developing healthy schools together" model project suggests that while some elements have proven successful (provision of advice and staff training), others still need to be optimized (participation/involvement of students and parents).

It is important to emphasize at the outset something that may seem obvious: schools differ in their conditions, strengths and weaknesses, so an individual approach oriented to the requirements and needs of the school is necessary.

The following conclusions and recommendations can be presented from experience to date.

1. Connecting education, quality and health interventions in schools

Education is an essential resource for health and can reduce inequalities in access to health. School is the central place where learning, attitudes and behaviours are sharpened; at the same time, school is also a living environment that should not have an adverse effect on its community, but should ensure their well-being and healthy development.

Good schools provide high-quality education and a healthy environment. Health promotion at school should not be considered "an addition" to school development work. The project combined work on school quality with health-related issues, recognizing that both have positive effects on individuals' performance and health.

2. Adopting a target-group-oriented approach

It was difficult to involve schools in social "hotspots", with only a few participating. This suggested a need for change in how the project is presented to these schools, focusing specifically on their circumstances and needs.

3. Training schools' in-house experts

A central element in successful and sustainable project implementation was training teachers, pupils and parents as the school's experts in project management, organization and implementation issues for the working groups. This supports competency development and promotes long-term sustainability.

4. Promoting independence

The project was managed by the participants, meaning their identification with the project was very high and adopted approaches could be designed to focus specifically on the school's identified needs. Active participants could see the potential for change and take charge of the change process, developing competency levels in the schools and promoting long-term sustainability.

5. Defining participation and involvement structures

It was important to define specific phases in the project process in which the entire school community could be involved. Many schools are not accustomed to wide-ranging coordination processes involving the entire school community or parts thereof, so it was important to establish common voting phases in the project schedule.

6. Involving students

It is often very difficult to include students in decision-making processes and in working groups at school. Successful involvement very much depends on how actively the school has supported student participation in the past. Participation can increase students' self-efficacy and (social) competence, and working together on common goals will strengthen the community and promote social support: each of these can have a positive effect on social inequalities. Low-threshold services can motivate students who are less engaged in the school to get involved.

7. Involving parents

Involving parents in school development and health promotion has several advantages. Concepts developed at school can be carried into the family setting, for instance, and schools and parents can pursue similar themes in their educational work with children. Close collaboration with the school provides a good opportunity to exchange views on education issues and improve parenting skills, especially for disadvantaged parents or those with an immigrant background. Attempts to encourage the involvement of less active parents in school life should reflect parents' skills and potential, such as preparing a healthy breakfast for their children or contributing to craft and sewing projects.

8. Networking schools with local health system actors

The project promoted the use of external support services and networking with local actors in the health system, such as health insurance regional offices. Access to such services is being simplified for the long term.

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3.8. Reducing health inequalities in schools in Italy

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Context

School is a place where children engage in learning and competency development activities, but it also presents a social context in which various health determinants interact. It consequently has great potential to influence children's well-being and can be used as a preferred channel for health promotion. Collaboration between schools and the Servizio Sanitario Nazionale [National Health Service] in Italy can support schools to become places where health inequalities are challenged and healthy living promoted.

Italian policy in the past, however, has struggled to promote coherent multisectoral programmes to address social inequalities, with collaborative working among scientific epidemiologists and humanist-based sociologists not being sufficiently encouraged. This has presented obstacles to first recognizing, then developing effective means of investigating, the growing issue of social and health inequalities. In addition, health-promotion interventions in Italy have tended to be episodic and unidisciplinary in nature.

The challenge is how to systematically collect and measure socioeconomic variables associated with health determinants in the absence of longitudinal investigations of mechanisms generating health inequalities across the lifespan, and with disciplines' apparent inability to share knowledge, study methods, ideas and funds impeding integrated and coordinated research.

This case study presents descriptions of the most relevant health promotion joint projects taken forward by Servizio Sanitario Nazionale and schools and which aim to reduce health inequalities among school-aged children. It is hoped that it will stimulate ideas, suggestions and recommendations based on outcomes and evidence to date to inform social and health policy development in this area.

Approach

This section reviews the most relevant health-promotion projects focusing on childhood nutritional status and health inequalities factors such as SES, parents' education level and geographic distribution. It covers the years 2007−2010 and features children and young people aged 6−19 years (from first grade in primary school to the last year of high school).

"OKkio alla SALUTE" ("OK to HEALTH")

Background

In Italy, as in other European countries, the need to focus on children's nutritional status has been prompted by the recognition of obesity as a significant public health issue. Data from WHO underline an increasing childhood obesity problem *(1)*, with current prevalence some 10 times higher than it was in the 1970s. Twenty per cent of European children are overweight or obese, with a peak at around 6−9 years. The issue has negative implications for child health and presents a risk factor for diseases in adulthood. In addition, childhood obesity is predictive of obesity in adulthood.

Many regional or azienda sanitaria locale (ASL) [local health unit] studies based on direct measurements of children aged 6−9 have been conducted over the years, but they are not comparable due to the varying time periods involved and the use of different methods, age ranges and other factors. The only national data sources emerge from Italian National Institute of Statistics' surveys of health conditions and health service need, which show that 24% of 6−17-year-olds are overweight, with greater proportions being found in children with the lowest school grades and in the south of the country.

In view of the evolution towards a national surveillance system for nutrition and physical activity in primary-school children, the project "OKkio alla SALUTE" *(2)* aimed to develop an ongoing data-gathering process in schools to monitor obesity levels and promote public health interventions. It aspired to be sustainable over time for health and school systems and to offer effective guidance on public health interventions to reduce health inequalities among school-aged children and adolescents.

"OKkio alla SALUTE" was part of the "Promotion of healthy lifestyle and growth in primary-school children" project. It was launched in October 2007 by the Ministry of Health and coordinated by the Unit of Woman, Child and Adolescent Health of the National Institute for Epidemiology, Surveillance and Health Promotion. The aim was to develop a means to allow data on the nutritional status, anthropometric parameters, dietary habits and physical activity of children aged 6−10 years to be gathered. The project was part of the "Promotion of healthy lifestyles and growth in primary-school children" initiative promoted by the Italian Ministry of Health/Centre for Disease Control in collaboration with the Ministry of Education and taken forward in collaboration with the WHO European strategy for the prevention and control of NCD *(3)* programme and the national prevention plan. It was coordinated by the Italian National Institute of Health *(2)*.

Intended outcomes

Surveys set out to:

- describe trends in the nutritional status of primary-school children over time;
- consider the influence of the school environment in promoting a balanced diet and physical activity; and
- identify evidence-based actions to reduce health inequalities among school-aged children and adolescents.

Materials and methods

The first phase consisted of annual surveys of representative school population samples. The second saw schools being provided with information and support to encourage them to take part in effective health-promotion projects focused on children's health needs. Surveys involved children in third grade (8-year-olds). The selected sampling method was the cluster survey design (a system endorsed by WHO and used in similar international study designs) and the sampling unit was the school class. Sample selection was made by ASL from a list of all third grades provided by provincial school offices.

Four instruments were used to gather information:

- anthropometric cards on which weight and height were recorded by ASL personnel
- school questionnaire, completed by the school head
- children's questionnaire, filled in by the children during class (not compulsory)
- parents' questionnaire (not compulsory).

Teachers of selected classes were invited to attend a preparatory meeting with ASL health personnel to organize the data collection, explain the objectives and survey methods and secure collaboration. The teachers were asked to give parents an information sheet from the National Centre for Epidemiology and a form on which they would provide formal consent for their child's/children's participation. These were handed to pupils to pass on to their parents at least five days prior to the survey in the class. Only children whose parents agreed to their participation in writing took part.

Children then completed their questionnaires, with ASL personnel on hand to clarify any queries or concerns. After administering the questionnaires, ASL personnel measured the children's weights and heights. School heads filled in a questionnaire with details of any elements of the school structure and environment that might influence children's health. The questionnaires were handed in on the day the measurements were made in the respective schools.

ASL personnel entered the collected data into a National Centre for Epidemiology database that allowed aggregation and analysis by ASL or region, depending on the representative level selected for the sample. Results were analysed at regional and national levels within a few months of data being gathered.

"ZOOM 8"

Background

The Health Minister and Centre for Prevention and Control of Diseases selected the National Centre for Epidemiology to coordinate the project "Behaviour risk factor surveillance system in the 6−17-year-old age range" as part of the WHO European strategy for the prevention and control of NCD *(3)* programme. "ZOOM 8" *(4)* was a part of this initiative.

"ZOOM 8" aimed to perform a more in-depth evaluation of the the dietary habits and physical activity of primary-school children and the role of the health services in geographic areas with different level of childhood overweight and obesity as identified through the "OKkio alla SALUTE" surveillance system, which had produced evidence of an alarmingly high prevalence of obesity and overweight. Large differences were identified among areas, with the highest prevalence being observed in southern regions and the lowest in the north. There was evidence of huge health inequalities relative to the child's area of residence.

Intended outcomes

The aim was to provide and validate easy-to-use tools to gather and analyse data on nutrition and physical activity behaviours for large-scale use within the framework of a national surveillance system. General objectives were to:

- search for adjustable risk factors associated with overweight and obesity, including nutrition and physical activity behaviour aspects and familial and environmental factors, in school-aged children aged 6−17 years; and
- gather accurate information on risk factors for the main chronic degenerative diseases (diet, physical activity, tobacco and alcohol use) to reduce health inequalities in different geographic areas.

The same methodology was used in all regions.

Materials and methods

The study involved 2193 children and their parents (north 743, centre 708, south 742) selected on the basis of a preliminary classification of Italian regions into low, average and high prevalence of overweight and obesity. The six regions involved in the study (two for each category) were Friuli Venezia Giulia, Liguria, Marche, Lazio, Calabria and Sicily. Data gathering within the schools was performed during 2009/2010 by highly trained ASL health personnel trained by the National Institute for Food and Nutrition Research *(5)*.

"Scuola e cibo" ("School and food")

Background

This project, sponsored by the Minister for Education, will be fully operative after a pilot phase and will last for three years from the 2011/2012 school year.

Pupils from primary, middle and high schools will participate in a programme that aims to underline the importance of following a healthy diet and lifestyle. It will focus on elements such as times of food intake and will include information on agricultural and industrial food production processes. Physical activity will also be increased.

A pilot was carried out among fourth- and fifth-graders in 15 primary schools in Milan, Rome and Catania during 2009/2010. Children were taught about food quality and ways to control intake and were encouraged to take part in physical activity, reflecting initiatives taking place throughout Italy, such as the "Green Games" in Rome. Here, hundreds of children and their parents rediscovered the pleasure of outdoor sport in the surroundings of the Villa Borghese and sampled healthy food, with yogurt and milk provided by the Parmalat Group, the sponsors of the event.

Intended outcomes

This interdiciplinary project aims to promote nutrition education within school curricula, introducing the subject of healthy nutrition. All science, history and geography teachers will be involved following attendance at a summer training course.

The project will include citizenship and constitutional issues related to nutrition safety and will be presented for admittance to Milan World Expo 2015, an exhibition dedicated to nutrition topics.

Material and methods

The programme was extended to all primary-school fourth and fifth grades during the 2010/2011 school year, with plans to further extend to all middle schools in 2011/2012 and high schools in 2012/2013. It will reach universities in 2013/2014.

Regional school offices will be actively involved by providing training for school heads and teachers and through fundraising with organizations across the food and nutrition system. An "open day" dedicated to topics connected with nutrition will be arranged once a year with the cooperation of the External Affairs Minister and the Food and Agriculture Organization. The Minster of Education has appointed a technical−scientific committee consisting of professionals from the food sector to implement and assess the various project phases, ensure active teacher involvement and organize regional meetings.

Developing relationships with families has been a key consideration throughout the planning and implementation phases, reflecting the project's identity as a "creative cultural space" made up of a symbolic equilateral triangle representing pupils, teachers and families.

The project introduced a reference model for school nutrition education that is gradually becoming part of the Italian education system, contributing to nutrition education activities in each school community and in the national school framework.

"Scuola e salute" ("School and health")

Background

This national project, established to promote the objectives of the WHO European strategy for the prevention and control of NCD *(3)* and within the framework of the three-year plan for students' well-being, aimed to improve children's health, eliminate social inequalities and ensure national health system continuity and sustainability for school-aged children's health services. It was connected to a government-sponsored intersectoral campaign and programme that aims to reduce tobacco use, increase fruit and vegetable intake, reduce alcohol abuse and consumption of hypercaloric food and beverages, and encourage physical activity.

Alliances were developed with schools to enable children to acquire the necessary competences to practice and maintain healthy behaviours. School's influence on children's lifestyles and health behaviours is well recognized: after family, school represents the main vehicle for provision of reliable scientific information, warnings about negative social pressures and messages around food, and support for making informed choices.

Intended outcomes

The project had systemic and specific objectives. Systemic objectives were to:

- encourage integration of the public health and school sectors to support health promotion in schools and increase collaboration with communities;
- support joint local action in the framework of the NCD strategy and the student well-being plan;
- strengthen networking among regional and provincial schools and the ASL;
- create consistency within and between regions in addressing inequalities through effective health-promotion programmes;
- share methods and strategies aimed at promoting health; and
- implement a national information system.

Specific objectives, inspired by the NCD strategy programme and student well-being plan, were to:

- share guidelines from these two initiatives;
- analyse the "state of the art" of school interventions and disseminate good practice; and
- share methods and strategies to transfer good practice into different local contexts and monitor their development.

Material and methods

One of the methods used was peer education, which aims to develop students' life skills and behaviours to help them make healthy choices. Peer education is a valid tool which, starting from childhood, provides young people with knowledge, abilities and competences to enable

them to develop into "global citizens" involved positively in social life and capable of choosing appropriate strategies to address daily life problems, pressures and stress.

The project ran from 2007 to 2010 and started with a pilot involving five regions before being extended to the whole country in two phases: the first consisted of training for health and school personnel, the second was organized into class games and activities, including:

- laboratories to help children learn more about (and taste) healthy foods they did not claim to like, such as fish and vegetables;
- the introduction of colourful fruit salads in canteens rather than single pieces of fruit;
- an instructional kit on effective oral hygiene; and
- specific projects against tobacco use that also involved parents.

Evidence

According to WHO *(6)*, health promotion evaluation is "an assessment of the extent to which health promotion actions achieve a 'valued' outcome". It also provides measurements to support decision-making and enable comparisons with standard criteria, usually coinciding with intended outcomes.

For the future, health promotion needs further conceptualization in relation to linking theories, methodologies and good practice. The problematic nature of evaluation methodologies as they relate to health promotion makes it difficult to assess context, structure, process and outcomes of projects.

"OKkio alla SALUTE"

The project proposed a data-gathering system to follow the evolution of primary-school children's nutritional health and physical activity status. After data were collected, some aspects underwent process evaluation to identify successful intervention elements that could be further improved before introduction across all primary schools. The evaluation process was organized in three sequential steps:

1. distributing evaluation questions among the identified target groups for implementation of the intervention;
2. selecting and implementing appropriate methodologies to gather answers to evaluation questions; and
3. consolidating data from different local communities (ASL and regions) to create a national evaluation process framework for the intervention.

Two tools were used for the evaluation questions:

- a standardized, semistructured, self-administered questionnaire for target group participants; and
- a strengths, weaknesses, opportunities, threats (SWOT) model, a simple strategic tool for use within a context in which decision-making is necessary to continue a public health intervention.

Surveys were conducted between 2008 and 2010. Eighteen of 21 regions participated in the first data collection in 2008, with 45 590 children completing questionnaires and being measured (the refusal rate was 3.4%); 2461 school heads and 46 469 parents filled in questionnaires supplying further information on children's lifestyles. Statistical analysis of SWOT charts was performed in 12 regions.

The final evaluation showed that the intervention achieved its intended outcomes. The variables of major interest for estimating nutritional surveillance were generally accurate, in some cases more precise than was predicted during sample-size calculation. After fixing the precision level equal to ±3%, the possibility of reducing sample size can be predicted to improve efficacy and diminish surveillance costs.

Participants considered the questionnaires to be clear and easy to complete. The children's questionnaire was judged so by 82%, the parents' by 86% and the school questionnaire by 93%.

The "cascade" structure, which included a basic "training the trainers" model in the regions, appeared to be effective, although formal statistical analysis requires a longer intervention period.

"ZOOM 8"

Parents' participation in the intervention was very high, although the numbers of parents from low-SES backgrounds and those who were recent immigrants was disproportionately small. Ninety-two per cent gave consent for their children's participation and completed the questionnaire.

The "ZOOM 8" results will hopefully provide ideas for future interventions with specific health objectives. The collaboration created with schools has strengthened the expectation that actions and interventions aimed at improving children's and young people's overweight and obesity status will continue: this was also a finding in data from the "OKkio alla SALUTE" surveys.

Overweight was found in 23.6% of children (confidence interval (CI) 95%: 23.0−24.2) and obesity prevalence was 12.3% (CI 95%: 11.9−12.8), meaning 36% had excess weight.

Wide variability in prevalence was found across regions, with higher values in the south. These data were confirmed by the "OKkio alla SALUTE" surveys, which found:

- north: overweight 20.2%, obesity 7.5%
- central: 23.7%, 9.9%
- south: 25.9%, 17.2%.

Similarly, the "ZOOM 8" survey reported:

- north: overweight 22.9%, obesity 5.9%
- central: 23.4%, 10.2%
- south: 27.1%, 13.5%.

A strong association between children's weight status and mothers' education level was found. The percentage of children with overweight and obesity whose mothers were working full time was 35.6%, part-time 33.4%, and unemployed 38.8%. As the "OKkio alla SALUTE" surveys had indicated, unhealthy nutrition attitudes were found to be influenced by family customs, low SES, food costs and advertising. Skipping breakfast and eating only small amounts of fruit and vegetables daily appeared more common among children whose parents had low education levels and incomes.

Sedentary behaviours such as watching television and playing videogames was widespread, while taking part in daily physical activity was uncommon.

Parental questionnaire returns enabled the "ZOOM 8" survey to recommend that:

- nutrition education programmes at school should be increased;
- information and education materials on healthy nutrition should be addressed to parents;
- advertising on packaged products should be reduced;
- numbers of cycling tracks should be increased;
- physical activity hours within school timetables should be increased;
- public facilities for outdoor and indoor sports should be promoted; and
- admission prices to these facilities should be reduced.

"ZOOM 8" shows that population surveillance is an essential tool in implementing programmes aimed at addressing overweight and obesity in Italy and worldwide.

"Scuola e cibo"

This programme underlines the importance of using a systematic approach to promote efficacy. It proposes a didactic model for nutrition education in schools across Italy and introduces the cycle of change model *(7)* as an evaluation tool:

- conscious acknowledgement (intention)
- decision balance (attitude)
- attitude modification (activity)
- step back (verification).

"Scuola e salute"

This cross-government project had systemic and specific objectives related to the NCD strategy programme and the national plan for students' well-being. Some process results and standard indicators emerged as part of the evaluation plan to enable assessment of the intervention's efficacy.

Conclusion

The surveys and projects described above displayed a sensitivity to perceiving child health and well-being as having physical, mental and social components. This holistic perspective is widely accepted and calls for health promotion to ensure scientific exchange and professional integration between sociological and epidemiological disciplines. Multidisciplinary and interdisciplinary projects will have to focus on developing good practice to ensure deeper knowledge of the complex theoretical problems around social inequalities in relation to access to education and better health. It nevertheless remains challenging to develop appropriate methodological tools to address these issues.

Health inequalities at school are on the agenda of the Italian Government and steps have been taken to address them. There are some signs of progress, but much remains to be done, including:

- overcoming bureaucratic obstacles at national level
- improving joint working among schools
- ensuring appropriate measures of performance and progress
- improving monitoring arrangements for each school intervention.

The evidence cited above should inform future generations of scientists and sociologists in Italy and encourage them to cooperate through an integrated network that informs the development of policy focused on reducing social and health inequalities.

In addition to other strategies, such as adopting an inclusive social policy, schools should aim to introduce intercultural initiatives to address social fragmentation. The current social diversity in Italy, which has grown through increased inward migration in recent years, has to be factored into all decision-making processes at school level. This could be achieved through establishing long-term policies that reflect schools' position as the first stage at which cultural and intellectual exchange takes place. Making schools welcoming to foreign and socially disadvantaged pupils should be addressed as an urgent priority, with each pupil being encouraged throughout their lives not to abandon education, but to adopt lifelong learning attitudes. The health-promoting school approach promotes the concept of inclusion and aims to make schools places in which everyone can develop their confidence and show respect to one another.

Municipalities, provinces and regions should be linked to state and European institutions not only in theory, but also at a practical level through more cooperative health-promoting networks. The Italian Government has acknowledged positive aspects within the current school framework, but has also noted the non-inclusive and fragmentary nature of many health-promotion actions. To ensure more effective outcomes, health-promotion interventions in schools should focus on evidence-based practice: peer education, cooperative learning and life-skills education are approaches that show promise. Health promoters require access to basic training to implement new and effective education intervention models to facilitate healthy choices in increasingly eclectic societies.

Closer integration of research methods and sociological approaches is required now more than ever to identify and eradicate the root causes of health inequalities among school-aged children. A health-promoting schools network should be developed to focus on reducing social and health inequalities by developing central and local policies, supporting school administration and management teams, and identifying common objectives and strategies.

A north−south gradient in health and education, which manifests in wider access to school health promotion and consequently better health, is evident, with northern and central regions faring better than southern. The rate of overweight and obese children in the southern regions of Italy is among the highest in the EU.

It is hoped that the projects and surveys described here, which emphasize the importance of integrated health promotion within all sectors (including public health, school and political) may support the development of new cross-sectoral projects supported by broader policies and practices. Most important, every sector, but especially the school sector, should maintain engagement with children and ensure that health inequalities are reduced by tackling current and future health challenges.

In summary, central government and regional and local health authorities should consider:

- improving cooperation and joint projects among schools;
- promoting interdisciplinary integration and scientific exchange among various sectors (public health, school, political, sociological);
- designing appropriate performance and progress measures for school interventions;
- improving evaluation of each school intervention;

- implementing inclusive social policies focused on reducing health inequalities;
- introducing intercultural initiatives to address social fragmentation;
- removing economic obstacles preventing children's full development and effective school participation;
- valuing intercultural differences and building confidence and respect among children;
- connecting municipalities, provinces and regions with each other and with state and European institutions;
- promoting networking within and between European countries;
- developing models of peer education, cooperative learning and life-skills education; and
- facilitating healthy choices in the school canteen menu.

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3.9. Health-promoting schools in Lithuania

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Context

The health-promoting schools (HPS) approach is multidimensional. This case study focuses on elements of HPS activities related to policy and strategy development at national, local (municipal) and school levels in Lithuania.

Lithuania joined the ENHPS,[9] a tripartite partnership involving the Regional Office, EC and CoE, in March 1993, with 10 schools. By 2013, 317 certificated schools had joined, including preschools, kindergarten, primary, basic and secondary schools, gymnasiums, youth, vocational, rehabilitation and special schools, and even universities. There were 1328 general education schools of various types in the country in 2013.

Education system

General education

Lithuania has a 12-year general education system. By law, children start attending form 1 from the age of 7 years, or from age 6 if parents wish it and the child is sufficiently mature to study under the primary education programme. Compulsory primary education lasts 4 years and is offered in kindergarten, primary and basic or secondary schools.

Pupils start the 6-year lower secondary education programme, offered at basic, secondary, youth and vocational schools and gymnasiums, upon completion of primary education. Education is compulsory to age 16 and is usually provided up to form 10 (form 2 of gymnasiums).

Upper secondary education, provided in secondary and vocational schools and gymnasiums, is not compulsory and is usually provided for 2 years (forms 11 and 12 in secondary schools and 3 and 4 in gymnasiums).

Early childhood education

Lithuania has two kinds of early childhood education, in addition to statutory schooling. Preschool education for children aged 1−6 years is generally provided only at parents' request, but it can be compulsory for individual children who live in families considered to be at social risk. It is provided by public and private nursery kindergartens, kindergartens and kindergarten schools.

Pre-primary education is provided for a year at parental request to 6-year-old (exceptionally, 5-year-old) children and is intended to prepare them better for school entry. Pre-primary education groups are established in kindergartens or schools, with different patterns of provision – a few days per week or at weekends, for example – being found in different municipalities.

[9] Renamed SHE in 2007.

Non-formal education

Pupils can choose various leisure activities after classes, provided in schools free of charge, or attend separate lessons outside school.

Special education

Special education is provided in preschool and general education establishments of all types, with general education programmes being adapted to take into account pupils' special needs.

Post-secondary education

Pupils who have completed secondary education can choose studies in vocational schools or in a higher education institution, such as a college or university.

Ministry of Education and Science

The ministry's main goal is to implement the national system of formal and non-formal education in accordance with national policy by:

- setting out requirements for state-run and municipality schools;
- approving the general curriculum content for formal education and monitoring achievement levels; and
- organizing and coordinating accreditation of the secondary education programme.

Municipalities

By law, municipalities:

- implement national education policy in their own area;
- approve strategic education plans and a general plan for structuring the school network;
- maintain the network of preschools, pre-primary, primary, basic and secondary schools; and
- ensure the environment necessary to provide compulsory education.

They are also responsible for the education of children with special needs.

Health services

All types of education institutions have health services provided by professionals drawn from different sectors, including schools, the public health bureau and primary health care services. Education and public health legislation requires that health care is oriented towards health promotion and disease and trauma prevention and takes social determinants of health into account. Health care professionals in education settings work according to their own plan, which forms part of the school's plan. Municipalities enact national health policy in their own areas and have a degree of autonomy: they can, for instance, decide to reduce the number of pupils assigned to health staff.

Two thirds of the cost of health care in municipality schools is met through the compulsory health insurance fund, on the condition that the municipality agrees to find the remaining third from its own budget. The amount of funding is calculated by number of pupils.

Schools are involved in planning their education and health-promotion offers at local level, so can choose activities and forms of provision that correspond to their needs and capacities.

Approach

Since adopting the HPS concept, Lithuania has chosen an approach that is:

- integrated in terms of information, action, research, stakeholder engagement and resources; and
- sustainable, in that it is comprehensive, systematic and system-wide.

Integration of information

Health and education sectors at national and local levels reached consensus at the beginning of the development of the HPS approach, identifying partners from each sector. Involvement of partners' institutions was important, as they have different experience, knowledge and understanding of shared issues, and pupils and young people's active participation provided a source of new ideas.

Practical examples

The Lithuanian Centre for Non-formal Education of Pupils (known prior to 2012 as the Lithuanian Centre of Young Naturalists) is one of the largest non-formal state education institutions. It focuses on natural sciences, enabling pupils to express themselves, improve their practical skills, develop their personal values and attain positive civic attitudes. It also provides professional support for teachers.

The centre oversees the national phase of the annual EU competition for young scientists organized jointly with partners and the Ministry of Education and Science *(1)*. Categories tend to be organized around the main branches of science, such as biomedicine, chemistry, social science, technology, informatics and biology, but the category of "public health" has been one of the most popular since its introduction in 2000.

Analysis of report summaries on health and its determinants for the EU competition and the author's experience of working as a member of the judging panel for over two years indicate that health and its determinants:

- is proving increasingly interesting to pupils and teachers
- provides a source of new ideas for researchers, decision-makers and practitioners
- may be an indirect indicator of the positive effect of HPS processes.

Pupils and young people from forms 7−12 presented 301 pieces of work in the public health category between 2000 and 2011, comprising 23.4% of presentations across all 11 categories. The pupils came from different types of education institutions – gymnasiums (43.9%), secondary schools (42.6%), basic schools (9.5%) and youth and vocational schools – and several projects were carried out in non-formal education settings. A total of 148 schools from cities, regions and rural areas in more than half of the country's municipalities have taken part. Typically, teachers provide supervision and there is an increasing tendency to engage a consultant for professional advice.

Examples of projects are presented below.

"Alcohol use among girls"

Form 10 pupils from the Julijanavos secondary school in Kaunas presented work on this in 2007. Pupils and social workers visited isolated families living in the school district, identifying girls who did not attend school and who were involved in alcohol abuse with their families. One pupil identified a girl from her school who was using alcohol every day. She

informed the school social worker, who visited the girl's family and finally succeeded in arranging support from a psychologist.

"The features of health indicators and lifestyle of pupils"
This project was carried out over 2005 and 2006 (reported in 2007) among form 11 pupils from Smilgiai secondary school in Panevėžio district. It actually began in 2004/2005 but was extended to enable results to inform the preparation of a comprehensive school health-promotion programme.

"Is there a risk to our health in using solariums?"
Pupils of form 11 in Kėdainiai Atžalyno secondary school completed work on this theme in 2009. The goal was to raise public awareness of the health risks of solariums, which had become increasingly popular in Lithuania, especially among young people. Boys and girls from forms 9−11 in urban and rural areas who were using solariums were interviewed. Their knowledge about regulations and effects on health and their reasons for using solariums were summarized and presented to the school community.

"The effect of Internet-based social networks on the socialization of pupils in forms 9−12"
Pupils from the Kaunas technological gymnasium carried out the project in 2010, involving 154 children and young people from different social groups. Discussion groups and questionnaires were used to identify the principal motives that stimulate pupils to join social networks and examine virtual communication's effects on their value systems and socialization processes. Results were presented to the school community, and a public discussion was organized.

Work from the Gargždai Vaivorykštė gymnasium in Klaipėdas district includes the following.

"Vicious circle of depression"
This 2001 project involving form 2 aimed to determine whether gymnasium pupils experienced low mood or suffered from stress and, if so, identify causes.

"Aggression and cruelty – the consequences of psychosocial deprivation"
This initiative was presented in 2003 by pupils from form 4. A specific incident in the gymnasium was the starting point for exploring the causes of violence. The investigation involved interviewing 100 pupils from the gymnasium, 100 from forms 5−8, 50 primary pupils, 100 parents and grandparents, 20 teachers and 26 pupils from at-risk groups from the Minija secondary school. The results were presented to the gymnasium community.

"Different from everybody"
As the name suggests, "Different from everybody", presented in 2004 by form 4 pupils, aimed to explore issues that determine community alienation and the feelings of pupils who perceive themselves as alienated. Pupils from forms 5–8 and gymnasium forms 1−4 and gymnasium teachers were surveyed and interviewed.

"Pupils with special needs"
Form 1 pupils presented this work in 2005. The aim was to identify difficulties faced by high-achieving pupils and those with learning difficulties and special needs. It also looked at how safe they felt at school and their feelings more generally. Pupils from forms 5−8 and gymnasium forms 1−4 from the school and two other secondary schools were surveyed and interviewed, with results being presented to gymnasium pupils and teachers.

“A safe pupil – a healthy individual”
Presented in 2006 by form 2 pupils, the aim was to explore if all pupils in the gymnasium felt safe (meaning they were not facing physical, emotional, sexual or virtual violence) and to evaluate whether the learning environment was sufficiently safe and healthy. Pupils and teachers were involved, with results being presented to the gymnasium community.

“A safe environment – a safe pupil”
This related project was presented in 2010 when pupils from all schools in the district started to attend the gymnasium. The aims were to explore how this change influenced their sense of safety and compare findings with results of the “A safe pupil – a healthy individual” investigation. One hundred and twenty-two pupils from forms 7 and 8 and 178 from gymnasium forms 1−4, 60 parents and 30 teachers took part by responding to a questionnaire. Results were presented to the gymnasium community.

“Changes in pupils’ attitudes to health and healthy lifestyles”
The results of this 2003 project were presented and discussed during lessons on physical education, biology and healthy lifestyles.

“Subjective health status among gymnasium pupils”
Pupils who carried out this study in 2003 used their results to offer suggestions to the gymnasium community about how to improve educational processes and afterschool options. Results were also presented and discussed at a meeting of the teaching council and were used to support the gymnasium psychologist, who at the time had been working in the school for less than a year.

“The changing demographic picture in Lithuania”
This 2011 investigation analysed the situation of pupils in the Tauragė region who had been left behind by parents who had emigrated.

The themes of some other projects are shown in Table 3.9.1.

Table 3.9.1. Some project themes

Year	Theme
2002	“Fatigue and its causes in different classes”
2005	“The adaptation of first-year gymnasium pupils”
2006	“Termination of pregnancy: is it achievement or loss?”
2007	“Advertising – does it assist us in choosing what to buy, or is it just a trick?”
2008	“The effect of headphones on schoolchildren’s health”
2010	“The dynamics of the indications of anxiety and depression expressed by students in the 2009/2010 school year and their links with learning outcomes”

Integration of actions
Multidisciplinary and interdisciplinary actions have been undertaken at national, local (or municipal) and school levels, with different actions implemented in different schools. They have encompassed formal and non-formal education settings and guidance documents have provided a framework for implementation at local and school level.

Practical examples

National level

The preamble of the preschool and pre-primary education development programme for 2011–2013 states: "There is clear evidence that the participation of institutions in the national HPS network creates conditions that are more conducive to children's health" *(2)*. Explicit indicators to measure the success of this programme include:

- no fewer than 200 specialists from preschool education institutions developing the HPS by preparing a plan and evaluating the results; and
- a 5−10% increase in the proportion of preschools and education institutions taking part in the HPS national network or implementing systematic health education within the general curriculum.

The preschool, primary/basic education and secondary education general curricula, approved by the Minister of Education and Science respectively in 2002, 2008 and 2010, are essential features of formal education. They state that the main purpose is to develop children's and young people's general competences as components of all subject-specific competences, supplemented by integrated programmes such as "Health and life skills".

The main aims of this programme are to develop pupils' personal and social skills in maintaining their health and preparing them for life outside the school in a rapidly changing world. It is integrated into non-formal and formal education and can be applied when schools implement specific projects with preschool children, pupils in primary schools, those in forms 5−8 and older children in forms 9 and 10.

"Health and life skills" was developed by a team from the HPS initiative in Lithuania in 2002. Team members decided at their first meeting that the best way to ensure life-skills education was embedded within the national curriculum was to form mixed groups led by specialists from the Curriculum Development Department of the Education Development Centre in the Ministry of Education and Science, whose members had been trained on life skills at seminars held in Latvia in 1999 and 2000, and that materials on life-skills education should be developed for all ages, including preschool. These materials were subsequently developed through joint funding from UNICEF, the Joint United Nations Programme on HIV/AIDS and the Regional Office, with support from the ENHPS technical secretariat.

A multidisciplinary group of specialists approved by the Minister of Education and Science developed a programme on the prevention of abuse of alcohol, tobacco and other substances affecting the mind *(3)*. The programme is based on collaboration among schools, families and specialists and is implemented according to general (primary) principles of prevention. Content is adapted to each age group, covering preschool, pre-primary, primary, basic and secondary education.

Local (municipal) level

The Daukšos secondary school (which is now a basic school) in Kėdainiai district joined the national HPS network in 1999. After gaining experience in health education, the basic school was designated as a health education support centre. It now collects in the school library all the methodological material, information, video sources and examples of good practice in Lithuania, making the resource available to all schools in Kėdainiai district.

Kėdainiai municipality prepared a public health strategy for 2004−2010 in 2003. The main purpose was to create a community health model to mobilize the efforts of all institutions.

One of the four aims was to develop the HPS network in the municipality, and steps have been taken to meet HPS aims.

School level

Health education in the Vytauto Didžiojo Universitetas Rasos gymnasium in Kaunas has developed since the gymnasium joined the ENHPS as a pilot school in 1993. Planning and integration of education content and distribution of responsibilities among staff are now considered prerequisites for delivering health promotion. The direction of health education is determined through its integration with the whole education process *(4)*.

Ryto primary school in Kaunas adopted the HPS concept in 1999. The school programme on health education and promotion for 2008–2012 aimed to implement priority actions from the general school strategic plan for 2004–2012 by focusing on developing new competences, creating a more appropriate learning environment, providing continuing development opportunities for school staff and promoting pupils' physical and mental capacities. Its success is evident in results from the school self-assessment, which showed that 95% of pupils had taken an active part in extracurricular physical activities, 84% had indicated that they liked the school and wanted to spend more time there, and only 3% had disliked school. The school uses these results to inform its strategic planning.

Research integration

Research integration means undertaking multidisciplinary and interdisciplinary studies. The focus at national level has been on involving researchers from different institutions working across health, education and psychosocial fields. The multidisciplinary nature of research teams has been important to a range of developments, including undertaking specific studies (such as HBSC), preparing new resources and ensuring accurate translation of existing materials into Lithuanian, formulating and evaluating interventions and providing training and seminars for school communities.

Research integration is characterized by the use of a wide range of methods, including participatory action research, theory-based research, formative research (pre-testing), documentary analysis (for developing self-evaluation health-promotion models for schools), and process, impact and outcomes assessments (notably for assessing the efficiency of health-promotion interventions in pilot schools).

Practical examples

Institutions involved in implementing HPS activities are shown in Table 3.9.2.

A model for the self-assessment of health promotion in schools was developed between 2004 and 2006, involving close collaboration among the State Environment Health Centre, Molėtai Education Centre and schools from Molėtai municipality. Collaboration based on partnership between researchers and practitioners was a strong feature of the development process, allowing successful progression of the model.

Table 3.9.2. Main institutions involved in implementing HPS activities

Former name	Current name
Social Paediatrics Department of the Biomedical Research Institute and Psychosocial Research Laboratory of the Cardiology Institute at Kaunas Academy of Medicine	Lithuanian University of Health Science
Vilnius Pedagogical University	Lithuanian University of Educational Sciences
Šiauliai Pedagogical University	Šiauliai University
Kaunas University of Physical Culture	Lithuanian Sports University
National AIDS Centre	National Centre for Communicable Disease and AIDS
National Centre of Nutrition and State Environmental Health Centre	Centre for Health Education and Disease Prevention
	Centre of Psychological Counselling for Schools
Curriculum Development Department of the Education Development Centre and Teachers' Professional Development Centre	Centre of Education Development
	Department of Psychology, Faculty of Social Science of Kaunas Magnus University
	Faculty for Health Science, Klaipėda University
	Institute of Hygiene
	Philosophy Faculty, Vilnius University

Integration of stakeholders

Initially, the main feature of stakeholder integration was the joint agreement between the Minister of Health Care and the Minister of Education and Culture.[10] Close contacts have been made at national level with the National Health Board, which is accountable to Parliament for coordinating health policy and reporting on the health status of the whole population. Its annual reports include analysis of health indicators and the influence of social factors and present management solutions for politicians at all levels (national and municipal). The National Health Board comprises representatives from various sectors, including NGOs.

Direct contact with municipal leaders has been utilized as a means of reaching stakeholders. Leaders have been invited to attend local partnership conferences and play host to events on health promotion of children and young people. Relationships with leaders have also been strengthened through informal channels.

Integration of resources

This refers to financial, human and material resources and is closely related to the other kinds of integration described above. Involvement of partner institutions has been important, as they have been able to integrate measures on health promotion in schools' daily workplans.

[10] Now the Minister of Education and Science.

Practical examples

A scientific assessment of the HPS pilot stage was undertaken by the Institute of Hygiene in 2006/2007 *(5,6).*

The principal teacher in-service training institute in Lithuania, the Teachers' Professional Development Centre (now the Centre of Education Development), was allocated state funding to implement a training programme in "Healthy lifestyle from childhood", which was delivered in 1998. The possibility of health education was first discussed at the development centre in 1995, when it was decided to include it as a short-term goal in the plan for 1996 and prepare a programme based on the HPS concept and methodology as a medium-term goal. The health education system in teacher training institutions was also discussed at the first health education and promotion national conference in October 1997 *(7).*

The Lithuanian Centre for Non-formal Education of Pupils has been using the HPS approach in its work for (and with) children at national level for several years and remains a solid partner.

A legal framework for HPS development was established in 2003, creating the HPS Bureau within the State Environment Health Centre with four specialists working as full staff members. The State Environmental Centre was reorganized in April 2010, but HPS functions have been preserved by its successor body, the Centre for Health Education and Disease Prevention, and two specialists are still in place. Information about HPS is stored on the centre's web site *(8).*

Comprehensiveness

The comprehensive approach means that health is integrated in schools through a whole-systems approach, reaching into teacher-training institutions and influencing school leaders and other specialists working with children and young people, national and international programme development, preparation of textbooks and materials on health, and work with children *(9).* Comprehensiveness also means health promotion is embedded in schools' overall approaches (Fig. 3.9.1).

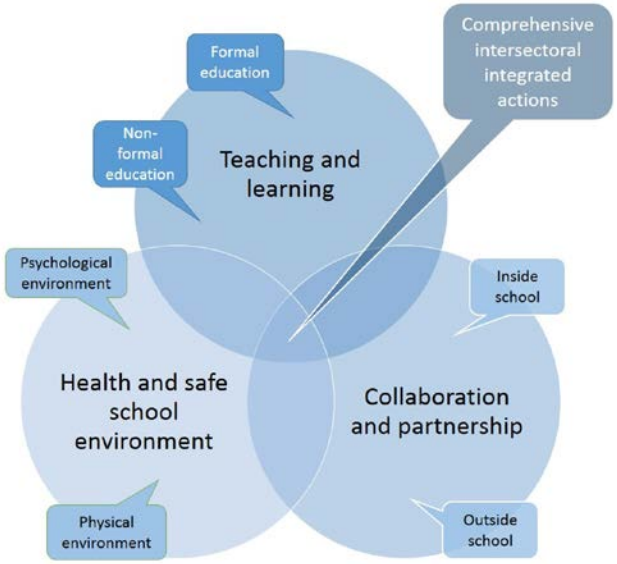
Practical examples

A comprehensive approach is embedded in legislation approved by the ministers for health and education and science. This was developed according to the HPS concept and covers six areas:

1. structure, management and quality improvement
2. psychosocial environment (school ethos)
3. physical environment
4. resources (including human resources)
5. health education (curriculum, teaching and learning)
6. dissemination of the HPS concept and its sustainability *(9).*

Comprehensiveness is expressed through all these areas: examples of two are shown in Table 3.9.3. Comprehensiveness also means that health is promoted in all types of national education institution and reaches pupils in all forms of general education.

Fig. 3.9.1. Concept of health promotion in Lithuanian schools



Source: Jociutė et al. *(10).*

Table 3.9.3. Comprehensiveness in legislative areas

Area 2. Psychosocial environment (school ethos)			
Aim	**Objective**	**Indicator**	**Auxiliary indicator**
To develop trust and partnership among school communities as the main means of maintaining good relationships	To develop and maintain good relationships between members of the school community	Satisfaction with school	All pupils express pride and a sense of belonging to their school, including pupils with special needs or in social care
If the school wants to achieve the highest level, it has to pay attention to all pupils, including those with difficulties. The school has to recognize such pupils and take care of them, in partnership with special schools.			
Area 5. Health education (curriculum, teaching and learning)			
Aim		**Indicator**	
To ensure the quality of health education		Health education is an integral part of the general education system	
If the school wants to achieve the highest level, it needs to pay attention to physical and mental health and their interaction. Various themes have to be integrated in education processes: healthy eating and physical activity; primary prevention of alcohol, tobacco and other drugs; sexual education and readiness for family life; personal safety; prevention of trauma and injuries; and themes related to healthy and safe environments and mental health (stress, depression, bullying, violence, loss). These are integrated in thematic plans of almost all subjects. Health education is also delivered through extracurricular activities, project work and various events.			

Sustainability

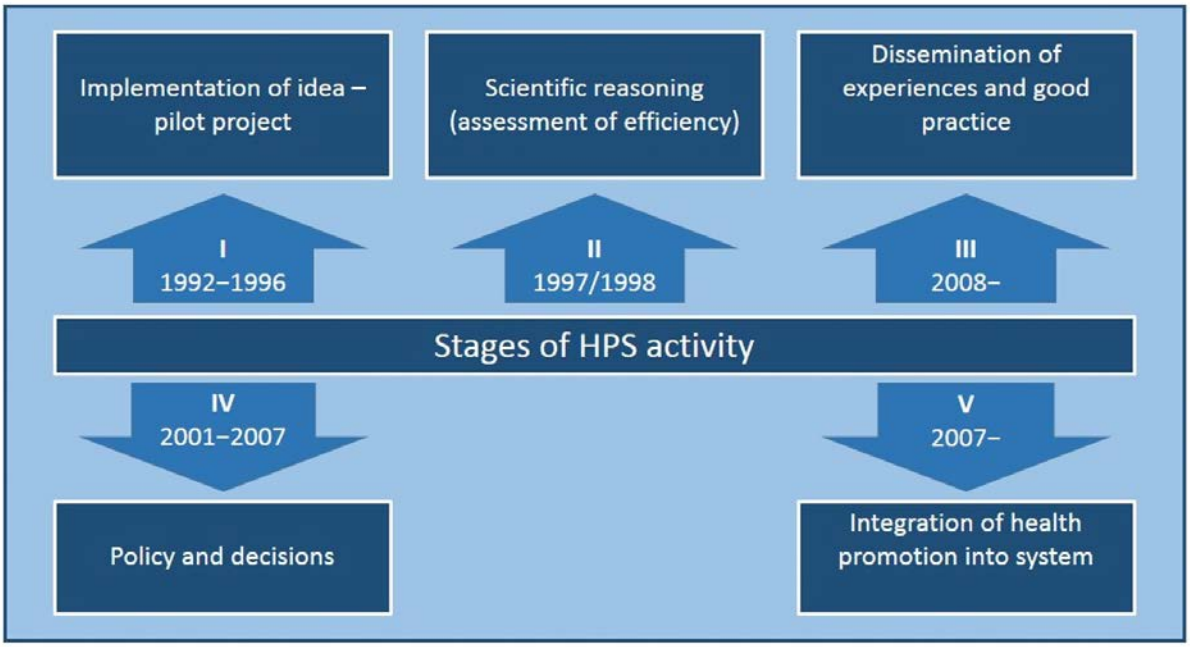
The systematic approach to sustainability of the HPS in Lithuania reflects a sequential process:

I. pilot project
II. scientific assessment

III. dissemination
IV. political decision-making
V. embedding and integrating.

The process is presented in Fig. 3.9.2.

Fig. 3.9.2. HPS development process in Lithuania



Practical examples

Events to introduce appropriate international recommendations at national level were organized as part of this process. Examples include:

- the first national conference on health promotion in education institutions *(7)* and the first ENHPS European conference in Thessaloniki-Halkidiki, Greece *(11)* in 1997;
- a forum on developing the HPS in Vilnius and the second ENHPS European conference in Egmond aan Zee, the Netherlands *(12)*, 2002; and
- a national conference on better schools through health in Vilnius followed immediately by the third European conference on HPS, also in Vilnius *(13)*, in 2009.

The National Health Board stated in 1999 that HPS experiences should be disseminated throughout the country. In March 2000, the Minister of Health and the Minister of Education and Science approved strategic guidelines on children's health policy based on work examining the benefits of the HPS approach, the main principles of which include integration, a health-promotion, disease-prevention focus and partnership *(9)*.

A system-wide approach

A system-wide approach involving national and local levels makes it possible to ensure the sustainability of health promotion in schools. Policy facilitates the integration of health promotion into the structure of organizations at national level but also ensures schools have freedom to choose areas of activity and objectives at local level.

Practical examples

National level

Table 3.9.4 lists policies that support the development of HPS processes in Lithuania.

Table 3.9.4. Important polices related to HPS

Policy area	Description	Remarks
Child welfare *(14)*	• Embraces all areas of state activity related to the welfare of children • Highlights the most relevant areas requiring change, including promotion of interagency cooperation among various institutions and organizations, NGOs and communities, and ensuring children's and young people's participation in dealing with problems related to well-being at different levels • Obliges appropriate institutions to develop the HPS network	Act approved by the government
Child health-promotion programme *(15)*	• Seeks to bring together state and municipal institutions, school communities and social partners • Offers specific measures on improving children's environments, promoting health education and enhancing the competence of specialists working with children	Act approved by the government
Socializing children and youth *(16)*	• Recommends municipalities take part in completing tasks in the children and youth socialization programme, including developing education services and the life-skills education system	Act approved by the government
Preschool and pre-primary education development *(17)*	Main aims are to: • expand accessibility of preschool and pre-primary education, especially in rural areas • develop educational support for children and their families, fostering positive parenthood • create an environment conducive to health • improve health quality relevant to social, cultural and economic factors	Order confirmed by the Minister of Education and Science
HPS *(18)*	• Determines main areas, aims and assessment criteria for HPS evaluation • Schools use criteria when preparing comprehensive health-promotion programmes	Order confirmed by the ministers of health care and education and science
General curriculum on health education *(19)*	• Has equal value to the curriculum of general education • Encompasses the concept of health and healthy lifestyle and three aspects of health: physical, mental, and social • Content is adapted to each age group, covering preschool, pre-primary, primary, basic and secondary education	Order confirmed by the Minister of Education and Science

Local level

Šėtos secondary school in Kėdainiai district is a fairly new addition to the HPS network. Reflecting the increasing significance of health education in school, it has been working within the comprehensive health education programme for over five years and has carried out a number of studies and evaluations to ensure the programme is being implemented successfully, including:

- "Violence and stress in the school" (2007)
- "Learning motivation of pupils" (2005–2007)
- "Comparison of healthy eating habits in pupils living in urban and rural areas" (2008)
- "Health and healthy lifestyle of Šėtos secondary school pupils" (2005–2008)
- "Values in pupils' lives" (2009).

Results show what can be changed and improved in the health education programme.

Šėtos secondary school is attended by pupils from remote villages, many of whom lack learning motivation, have special needs and/or are from poor families. Almost all have low self-esteem and a tendency to self-harm. In view of this, the school developed and implemented the "We are learning together" project between 2005 and 2007. Evaluation revealed that learning motivation averages increased (on a 32-point scale) from 11.57 at the beginning to 13.85 at the end. Pupils taking part evaluated it as very useful and engaging and school teachers also benefited, reporting that it increased their knowledge of how to work with pupils who have special needs or lack motivation and improved their English-language skills and computer literacy. The project was jointly funded by the ESF and Lithuanian Government (90%) and Kėdainiai district municipality (10%) *(4)*.

The strong motivation and willingness of school personnel is an important precondition for the success of work of this kind, as project preparation and ongoing management are time-consuming and demand high levels of skill.

Significant events

The main aim at national level was to put the HPS concept on to the political agenda and into health and education sectors' decision-making arenas. The aim at regional and municipality level was to influence local and national policies with a view to implementing and disseminating the HPS concept within existing institutions.

Efforts at national level were focused on helping schools to implement their programmes, avoid replicating activity and ensure coordination. For this purpose, the State Environmental Health Centre, in partnership with the In-service Training Institute and Public Health Scientific Centre of Šiauliai University, the Vilnius University Public Health Institute and municipal authorities, organized a one-day seminar that ran in almost all municipalities between 2003 and 2010. The aim was to encourage local authority and community awareness of child health issues. The seminars included presentations reporting results from HPS and were organized with active participation from municipality governors and representatives from health, social and (especially) education sectors. The Centre of Health Education and Disease Prevention is continuing to run the seminar. Five seminars were organized specifically for remote districts in 2009, with 292 stakeholders from municipalities, school leaders, teachers and health specialists working in schools taking part.

Resource materials for schools

A range of resource materials has been created for schools, including criteria for activities, methodological papers, evaluation reports and programme materials. They can be accessed at the Health Education and Disease Prevention Centre web site *(20).*

Conclusion

Historical context

New education and health legislation was a national priority after the restoration of Lithuanian statehood in 1990. New law provided for changes in education's aims, content and structure and opened the way for individual schools to practise autonomously with flexibility and diversity. Legislation on health dealt with health promotion and disease prevention. These developments demanded new skills and competences of teachers and school health staff and implied substantial changes in teaching methods.

Lithuania had long-standing experience of collaboration with the Regional Office, especially through the Countrywide Integrated Noncommunicable Disease Intervention (CINDI) programme since 1983. Collaboration with the Regional Office on programmes such as CINDI nurtured demonstration projects that developed into national programmes and had a great influence on the decision to launch the HPS project. Support received from the Regional Office, CoE and EC provided a solid foundation for Lithuania's membership of the ENHPS.

The most important resource in Lithuania is its people. Their commitment, expertise and experience influenced decisions that put the HPS concept on the political agenda and subsequent actions at regional and municipality level. With such assets and support, the HPS approach can be seen as timely and appropriate.

Implementation and sustainability

Lithuania has been implementing HPS for over 20 years now, initially with ENHPS and now with SHE. Its development has been supported by a systematic process involving implementation of the idea (pilot project), scientific reasoning (assessment of efficiency), dissemination of experiences and good practice, policy development and decision-making, and integration of health promotion into the system. A combined HPS implementation structure has been employed, with the network structure being designed at national level and schools identifying their own areas of activity relevant to their particular context.

Identifying common goals for schools encourages activity and promotes sustainability. Experience suggests that when suggested measures address areas identified as high priority and match the institution's goals, schools find the time, resources and will to implement them.

School input to planning health promotion activity at local level influences problem-solving decisions at national level. Sustainable intersectoral cooperation based on a systematic approach to integration of health into education programmes that sets the frame for working across sectors at all levels (national, regional and local) is also vital to success.

Materials and a model have been developed to support schools to perform self-evaluations to ensure quality development of the HPS concept and strengthen school capacity to improve health-promoting processes. In addition, scientific research has been conducted to assess the

efficiency of HPS activities. Building a strong evidence base is essential for influencing policy and strategy development at national level.

Partner involvement is important. Partners have the potential to promote and perform research, provide human and financial resources and, commonly, to integrate project measures into their daily workplans and influence political decisions. Involvement of partner institutions at municipality level has been particularly important to ensuring the success of training initiatives.

Wider adoption of evidence-based health-promotion practices depends on dissemination of experience and good practice to engage a "critical mass" of schools. The more schools joining the network, the greater the effect on decision-makers.

Recommendations

Schools should be involved in the entire process of planning education and health promotion using an integrated approach. Integrating the concept of health promotion within formal education requires whole-school actions that involve all pupils, including those who are vulnerable or socially disadvantaged and those with special needs.

Schools should also take integrated action through non-formal education, choosing activities and forms of provision that correspond with their needs and capacities.

Pupils are very sensitive to their peers' problems, especially those from socially disadvantaged circumstances or who have family difficulties. Their genuine involvement can produce many advantages: project-based activities are particularly appropriate for pupil involvement as they tend to follow a staged approach that supports pupil participation, from suggestion of the theme for investigation to making proposals for follow-up actions.

Work should be taken forward at municipal level to further support schools. This may include:

- sensitizing stakeholders to the need for making the whole school community more familiar with health-promotion processes: this may be achieved through direct contacts with municipal leaders, inviting them to join local conferences or host events as partners, or building relationships with those in official positions in more indirect ways;
- helping schools to access financial support from existing municipality funds for non-formal education, including for projects designed to reduce social inequalities;
- organizing bespoke events (conferences, seminars, roundtable discussions) for and with municipality stakeholders, members of the school community and other representatives from appropriate institutions (such as social workers and physiologists), especially in remote areas; and
- making contacts with municipality education centres, using existing structures to expand the skills of people who work with children in different education institutions by delivering training in people's living and/or working place (this may also contribute to reducing inequalities in the preparation of specialists).

The Ministry of Education and Science is directly responsible for managing the national system of formal and non-formal education, so it is necessary to work in a way that facilitates the integration of health promotion and education into the education system. This might be achieved through developing:

- integrated life-skills development programmes for children of all ages;
- developing criteria for self-evaluating health promotion in schools and preschools that include subindicators on actions taken for pupils with difficulties or in social care; and
- delivering state-funded in-service training programmes on issues such as social determinants that prepare skilled consultants at municipal level.

Actions such as these tend to reduce inequalities by creating the potential for integrated interventions that involve all pupils, including children from families at social risk, vulnerable pupils and those with special needs, in all types of national education-system institutions.

A system-wide approach should be applied at national and local levels to ensure sustainability of health promotion in schools. Policy needs to structurally embed health promotion at national level, yet enable schools to exercise discretion in choosing areas of activity and objectives.

The development of health promotion in school requires a long-term approach and should be accomplished in a systematic and sustainable way reflecting key stages – pilot study, scientific evidence or research, dissemination of scientific results and experiences, political decision-making and integration. The implication is that stakeholders and decision-makers recognize health promotion in schools as a meaningful process for all types of education institutions and for the entire school population.

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3.10. JUMP-in: promoting daily physical activity in the Netherlands

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Context

Research indicates that physically active children are less liable to develop cardiovascular risk factors *(1),* have better cardiovascular *(2)* and aerobic *(3)* fitness and have more positive psychological profiles (higher levels of self-esteem and lower levels of anxiety and stress) than physically inactive children *(4).*

Although it is generally recommended that children be physically active at a moderate level of intensity for at least 60 minutes daily twice a week to develop or maintain physical fitness (strength, flexibility and coordination) *(5),* many in the Netherlands do not meet this guideline *(6,7).* Indeed, De Vries et al. *(7)* showed that only 3% of children in deprived areas met the recommendation, and preliminary research *(8)* suggested that less than a third (approximately 30%) participated in organized sports activities.

In addition to its direct effect on physical and mental health, childhood physical activity is also associated with prevention of overweight. It is inversely correlated with weight gain (as measured by accelerometers) *(9),* while physical inactivity is associated with the development of obesity in children *(10).* Prevalence of paediatric overweight and obesity has increased dramatically in recent years. Approximately 4% of boys and 7% of girls were overweight in 1980, but the figures in 1997 were 10% and 13% respectively. Around 14.5% of boys and 17.5% of girls were overweight between 1997 and 2003 *(11).* Certain areas in the Netherlands reach even more alarming levels: 28% (boys) and 33% (girls) aged 6−11 years were found to be overweight in 10 districts of the biggest cities in the Netherlands *(7),* which is consistent with the prevalence of 36% found in socially and economically deprived areas of Amsterdam *(12).*

The intervention

JUMP-in, a joint initiative of the Amsterdam municipal health service and social services youth sports department, is a primary-school-based multilevel intervention aimed at promoting daily physical activity and sports participation among children in socially and economically deprived areas of Amsterdam. Particular attention is directed to at-risk subgroups such as inactive and overweight children and those with delayed motor development. It started in 2002 and 70 schools were involved by 2011. Healthy eating behaviour elements were added to the programme in 2009.

JUMP-in incorporates policy, environmental and individual components. The programme is embedded in Amsterdam's health, prevention and sports policy and in the policy and practices of organizations in education, sports, public health and welfare sectors. It is designed for ongoing implementation in local school settings.

Highly structured cooperation involving local municipalities (city districts), primary schools, youth health care and welfare organizations, municipal departments of sport and local sports

clubs is needed to embed JUMP-in in practice and policy, with local sports infrastructures being adapted to reach children in deprived areas. Schools must have:

- a certified physical education (PE) teacher
- a high proportion (majority) of pupils with low SES
- a gymnasium, either in the school or in the direct vicinity.

Schools form a JUMP-in coordination team in which the sports manager of the local city district, school director, school coordinator (PE teacher) and health coach work together in planning and implementing all components.

JUMP-in is an important element of the Amsterdam Jongeren Op Gezond Gewicht (JOGG) [Young People at a Healthy Weight] approach, which is the Netherlands version of the Ensemble Prévenons l'Obésité des Enfants (EPODE) [Let's Prevent Childhood Obesity Together] study method *(13)*. The JUMP-in school programme is strengthened and extended through JOGG with interventions focused on the social and physical environment beyond the school setting.

The JUMP-in school coordination team develops a school sports and health plan for implementing all JUMP-in components. The plan is produced before the start of each school year and is evaluated after six months and at the end of the school year.

Basic components

School sports clubs

The clubs' aim is that all children participate in structured sports to increase their total daily physical activity (with special attention to inactive children). Easily accessible school sports activities are offered daily, in or near the school premises.

Children familiarize themselves with a variety of sports during the school day and can then join the club outside of school hours. Access is free of charge initially but a small contribution is required after some months to help families become accustomed to making regular membership contributions.

Use is made of existing local physical activity facilities and sports clubs. Priority for membership is given to children not yet participating in organized sports. Adapted sports are offered to children who are not yet ready to participate in regular school activities, such as children who are overweight, have low self-esteem or low (perceived) sports competence. The adapted sports provide a safe social environment that allows children to enjoy physical activity and become competent in sports-related skills.

Parental information services

Keeping parents informed is central to the JUMP-in programme. A range of courses, open lessons, markets, workshops and demonstrations is offered, focusing on how parents can stimulate and support their children to be more physically active and eat healthily. Parents of children at risk can be referred for tailored information and courses.

The aims of parental information systems are to ensure that parents:

- are aware of the importance of their own physical activity behaviour for their children's health;

- are aware of their children's physical activity behaviour and know how to stimulate and support it; and
- support and stimulate their children to adopt a healthy physical activity and nutrition pattern.

Contact with parents of high-risk children is facilitated through the JUMP-in pupil follow-up system (PFS) (see below) and delivery is planned and delivered in cooperation with school parental contact officers. The JUMP-in health coach provides a "menu" of options and advice and supports the school to tailor its organization and approaches effectively.

The JUMP-in PFS

The JUMP-in PFS is a monitoring instrument for annually assessing and registering children's level of physical activity and motor skills. It provides a solid base for the implementation of all JUMP-in programme components and creates opportunities for developing tailored approaches for defined subgroups in which interventions are adapted to their specific needs.

The PFS aims to:

- monitor children's weight status, sports participation and motor development;
- identify overweight or obese children and those who are inactive or have motor-development deficits to support and stimulate them in a structured way;
- target distinct subgroups and make efficient referrals to youth health care services when necessary;
- create opportunities for tailoring programme components, such as adapting the school sports programme and providing motor remedial teaching; and
- provide statistics to schools and city districts to inform tailored implementation of JUMP-in components, influence policy decisions at city district level, prepare reports for funders and support programme evaluation.

A trained JUMP-in measurement team interviews children about their sports participation and youth health care personnel assesses their weight status. PE teachers then register any deficits in motor development. Children who are inactive or are classified as overweight or obese are offered a modified sports programme or are referred to suitable care. Measures are entered in the PFS by JUMP-in PFS helpdesk officers. PE teachers can access the PFS through a password-protected area of the JUMP-in web site.

Existing youth health care networks are used to support children identified as being at risk, but new networks, formal collaborations and protocols between JUMP-in schools and youth health care, hospital, physiotherapy or dietetic services can be developed when appropriate.

Healthy school nutrition policy

The healthy school nutrition policy has been included as a JUMP-in component since 2010. It sets rules and supports interventions to promote morning-break snacks and drinks, lunch and birthday treats. Promoting consumption of fruit and vegetables in the morning break is part of the policy.

The health coach advises and supports the school to adopt, prepare, implement and embed a tailored healthy eating policy. This includes a meticulous decision-making process involving the director and school staff and the school governing and parental boards. Communication

about the adopted policy and rules and agreement about ongoing review and revision processes are necessary.

Additional themes

Each year, the JUMP-in school coordination team chooses two or more additional project activities focused on specific healthy eating, physical activity or sports objectives. Examples include activities promoting outside play during school breaks and after school, encouraging active transport to school, increasing breakfast, fruit and vegetable consumption, decreasing the amount of sugar-dense beverages taken or reducing screen use. Each additional theme includes interventions aimed at children, parents and school staff and has implications for the school policy. The health coach collects evidence-based interventions in a "menu" divided into themes and tailored plans are then agreed to meet defined needs.

JUMP-in project leaders

JUMP-in project leaders (one from the sports section and one from municipal health services) oversee the implementation and control the content and quality of JUMP-in's prevention components. The project leaders are jointly responsible for:

- evaluating and improving the quality of offered programmes;
- ensuring customer satisfaction;
- facilitating the organization of health care offered to children at risk; and
- overseeing formal agreements between organizations to improve referral processes and decrease "did-not-attend"' rates.

Evidence

JUMP-in implementation was evaluated through a process-and-effect study carried out in cooperation with the Vrije Universiteit [Free University] of Amsterdam Medical Centre EMGO Institute for Health and Care Research (*14*) between 2006 and 2008. The research design was based on the Environmental Research framework for weight Gain prevention (EnRG) *(15),* which proposes that energy-balance-related behaviour is influenced directly and indirectly by the environment. The study was carried out in 9 Amsterdam primary schools among 2848 children in group 3−8 (aged 6−12 years) using a pre-test−post-test control group design.

Schools were recruited in cooperation with policy-makers in two city districts with populations characterized by lower SES. The districts were comparable in terms of availability of, and access to, sports facilities. Sports clubs and youth health care and welfare organizations located in the recruited intervention school areas were approached regarding participation.

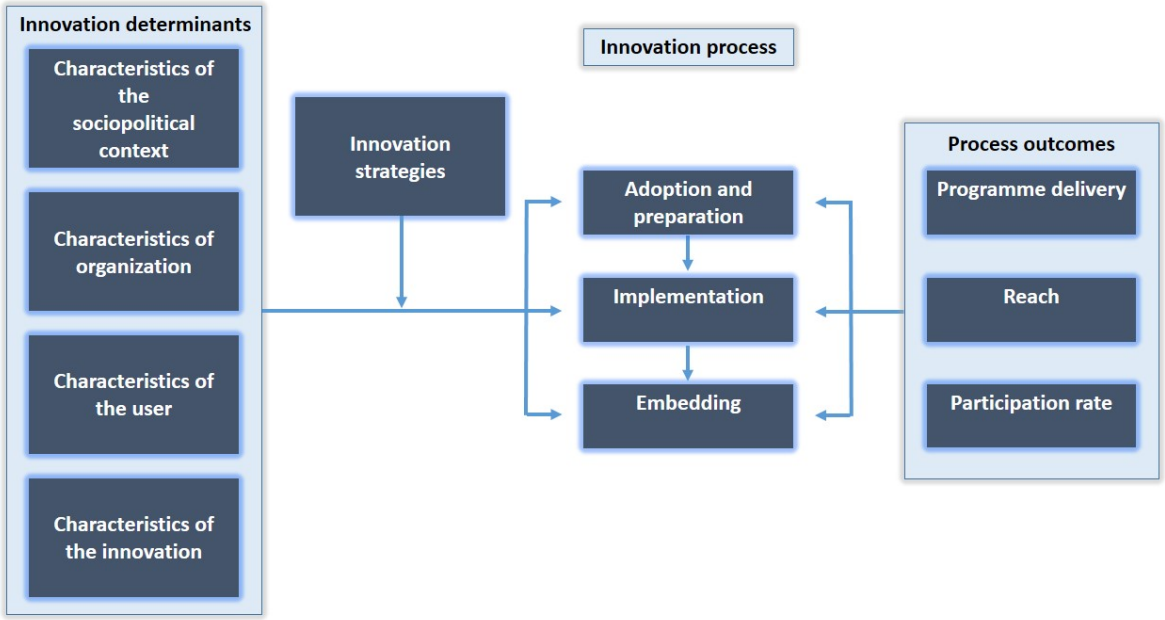
Measures were performed at the beginning of the first school year (T0: September−October 2006), at the end of the first school year (T1: May–June 2007) and repeated at the end of the second school year (T2: May–June 2008). All measurements took place at school and were performed by trained testers in compliance with standardized procedures. The intervention duration was eight months in the first year (from November to June) and nine in the second (September 2007−May 2008). Children in the highest grade who left school after year one (T0) were not measured at T2. Primary outcome measures were sports participation and daily physical activity, with anthropometry and aerobic fitness secondary.

Process evaluation method

The main objective of the process evaluation was to investigate factors involved in JUMP-in delivery to optimize, encourage and enhance widespread dissemination and ensure the intervention was effective. Successful delivery was defined as the JUMP-in intervention being adopted by schools, city districts, health care institutes and sports clubs, implemented according to protocol and embedded by all participating partners.

Fig. 3.10.1 shows the framework representing the JUMP-in innovation process main stages and related categories of determinants. The framework is based on several theories, practical frameworks and models. The process evaluation also included assessment of specific process outcomes unique to JUMP-in components, such as "reach" and "participation rate". These specific factors were assumed to affect directly programme use.

Fig. 3.10.1. Framework representing the JUMP-in innovation process



Source: adapted from Fleuren et al. *(16).*

Research questions

There were two main research questions.

1. What are the impeding and facilitating factors at sociopolitical, organizational, user and intervention levels in the dissemination process of the JUMP-in intervention?
2. To what extent are the programme components delivered and received as planned and what is the effect on factors influencing programme effectiveness, such as the number of realized sports offers, reach and participation rate?

Qualitative and quantitative methods were used to investigate impeding and facilitating factors in the adoption and preparation, implementation and embedding phases.

Data collection and outcome measures of the process study

Data collection for the process evaluation was conducted during two school years (autumn 2006–spring 2008) and focused on factors that were assumed to affect the dissemination

process, related determinants and programme effectiveness. Measurements were based on existing theories and models and data were collected using the following methods:

- a structured questionnaire for schoolteachers, school directors, PE teachers and city district sports coordinators that included questions on individual perceptions;
- a school survey completed by PE teachers and directors;
- an environmental survey completed by the city district sports coordinator;
- a questionnaire for local sports clubs focusing on their youth sports offers and willingness and aptitude to collaborate in JUMP-in school sports;
- analyses of the minutes of meetings, self-administered logs, e-mails, evaluations of parents' information meetings and workshops, planning schedules, registrations and observations of programme activities; and
- semistructured individual interviews with sports coordinators and PE teachers.

The SPSS 15.0 statistical package (SPSS Inc., Chicago, IL, 2006) was used to gather descriptive statistics (frequencies and means) from the quantitative data of the questionnaires. The semistructured interviews were recorded and transcribed. Interview transcriptions and notes and the other documents analysed were organized by topic and interrogated by MAXQDA2007 (VERBI Software–Consult−Sozialforschung GmbH, 2001, Berlin). A code system was developed and ordered into a hierarchical structure corresponding to the levels and determinants of the JUMP-in innovation framework. In all texts, codes were assigned to selected text segments, then texts and codes were retrieved, analysed and described.

Effects

A significant beneficial intervention effect was found for organized sports participation (OR=2.8 [2.2–3.6]). Effects were stronger for girls (OR=3.6 [2.3–5.6]) and for Moroccan (OR=4.2 [3.6–5.7]) and Turkish children (OR=3.2 [1.9–5.2]). Participation in organized sports was associated with increased shuttle-run score.[11]

No significant intervention effects on body composition were observed, but this was not the primary aim of the study, as JUMP-in focused mainly on physical activity behaviour and did not include dietary behaviour.

No significant intervention effect on indices of mental well-being (depression, perceived quality of life and perceived sports competence) was found. However, children who were active in sports during the whole follow-up period had significantly higher perceived sport competence and lower depression scores at follow-up compared to children who did not participate in sports at either time point.

JUMP-in was effective in increasing parents' social support and social pressure to encourage children to participate in sports. These determinants significantly mediated the intervention effect on sports participation.

The outcomes of the process-and-effect study confirmed that healthy eating behaviour was an important programme goal. Evidence bases from the "Schoolgruiten" programme and healthy school nutrition policy were added, as were specific intervention programmes for children at

[11] The distance between the two lines in the shuttle-run test was set at 18 m instead of the usual 20 m, owing to the fact that most primary-school gymnasia were too small for a 20 m run.

risk and their parents. It is anticipated that these measures will have positive effects on children's BMIs in future.

Implementation

The process evaluation study proves that JUMP-in, a school-based strategy combining environmental and personal interventions, is successful in improving structured sports participation among children. Its multidisciplinary collaborative ethos is an important factor in its success. All schools, city districts and participating organizations embedded the programme in their organizational structures.

Reflecting on the main process outcomes, it can be concluded that JUMP-in is successful in managing the well-known "prevention paradox", which postulates that many interventions that aim to improve health have relatively small influences and perceptible benefits on the health of most people. JUMP-in addresses this paradox by meeting different needs in systematic ways: high-risk groups receive extra input and targeted programmes, while low-risk groups and highly motivated children receive little more than encouragement or guidance. Baranowski *(17,18)* called this "branched logic", or "stepped intervention".

The process evaluation nevertheless exposed some new paradoxes that seem difficult to resolve without compromising important principles underlying the intervention. These include tensions between the prerequisites for effective innovation and the demands of daily practice, and the complex problems youth inactivity and overweight present to an integrated, multicomponent, collaborative approach.

The tension between prerequisites for an effective innovation and demands of daily practice is not easy to solve. Simplifying the programme and organization should not result in decreased effectiveness – indeed, the process outcomes indicated that successful dissemination is dependent upon simple structures and protocols – but the evaluation has suggested potential remedies that show promise for improving effectiveness and implementation.

First, simple standardized guidelines and improved information-exchange strategies for a limited number of contact persons were introduced. Second, implementation of the complete programme is now being introduced in a "stepwise" fashion over at least two school years to enable users to become familiar with the components and strategies. Third, organizations are continuing to collaborate through formal coalitions, developing shared goals, planning schedules and protocols and synchronizing tasks and responsibilities, increasing stability and strengthening the embedding process.

Fourth, effective "smart" planning for control of quality, feedback and programme management have been introduced, with coordinating tasks now being carried out by people with appropriate orientations. And fifth, structural support for the PFS is now provided by a helpdesk staffed by health coaches, who are specialists who can offer advice, support and facilitation to enhance local implementation.

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3.11. Reducing child obesity: assessment of a school-based intervention in Spain

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Context

Obesity has become a global public health problem, with especially serious effects for children. It has been proposed that educational interventions during childhood could provide a key prevention strategy, with education on dietary habits and physical activity for children and their families being considered the foundation for healthy lifestyles in adulthood.

AVall, which stands for Alimentation and Physical Activities in the Eastern Valles, was launched as a prospective study in 2006 in Granollers, a town situated in the northern metropolitan area of Barcelona (an area called Valles Oriental). Its aim was to evaluate the effect of a community-based intervention for reducing childhood obesity by educating children on the importance of healthy eating and body movement. The evaluation measured the effects of actions on the children's BMI.

The methodology focused on children's participation through the four-stage IVAC approach developed by the research programme for health and environmental education at the Danish School of Education *(1)*. This method views children and schools as catalysts for health-promotion actions at community level and has been successfully implemented in an EU pilot project – "Shape up" – in 20 Member States.

The "Shape up"/IVAC approach differs sharply from traditional preventive or health-promoting interventions that focus on modifying children's behaviour in the assumption that the locus of responsibility for childhood obesity (or any health problems) lies with the child. Instead, it focuses on tackling layers of responsibility and, significantly, developing children's and young people's capacity to critically explore and improve health-related conditions, practices and choices at different levels: family, school, community, city and even wider.

Setting

Granollers has 59 000 inhabitants, 19.85% of whom were born outside of Spain, mostly in South America (9.13%) and Africa (7.83%, Maghreb and sub-Saharan countries). It is situated in a semi-urban environment around a road network hub and its local economy is driven by industry and trade.

The economic crisis that has befallen Spain since 2008 has seriously affected towns like Granollers. Its unemployment rate during the study years was 8% in 2006 but 10.9% in 2008, which was higher than the rate for Spain (6.6% and 9% respectively). By 2011, the rate in Granollers was above 19%.

The town has 16 primary schools and 10 public or local schools fully funded by the government, 6 semiprivate schools that receive some government funding and no private schools.

Approach

Sectors and synergies

The project was developed by a team of professionals from the Carles Vallbona Health Observatory of Granollers General Hospital, the city council, the Catalan Institute of Health and the public health department of the Government of Catalonia, who also jointly provided project funding. They were persuaded to come together by the alarming data on childhood obesity in Granollers and their determination to address the issue and positively influence children's health behaviours. Their concerns and aspirations were shared by the departments of health and education of the Government of Catalonia and by management teams and teachers from schools in the municipality.

An interdisciplinary team was formed, and its motivation and cohesion facilitated the development of the project. Advice and supervision was provided by P.A.U. Education *(2)*, an organization specializing in the development of participatory health-promotion and education projects across Europe and which works with the IVAC methodology. P.A.U. Education has developed several European projects aimed at promoting healthy behaviours and reducing childhood obesity, including "Shape up".

Methodological approach

The AVall study is longitudinal and interdisciplinary. It seeks to address the issue of obesity through analysis of children's behaviours and living conditions, involving key actors such as schools, families and institutions.

The IVAC educational intervention enables children to investigate and reflect on how living, environmental and societal conditions affect their health and lifestyles. It provides a framework for developing action-oriented health-promotion strategies that reflect children's perceptions and knowledge. Teachers support them through the process to develop skills and competencies to change the conditions of their environment. IVAC provides a motivational tool for enabling children, families and teachers to become active health-promotion agents and to adapt curricula to include reflection and action on eating and physical activity.

The IVAC method was chosen to prevent overloading schools with additional tasks. Teachers need to be trained in the approach, but it does not interfere with their programmes. In the AVall study, an extracurricular intervention involving collaboration between schools and families was also used.

Study design

The study consisted of a two-year cluster-randomized prospective approach with two parallel arms. The intervention was implemented with all schoolchildren born in 2000 in the intervention schools (five public and three semiprivate schools), with the remaining primary schools acting as the control group. The schools were randomized in two groups, maintaining the same proportion of public and semiprivate schools and number of classrooms. Schools provided children's names, sex and date of birth in September 2006 and informed consent to participate in the study was obtained from families. Children with special dietary needs due

to metabolic or digestive disorders or incapacity that impeded physical activity, or whose families refused consent to participation or who did not attend school, were excluded.

Each family participated in the quick Krece Plus test at the beginning and end of the study (October 2006 and October 2008) to provide information on their children's eating and physical activity habits. The test focused on:

- eating at school
- walking to school (and time taken to do so)
- taking part in physical activity after school hours
- going to a playground or walking after school
- daily hours of television, video or screen use
- physical activity during weekends.

Parents' height, weight and education levels were recorded, together with other sociodemographic data. The children's weight and height were measured at school during September and October 2006 and 2008 by two specifically trained nurses.

The intervention

An information session was held at the beginning of the project for parents of children in the intervention group to explain the proposed methodology and IVAC approach.

The following actions were developed with the intervention group.

Actions with teachers

Teachers in the intervention group received training on the IVAC methodology from P.A.U. Education at the beginning of the study and were given a guide to healthy eating and physical activity prepared for primary-school teachers of grades 1 and 2.

Teachers then introduced activities related to healthy eating and/or physical activity, such as posters, food tables, games, crafts, cooking workshops and games in the school playground, into regular classes for three hours per week. Necessary equipment required for these activities was provided to the schools.

Over the two-year period, the research team, teachers and P.A.U. educators had six training sessions at which they evaluated implemented activities accomplished and planned subsequent actions. In addition, meetings involving the research team and teachers were held each month to discuss the distribution of educational materials on healthy eating and physical activity, games and equipment to promote physical activity in the playground (balls, ropes, rubber bands) and recipe and activity ideas for families. Regular contacts were also maintained with the control group.

An active network involving the intervention schools was created to enable teachers to share experiences and ideas and engage stakeholders in the project. This supported continuity of interventions during the two years.

Actions with schools

Workshops on food knowledge were held for each class in the intervention schools, enabling children to see (colours), touch (textures) and smell (aromas) different foods. Each school

showed their creativity by working on aspects of healthy behaviours across curricular areas, including:

- "food bingo" in mathematics and natural sciences;
- "book nyam−nyam", in which students described favourite healthy recipes to share with their families (Catalan/Spanish language classes);
- "snacking with vegetables workshop", enabling students to discover that they could use vegetables as snacks (natural sciences);
- "healthy message magnets" representing favourite fruit or vegetables accompanied by a message about eating and physical activity that the children took home (workshops);
- "garden in the school", with children creating their own garden and visiting a farm to increase their knowledge of food production (natural sciences);
- "promoting active games in the playground", with children planning the use of space in the playground and choosing play materials (PE);
- "healthy breakfast", with students discussing breakfast in class and then, with the teacher's help, proposing and voting on the most healthy option (natural sciences); and
- "physical and recreational activity mural", on which the students recorded their daily activities after school and at weekends by drawing pictures that reflected their favourite sports (PE).

Actions for families

School magazines and web sites were used to disseminate information about the project and describe activities developed in the classroom and with families. The research team periodically sent newsletters detailing project progression, books and reading recommendations on diet and physical activity to families. They also distributed monthly meal recipes with healthy seasonal foods that could be adapted for the whole family, teaching materials and information leaflets and ideas for increasing leisure-time physical activity.

"La Festa AVall"

The schools decided to close project AVall with a fun and educational party, with children and their parents the chief guests. The main objective was to give visibility to the project at the end of its two years and to bring together participating schools, families and the AVall research team. Families prepared healthy snacks and curriculum activities during the school year were portrayed in panels depicting theatre performances, songs, dance shows and quizzes related to nutrition and physical activity.

Evaluation process and results

Evaluation aimed to assess the degree of commitment of the schools involved, identify obstacles to participation and propose practical solutions. An evaluation framework consistent with the education objectives had been created to assess the educational dynamics of the project and analyse quantitative and qualitative results, with questionnaires being dispersed to teachers throughout the project to identify the needs of each school, assess teachers', students' and families' participation and propose changes. A report was prepared and distributed to the schools at each stage of the evaluation.

A second phase evaluated effects after two years to assess whether intervention-related lifestyle changes were maintained. Data were also evaluated again four years after the intervention.

Variables

The main outcome of the study was the difference in BMI progression between the intervention and control groups. Secondary outcomes included changes in eating and physical activity habits. The social determinants of health-related factors evaluated were: sex of the children; whether the school was public or semiprivate; children's place of birth; and parents' education levels.

Children's weight was taken with the child barefoot and dressed in light clothes. A portable digital scale with a precision of ±100 g (model BWR101, Oregon Scientific, Tualatin, OR) was used. The height was obtained using a portable body-measuring tape (model MZ10017, ADE GmbH & Co., Hamburg) with a precision of $\pm$ 0.1 cm. The BMI was derived from the measured weight and height (weight in kg/height in m^2).

Children's eating habits were assessed by means of a food-frequency questionnaire and the Krece Plus test. The time it took to walk to school was categorized as "less than 10 minutes", "10 to 20" and "more than 20 minutes". The time spent watching television, videos or using a screen was categorized as "1−2 hours per day" and "more than 2 hours per day". Physical activity after school and during the weekend was indicated by a simple "yes", "no" or "sometimes". BMI was graded as "healthy weight", "overweight" and "obese" using the cut-off criteria proposed by the International Obesity Task Force and calculated according to the age and sex of each child. Age was determined using cut-off points proposed in the reference tables *(3)*.

Following Garrow's criteria *(4)*, BMI was used to classify parents' weight status. Their education levels were classified as: "does not read or write"; "primary education"; "secondary education"; or "university".

Statistical analysis

Pearson's chi-square, Fisher's exact test or chi-square for trend and the McNemar test for paired proportions were used to compare qualitative variables. Quantitative variables were compared using Student's *t*-test for independent data.

The intervention's effect on children's BMI progression was assessed by using analysis of variance for repeated measures based on a multivariate generalized linear model. A multivariate linear regression analysis was carried out to explain which variables accounted most for the effect observed in the intervention. Statistical analyses were carried out using SPSS 13.0 (SPSS Inc., Chicago, IL, 2004).

Outcomes

The outcomes have been reported by Llargues et al. *(5)*.

Of the 704 children enrolled, 598 (84.9%) were given permission by parents to participate. Eighty-nine were excluded because of problems with administrative data, inability to obtain anthropometric measurements due to school absence or transfer to another school during the study.

Complete data on anthropometric variables were obtained for 509 of the 704 children (72.3%), 237 (78.8%) in the control group and 272 (72.7%) in the intervention. The Krece Plus quick test and the physical activity questionnaire were completely filled in by 156

(51.8%) children in the control group and 216 (57.7%) in the intervention (45.6% of girls and 45.3% of boys).

Baseline characteristics (immigrant status, walking to school, time to walk to school, physical activity after school hours, time spent in screen use, mean BMI and level of parents' education) at the beginning of the study were similar in both groups, except for:

- girls' BMI was better in the intervention group (17.0±2.6 versus 16.2±2.8; p=0.034);
- a higher proportion of children from the intervention group ate at school (44.2% versus 27.4%; p=0.001); and
- children in the control group ate fish more frequently (84.5% versus 73.6%; p=0.011).

The proportion of immigrants was 20.7% in the control group and 17.3% in the intervention (statistically insignificant). Primary school was the education level of 33.3% of fathers in the control group and 29.8% in the intervention, with the figures for mothers being 28.5% and 20.2% respectively. No statistical differences for parental education level were found between groups.

Two years after the study completed, the intervention group showed a lower increase in BMI (0.85 versus 1.74; p <0.001). The prevalence of overweight and obese children increased by 8.2% and 2.6% in the control group and by 4.8% and -0.7% in the intervention group. Total prevalence of overweight children therefore increased by 10.8% in the control group and by only 4% in the intervention.

No difference in BMI progression between the intervention and control groups was observed for children whose mothers only had primary schooling or less, but the BMI increase was lower in the intervention group for those whose mothers had secondary or university education (p=0.018). Having a less educated mother made the intervention less effective. No difference was found in weight decrease in relation to sex, children's place of birth or previous BMI.

Daily consumption of fruit (20.5%) and physical activity outside school (15.7%) increased in the intervention group, while fish consumption decreased in the control group (19.3%). An insignificant increase in nut intake (p=0.056) and a slight reduction of daily hours in sedentary activities (p=0.062) were observed in the intervention group.

The results obtained after the multivariate linear regression analysis, including all the variables, show that maternal obesity and eating at school had the biggest influence on the observed effects of the intervention on BMI. Once adjusted by "eating at school" and "obesity of the mother", the effect of the intervention decreased the BMI by 0.872. Eating at school decreased the BMI by 0.454 and having an obese mother increased it by 1.086. The school was not significant in the multivariate analysis but was maintained to obtain the effect of the intervention, adjusting for the possible cluster effect.

Sustainability

The AVall study is part of a broader health-promotion strategy in Granollers. It was designed in two phases:

- two years of an educational intervention and an impact evaluation that demonstrated positive changes in health behaviours and effects on weight status; and
- evaluation of the ongoing effects of the intervention two and four years following first-phase completion.

First-phase results were discussed above. Following the initial AVall project, training in the IVAC methodology was offered to teachers so they may continue to work on improving dietary habits and physical activity. Some schools in the intervention group participated in training new schools, providing continuity for activities introduced during the previous two years, and have included education on eating behaviours and physical activity in their curriculum with plans to extend the intervention and activities to the entire school.

The variables were revaluated in September and October 2010 and statistical analysis is in process.

Conclusion

Proposals for future implementation

The educational intervention using the IVAC methodology was effective in Granollers. Its participatory and action-oriented approach engaged teachers, students and the surrounding community. In view of its positive outcomes, the following proposals for future implementation are presented.

Children from families with an obese mother require a more intense approach involving the entire primary health care team and school team treating and following up the mother (or other family members). The approach should reflect family and child priorities, with interventions integrating with home and family dynamics and recognizing any economic implications.

An adapted approach is also required for children whose mothers have low education levels or whose culture and first language is other than Catalan or Spanish. Materials such as healthy recipes should be adapted to reflect cultural and language sensitivities to facilitate understanding. Low education is a proxy measure of low SES, so materials must also take economic costs into consideration

The IVAC approach should be strengthened at school level through in-service training to empower teachers to employ a participatory approach to addressing health and healthy behaviour in the classroom.

Barriers and facilitators

The fact that the programme is school-based limits its potential to address other elements influencing family habits, food decisions and physical activity at community level. Granollers, however, has many community-based programmes to help people to be more active, such as a physical activity programme focusing on obesity prevention in adults. This involves primary health professionals counselling adults and referring them to a sports facility for a nine-month activity programme. It is free of charge to users, opening opportunities to also address the needs of families and children in vulnerable populations, connecting them to a health centre and reinforcing messages delivered at school.

Linking the IVAC intervention to broader health-promotion community-based programmes such as this would be a positive move.

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