

# The health of school-aged children in North Macedonia and the status of health-promoting schools

## Situation analysis



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**World Health  
Organization**

European Region

## Abstract

Health-promoting schools – the whole-school approach to promoting health in schools – was developed conceptually in the late 1990s, but a fully embedded, sustainable system has not yet been achieved. This research assessed the health status of school-aged children (needs assessment) and the existing policy environment (landscape analysis) in the context of the eight global health-promoting schools standards in North Macedonia, in order to establish implementation status and collect the data needed to create an implementation plan.

Over 95% of primary school-aged children and over 80% of those of lower secondary-school age are enrolled in schools. Noncommunicable diseases are prevalent as causes of both mortality and morbidity, with most being preventable (e.g. injuries). Priority behavioural risk factors (e.g. physical inactivity, inappropriate nutrition, alcohol use, violence and bullying) can be addressed through school health interventions. Health promotion is carried out in educational institutions and included in curricula, but no separate national strategies or plans exist to scale up health promotion in schools. Proposed ways forward include a national strategy and standards for health-promoting schools, building on previous positive experiences, along with better coordination among relevant ministries and stakeholders, increasing parent and student involvement, allocating budgets appropriately, and building technical capacity on human resources and training.

## Keywords

HEALTH PROMOTION

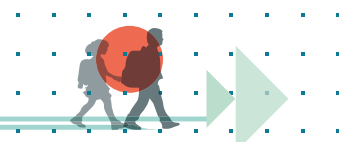
SCHOOL HEALTH SERVICES

SCHOOL HEALTH

SCHOOLS

HEALTH EDUCATION

ADOLESCENT HEALTH



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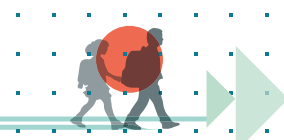
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## Abbreviations

COVID-19	coronavirus disease 2019
CSE	comprehensive sexuality education
DALY	disability-adjusted life years
HBSC	Health Behaviour in School-aged Children
HPS	health promoting schools
HPV	human papillomavirus
LGBTQI+	lesbian, gay, bisexual, transgender, queer and intersex
NCDs	noncommunicable diseases
NGO	nongovernmental organization
SEN	special educational needs
SHE	Schools for Health (network)
SRH	sexual and reproductive health
SRHR	sexual and reproductive health and rights
SSO	State Statistical Office of the Republic of North Macedonia
STI	sexually transmitted infections
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WASH	water, sanitation and hygiene



## 1. Introduction

### 1.1. Relation between schools and the health of school-aged children

The right to education and the right to health are core human rights and are essential for overall student development. Health, well-being and educational outcomes are closely related and schools are important resources that play a vital role in promoting the well-being of children and adolescents, families and the wider community.

With school closures due to the novel coronavirus disease 2019 (COVID-19) pandemic, it has become even clearer how important these relationships are. School-aged children are among those who have felt most acutely the impact of the pandemic in many aspects of their lives (7). In addition to the detrimental effects on student engagement and school performance, there is a growing body of evidence on the impact of school closures on adolescent mental health, leading to mental health problems and emotional distress (2).

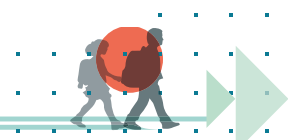
Now, more than ever, it is important that all schools become places that promote, protect and nurture health, contributing to the improvement of life, cognitive and socio-emotional skills and to a healthy lifestyle, in a safe learning environment. Such schools are more resilient and better able to ensure continuity in education and services beyond the delivery of literacy and numeracy skills (3).

However, there is a huge gap between what health-promoting schools (HPS) should ideally look like and what happens in (existing) practice. Even in those schools where best practices for health promotion are embedded, such initiatives are all too often carried out in the short term by a few dedicated teachers, without appropriate resources. Without an appropriate broader government policy or support from the educational system, such practices can scarcely grow and achieve substantial benefits (4,5).

### 1.2. HPS

A health-promoting school is “a school that constantly strengthens its capacity as a safe and healthy setting for living, learning and working” (6). The HPS concept is a “whole school” approach to promoting health and academic achievement, by capitalizing on the organizational potential of schools to promote the overall health of students and achieve positive educational outcomes. There is a large body of evidence that this approach leads to better academic achievement, reduced school absenteeism and lower dropout rates.

The idea of HPS was first articulated by WHO, United Nations Educational, Scientific and Cultural Organization (UNESCO) and United Nations Children’s Fund (UNICEF) in 1995. Yet, few countries have implemented it at scale and even fewer have made the institutional changes necessary to make the HPS concept an integrated, sustainable part of the education system. In 2015, experts in HPS identified as major challenges the lack of systematic support and a common understanding and approach, along with limited resources. It has recently been recognized that further work needs to be done to increase uptake and improve the sustainability of HPS. Accordingly, in 2018, WHO and UNESCO started a new initiative to develop and promote “Global standards and indicators” for HPS and to support their implementation by governments, ministries, staff within schools, civil society organizations and international partners (3).



No education system can be effective unless it promotes the health and well-being of its students, staff and community. Every education system should have institutionalized policies, mechanisms and resources to promote health and well-being in all aspects of school life. This includes the teaching curriculum and school governance, based on participatory processes that are inclusive of the broader community (3).

**1.3. Why invest and what can be achieved through HPS?**

Table 1.1 and Table 1.2 outline the advantages of investing in HPS.

**Table 1.1 Why invest in HPS?**

Health and well-being	Education	Community	Government
<ul style="list-style-type: none"> <li>• To ensure healthy growth and development of students</li> <li>• To improve health literacy, beliefs and attitudes, skills and health-promoting behaviour among students, staff and the wider community</li> <li>• To increase the capacity of schools to address student health challenges and their well-being</li> </ul>	<ul style="list-style-type: none"> <li>• To improve health literacy, beliefs and attitudes, skills and health-promoting behaviour among students, staff and the wider community</li> <li>• To increase the capacity of schools to address student health and well-being</li> <li>• To increase cooperation among schools, families and communities</li> </ul>	<ul style="list-style-type: none"> <li>• To increase cooperation among schools, families and communities</li> <li>• To improve student access to health services</li> <li>• To enhance community engagement in school operations</li> <li>• To promote healthier communities</li> </ul>	<ul style="list-style-type: none"> <li>• To achieve more equitable health and education outcomes, including increased gender equality</li> <li>• To increase student, family and community health and well-being</li> </ul>

**Table 1.2 What can be achieved through HPS?**

<ul style="list-style-type: none"> <li>• Improved health-enabling environments in schools</li> <li>• Reduced health risk factors within and outside school premises</li> <li>• Improved health and well-being of students, staff and the wider community</li> <li>• Foundational knowledge, attitudes and behaviour to enhance health and well-being throughout the lifespan</li> <li>• Reduced inequities and inequalities in health outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Less inequality in educational outcomes</li> <li>• Less inequality in educational achievement</li> <li>• Improved school completion rates</li> </ul>	<ul style="list-style-type: none"> <li>• Sustained multisectoral collaboration that efficiently supports health well-being and education</li> <li>• Increased workforce capacity, social capital and social cohesion</li> </ul>	<ul style="list-style-type: none"> <li>• Scaled-up health-promoting policies, plans and activities</li> <li>• Decreased burden of disease in children and adolescents</li> </ul>
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## 1.4. Standards for HPS

Global standards for HPS provide resources for education systems to promote health and well-being through better governance. Building on a large body of evidence, WHO has defined **eight global standards**, set out in Table 1.3.

**Table 1.3. Global standards and definition statements**

Global standard 1	Government policies and resources	The whole of government is committed to and invests in making every school a health-promoting school.
Global standard 2	School policies and resources	The school is committed to and invests in a whole-school approach to being a health-promoting school.
Global standard 3	School governance and leadership	A whole-school model of school governance and leadership supports a health-promoting school.
Global standard 4	School and community partnerships	The school is engaged and collaborates, within the school (including with students), with other schools, and with the local community for HPS.
Global standard 5	School curriculum	The school curriculum supports physical, socio-emotional and psychological aspects of student health and well-being.
Global standard 6	School socio-emotional environment	The school has a safe and supportive socio-emotional environment.
Global standard 7	School physical environment	The school has a healthy, safe, secure, inclusive physical environment.
Global standard 8	School health services	All students have access to comprehensive school-based or school-linked health services that meet their physical, emotional, psychosocial and educational health care needs.



The eight global standards are represented as a system to emphasize the importance of HPS as a system of governance. While the day-to-day implementation of HPS is the responsibility of the school (standards 5–8) with the support of school principals, leaders and community partners (standards 3 and 4), a sustainable HPS approach requires basic commitment and investment in leadership and resources from different sectors and levels of government (standards 1 and 2).

Although HPS and other whole-school approaches to promoting health in schools were developed as long ago as the end of last century, the idea of a fully embedded, sustainable system has not yet been achieved. Strategic activities are required to institutionalize health promotion in all aspects of educational systems. These include: governance of the educational process and its content; resource allocation; professional development of teachers; development of information systems; and performance management. Investment is required at national, local and school levels to accelerate global progress towards making every school a health-promoting school.

The HPS approach has become a major health-promotion strategy in schools across Europe. It should be emphasized that this approach cannot be applied equally in all schools; it should be tailored to the needs of the school, bearing in mind that they can adapt and change as needs develop (7).

## 2. Methodology

### 2.1. Main goals of the research

The main aims of the research were to:

1. create an overview of the education system and key education indicators, taking into account students at risk (of early school leaving, those with special educational needs, and those without parental care);
2. create an overview of the health status and key health problems of children and adolescents in the country (mortality, morbidity, risk factors and social determinants), taking into account existing inequalities in exposure to risk factors, as well as barriers to access to health services, which would serve to define strategic priorities (needs assessment);
3. map existing programmes, policies, initiatives, legislation, capacities and resources related to the health promotion of school-aged children and related to schools, including stakeholder mapping, in the context of the eight global standards for HPS; and
4. collect data needed to start the process of drafting an action plan for the implementation of national standards for HPS, with a framework for monitoring and evaluation.



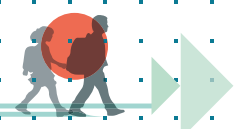
## 2.2. Research methods

1. A desk analysis of all available data sources on the health of school-aged children (health information system, national vital statistics, reports from national and international research, implemented projects).
2. A desk analysis of the existing legislative and policy framework related to the health of school-aged children.
3. Interviews with key individuals and interested parties from the sectors of education and science, health, labour and social policy, local authorities, and United Nations agencies.
4. Data collection using a specially designed Excel tool.
5. Focus group discussions.

## 2.3. Expected outcomes

Anticipated outcomes included having:

1. identified conditions that have the largest impact on the health and development of students/schoolchildren and adolescents in the country and on educational outcomes, in terms of both their impact during adolescence and any risk or protective factors for health in future (by age, sex and among those who are most vulnerable);
2. reflected on which of those conditions can be subject to school-based health interventions; and
3. mapped existing school-based health interventions, programmes, legislation, policies, projects, and capacities and resources in the country (according to key health conditions), as well as identified gaps and recommended priorities.



## 3. RESEARCH FINDINGS

### 3.1. Key indicators in education

#### *Education system*

The education system of the Republic of North Macedonia consists of preschool education (children aged 0–6 years), primary education (6–14 years), secondary education (15–17/18 years) and higher education. The Ministry of Education and Science is the main government body responsible for education and training and authorized to implement education. The strategies and programmes of the national institutions provide for intersectoral cooperation in the implementation of various measures and activities. The education system in North Macedonia is decentralized. Managing primary and secondary schools is the responsibility of the municipalities, except for the secondary schools in the capital Skopje, which are the responsibility of the City of Skopje. The State provides financial resources for education in the municipalities in the form of block grants (8).

#### *Number of students, teachers and schools*

According to data from the State Statistical Office of North Macedonia (SSO), at the beginning of the school year 2021–2022 the number of students in primary schools was 186 649, which is a decrease of 0.5% compared to the previous school year. At the beginning of the school year 2021–2022, the number of students in secondary schools was 71 018, which is a decrease of 1.1% across the same period.

Primary education is delivered in 967 public primary schools, 6 private and 42 special schools. Secondary education is delivered in 118 public secondary schools, 11 private and 2 special schools. Primary-level teaching is performed by 18 873 teachers in public, and 370 teachers in private primary schools. 6 357 teachers work in public secondary schools, while 197 teachers teach in private secondary schools (9).

#### *School enrollment*

The gross enrollment ratio for primary school students in 2020 was 95.51 for females and 95.51 for males; for secondary school students for the same year the ratio was 79.07 for females and 80.09 for males (10).

#### *Education completion rates*

In terms of primary school completion rate, the average value for North Macedonia in the period 1993–2018 was 93.70%, with a minimum of 89.73% in 2013 and a maximum of 100.07% in 1998 (11). The latest value from 2018 was 93.42%. By comparison, the 2018 world average based on 124 countries was 93.08%. Upper-secondary school completion rate in North Macedonia in 2018 was 81% for female and 87% for male students (12).



## Early school leaving

Pupils leaving school before completing their education occurs as a result of a combination of personal, social, economic, educational and family factors. Students leave the educational system prematurely for a variety of reasons that are particular to each individual, including: personal or family problems, health or emotional difficulties, dissatisfaction with the curriculum or teaching methods, poor relations with teachers or classmates, bullying, negative school climate, and so on.

Although there are no precise data, certain trends can be observed in early school leaving and some students are more at risk, such as children who come from socially disadvantaged backgrounds (households in which the members are unemployed, families with a low level of education, single parents, those living in poor socioeconomic conditions, and families that migrate). Other students at risk of early school leaving come from vulnerable groups (for example, children with special educational needs (SEN) or minor mothers) or are of Roma ethnic background. This trend is also more common in boys than in girls (13).

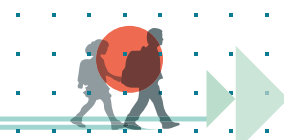
Most educational indicators (timely enrollment, regular attendance, school success, progression to a higher level of education) are less favourable among the Roma population, compared to the general population. Many children from this population group leave school during primary education (14).

Schools undertake various activities to keep students in schools. This mostly comprises counselling with parents, but this does not always produce the desired effects. Some of the normative solutions make it difficult to re-accept students who have left the educational system, such as the complex and expensive process of nostrification of documents from abroad and the lack of clear guidelines on students returning after many years since leaving school. Municipalities do not routinely collect data on students who have left education. Schools keep data on students who have left school, but do not track them after they leave school (15).

## Children / students with SEN

Students with SEN can be included in mainstream secondary schools on an equal basis, or educated in state schools for students with SEN. There are 42 special primary schools in the country, with 706 students and 76 teachers, as well as 4 special secondary schools with 232 students and 83 teachers (9).

Introduction of **inclusive education** in the country is an ongoing process during which the necessary adaptations of various components of the education system have been continuously made. These include: educational content; interventions in the curriculum, teaching strategies, activities and materials, as well as continuous monitoring of the process of implementation of interventions; training of teachers; facilitation of approaches to teaching; organizational changes; campaigns to raise public awareness, and so on. With the Concept Note on Inclusive Education, developed in 2020 (envisaged in the Law on Primary Education)(71), specific guidelines are provided and measures and strategies are proposed to remove the



barriers to implementing inclusive education and its sustainability for the inclusion, development and education of students SEN. These students include: those with disabilities, students with behavioural disorders or emotional problems or with specific learning difficulties, students who come from unfavourable socioeconomic, cultural, and/or linguistically deprived settings, students with complex needs, children/students with foreign citizenship, children without citizenship, refugee children, asylum seekers, children with recognized refugee status, children under subsidiary protection, overage children/students<sup>1</sup> and children/students from other vulnerable categories, who, for various reasons, require special support and care during the educational process. One of the initiatives is the project “Be IN, be INclusive, be INcluded”, which is intended to raise public awareness of the importance of inclusive education and the inclusion of children with disabilities in primary schools, as well as high-quality education for all children (16).

### ***Children without parents and parental care***

Living in an institution can have significant negative lifelong consequences for children’s physical, mental and emotional development. On the initiative and under the management of the Ministry of Labour and Social Policy, since 2017 the process of deinstitutionalization in the social protection system has been intensified and resulted in a transition from institutional care to care organized in the community for children and their families.

With the opening of what are known as “small group homes” and the establishment of a high-quality base of foster families, all children under the age of 18 years placed in care institutions were transferred to small group homes or foster families, whereby they were able to live in a safe and caring, family-like environment. Almost half of the 480 individuals who were placed in large institutions at the beginning of 2017 have now been relocated and are cared for in alternative forms of care in the community, including all children aged under 18 years. The National Deinstitutionalization Strategy envisages that by the end of 2024 no beneficiary will be placed in a residential institution (17).

The Republic of North Macedonia is a country with a high number of young people who are not in education, employment or training. According to the data from the European Commission’s Eurostat database in 2021, 27.6% of young people (aged 15–29 years) from North Macedonia were not part of the education system, employed or in training (18).

<sup>1</sup> Defined by UNESCO as students who are older than the official age range for the educational programme in which they are enrolled (that is, older than their peers in their school year group).

## 3.2. Health status and key health problems of school-aged children

### Demographic data

In the Republic of North Macedonia, according to the latest MakStat data from 2021, the number of adolescents aged 10–19 years was 230 383, or 11.1%; a significant proportion of the total population (19). The number of children aged 6–19 years was 322 702, or 15.6% of the total population (according to a population estimate from 31 December 2020, the country had a population of 2 068 808 people) (20). According to the results of the last census in North Macedonia in 2021 (total number of people 1 836 713), 12.5% were adolescents aged 10–19 years, while school-aged children (5–19 years) made up 17.6 % of the population (21).

### Mortality among school-aged children in North Macedonia

The most common causes of mortality in male children aged 10–14 years in 2020 were injuries, malignant diseases, diseases of the nervous system and diseases of the respiratory system. In girls aged 10–14 years, the most common causes were injuries, malignant diseases, diseases of the respiratory system and infectious diseases. The most common cause of mortality in the group aged 14–19 years, in both sexes, was injuries, while malignant diseases represented the fourth cause (Table 3.1) (22). The mortality data for age groups 10–14 and 15–19 years were obtained by official written request to the SSO, as the data available from official statistics were for the age groups 5–14 and 15–25 years.

**Table 3.1. Most common causes of mortality among school-aged children, 2020**

<b>Boys (aged 10–14 years)</b>	<b>Girls (aged 10–14 years)</b>
1. Injuries	1. Unknown and unspecified causes
2. Unknown and unspecified causes	2. Injuries
3. Malignant diseases	3. Malignant diseases
4. Diseases of the nervous system	4. Diseases of the respiratory system
5. Diseases of the respiratory system	5. Infectious diseases
<b>Boys (aged 15–19 years)</b>	<b>Girls (aged 15–19 years)</b>
1. Injuries	1. Injuries
2. Diseases of the nervous system	2. Unknown and unspecified causes
3. Endocrine, metabolic and nutritional disorders	3. Diseases of the nervous system
4. Malignant diseases	4. Malignant diseases
5. Infectious diseases	5. Diseases of the respiratory system

Source: based on data from the MakStat database (SSO of the Republic of North Macedonia), 2022 (22).

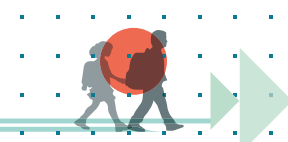


Table 3.2 shows data from UNICEF on the most common causes of mortality among adolescents in the Republic of North Macedonia in 2019, by sex and age (23). The charts that follow (Fig. 3.1 and Fig. 3.2) show the share of separate groups of diseases as causes of mortality, among boys and girls, according to age groups (aged 10–14 and 15–19 years) (23).

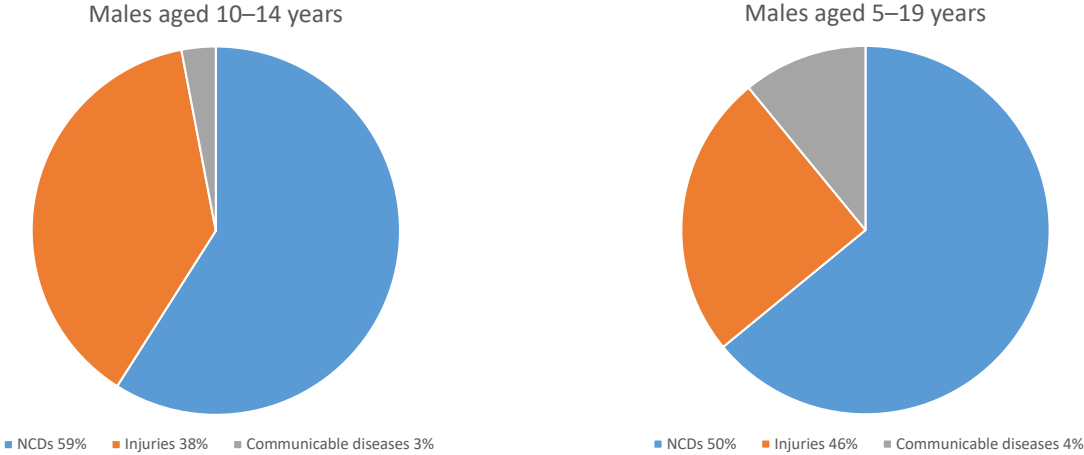
**Table 3.2. Most common causes of mortality among adolescents, by sex and age, 2019**

<b>Boys (aged 10–14 years)</b>	<b>Girls (aged 10–14 years)</b>
1. Leukaemia	1. Stroke
2. Stroke	2. Cardiomyopathy, myocarditis, endocarditis
3. Transport accidents	3. Congenital anomalies
4. Epilepsy	4. Carcinomas (of the brain and nervous system)
5. Cardiomyopathy, myocarditis, endocarditis	5. Leukaemia
<b>Boys (aged 15–19 years)</b>	<b>Girls (aged 15–19 years)</b>
1. Transport accidents	1. Stroke
2. Self-harm, suicides	2. Congenital anomalies
3. Cardiomyopathy, myocarditis, endocarditis	3. Lower respiratory infections
4. Interpersonal violence	4. Self-harm, suicides
5. Leukaemia	5. Transport accidents

Source: based on data from the UNICEF Adolescent health dashboards, 2021 (23).

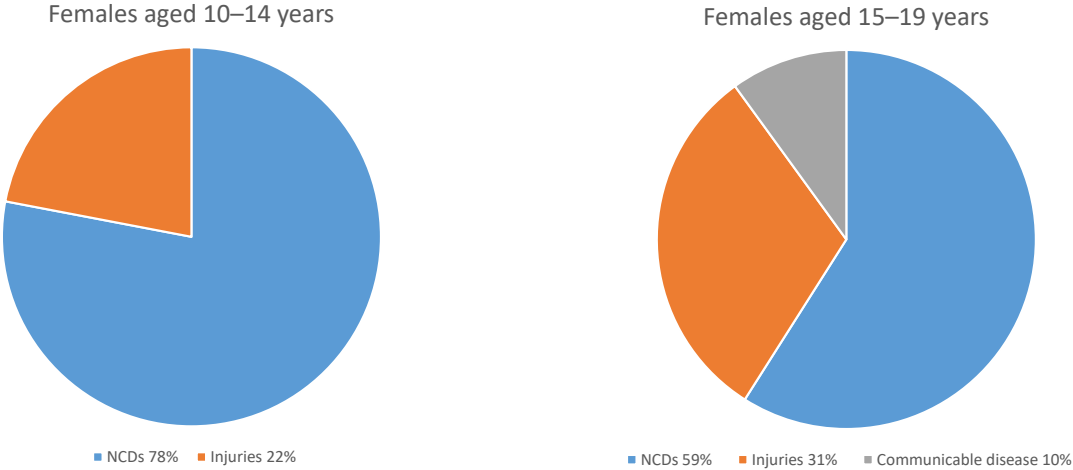


**Fig. 3.1. Causes of deaths among boys aged 10–19 years, 2019**



Note. NCDs: noncommunicable diseases.  
 Source: UNICEF Adolescent health dashboards, 2021 (23).

**Fig. 3.2. Causes of deaths among girls aged 10–19 years, 2019**



Note. NCDs: noncommunicable diseases.  
 Source: UNICEF Adolescent health dashboards, 2021 (23).



### Morbidity among school-aged children in North Macedonia

Table 3.3 presents the burden of disease as expressed by the top five causes of disability-adjusted life years (DALYs) in boys and girls aged 10–14 and 15–19 years in North Macedonia (23).

**Table 3.3. Top five causes of DALYs among people aged 10–19 years, by age and sex, 2019**

<b>Boys (aged 10–14 years)</b>	<b>Girls (aged 10–14 years)</b>
1. Behavioural disorders	1. Anxiety disorders
2. Anxiety disorders	2. Behavioural disorders
3. Diarrhoea	3. Migraine
4. Epilepsy	4. Stroke
5. Road traffic injuries	5. Diarrhoea
<b>Boys (aged 15–19 years)</b>	<b>Girls (aged 15–19 years)</b>
1. Road traffic injuries	1. Anxiety disorders
2. Behavioural disorders	2. Migraine
3. Self-harm	3. Depressive disorders
4. Exposure to mechanical force	4. Back and neck pain
5. Anxiety disorders	5. Gynaecological disorders

Source: based on data from the UNICEF Adolescent health dashboards, 2021 (23).



Tables 3.4 and 3.5 show the prevalence of outpatient-polyclinic morbidity at primary health care level in 2021, according to groups of diseases, in the age groups 10–14 and 15–19 years (24).

**Table 3.4. Prevalence (%) of outpatient-polyclinic morbidity at PHC level according to groups of diseases, among boys and girls aged 10–14 years, 2021**

1.	<b>Boys (aged 10–14 years)</b>	<b>%</b>	<b>Girls (aged 10–14 years)</b>	<b>%</b>
2.	Diseases of the respiratory system	46.3	Diseases of the respiratory system	50.2
3.	Undefined conditions	8.7	Undefined conditions	9.5
4.	Diseases of the skin and subcutaneous tissues	4.8	Diseases of the skin and subcutaneous tissues	5.2
5.	Infectious and parasitic diseases	3.5	Infectious and parasitic diseases	3.8
6.	Injuries and poisoning	3.4	Injuries and poisoning	3.7
7.	Diseases of the digestive system	2.7	Diseases of the digestive system	2.9
8.	Diseases of the eye and adnexa	2.6	Diseases of the eye and adnexa	2.8
9.	Diseases of the ear and mastoid system	2.4	Diseases of the ear and mastoid system	2.6
10.	Diseases of the musculoskeletal system	2.2	Diseases of the musculoskeletal system	2.4
11.	Diseases of the genitourinary system	1.3	Diseases of the genitourinary system	1.7
12.	Diseases of the nervous system	1.2	Diseases of the nervous system	1.3
13.	Mental disorders and behavioural disorders	1.1	Mental disorders and behavioural disorders	1.2
14.	Diseases of the blood and blood-forming organs	0.7	Diseases of the blood and blood-forming organs	0.7
15.	Endocrine, metabolic and nutritional disorders	0.6	Endocrine, metabolic and nutritional disorders	0.7
16.	Malignant diseases	0.18	Malignant diseases	0.2

Source: reproduced with permission from data provided by the Institute of Public Health, 2022 (24).



**Table 3.5. Prevalence (%) of outpatient-polyclinic morbidity at PHC level according to groups of diseases, among adolescents aged 15–19 years, by sex, 2021**

	<b>Boys (aged 15–19 years)</b>	<b>%</b>	<b>Girls (aged 15–19) years</b>	<b>%</b>
1.	Diseases of the respiratory system	37.9	Diseases of the respiratory system	34.1
2.	Undefined conditions	9.0	Undefined conditions	9.9
3.	Diseases of the skin and subcutaneous tissues	6.2	Diseases of the skin and subcutaneous tissues	7.2
4.	Infectious and parasitic diseases	4.0	Diseases of the digestive system	4.6
5.	Injuries and poisoning	4.3	Diseases of the genitourinary system	4.0
6.	Diseases of the digestive system	4.3	Diseases of the eye and adnexa	3.9
7.	Diseases of the eye and adnexa	3.1	Infectious and parasitic diseases	3.8
8.	Diseases of the musculoskeletal system	3.1	Diseases of the musculoskeletal system	2.9
9.	Diseases of the ear and mastoid system	2.2	Diseases of the ear and mastoid system	2.8
10.	Mental disorders and behavioural disorders	1.9	Mental disorders and behavioural disorders	2.1
11.	Diseases of the nervous system	1.8	Diseases of the blood and blood-forming organs	2.0
12.	Diseases of the genitourinary system	1.8	Injuries and poisoning	1.9
13.	Diseases of the blood and blood-forming organs	0.8	Diseases of the nervous system	1.6
14.	Endocrine, metabolic and nutritional disorders	0.8	Endocrine, metabolic and nutritional disorders	1.5
15.	Diseases of the circulatory system	0.7	Diseases of the circulatory system	0.8

Source: reproduced with permission from data provided by the Institute of Public Health, 2022 (24).



### 3.3. Health behaviour and risk factors among school-aged children in North Macedonia

#### *Data sources*

The data on the health behaviour of school-aged children are obtained from various sources: some are obtained from the routine reporting through the national health information system, and some from international and national research. A small portion of the values were obtained as a result of estimation, derived from data from multiple sources. Despite deriving from routine statistics, the values for some of the indicators should be carefully interpreted because they are subject to underreporting (for example, on habits such as smoking and use of alcohol). For this reason, it was necessary to use the values obtained through targeted behavioural research. Owing to the use of different sources, it was not possible to achieve consistency in terms of (a) age/age group, or (b) presented indicators proposed by the WHO research team.

#### *Unintentional injuries*

In 2020, injuries and poisoning ranked first among all causes of mortality, among both sexes and age groups studied, and ranked fifth among all causes of morbidity for both sexes aged 10–14 years (3.4% in males and 3.7% in females) (24). Among those aged 15–19 years, injuries and poisoning ranked fifth among boys (4.3% of all causes), and 12th among girls (1.9%).

#### *Violence*

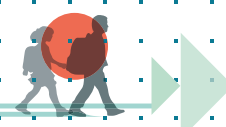
In 2018, 17.7% of female and 18.5% of male adolescents in North Macedonia were exposed to bullying. A total of 36% of males and 15% of females had been in a physical fight in the last 12 months (25). Bullying can manifest in several forms: physical, verbal, psychological, sexual, economic and cyber.

#### *Sexual and reproductive health (SRH), including HIV/AIDS*

In terms of adolescent pregnancy and births, during the year 2020 the pregnancy rate among girls aged 15–19 years was 18.9 per 1000 girls, while the birth rate among the same age group was 16.7 per 1000. Expressed as a percentage of total births in the same year, 4.9% of all children were born to mothers under the age of 19 years.<sup>2</sup> A total of 99.9% of all deliveries of women in the country were performed in the presence of qualified health staff.

Regarding prevalence of contraceptive use (modern methods) among adolescents, 31% of students of both sexes at the age of 15 years had not used any modern method of contraception during their last sexual intercourse; that is, 69% used some method of modern contraception (condom or oral contraception) (26). In 2020, only 0.6% of adolescents under the age of 19 years were covered by family planning counselling.

<sup>2</sup> Information on maternal and child health conveyed in 2022 by the Institute for Mother and Child Health (IMCH).



In 2020, 45% of girls were covered by complete human papillomavirus (HPV) vaccination. According to the country's vaccination calendar, the HPV vaccine is given only to girls aged up to 12 years. In 2020 and 2021, no HIV/AIDS cases were registered in the age group 6–19 years.<sup>3</sup>

The incidence of STIs is 3.4 per 100 000 adolescents aged 15–19 years, and among those aged 10–19 years it is 4.2 per 100 000. Chlamydia is the most common (five cases among those aged 10–19 years), but no cases of gonorrhoea and syphilis have been registered in this age group. In 2021, no chlamydia cases were registered.<sup>4</sup> These data should be carefully interpreted due to the possibility of underreporting, especially of chlamydia (relating to failure to see a doctor, symptomatology that is difficult to recognize, objective and subjective barriers to accessing services, and so on).

### **Communicable diseases**

Lower respiratory infections rank fourth among all causes of death in girls and fifth among boys aged 10–14 years. At the same time, infectious diseases and respiratory infections rank fifth as a cause of death among both sexes aged 15–19 years. Diseases of the respiratory system – which are mostly due to viral and bacterial infections – rank first among reasons for visiting a doctor, especially among those aged 10–14 years. Infectious and parasitic diseases rank fourth among all causes of morbidity among adolescents aged 10–14 years (3.5% in males and 3.8% in females). Among those aged 15–19 years, these diseases rank fourth among males (4.0%) and seventh among females (3.8%) (24).

### **NCDs and malnutrition**

Malignant diseases rank third among all causes of death among both sexes aged 10–15 years and fourth among both sexes aged 15–19 years. Stroke ranks first among girls, and second among boys aged 10–14 years (22).

Malignant diseases rank 15th among all causes of morbidity in adolescents aged 10–14 years (0.18% in males and 0.2% in females). Diseases of the circulatory system rank 15th among girls aged 15–19 years. Endocrine, metabolic and nutritional disorders rank 14th among both age groups; those aged 10–14 years (0.6% in males and 0.7% in females) and those aged 15–19 (0.8% in males and 1.5% in females) (24).

Regarding dietary habits, 48% of girls and 39% of boys (aged 13 and 15 years) do not eat fruit or vegetables daily (26). The prevalence of **overweight** (according to the WHO definition) among children aged 7–9 years is 30% among girls and 32% among boys, while 13% of girls and 17% of boys are considered obese according to the WHO Childhood Obesity Surveillance Initiative. The prevalence of both indicators shows a gender difference; male children are more prone to overweight and obesity (27).

Seventy-four percent of the insufficiently physically active adolescents (aged 11–17 years) were males and 84% were females in 2021 (25). Malnutrition is present in 2% of male and the same percentage of female school-aged children.

<sup>3</sup> Information on immunization surveillance conveyed in 2022 by the Department for monitoring and surveillance of communicable diseases of the Institute of Public Health of the Republic of North Macedonia.



## Mental health and academic stress

Mental health and behavioural disorders rank 12th among all reasons to visit a doctor for individuals of both sexes aged 10–14 years (1.1% in males and 1.2% in females). Among older students, aged 15–19 years, these problems are more frequent and rank 10th for both sexes (1.9% in boys and 2.1% in girls) (24).

According to UNICEF data, anxiety and behavioural disorders (ranking first and second among all causes) dominated all DALYs among individuals of both sexes aged 10–14 years. Among adolescents aged 15–19 years, anxiety ranked first and depressive disorders third, whereas anxiety ranked fifth for all DALYs among males (23).

In terms of academic stress, girls at the age of 15 years feel more pressure from school-related responsibilities (64% of girls) than boys (53% of boys). There is an upward trend in the values of this indicator compared to the those recorded in 2014 (60% for females and 50% for males). The values for both sexes are higher than the average in the European countries studied (51% of females and 38% of males) (26).

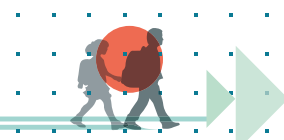
## Substance use

The prevalence of current (in the past 30 days) use of any **tobacco** product among adolescents was 13.1% among boys and 8.4% among girls aged 13–15 years, or 10.9% of adolescents of both sexes in 2016 (28). The vast majority of people who use tobacco today started doing so when they were adolescents.

Boys report more **alcohol use** than girls: 26% of female and 53% of male adolescents aged 15–19 years were current drinkers in 2016, or 39.4% of adolescents of both sexes in the same age category (29). According to UNICEF data, the prevalence of heavy episodic drinking among adolescents was 35% among male and 8% among female adolescents (23). According to the results of the 2017/2018 HBSC study, 9% of female and 15% of male students aged 15 years had been drunk at least twice (26). The most frequently consumed alcohol is beer.

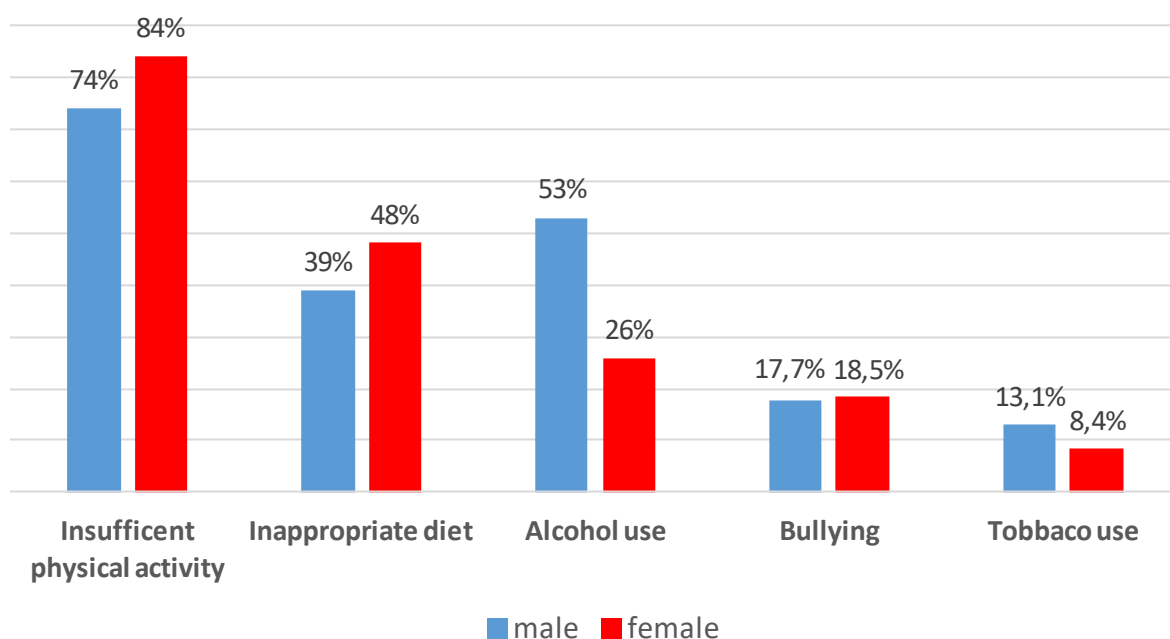
In terms of the use of psychoactive substances, 12.6% of young adults (aged 15–24 years) stated that they had used some type of illegal drug during the last year, while 12.5% reported using cannabis at least once in the past year. Prevalence during the last year of taking any illegal drug other than cannabis was as follows: ecstasy 1.6%, amphetamines 1.3%, cocaine 1.8%, heroin 1.5% and LSD 0.5% (30).

Fig. 3.3 summarizes the most significant behavioural risk factors among adolescents



in North Macedonia.

**Fig. 3.3. Behavioural risk factors among adolescents in North Macedonia**



Sources: 2016 data on physical activity from UNICEF (26); data on diet from the 2017/2018 HBSC survey (26); data on alcohol use for 2016 from the GHO database (30) and the 2017/2018 HBSC survey (26); 2018 data on bullying from UNICEF (26); data on tobacco use from the 2016 Global Youth Tobacco Survey (28).

### Health literacy

Health literacy, according to the WHO Health Promotion Glossary, is “the possession of cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health” (37). Health literacy enables children and adolescents to: understand health messages and communicate about health topics; think critically and make informed decisions about health; acquire health-related knowledge and use it in new situations; use health information to promote their own health, the health of others and the health of the environment; develop healthy lifestyles and avoid risky behaviours, and so on. Health literacy has been found to be associated with health behaviour and health outcomes in children and adolescents, which is why monitoring health literacy and routine data collection for this indicator are vital.

In North Macedonia, 38% of students showed a high level of health literacy, 56% demonstrated a moderate level, while 6% showed a low level of health literacy.

### 3.4. Health behaviour and risk factors among school-aged children globally

**Unintentional injuries** are the largest cause of premature morbidity and mortality and the leading cause of death among adolescents aged 10–19 years, globally. Transportation is the largest source of these injuries, principally as drivers and passengers, but also as cyclists and pedestrians. Other major causes involve drowning, poisoning, fires, sports and recreation injuries, and work-related incidents (32).

According to the global Health Behaviour in School-aged Children (HBSC) Study 2017/2018, in the European countries studied, 10% of adolescents of both sexes were exposed to **bullying** (26). The consequences of all types of bullying on adolescent health and social well-being are well documented and affect both the victims and the perpetrators. Interpersonal violence is the fourth leading cause of death among adolescents and young people. Sexual violence also affects a significant proportion of young people; one in eight young people reported sexual abuse. Violence during adolescence also increases the risks of injury, HIV and other sexually transmitted infections (STIs), mental health problems, poor educational performance and early school dropout, youth pregnancy, reproductive health problems, and both communicable diseases and NCDs.

**SRH:** Complications related to pregnancy and childbirth are the leading cause of death among girls aged 15–19 years, worldwide. The global adolescent birth rate in 2020 was 43 births per 1000 girls of the same age, with country rates ranging from 1 to over 200 births per 1000 girls (33). Infectious diseases, such as HPV, which usually occurs after the onset of sexual activity, can also lead to short-term diseases (e.g. genital warts) during adolescence; however, more importantly, they can also lead to cervical cancer and several other cancers, decades later. It is estimated that in 2019 only 15% of girls globally received the HPV vaccine.

With an estimated 1.7 million adolescents living with HIV in 2019, adolescents still account for about 10% of new HIV infections, with three quarters of these cases being among adolescent girls. Moreover, many adolescents and young people living with HIV may not know their status (34).

**NCDs and malnutrition:** Many boys and girls enter adolescence malnourished, making them more vulnerable to diseases and premature death. At the other end of the spectrum, the number of adolescents who are overweight or obese is also increasing. In 2016, over one in six adolescents aged 10–19 years were overweight. Prevalence of physical inactivity is high in all WHO regions and higher among female adolescents compared to male adolescents. Only one in five adolescents is estimated to meet the WHO guidelines for required physical activity per day.<sup>4</sup> Habits related to diet and physical activity affect the state of a person's health, both during adolescence and further into adulthood (35).

**Mental health problems** account for 16% of the global burden of disease and injury in people aged 10–19 years. Depression is one of the leading causes of disease and disability among adolescents, and suicide is the third leading cause of death among people aged 15–19 years. Half of all mental health disorders in adulthood begin by the age of 14 years, but most cases go undiagnosed and untreated (35). In 2019 it was estimated that one in seven adolescents experienced mental disorders (36). When mental health conditions are not addressed, they extend into adulthood, impairing both physical and mental health and limiting opportunities to lead fulfilling lives.

**Substance use:** Globally, at least one in ten adolescents aged 13–15 years uses tobacco, although there are areas where this figure is much higher. The vast majority of people who use tobacco today started doing so when they were adolescents. Drinking alcohol can reduce self-control and increase risky behaviours, such as unsafe sex or unsafe traffic behaviour (including driving). It is a major cause of injury (including those due to traffic accidents), violence and premature death. It can also lead to health issues later in life and reduce life expectancy (35). Worldwide, more

<sup>4</sup> This equates to 60 minutes of physical activity, which may include games, sports, cycling, walking or physical education.



than a quarter of all people aged 15–19 years currently use alcohol. The prevalence of heavy episodic drinking among adolescents aged 15–19 years was 13.6% in 2016, with boys being most at risk. Globally, cannabis is the most widely used psychoactive drug among young people, with about 4.7% of people aged 15–16 years using it at least once in 2018 (35).

The **health literacy** level scores achieved by school-aged children in 10 European countries involved in the 2017/2018 HBSC study indicate that 13.3% of the pupils had a low health literacy level, 67.2% had a moderate level of health literacy and 19.5% (almost one fifth) of all participating pupils scored the highest level of health literacy (37).

### 3.5. Barriers to access to services and inequity in access between population subgroups

The identified key obstacles to the use of health services comprise a mix of **institutional**, **information** and **subjective** barriers. The most frequently mentioned **institutional barriers** are:

- time constraints/inadequate service schedule (few clinics are open in the evenings and on weekends; inconvenient working hours);
- long waiting times and unpleasant waiting places/areas;
- transportation problems;
- financial constraints;
- remoteness – long travel times to the point of health service provision;
- insufficient informative and educational materials in health-care facilities;
- negative attitude of health service providers;
- lack of privacy and confidentiality; and
- existence of stigma, especially towards problems related to SRH and mental health (they are not sufficiently adapted to needs and are not youth friendly).

The most frequently mentioned **information barriers** are:

- lack of information/lack of awareness about the need for health services;
- failure to recognize symptoms (believing that the problem was not big enough to be worth consulting);
- insufficient information about where to ask for a service and which profile of health worker to choose; and
- lack of clear referral mechanisms.

In terms of **subjective barriers**, these include:

- fear and shame associated with a physical examination, especially for problems related to SRH;
- fear that the family will find out about health problems;
- fear of the diagnosis itself;
- lack of time due to school-related obligations; and
- lack of a close person to confide in.



As a result of all of the above barriers, the most frequently used sources of information about health are the media, primarily the Internet (websites, applications and social networks), peers and, less frequently, parents (in particular, mothers), while professional sources such as health workers and teachers are rarely used.<sup>5</sup>

### **Vulnerable groups of students**

The response to the COVID-19 pandemic emphasized already existing inequalities in access to services, which **disproportionately affect vulnerable populations** (for example, LGBTQI+(lesbian, gay, bisexual, transgender, queer and intersex), Roma, youth from rural areas, youth facing poverty, youth outside the education system, people living with addiction, people living with disabilities, and migrants). The pandemic has made it more obvious that health-care facilities and health services need to be more youth friendly, especially for these vulnerable groups. Communities such as the Roma population and LGBTQI+ people have widely accepted nongovernmental organizations (NGOs) as a trusted source of information and as key service providers, with LGBTQI+ people in particular reporting significant reliance on websites and NGOs during the pandemic (37).

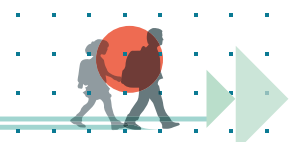
### **Students with disabilities**

People with disabilities are identified by the United Nations as “persons who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others” (38). It is estimated that one in every 10 people has some type of disability, and that 30% of families live with an immediate family member who has a disability.

Often, health-care facilities are not accessible or do not have the necessary equipment to provide services to people with disabilities. **Structural and architectural barriers** can be found both inside and outside the service providers’ facilities. These include: lack of ramps or ramps with inadequate slopes and surfaces; external and internal doors that are not wide enough (at least one metre), light enough to be pushed and/or are not automatic; counters and reception desks that are not low enough for a person in a wheelchair to use; the existing medical equipment and examination beds are not adapted to their needs, and so on. Not all barriers to health care are physical; in addition, health workers lack the necessary communication skills to work with these population groups, who very often face stereotypes, stigma and prejudice, especially when it comes to SRH. Due to financial dependence on family and high poverty rates among these population groups, many are unable to afford transportation to health-care facilities, or fees for services or medications. They also suffer from lack of privacy and confidentiality in the service provision, due to the need for a companion – this makes some people with disabilities seek medical help only in emergencies or with acute conditions, and therefore they do not prioritize primary or preventive health-care services (39).

In North Macedonia, in terms of accessibility, public and private health-care facilities (hospitals, pharmacies, polyclinics, dental and gynaecological clinics) are still not fully physically accessible to people with disabilities. This is despite the fact that the Law on Health Protection of the Republic of North Macedonia(72) prescribes the conditions to be met by each health-care facility, along with the Regulation on the

<sup>5</sup> Anecdotal information from a focus group discussion in 2022 with secondary-school students in Skopje.



manner of providing unhindered access, movement (horizontal and vertical), stay and work of persons with disabilities to and in buildings for public and business purposes, buildings for housing purposes in residential blocks of flats, as well as buildings for residential and business purposes.(73)

### ***Specific burdens on children outside the education system***

It is estimated that around 300 children in the country are living on the streets. In terms of ethnicity, the majority of these people are Roma. The largest number of children without a home live in Skopje, followed by Bitola, Kumanovo, Veles, Gostivar and Kichevo. There are fewer than 10 children living on the streets in (each of) Resen, Gevgelija, Vinica, Strumica, Kavadarci, Shtip, Negotino and Prilep. The largest percentage of children without homes come from families belonging to a vulnerable group of citizens, without education, unemployed, and families who are beneficiaries of social protection rights. A significant number of street-based children are not enrolled in the education system due to the lack of appropriate documentation; they are not registered in the birth register or they are past the age for school enrollment. An alarming number of street children engage in substance abuse (e.g. glue-sniffing) and their health is at risk (40).

There are two day centres for street children in the City of Skopje. One of them is part of a public institution – the Inter-Municipal Centre for Social Work of Skopje – and the other is managed by a civil association (Association for Protection of Children's Rights) located in the Skopje municipality of Šuto Orizari (at which 63 children are registered). Ninety percent of the total number of children who visit these centres are enrolled in the education system. One day centre works several hours with the children. Professional teams of pedagogues help them with hygiene habits and cultural assistance, help with their homework, help them in the process of gathering necessary documentation and in accessing health care (41).

The Annual Programme for Medical Check-ups of students also provides funds for medical check-ups, especially of vulnerable groups of children and adolescents who are outside the education system, or for some reason do not have health insurance. (74) The health sector, in cooperation with the visiting (patronage) service, Roma health mediators, the Institute of Public Health and NGOs, takes an active approach to identifying these children and referring them to preventive teams for medical check-ups, immunization and other types of preventive health care for children.



### 3.6. Analysis of the situation in the context of the HPS standards

#### 3.6.1. Global standard 1. Government policies and resources

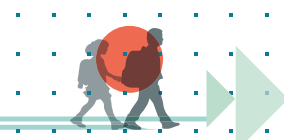
Making every school a health-promoting school requires long-term investment, but also efforts and specific actions at national and local levels. It implies having defined goals and a clear policy position for implementation, as well as appropriate allocation of existing resources. Intersectoral collaboration is necessary in governmental policy-making. The Government becomes responsible for and should be committed to investing in making every school a health-promoting school.

National educational policies or strategies for HPS are not specified, as a means of achieving the national development goals through education; nor is a framework for national promotion provided. The concept of “students’ active participation” was already established in 2008 as a basic principle of the new nine-year duration for primary education in the previous Concept Note on Primary Education, along with the principle of “physical safety and health of students” (42).

In accordance with the vision to make every school a health-promoting school, all stakeholders in the education system should focus on students’ well-being. Education should enable students to develop into critical thinkers and active participants in civil society. To achieve this goal, various steps and tools should be developed to incorporate generic competencies and certain key competencies. Generic competencies for critical thinking and making reasoned decisions include the ability to solve problems and apply knowledge in real practical situations, for interpersonal socio-emotional skills. Key competences include learning how to learn and innovate, as well as learning about entrepreneurship, civic and social responsibility, cultural awareness and expression, together with the key competences for communication in native and foreign languages, as well as mathematics, natural sciences and technology, and digital proficiency.

The current Law on Primary Education (75) stipulates that every child has the right to education and establishes the principles on the basis of which primary education is developed. These include:

- considering the best interests and full development of the student;
- ensuring equality, affordability, accessibility and inclusiveness;
- defining and guaranteeing the general educational character of primary education;
- ensuring high-quality education and international comparability of students’ knowledge;
- “active participation of students in the life of the school and the community”;
- preparing the student for lifelong learning;
- accepting diversity, multiculturalism and interculturalism;
- “care for physical safety and health”; and
- establishing competences, responsibility and partnership between the school, parents (guardians) and local self-government units.



The Law emphasizes the protection against discrimination and the promotion of equality, as well as the inclusive nature of primary education.

The Law on Primary Education also stipulates the obligation for schools to take care of the health and social protection of students through cooperation with health institutions, institutions for social protection to help and support students from vulnerable social groups, as well as care in the SRH sphere by providing information based on scientific knowledge, human rights, gender equality and promoting and respecting diversity (Article 48). As part of the Annual Work Programme of primary schools in the Republic of North Macedonia, the Law stipulates the obligation to plan activities to promote the well-being of students, prevent of discrimination, protect them from violence, abuse and neglect, ensure inclusive practices and strive for inter-ethnic integration (Article 49, paragraph 5).

Pursuant to Article 66 of the Law, guidelines have been drawn up on the procedure for reporting and protecting students who are victims of any form of violence, abuse or neglect. Article 38 stipulates that during personal/social/community education class time, educational content on the **personal and socio-emotional development of the students** is covered according to a curriculum defined by the Ministry of Education and Science, based on the proposal of the Bureau for Development of Education. The curriculum was developed on the basis of the previous curriculum on Life Skills and it was harmonized in accordance with the new curriculum development framework (whereby learning outcomes and assessment standards were introduced) and the National Standards for student achievements at the end of primary education.

(Article 68) of the Law regulates the **student organization and participation** at the class and school level for the purpose of organized achievement of students' interests. Pursuant to this article of the Law, the Bureau for Development of Education developed a Guide for student participation, student organization and protection of children's rights in primary schools (43).

The Guide for student participation is intended for all schools, personal/social/community education classes, student communities and parliaments, form teachers in primary schools, as well as student support staff. These groups should be the main owners, supporters and promoters of the democratic participation of students in the school. The Guide contains resources for capacity-building and effective application of children's rights in the education system. Student participation and organization should be integrated into the statute of each school in accordance with the provisions of the Law on Primary Education, as well as the Guide.

The Concept Note on Primary Education relies on inclusiveness, gender sensitivity/equality and interculturality as key principles and is directly linked to the National Standards for primary education that provide guidelines to be followed by the entire organization, and implementation of the educational process in primary schools. The Concept Note defines the interests and needs of students as a priority and puts them in the focus of primary education. The Concept Note starts with the notion that students can achieve the expected learning outcomes more easily if they perceive what they are learning as relevant and useful, i.e. as something that may be related to everyday life.



The National Standards for student achievements at the end of primary education define the competencies that students should acquire at the end of primary education. The area of **Personal and Social Development** defines competencies that enable self-knowledge and development of the physical, cognitive, affective and social aspects of well-being. Developing these competencies provides for the development of mature, active and responsible people, ready to tackle everyday life challenges that every person comes across as an individual and as a member of smaller and larger social groups. The area of **Society and Democratic Culture** includes the competencies referring to the knowledge and understanding of oneself, the society, its history and organization. It also covers economic and political concepts, structures and movements, as well as the skills and attitudes which should enable the student to behave in a democratic and responsible manner – both in school and outside – and to be a responsible citizen in the future, participating in civic and social life in an active and motivated manner (44).

According to the laws on primary, secondary and higher education in the Republic of North Macedonia, health promotion is carried out in every educational institution. It is included in the curricula, but there is no separate national plan or strategy for health promotion specifically in schools. The laws regulating education in North Macedonia are drafted by the Ministry of Education and Science (and there is a close link between the Ministry of Education and Science and the Ministry of Health). The national Bureau for Development of Education is an organization under the Ministry of Education and Science, which is responsible for the design, monitoring and evaluation of curricula. By adopting the health education content from the curricula, students acquire basic knowledge about: healthy lifestyle, prevention of the occurrence and spread of communicable diseases, NCDs and occupational diseases, and health promotion. Health education allows students to acquire and develop habits for maintaining a healthy environment – through this educational content, students are trained to increase control over their health in terms of its maintenance and improvement, and not only to prevent diseases.

It should be acknowledged that the Government has made considerable effort since the COVID-19 pandemic began to encourage the engagement of professional associates in primary and secondary schools to develop protocols.

In the Education Strategy and Action Plan for the years 2018–2025 the Ministry of Education and Science stipulates that the vision set out by the Strategy

is encompassed in the commitment to provide comprehensive, inclusive, and integrated education focused on the 'learner', based on modern programmes for equipping future generations with knowledge, skills and competences in accordance with the needs of the democratic multicultural society, the labour market, and the new challenges in the global scientific-technological environment. (45).

In terms of the education and health sectors, intersectoral cooperation in decision-making is important, encouraging and supporting cooperation with other sectors for the implementation and monitoring of HPS. There is a multisectoral steering committee, cooperation between schools, parent councils and health institutions, and in certain municipalities there is also the so-called Council for Health Protection, which is a self-initiated council with the support of teachers, parents, municipal representatives and so on. However, no formal agreement exists to regulate these relationships.



The schools cooperate with local authorities and the local community, in accordance with the health-care programme of the individual school. Medical check-ups, vaccinations, routine procedures (such as applying teeth sealant), as well as organized lectures on healthy lifestyle and healthy diet are carried out.

Resources are allocated to schools according to the state budget, and then the funds are provided through the municipalities. The national Government allocates funds from the national budget for health-promotion purposes where there is an appropriate need for intervention. However, currently, there is no special national programme for monitoring and evaluation of health promotion in schools. Furthermore, there is no investment in the professional development of teachers to acquire competencies for the promotion of health education among students.

### **3.6.2. Global standard 2. School policies and resources**

HPS require commitment and investment by schools, reflected in school policies or plans and in the allocation of school resources. In that process, it is important that the value of health and well-being are recognized and implemented in the core work of the school. Thus, it is necessary to provide adequate resources and incorporate a system of monitoring and evaluation to ensure the sustainability and effectiveness of school policies.

The School Development Programme is a document that involves planning of the priority areas for development of primary schools, as well as monitoring and evaluating the programme for four years, in order to improve the education provided by the school. Based on the School Development Programme, the school also prepares an Annual Work Programme, which is a document on the operation of the primary school for each school year. The annual programme includes planning the areas in which changes will be made, priorities and goals set, action plans drawn up, as well as the evaluation methods for action plans. For each goal, the following are specified: activities (and owners), success indicators, time frame for implementation, required resources, and the team for monitoring implementation.

In the annual work programmes of primary schools, the following areas are also elaborated:

1. student organization and participation;
2. promotion of multiculturalism/interculturalism;
3. student support (achievements; professional orientation and promotion of students' well-being; protection from violence, abuse and neglect; prevention of discrimination);
4. school safety; and
5. health care (hygiene in the school, medical check-ups, vaccination, education on healthy diet, meals in the schools).

Health policy in schools in North Macedonia is covered through the aforementioned Annual Work Programme and plan that each school prepares in accordance with the guidelines from the Ministry of Education and Science. The annual plan includes a section that should cover health topics such as: hygiene in the school, medical check-ups, vaccination, and education about healthy diet. In view of the new situation with the COVID-19 pandemic, a special Protocol for the primary schools in the Republic of North Macedonia for the school year 2020–2021 for

implementation of education with physical presence was prepared (46) (relating to in-person teaching), as well as a new plan for maintaining teaching in primary and secondary schools (47), in order to protect the health of students and teachers. Special emphasis was placed on working to ensure the successful implementation of the protocols.

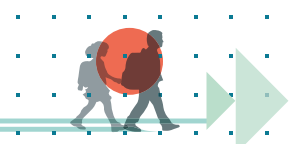
In about 50% of schools, school policies are harmonized with national policy, which means that they have their own policies and plans for HPS, and the remaining schools have either some written policies and plans, or do not have any policies and plans for HPS.

In the majority of primary and secondary schools, school policies for HPS are based on evidence and rights, and are responsive to the values and preferences of students, schools and local communities, addressing key outcomes. Most primary and secondary schools have a plan that covers the whole school to ensure continuity of education and health promotion in the event of disruption of the teaching process. The planned content includes sections for mental and social health. Most primary and secondary schools have a plan for partnership and cooperation with national and local authorities, and most also have a plan for partnership engagement with parents and guardians, as well as with the local community. There is a high percentage of clearly formulated school policies in both primary and secondary schools, and all stakeholders have been properly informed about it. Around 30% of the schools have sufficient resources to implement and monitor policies for harmonization with goals and policies related to HPS. Most primary and secondary schools invest in the professional development of teachers and other school staff, including health personnel, in the sphere of HPS, but no specific training has been carried out on the health promotion of students for a long while now (since around the late 2010s).

Officially, there is no mention of schools establishing a (even estimated) budget for health promotion. However, it is important to note that many schools consider health and well-being to be part of the curriculum. Systems exist – albeit in part and occasionally, and only in some schools – for monitoring the progress and success of health promotion in work plans and guidelines; this is mostly from the perspective of inclusion and violence. Health promotion is part of some schools' educational goals and curriculum, and these schools implement a policy on the health and well-being of students and staff, from which the following conclusions can be drawn.

- Schools apply a whole-school approach to promoting health and well-being.
- The values of school health education form part of the schools' approach to health promotion.

Within the conducted analysis on whether any educational policies have been put in place that articulate the national standards for all aspects of HPS (from school policies to health services), it was established that there are no official national or regional guidelines, tools, standards or indicators to support schools in becoming HPS. As already mentioned, no special national programme currently exists to monitor and evaluate health promotion in schools.



### 3.6.3. Global standard 3. School governance and leadership

Schools that promote the health and well-being of students require a clearly defined and shared leadership model, in which all stakeholders (including the school leadership team, students, parents) should engage, investing in health promotion and advancement. For this purpose, it is necessary to provide a collaborative model of leadership in the school community, so that health promotion can be embedded in everyday governance and decision-making processes. This would enable consistent leadership of HPS. School management should ensure adequate resources for unhindered management of schools and effective support of HPS.

The whole-school approach is the basis of numerous bylaws arising from the Law on Primary Education. In interviews with school leadership teams, it was reported that regular team meetings were held to consider the priorities, needs and interests of the school community. The majority of primary and secondary schools have a leadership team that enables the integration of these priorities, needs and interests in the school context, having been identified by the various stakeholders.

The work of the school leadership team (school board members, school management, the principal and other leaders) involves supporting and promoting the values and ethos of HPS within the school community, including in particular activities that foster health-promotion values. All stakeholders are required to consider areas for care and promotion of the health, safety and well-being of students and employees within their work programmes.

Schools have established leadership roles, but not specifically in the domain of HPS. Each school operates in its own context, with specific individual circumstances and characteristics, such as:

- the social, political, economic and physical environment;
- the characteristics, behaviour, wants and needs of school members;
- the wider community in which the school is located;
- the students and parents; and
- the history and organization of the school.

This means that needs and opportunities differ between schools. It also means that the schools operate in a unique way and can each apply health-promotion principles and approaches in a different way. Thus, even when similar health-promotion interventions are implemented, different effects may be achieved in different schools. The idea behind the concept of HPS is to bring about changes in the whole school, which is challenging because schools are considered complex systems with all kinds of interacting factors.

In a small number of schools, school communities and students are involved in decision-making and are offered opportunities for leadership and training in HPS. Only few schools encourage parents/guardians to participate in the dynamics and organization of HPS. There is a need to increase the number of schools that use existing or new channels to conduct a dialogue that allows for a shared vision of the needs and strategy for HPS, and also for leaders to attend leadership, management or monitoring and evaluation training in HPS. In 30% of the schools analysed, leaders have received training on health risks and issues (including physical and mental health) that affect students, and they take into account student diversity and inclusion through the “Step by Step” Foundation for Education and Cultural



Initiatives (48,49). Only a small number of schools (about 25%) have a monitoring and evaluation framework or other system in place that monitors the governance and leadership of HPS.

#### **3.6.4. Global standard 4. School and community partnerships**

Active engagement and consultation within the school community (school leadership team and parents) and between the school and the local community (school leadership team, students, NGOs, local government) are critical to implementing HPS. The successful implementation of the partnership requires that the entire school community is engaged and that all stakeholders are committed to a collaborative partnership with a shared vision for the success of the HPS.

The goal is to have successful collaboration between schools and the local community and a joint commitment to recognize the benefits of promoting health and well-being. This also implies engaging students and parents as partners in their children's learning and encouraging the school's role as an important entity in the local community.

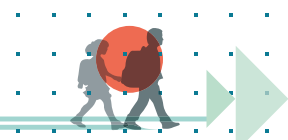
According to the school development programme, schools are obliged to develop the following areas:

- cooperation of primary schools with parents/guardians; and
- cooperation of primary schools with municipalities, educational institutions, NGOs, etc.

The manual entitled *School and community – partners for better education* (translated from Macedonian) by the Foundation for Education and Cultural Initiatives “Step by Step” highlights that “in practice, the traditional relationship of divided roles between the school and the family is still present, where schools are responsible for organizing a good teaching process, and parents are responsible for the children in the family environment” (48).

The relationship with the community is one of the key components of HPS. This relationship describes the collaboration and partnership between the school and the students' families, as well as the school and key groups or individuals in the local community. Developing connections with community stakeholders supports the efforts of the school and the wider community in health-promotion activities.

The “Step by Step” Foundation manual includes an example from a primary school (see Box 3.1).



### Box 3.1. Active participation by parents in HPS

To highlight the importance of parental involvement in the educational process – which enables students to achieve better results in school, to develop positive social attitudes and to experience school as a place where they build personal integrity and self-confidence – several teachers from one primary school came together around the idea of improving cooperation with the parents of their students. They developed brochures and organized workshops for parents on the topic “Cooperation between school and parents”. The workshops included activities aimed at learning parenting skills to improve family relationships, activities for exploring how parents can be actively involved in teaching and extracurricular activities, identifying the benefits of parental engagement and identifying their rights and obligations in the educational process. Parents were happy to respond to the invitation and actively participated in the workshops, which helped strengthen their self-confidence and confidence in helping their children with learning at home. Today, they are continuously informed about activities in the school and contribute to the improvement of the conditions and the quality of the school functioning (49).

The following approaches are common for most schools.

- Schools initiate meetings with parents and arrange for them to become active participants in the school community (e.g. a parent council, which can draw up and implement its own work programme).
- They establish links with local partners, such as sports and youth clubs, municipal or regional health agencies, counselling services, health insurance companies, local shops, and so on.
- Schools organize regular student visits to local partners/stakeholders to encourage healthy diet, physical activity, development of socio-emotional health, and so on.
- It is recommended that schools include all stakeholders in co-creating action plans for health promotion in schools (50).

In discussions with focus groups within schools and interviews with representatives of local communities about the partnership between schools and the local community, it was established that a large number (51.6%) of schools have fully met the indicator and 42.8% have partially met the indicator. That is, they have established relationships with local partners and stakeholders (sports and youth clubs, health agencies, counselling services, health insurance companies, restaurants, local shops, etc.).

Local communities are essentially the link between the primary schools and the Ministry of Education and Science, providing support according to need. The municipal programme includes health-promotion content for primary schools as needed, with a section on HPS. Municipalities provide direct support for HPS activities and monitor the extent and the way in which primary schools work on health promotion. However, very few schools have plans for taking responsibility for HPS, nor documented procedures for clear and consistent communication between the school and local communities on HPS goals and activities. The municipalities work with all schools, in a supporting and coordinating role, assisting with planning and financing certain activities as needed. Local governments have appropriate

resources available for developing health-promotion strategies, but these are not implemented in full because the educational institutions are not sufficiently familiar with the methods and conditions for implementing such programmes.

Municipalities do not influence how the schools operate; this comes under the competence of the State Education Inspectorate. Very few schools are involved in influencing relevant local community policies to advocate and ensure that policies are inclusive, equitable, and gender responsive. Monitoring and evaluation are integrated as a mechanism into the school programmes; specifically, into the programme for monitoring implementation. Some municipalities have monitoring competencies and thus a municipal educational inspector, but other municipalities do not. When the State Education Inspectorate carries out its integral evaluation, it inspects the programme and action plans in this area (49).

### 3.6.5. Global standard 5. School curricula

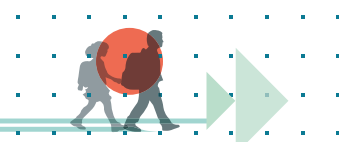
The aim of this standard is to ensure that the school curriculum contributes to health literacy by advancing the knowledge, skills, attitudes and behaviour of students and the school community. Inter alia, it is important that the school curriculum explicitly educates and implicitly promotes all elements of physical, socio-emotional and psychological health and well-being. This implies that the curriculum should be designed in an inclusive manner that responds to the developmental and learning needs of the students. Furthermore, the team of teachers must be appropriately trained and supported, particularly in providing health education, contributing to ensuring that the curriculum supports those physical, socio-emotional and psychological aspects.

Health education, generally, is not sufficiently prioritized in the education system of the Republic of North Macedonia. In primary education, health education is included only in the Physical and Health Education curriculum as a compulsory subject.

Curricula and teaching manuals have been developed for the following elective subjects: Health **Promotion** and **Life Skills** (for students in grades 7–9; pupils aged 12–14 years old) (51,52). These two elective subjects elaborate in detail the approach to encouraging active student participation across all phases of various student projects relating to topics such as health and life skills (from topic selection, research, setting the vision and taking specific actions for change).

As defined in the *Education Strategy and Action Plan for the years 2018–2025*, there is a commitment to provide comprehensive, inclusive, and integrated learner-focused education. This is to be based on modern programmes designed to equip future generations with knowledge, skills and competences required for participation in a democratic multicultural society, the labour market, and new challenges in the global scientific-technological environment (45). All stakeholders should therefore focus on students' well-being, ensuring education enables students to become critical thinkers and active participants in civil society.

This means that the curricula should incorporate a variety of competencies for critical thinking and reasoned decision-making, problem-solving and knowledge application in practical situations, as well as provision for developing interpersonal and intrapersonal socio-emotional skills. Learning how to learn, how to innovate



and key skills relating to entrepreneurship, civic and social responsibility, cultural awareness and expression should also be embedded in the curricula, together with the necessary competences for communication in native and foreign languages, mathematics, natural sciences and technology, as well as navigating the digital world.

It is noteworthy that, in the new nine-year primary education programme there is a curriculum for Life Skills, which in the first year is integrated with other subjects, and in the higher years it is implemented during the classes in which personal/social/community education is covered. The curriculum aims to contribute to the personal, emotional and social development of students through which they acquire psychosocial skills, and which play an important role in promoting the students' health as a whole, ensuring their physical, mental and social well-being. It covers three developmental periods, each across three school years. The same topics repeat in all three periods, but they are defined at different stages through different goals set at a global level with a consistent structure, according to the age of the students and various expected outcomes. The following topics are covered in the curriculum:

1. personal development
2. me and you: interpersonal relations
3. me and others: social relations
4. me and health: healthy life
5. me and the environment: relationship with the external environment.

Health education at secondary level is covered by the contents of the curriculum for Biology, incorporating the topics: infectious diseases, STIs, prevention and protection, and content related to ecology.<sup>6</sup> The health education content is broader for the first-year students undertaking vocational secondary-level medical education, as part of the curriculum for the subject Hygiene and Health Education.<sup>7</sup> This curriculum includes:

- health promotion (health and diseases and health education);
- personal hygiene and mental hygiene (concept of mental health and mental hygiene; addictions – causes, treatment and prevention; psychological stress and psychosomatic diseases);
- school hygiene (basic characteristics of the psychophysical development of students, school-age pathology);
- nutritional hygiene (the role of nutrition in human health, diseases related to malnutrition, information on storage and preservation of food);
- communal hygiene (hygiene of air, drinking water, wastewater and waste materials); and
- occupational hygiene (occupational diseases, including prevention) (53).

According to the 2022 training programme, training is planned for professional associates on supporting teachers in their work with students (e.g. development of social skills and self-confidence in students, dealing with problematic behaviour and creating a positive socio-emotional climate in class).

<sup>6</sup> Bureau for Development of Education's Curriculum for Biology for the first year of secondary education, 2001.

<sup>7</sup> Bureau for Development of Education's Curriculum for Hygiene and Health Education for the first year of secondary medical school, 2001.

Training for teachers is planned on the topics of: professional development and career counselling of students (that is, knowing students and meeting their needs, in terms of mentoring, monitoring, approaches for detecting affinities and interests, motivation and development, etc.), and on puberty and adolescence (adolescent psychology – recognizing needs and emotions) (54).

In reality, teachers have not had any training in promotion of students' health for a long time, so performance and outcomes are varied, in terms of the extent to which the school staff demonstrates knowledge and understanding of the physical, social and psychological development and characteristics of students and their impact on learning and behaviour.

Schools implement a curriculum that is intended to address the physical, socio-emotional and psychological aspects of the health, safety, nutrition and well-being of students to achieve key health and educational outcomes, and this curriculum is harmonized with the national HPS policy. All schools are responsible for delivering educational content focusing on the personal and socio-emotional development of students, including mental health education, as part of the classes in which personal/social/community education is covered, as per the curriculum defined by the Ministry of Education and Science, based on the proposal of the Bureau for Development of Education.

Furthermore, all schools are also required to implement an action plan for the area of Health Care as part of their Annual Work Programme. All schools have sports and sport activities as a subject in all grades/years, with three classes per week, as part of the curriculum on Physical and Health Education and alongside the curriculum covering life skills/social and emotional skills.

Education about topics such as water, sanitation and hygiene (WASH), prevention of infectious diseases, and healthy diet is provided only as part of the elective curriculum for Life Skills (grades 8–9; pupils aged 13–14 years), in general personal and socio-emotional development lessons, and in the curricula for Natural Sciences and Biology.

Comprehensive sexuality education (CSE), skills for healthy relationships and gender equality were piloted in three primary schools as content for a free elective subject for eighth-grade students (aged 13 years); otherwise, such content is covered in the curricula for Biology and Life Skills/personal and socio-emotional development of students.

Part of the curriculum for Life Skills/personal and socio-emotional development of students (as well as the elective subject Life Skills in grades 7–9 for students aged 12–14 years) includes education about the prevention of violence and bullying, use of substances and injuries. Guidelines on the procedure for reporting and protecting a student victim of any form of violence, abuse and neglect have been developed, but the training of professional associates in schools has not started yet.

The Life Skills curriculum/personal and socio-emotional development of students, as well as the curriculum for Technical Education include education about traffic safety, precautionary measures during natural disasters, first aid, immunization and living with chronic diseases and disabilities. These educational activities are carried out in cooperation with the Ministry of Interior, the Red Cross and the Health Homes.



In terms of documented plans or procedures for reviewing the curriculum or materials depending on the needs, rights and priorities related to the health and well-being of students, their families and local communities, it has been reported that schools – through their development plans – are reviewing the curricula aimed at improving student health and in order to build locally relevant knowledge, attitudes and skills. These activities are integrated with other subjects. In the new Concept Note on Primary Education (42), as well as in the Guide for Free Elective Subjects, this is explained as follows (55):

The school should offer a wide range of free elective subjects from different categories that meet the students' interests, according to their age and current needs. It is very important that the free elective subjects offered are attractive to most students. Free elective subjects should offer students specific experiences through which they can acquire competencies in the cognitive, emotional, social and psychomotor areas, in accordance with their developmental characteristics, potentials and affinities.

In secondary education, schools can offer a programme with a project activity component that addresses the needs, rights and priorities relating to the health and well-being of students, their families and local communities. SHARE (Speak Honestly and Resolve Everything) is an initiative of the high school students from “Orce Nikolov” high school in Skopje, supported by the psychologist Ana Pop Rizova (56). It is a youth initiative comprising a group of enthusiasts that since 2019 have been committed to providing a safe space to share everyday adolescent problems. The initiative was started to provide support for adolescents to articulate the problems faced by their peers, as part of the project “Get involved for change”, with students from Orce Nikolov. It later spread throughout other secondary schools in Skopje and across the country. The most important aspect of the project is the willingness to reach and support as many young people as possible.

In all (primary) schools, curricula for the first grade (pupils aged 6 years) and fourth grade (those aged 9 years old) are harmonized with the National standards for student achievements at the end of primary education (44). Curricula for the first and fourth grades are harmonized with the standards for the Natural Sciences subject area and, according to these standards, the student knows and/or is able to:

- explore and discuss the impact of science, technology and human activities on the environment;
- explain the interaction between man and the environment and identify the positive and negative impacts of man on the environment;
- understand the meaning and need for sustainable development and critically analyse situations in which there are conflicts of interest between the need for economic and technological development and environmental protection; and
- analyse the relationships between ecological, social and economic systems from local to global level.



The student also understands and accepts that:

- earth's natural resources are limited and their irresponsible use affects quality of life;
- global warming leads to natural disasters with consequences for the living and non-living world of the entire planet;
- each individual is responsible for the preservation of the immediate natural environment and beyond, and they should develop environmental awareness and act to protect the environment and ensure its sustainability;
- innovations and entrepreneurship are important for the economic development of society and for the improvement of the social and financial status of the individual and the community; and
- resources are not unlimited and should be used responsibly.

In terms of pedagogical approaches and student–teacher and interprofessional (teacher–teacher) relationships, the curriculum promotes health, positive and healthy relationships and lifestyles, safety, physical activity, healthy diet and well-being through the development of knowledge, skills, attitudes and behaviours in the school community. All schools have a curriculum for Civic Education (grades 8–9 and first year of secondary education; pupils aged 13–15 years old) (57).

Roger Hart's ladder of participation (58,59) is elaborated in the curricula and learning materials, with examples of activities to encourage the active participation of students. This can take the following forms of participation: as part of a group activity, as interaction in learning methods, participation in debates and discussions, participation in sharing responsibilities, and in decision-making. In all schools, participation is the cornerstone of the approach “School tailored to the child” (the approach on which the previous Concept Note on Primary Education was based). One of the basic principles in the Law on Primary Education is the active participation of students in the life of the school and the community. The Concept Note on Primary Education includes the following important statements (42):

The management, teachers and professional associates are actively engaged in supporting the formation of student bodies in a way that guarantees democratic participation of students in the protection of their rights and freedoms, in making decisions on issues of their immediate interest and in resolving the problems that affect them. Teaching that is flexible, interactive, adapted to the needs and interests of students and stimulating for active participation of students, also contributes to a constructive climate in the school. During the realization of the teaching process, the teachers are not positioned as inviolable authorities, in the role of transmitters of knowledge, but they do everything for the students to experience them as partners and facilitators of the learning process. Equality, affordability, accessibility and inclusiveness are principles on the basis of which primary education is developed and they are incorporated in the curricula for the first and fourth grades.

In all previous and current curricula, inclusiveness is the fundamental concept underpinning the approach “School tailored to the child” (and, as above, at the foundation of the Concept Note on Primary Education). Schools deliver the curricula in partnership with the school staff and school community, including health workers and specialized NGOs, as well as the staff receiving training and support in health literacy and in the use of educational and teaching strategies



to support HPS approaches. Such training is occasionally delivered by means of projects or presentations with the involvement of health workers (presentations are given by the Centre for Public Health) or NGOs in the form of targeted projects. Student communities are only scarcely involved in the work of schools (that is, in the development of curricula, implementation of school projects and making decisions about changes).

In terms of schools equipped with strategies and capacities for digital and distance learning – to complement classroom education and promote health, as well as to ensure the continuity of education and health promotion during the disruption of physical-presence teaching capacities (e.g., during public health emergencies, environmental disasters, or in response to various student needs) – in practical terms, schools are technically well equipped and teachers have the necessary skills for digital distance learning. However, they lack skills and knowledge on the required topics, including health promotion and environmental disasters, and are not adequately trained to respond to varied student needs. Teachers do not recognize that they are responsible for this aspect but are focused on transferring knowledge from the subjects they teach; that is, only in the form of a curriculum.

Very few schools have established a system for reviewing and improving the curriculum through the prism of HPS. Each school has prepared a programme for environmental activities, known as ECO-programmes, through which content for the promotion of a healthy lifestyle is delivered. Special educators and rehabilitators have their own programmes for working with students with SEN, including “Be IN” project activities and activities in sensory rooms with students with atypical development (76). A small number of teachers have the opportunity to attend trainings on advancing student health. Mostly these are projects financed by foreign donors.

### **3.6.6. Global standard 6. School socio-emotional environment**

A stimulating environment that encourages socio-emotional development is of crucial importance for the whole-school approach to health. School socio-emotional environment encompasses the norms, values, behaviours and attitudes of individuals in the school community and the quality of their interpersonal interactions.

Supportive and safe school environments in which students feel respected, engaged and connected to the school promote health, well-being and thus positive education outcomes. This means that the school should commit to investing in a safe and supportive socio-emotional environment and thereby promote well-being, trust and mutual respect.

The social environment of the school is one of the important standards of HPS, as an environment conducive to safety, health and well-being of students and school staff. It is also one of the key components of the school health-promotion concept and refers to the quality of relationships between students, teachers, other school staff and school management. When considering the social environment in schools, other factors to consider include well-being, safety, inclusion and diversity, as well as school social media and virtual tools. These forms of social communication can also influence health and well-being and are an important part of school culture.



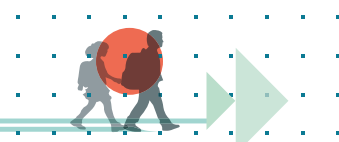
An inclusive, safe and supportive environment should be a priority in school policies, which should aim for clearly set guidelines for the desired socio-emotional environment in the school, including providing for any necessary improvements and providing feedback. According to the Annual Work Programme and School Development Programme, schools set out their goals, activities, results and methods of monitoring and evaluation for the desired socio-emotional climate in the school. The monitoring is carried out by the State Education Inspectorate.

Creating an excellent social environment that fosters open and honest relationships is a key feature of effective education in schools. Paterson and Grantham (2016) (60) highlighted the importance of collegial relationships, cooperation and social support (67).

Regarding harmonization by schools of the desired elements of the socio-emotional environment among all stakeholders (both school based and in the local community), continuous efforts are being made to harmonize the mental health standards for students and employees, and the local communities provide support in this respect. Schools also have policies or programmes that encourage equality by promoting inclusiveness and acceptance of diversity in the school and the local community. The Concept Note on Inclusive Education (envisaged in the Law on Primary Education)(76) provides a legal basis for these efforts and all guidelines should be respected in terms of implementation and promotion of these matters in the classroom.

Schools have high expectations of students and therefore efforts are being made to build students' self-confidence; this is also being integrated into individual subjects. A small number of schools have programmes that encourage good relationships and build self-esteem and confidence in all individuals. Such approaches include those listed here.

- Health education and health-promotion activities are included in the curricula and incorporated into the various content delivered.
- Efforts are being made to build students' self-confidence, and this is integrated into the various subjects being taught.
- Teachers and other trusted members of the school support staff are available for students to share their concerns or thoughts confidentially.
- Health workers (doctors/nurses), social workers, pedagogues or psychologists are involved in the promotion of the health of the individual and of the whole school, and they work together with the school management teams to integrate health topics into the school curriculum and policy.
- Professional associates (pedagogues, psychologists, defectologists) are available to students, parents and teachers to create optimal conditions in education, by mapping the support needs of students and translating them into action-oriented advice for teachers and other stakeholders.
- Schools provide support and accommodation services for students with special needs (learning, development and physical needs).
- Schools have systems in place to identify and refer students with special needs to external professionals if those needs exceed the schools' range of expertise (62).



The above requirements are not implemented equally in all schools in North Macedonia, but it is satisfying that continuous efforts are being made to harmonize mental health standards for students and employees. Only few schools have policies or programmes that actively ensure that people in the school community treat each other with respect and kindness in all interactions (e.g. no tolerance for discrimination, bullying, corporal (physical) punishment and harassment) (63).

In addition to the development and work programmes and plans provided by the State, based on which all schools should be managed, it is very important that the attitudes, needs and wishes of students, teachers and parents are listened to and incorporated into the policies of each individual school.

### **3.6.7. Global standard 7. School physical environment**

The school physical environment is one of the important considerations for promoting health in schools. This standard covers the safety, health and well-being of students and school staff. This means that schools should be safe, clean and suitable for the good health and well-being of all students and all employees. Regular interactions with the physical environment by students and the school community affect their health and well-being.

The school physical environment refers to the school facilities, both inside and outside. It covers the grounds, equipment, activity rooms, school canteens (providing healthy food), sports facilities, toilets, and so on. It also includes transport and communal facilities used by students and school staff and the local community, as well as car parks and footpaths, for example. When considering the school physical environment, other factors to consider include: air-conditioning, lighting, noise, architecture, interior design, furniture, and so on.

From a physical point of view, school facilities should be adapted to the students and they should be safe, clean and promote good hygiene. Legal obligations require every school to have prepared plans for implementing government regulations, but in some schools, these are not implemented. Regulations are often not implemented in rural schools where there are fewer students. In terms of schools with a clean water supply, proper drainage, adequate lighting, clean air, temperature control, proper waste management and safe and adapted sanitary conditions, it was found that 75% of schools fully met this indicator, while 22.5 % only partially did so. It is important that all schools maintain a pleasant temperature, with adequate lighting and ventilation. All facilities for physical activity meet the general safety and hygiene standards.

Some schools that fully, and some partially meet the standard for having a school canteen, shop and vending machines that offer food and drinks that are healthy, at suitable prices and meet the national food standards. However, 36.5% of schools do not meet this indicator at all, and these conditions vary in different schools. Overall, there is a lack of school canteens and shops near schools that offer healthy food and drinks. The highest priority is for school facilities to be adapted to students, to be safe and clean, and to promote good hygiene for everyone in the school environment. In over 80% of schools, the environment was found to be safe for students. This implies that every school has a plan for protection and rescue in case of disasters and evacuations, and schools have trained teams of employees for dealing with such circumstances.



A large number of schools have established measures that guarantee a safe, secure, healthy and inclusive physical environment that supports healthy in-person learning (physically present). Importantly, in a majority of schools, investments are being made to improve and maintain a safe physical environment for learning. The principle of physical safety and health of students was one of the basic principles of the nine-year primary education programme and training document (64).

In relation to this Global standard (standard 7), it can be stated that in primary schools throughout the Republic of North Macedonia, a pleasant temperature, lighting and ventilation are maintained. About 50% of the school facilities are adapted to student needs. They are safe, clean and promote hygiene, meeting defined hygiene standards. These factors remain a high priority for school management and are considered to be a prerequisite for maintaining the good health and well-being of the students and school staff.

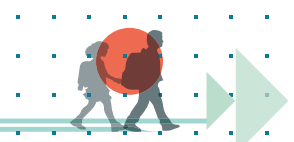
### **3.6.8. Global standard 8. School health services**

Access to high-quality, comprehensive school health services, including school nutrition, is critical for child and adolescent health, well-being and education. The aim of this standard is to ensure that school-based or school-linked health services are adequately resourced, and appropriately and equitably delivered.

According to the Ministry of Health's Annual Programme for Medical Check-ups of students, the health screening of school-age children is carried out through medical check-ups in the first, third, fifth and seventh grades in primary schools (pupils aged 6, 8, 10 and 12 years), in the first and fourth years of secondary education (students aged 15 and 18 years), and in the first year of further studies. The purpose of the medical check-ups is to monitor physical and psychosocial development, early detection of health problems, early recognition of risky behaviours, and education on the adoption of healthy lifestyles, including preventive dental care (including applying teeth sealants for protection against caries). This programme covers the cost of a full medical check-up, including co-payment for a laboratory and dental examination of students, regardless of the child's/parents' insurance status. Due to a lack of human resources and time, along with insufficient coordination and consistency in the reporting system, reporting about screening data on risk behaviour and behavioural risk is not complete, rendering proper analysis impossible.

Under the Annual Programme for Medical Check-ups, students are exempt from co-payments for the following health services, which form part of the medical check-up.

1. General physical examination, examination by systems, and screening of risky behaviours (risky sexual behaviour, substance use, early detection of signs of depression and other mental health disorders; violent behaviour (bullying)).
2. Laboratory examination (anaemia screening and urine examination).
3. Dental examination (checking and keeping records on: deciduous teeth, permanent teeth, caries, extraction and filling index) including detection of deformities and irregularities in the development of teeth and jaws.
4. Preventive dental care.
5. Preventive examinations for early diagnosis of hearing, speech and voice developmental disorders.



Under the Ministry of Health's Programme for the prevention and protection of the population from HIV, lectures are planned in schools on the subject of HIV/STIs, but the volume of the planned lectures (50 lectures per year for all schools) is insufficient to cover all students at the national level. Under the Compulsory immunization programme, students are vaccinated free of charge according to the national immunization calendar against the following infectious diseases: measles, rubella, mumps, diphtheria, tetanus, whooping cough, polio and HPV.

Peer education on SRH and rights (SRHR) has almost 20 years of tradition in the Republic of North Macedonia. Although in the beginning these programmes had a narrower goal of educating young people about HIV prevention, they have since evolved to include informing peers about contraception and protection from STIs, as well as practicing safe behaviours related to SRHR. Following international trends and recommendations, over the years these programmes have been transformed and become comprehensive, including other components such as gender, diversity, civil aspects, satisfaction, violence and relationships. Currently, peer education programmes are implemented on a smaller scale in several schools and youth centres for SRH in Skopje. The content is delivered over 10–12 hours, according to the Manual for peer educators on SRHR topics.<sup>8</sup> Standards have been established for training of peer educators, as well as a system for mentoring and oversight of the implementation. In addition, the impact of the programme on the knowledge and attitudes of the participants is monitored through assessments before and after. Almost all respondents in this research recognize peer education as an effective approach for educating young people on SRHR topics.

As part of the 10 Public Health Centres in the Republic of North Macedonia, counselling centres for SRH for young people were opened with the support of UNFPA North Macedonia (66). A recent insight into the work of these counselling centres showed that they need urgent revitalization in terms of all aspects of their operation (equipment, education of staff, preparation of informational materials, networking with schools and the health system, and so on). One of the recommendations from the supervision carried out is that they should liaise directly with the community more, for example by concluding a memorandum of cooperation with civil society organizations working in the field of SRH. This is an opportunity to strengthen the work of the counselling centres and to apply innovative and proven successful models of education for CSE, such as those used in the youth centres for SRH “I want to know” in Skopje.

The three existing youth centres for SRH “I want to know” fully meet the criteria of services tailored to young people. Two are located in Skopje and one in Kumanovo, and they are the result of joint cooperation between the citizen association H.E.R.A., the Health Centre of Skopje, and the local self-government of Kumanovo. Among other services provided, these centres collaborate with primary and secondary schools, with peer educators from the centres delivering lectures in the schools. Similarly, vice versa, students visit the centres where they can receive group education on CSE or individual counselling. This practice is well accepted among students and largely satisfies their needs, which implies that this model could be used in other cities where appropriate conditions could be created for similar projects to be successful.

<sup>8</sup> The Peer manual for comprehensive sexuality education is available in Macedonian language at the Health Education and Research Association (HERA) website (65).



The role of local self-government is important. Municipalities have the competence to propose and implement extracurricular educational activities so long as they do not interfere with the regular education process. A large number of examples exist whereby the local government was involved in promoting health among young people and adolescents; for example, by developing local action plans for the promotion of SRHR for young people, implementing project activities, piloting of CSE, etc. Not all opportunities have been exhausted – certain municipal bodies, such as the Council for Public Health, youth councils, and the Commissions for equal opportunities for women and men could play a greater role in creating priorities and implementing activities to support local self-government in these fields.

Regarding the indicators from several aspects presented in Global standard 8, the following points were reported.

- Each school supports health services that include medical check-ups, assessment of and education on oral health and, most importantly, schools work to improve health literacy.
- As part of the project for improving WASH capacities, during the COVID-19 pandemic, mobile stations were organized that served children in different regions and provided them with water for washing and drinking (67).
- The content of the Natural Sciences curriculum influences healthy diet among students in a large number of schools by promoting the consumption of less sugar in the diet (68,69).
- The United States Agency for International Development is implementing the Media Literacy project, organized by the Macedonian Institute for Media and the International Research & Exchanges Board in cooperation with the Ministry of Education and Science and the Bureau for Development of Education.
- A large number of schools promote sleep as an important factor for the mental and physical health of students.
- The NGO “Menstrual Justice” organizes workshops in secondary schools on the subject of menstrual hygiene; not only on the biological aspects, but also about the social aspects and the concept of menstrual poverty. Research shows that due to menstruation, girls are absent from school for 30 days throughout secondary education and that a significant proportion of them are affected by menstrual poverty.
- Physical activity is continuously practised by students as part of the subject Physical and Health Education.
- Peer education on SRH-related topics is carried out by several NGOs, but the number of students reached is not sufficient. Piloting of CSE is under way in several primary schools, in two cities in North Macedonia, supported by the Ministry of Education and Science and the Bureau for Development of Education.



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Since the spring of 2020, the COVID-19 pandemic has considerably changed school health promotion due to country-specific measures to combat the pandemic. The Government of the Republic of North Macedonia closed schools during the pandemic, and students received online education in place of in-person teaching. A major challenge was the number of infections with COVID-19 among the teaching staff, as well as among some of the students in both primary and secondary education.

The following health-related personnel are available to students; most in schools, but some in health centres only.

- Health workers are involved in activities for promoting health in schools.
- A school doctor provides support to students in health centres, but not in schools.
- A school nurse is available to support students in health centres, but not in schools.
- A psychologist is available to support students in schools.
- A pedagogist is available to support students in schools.



## 4. Conclusions

Several advantages and barriers to the implementation of the HPS programme have been identified in the Republic of North Macedonia. The aim is for every school to be a health-promoting school; achieving this should begin by consulting these guidelines, which are based on the best available evidence about enablers and barriers to implementation of HPS.

The HPS approach was introduced conceptually more than 25 years ago and has since been promoted globally;<sup>9</sup> however, the pursuit of a fully embedded, sustainable HPS system has not yet been achieved. Very few countries have implemented and sustained this approach at scale. In order to successfully build a healthy school, **multistakeholder engagement** is required in terms of what needs to be done, how it needs to be done and who needs to be involved. No education system can be effective unless it promotes the health and well-being of its pupils, students, staff and community. These strong connections have never been more visible and compelling than in the context of the COVID-19 pandemic in making every school a health-promoting school.

National and subnational stakeholders in all sectors are involved in identifying, planning, financing, implementing, monitoring and evaluating this publication, which is based on an extensive review of global evidence on barriers and enablers to implementing, sustaining and scaling up health promotion in schools. Its purpose is to guide the adaptation and implementation of global HPS standards.

### 4.1. Health problems, health behaviour and risk factors among school-aged children in North Macedonia

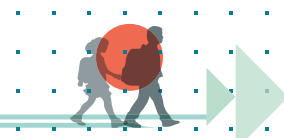
The following can be considered as priority **health problems** of school-aged children in the Republic of North Macedonia:

- unintentional injuries
- problems related to mental health
- communicable diseases
- NCDs, including malignant diseases.

Priority **behavioural risks** of school-aged children include:

- insufficient physical activity
- improper nutrition
- use of alcohol
- violence, bullying
- use of tobacco.

<sup>9</sup> For example, through the 1986 Ottawa Charter for Health Promotion (70).



The following conclusions can be considered useful.

- Most causes of death among school-aged children in North Macedonia are preventable, such as injuries.
- Mental health problems among school-aged children deserve more attention. When mental health conditions are not addressed, they extend into adulthood, impairing both physical and mental health and limiting opportunities to lead fulfilling lives. Building socio-emotional skills in children and adolescents and providing psychosocial support in schools can help promote and preserve good mental health.
- Infectious diseases – more specifically, respiratory infections – remain the most important cause of morbidity among young people in the country.
- NCDs are prevalent both as causes of mortality and as causes of morbidity among school-aged children. Since these diseases result from behaviours that begin in childhood and adolescence, there is a potential to influence their occurrence through education in schools.
- The leading behavioural risks (insufficient physical activity, improper nutrition, use of alcohol, etc.) affect the state of health in schoolchildren and adolescence, but also in adulthood. Having one type of risk behaviour increases the possibility of accepting another type of risk behaviour.
- Alcohol use can reduce self-control and increase other types of risky behaviour, such as unsafe sex or unsafe traffic behaviour. Alcohol is a major cause of injury (including those due to traffic accidents), violence and premature death. It can also lead to health issues later in life and affect life expectancy.
- Violence during adolescence increases the risks of injury, mental health problems, poor performance and dropping out of school.
- The health of school-aged children should be seen as a dynamic concept, which is constantly subject to change, due to the influence of many different factors (socioeconomic, epidemiological, technological, environmental factors, etc.).
- Children and adolescents (and their parents) need help in their efforts to promote and preserve their health.
- In North Macedonia, most children and adolescents are enrolled in school. Schools are increasingly considered a key environment for promoting health, well-being and development of children and adolescents.
- It is of great importance that all schools become places that promote, protect and nurture health, while taking into account the priority health problems of students.



## 4.2. The context of HPS standards

During the analysis of the HPS situation in North Macedonia, it became evident that each school is a dynamic organization, and therefore **flexibility** is needed in the health-promotion approach. Guidance on HPS should provide a kind of roadmap so that schools can accept and adapt to new challenges.

Each school works in its own authentic atmosphere, trying to create a stimulating environment for learning while respecting the social, political, economic and physical environment, as well as the behaviour, wishes and needs of the school members, including the students, teachers, parents and the wider local community in which the school is located. Schools have different needs, wishes and opportunities, and each school acts in its unique way and can employ different strategies in promoting health and well-being among students and beyond. Thus, even when similar health-promotion interventions are implemented, different effects may be achieved in different schools. The idea behind the concept of HPS is to make whole-school changes, but this is a challenge because schools are complex systems with all kinds of interacting factors.

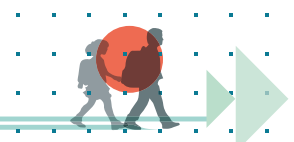
The following positive aspects still need to be expanded:

- intersectoral cooperation between the health and education sectors
- national educational policies and curricula
- all schools striving to improve the health and well-being of students and employees
- support from the Ministry of Health and the Ministry of Education and Science
- training on education and support of HPS coordinators
- active involvement of students
- participation in the Schools for Health network.

However, during the analysis, certain barriers were also observed, as listed here.

- Health promotion is considered an additional activity.
- Teachers feel overwhelmed and undermotivated.
- School staff are lacking time and energy.
- There is not enough funding.
- Standards, indicators and good practices are not well defined.
- There is not enough training.
- Support from other stakeholders is lacking.

No education system can be effective and efficient unless it promotes the health and well-being of its students, school teams and community. This means that **joint efforts** should be made to combine forces and ensure every school becomes a health-promoting school.



## 5. Next steps

During the fieldwork part of the situation analysis – more specifically, when establishing contacts with experts from the relevant institutions, as well as during the workshop “Let’s make every school a health-promoting school” – a large number of recommendations were received that will be useful in the implementation of the next step to develop a plan for the implementation of the HPS global standards at the national level.

The recommendations include the following actions.

- Information about the health status of children and adolescents should be provided and the findings of the situational analysis disseminated to the institutions involved in the health promotion of students.
- An intersectoral body should be established that will develop a plan for the implementation of the HPS global standards, including a plan for monitoring and evaluating the fulfilment of the set indicators. The intersectoral body should be coordinated by the education sector (Ministry of Education and Science) with continuous support and contribution from the health and other sectors at all levels.
- The implementation plan should clearly define both general and specific goals and the roles and responsibilities of all stakeholders (at the national and local levels; as well as intersectoral, departmental and international levels).
- The implementation plan should also include a national plan for ensuring continuity of education and health promotion, along with processes for identifying and monitoring students at risk during distance/virtual learning (e.g., in response to public health emergencies, in response to the different needs of students).
- Coordination between institutions should be improved in order to develop and implement a policy or strategy in which the HPS concept/approach is a means of achieving national development goals through education.
- In order to monitor the implementation of the plan at the school level, the responsible stakeholders from the competent institutions need training on monitoring the quality of education (State Education Inspectorate and Bureau for Development of Education).
- Schools should be trained on how to connect the planned health-promotion activities within the school’s Annual Work Programme with the implementation of the curricula (regular, elective, extracurricular).
- Schools should also be trained on how to build a system to monitor the progress and effectiveness of health promotion in their work plans and guidelines.
- School policies should aim for clearly set guidelines for the desired physical and socio-emotional environment in the school, including for any necessary improvements and feedback.
- A programme should be implemented for the professional development of school support staff (school pedagogists, psychologists, special educators and rehabilitators, etc.).



- Students should be encouraged to be actively involved in creating a stimulating and positive school environment for learning and development, as well as using the many good examples from practice (fed back from the students).
- Discussions should be organized on current topics for children and adolescents (according to age, needs and interests), along with activities for developing skills for conflict resolution, gaining self-confidence, and exploring types of communication.
- Regular mapping should be carried out of student support needs and their translation into action-oriented advice for teachers and other stakeholders.
- Greater involvement of parents should be encouraged to strengthen the educational system through their active role in the promotion of health and well-being (e.g. involvement in school boards or parents' council).
- Continuous cooperation and building a partnership with all stakeholders will be essential, with the aim of constantly monitoring current needs of students to ensure those needs and interests are met.
- Networking of schools should be fostered, with the aim of sharing experiences and joint action in the process of promoting and improving health.
- Planning and provision of long-term investments is important, including specific activities at the national and local level. Goals should be defined and a clear policy position established for implementation and appropriate allocation of existing resources.

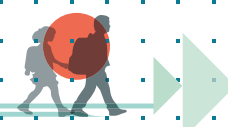


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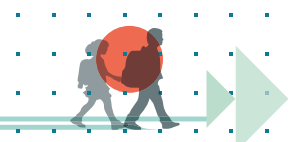
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The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices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

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