

**DRAFT**

**Regional Framework on Nurturing Resilient  
and Healthy Future Generations  
in the Western Pacific**



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**Abbreviations**

COVID-19	coronavirus disease 2019
ECHO	Commission on Ending Childhood Obesity
NCD	noncommunicable disease
PICs	Pacific island countries and areas
SDG	Sustainable Development Goal
UHC	universal health coverage
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WHO	World Health Organization

## Executive summary

Investing in the health of children and adolescents is a cornerstone of *For the Future: Towards the Healthiest and Safest Region*, a five-year vision for delivering better health in the World Health Organization (WHO) Western Pacific Region. Ensuring good health in children and adolescents necessitates a special focus on school health.

This *Regional Framework on Nurturing Resilient and Healthy Future Generations in the Western Pacific* situates school health at the centre of a collaborative partnership between the education and health sectors, acknowledging that the overarching goals of each of these sectors can be aligned with the *For the Future* vision. By cultivating a supportive school environment that fosters health literacy, self-efficacy and civic engagement – while also promoting the provision of essential health services where these are not available to children outside the school setting – children and adolescents are positioned on a health trajectory that empowers them to adopt and sustain healthy behaviours through the life course, and transmit these healthy behaviours to their families and communities. This creates lifelong and intergenerational health benefits.

Despite advances in health and the unprecedented social and economic development of recent decades, our children and young people are becoming increasingly unhealthy. In 2019, almost 280 000 people aged 5–29 years, including almost 53 000 children aged 5–14 years, died in the Western Pacific Region – most from preventable causes, such as unintentional injuries (road accidents, falls and drowning) and intentional injuries (suicide). The infectious causes of mortality for this age group are preventable through immunization and sanitation, or curable with antibiotics. Exposure to risk factors for noncommunicable diseases (NCDs), which portend future preventable death and disability, is rising. Other risks to health, including violence, bullying, substance abuse, mental health conditions, gender stereotyping, unsafe environments and the lack of basic sanitation services, directly harm children and adolescents and also have a tremendous impact on their future health. Many of these health risks begin early in life and surface in school. And when the school environment is not designed appropriately, these health risks can be compounded and amplified, with deleterious effects extending into adulthood. Conversely, investing in health and schools offers a strategic opportunity to reverse the upsurge in risk-factor exposure and ill health among young people, with schools serving as incubators for creating healthy children and adolescents with resilient futures.

This Regional Framework aims to support Member States to achieve the vision of health through the life course by focusing on nurturing healthy children and adolescents, understanding that a healthy childhood and adolescence are the foundation for healthy future populations, including as people age. The strategic approach is focused on investing in schools as “incubators for health”, since schools are where children and adolescents spend most of their formative years, and where family, community, society and government all intersect in their shared care of children and adolescents. This Regional Framework is organized along three goals:

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### ***Goal 1. Entrenching healthy behaviours in children that stick***

***Schools will create an impact on students' behaviour by ensuring they have the knowledge, attitudes, values and skills to adopt healthier lifelong behaviours.***

When schools create nurturing and inspiring environments that create and reinforce knowledge, attitudes, values and life skills for healthy living, they are establishing the foundation for lifelong healthier behaviours and empowering students to achieve their highest capability and potential. Supportive environments – structural, social and policy related – also impact the attitudes and behaviours of school faculty and staff, and others such as family and those in the community.

### ***Goal 2. Schools influence the community through utilizing a spillover effect***

***Schools and their students will become influencers who are able to catalyse change to improve health within their families and communities.***

Schools are natural hubs within neighbourhoods, bringing together families, educators and community partners to provide students with education, enrichment, health and social services, and opportunities to succeed in school and in life. Students benefit from school–community involvement and engagement. Acting as influencers, children and adolescents can internalize healthy behaviours acquired in school and effect change within their families and communities. Taken collectively, this spillover effect, where schools can influence community behaviours, can contribute to transforming society over the long term.

### ***Goal 3. Investing in schools today to build a healthier tomorrow***

***Schools will provide the social capital for health for the future.***

Education is inextricably linked with health, and thriving at school is an important predictor for adult health and well-being. This highlights the need to coordinate and integrate both educational policies and health policies to promote positive outcomes in school performance, academic well-being and health during the significant years of development and learning. Further, governments and schools should pay attention to building social capital – those relationships, networks, norms, skills and trust that are an essential component for ensuring health throughout the life course and the economic viability of society. Thus, investing in healthy schools is an investment in future health and development.

This Regional Framework is intended as an inspirational and aspirational document that stimulates Member States, WHO and partners to invest in schools as social capital for health, in line with and as a means to achieve the *For the Future* vision. This Regional Framework was designed as a starting point for Member States to adapt and expand, specific to their context, capacities and resources. Countries are encouraged to consider these suggested actions when developing and implementing national plans for school health.

The WHO Regional Office for the Western Pacific will support countries to operationalize this Regional Framework by providing tools, data, knowledge and information-sharing platforms and by advocating to promote school health as a vital component of health through the life course, as we work together to realize our shared vision of creating the healthiest and safest Region.

## 1. Background

### 1.1 Introduction

In October 2019 at the seventieth session of the World Health Organization (WHO) Regional Committee for the Western Pacific, Member States endorsed *For the Future: Towards the Healthiest and Safest Region*, a five-year vision for delivering better health in the Western Pacific Region.

A cornerstone of this goal is investing in the health of the Region's children and adolescents. This necessitates a special focus on school health.

Education and health are closely intertwined. Education is a powerful social determinant of health – more schooling is linked with better health and longer life<sup>1</sup> – and the association extends to one's family members and even intergenerationally to one's children. In addition, healthier students are better learners, more likely to be engaged in school and less likely to be absent or drop out, and more likely to complete educational milestones.<sup>2</sup>

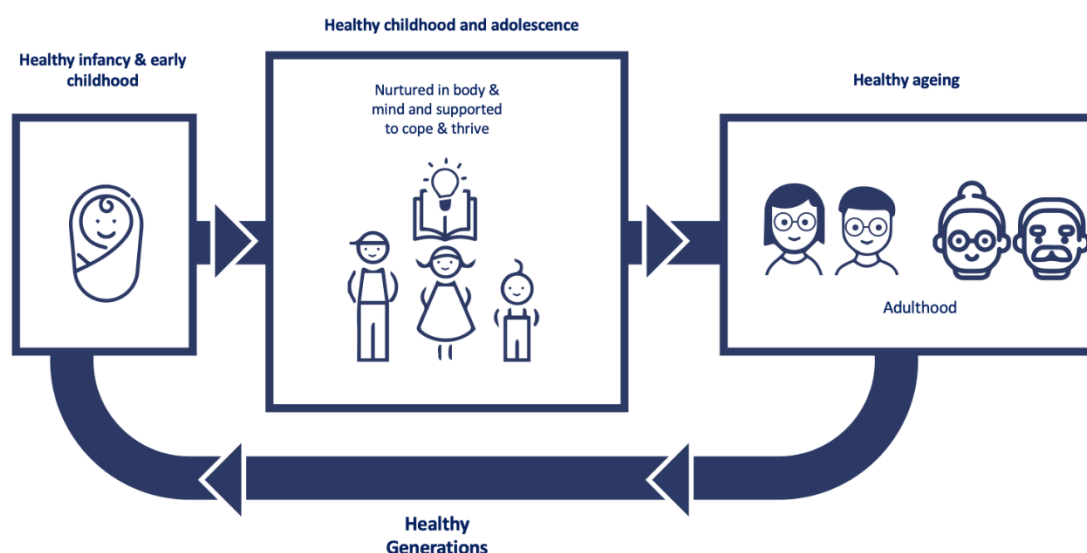
Education and health are two of the most important characteristics of human capital. The Sustainable Development Goals (SDGs) recognize the fundamental role of health (SDG 3) and education (SDG 4) for human development. Investing in school health yields tangible benefits for both the education and health sectors – enhancing academic achievement and strengthening school engagement and retention, while improving the health and well-being of students, school staff, families and the wider community.

Using creative approaches, schools can ensure that children enjoy good health now, while also augmenting human capital towards a healthier future. Today's children are tomorrow's adults, and healthy children and adolescents are more likely to become healthy parents and healthy workers. In turn, they are more likely to have healthy children, propagating healthy living through successive generations.<sup>3</sup> Thus, investing in schools that produce healthy students who are lifelong learners is an investment in sustaining a healthy future, in line with the *For the Future* vision (Fig. 1).

Schools are pivotal in the life-cycle approach to sustaining health. Education, which is grounded in principles of engagement, student-centred learning and the development of capabilities supporting evidence-based decision-making, generates health and science literacy, and self-efficacy, which in turn empower children and adolescents to take and sustain health-promoting actions throughout life.<sup>4</sup> Healthy schools are integral to the continuum of health across multiple generations, bridging maternal and child health and healthy ageing. When healthy schools and communities set the Region's children and adolescents on a healthy trajectory for life, we collectively move closer to becoming the healthiest and safest Region.

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Fig. 1. Schools' potential to ensure a cycle of health across the life course



## 1.2 Rationale

### Why investing in school health is fundamental to ensure the Region's healthy future

#### *Investing in school health nurtures healthy children and adolescents*

Schools contribute to health by: a) creating the conditions for pupils' achievement through a positive school environment, with proven health benefits later in life; and b) providing students with health competencies and promoting health literacy, with the aim of empowering young people and future generations to make healthy decisions.<sup>5</sup> Tapping into these strategies to foster healthy behaviours from a young age, covering noncommunicable disease (NCD) risk-factor prevention, mental health promotion and communicable disease prevention will yield benefits that accrue throughout a student's life. Additionally, as schools exist in all communities throughout all countries, they have the potential to be gateways to engage hard-to-reach populations that may not otherwise have access to preventive services and health care. Leveraging this potential will require promoting health beyond the health sector, in partnership with the education sector, as well as linking school health systems and services with the national health system and efforts to achieve universal health coverage (UHC).

#### *Investing in school health creates better learners*

There is strong evidence to show that children and adolescents educated in nurturing environments are happier and healthier,<sup>6,7,8,9</sup> which in turn supports increased school enrolment, engagement, attendance and retention while improving academic outcomes. Over time, this leads to greater social mobility and quality of life, solidifying future gains in population health and well-being.



### ***Healthy schools promote healthy communities***

Schools are bridges connecting students and staff to their families and communities. When schools generate and amplify healthy values, norms and behaviours among students and staff, a spillover effect occurs in their homes, neighbourhoods and broader communities. The “social contagion” of healthy attitudes and behaviours<sup>10</sup> underlies the transformative power of a school’s impact on surrounding communities and society in general.

### ***Healthy schools ensure a healthy future***

*A future for the world’s children?* – a report by WHO, the United Nations Children’s Fund (UNICEF) and *The Lancet* – concluded that “early investments in children’s health, education and development have benefits that compound through a child’s lifetime, for their future children and society as a whole”. Through “backcasting” – an operational approach detailed in *For the Future* that works back from a longer-term goal to determine the steps necessary to achieve that goal – it is evident that creating the safest and healthiest region must begin with today’s younger generation. And schools are the most strategic entry point to effect change.

Moreover, investing in school health not only supports SDG 3 (Good health and well-being) and SDG 4 (Quality education), but also SDG 2 (Zero hunger), SDG 5 (Gender equality) and SDG 6 (Clean water and sanitation). Thus, investing in schools as incubators for lifelong health represents a crucially important investment in sustainable development.

### ***Building on and expanding previous “Healthy Schools” initiatives***

The potential that schools have in influencing the health of young people has been recognized in many international and local initiatives, including Comprehensive School Health (American School Health Association 1987), Health Promoting Schools (WHO 1995), Child Friendly Schools (UNICEF) and the Focusing Resources on Effective School Health initiative, joint programme launched in 2000 by the United Nations Education, Scientific and Cultural Organization (UNESCO), WHO and the World Bank.

WHO programmes at the global level – including the Commission on Ending Childhood Obesity (ECHO), Healthy Settings, Global Accelerated Action for the Health of Adolescents, and the Global School Health Initiative – all acknowledge the potential schools offer to enact health interventions that promote and protect the health of young people. Recent WHO publications, developed in partnership with UNESCO, highlight the vital role schools play in the well-being of students, families and their broader communities.<sup>11</sup> These include:

- *Making every school a health-promoting school – Implementation guidance*
- *Making every school a health-promoting school – Country case studies*
- *Making every school a health-promoting school – Global standards and indicators*

The WHO Regional Office for the Western Pacific published *Regional guidelines: Development of health-promoting schools – A framework for action* in 1996 and updated these in 2009.<sup>12</sup> Based on the experiences shared by national agencies and schools involved in health-promoting school initiatives across the Western Pacific Region, the 2009 document presents practical advice on the implementation

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of healthy schools interventions. *Healthy Islands*, a vision statement issued in 1995 by Pacific island health ministers, opens by stating that “children are nurtured in body and mind”. The subsequent *Framework of Action for Revitalization of Healthy Islands in the Pacific* and Pacific ECHO initiative delineate some of the concrete ways schools can engage in improving the health of children and adolescents.

These initiatives take a so-called whole-school approach, and they jointly recognize that all aspects of the life of a school, including its physical and social environment, are important in the promotion of health and well-being. Operationally, the focus has tended to be on schools as an implementation setting for various health interventions. This *Regional Framework on Nurturing Resilient and Healthy Future Generations in the Western Pacific* seeks to take this concept further, by articulating a more encompassing role for schools as an incubator of long-term good health, in line with the *For the Future* vision, while building upon other school health initiatives. Specifically, this Regional Framework situates school health at the centre of a collaborative partnership between the education and health sectors, acknowledging that the overarching goals of each of these sectors can be aligned with the *For the Future* vision. By cultivating a supportive school environment, fostering health literacy, self-efficacy and civic engagement, children and adolescents are positioned on a healthy trajectory that empowers them to adopt and sustain healthy behaviours throughout the life course.

### 1.3 Current situation

#### **The challenge: Escalating ill health and risk-factor exposure among the young**

Despite advances in health – reflected in longer life expectancy for most countries in the Region – and the unprecedented social and economic development of recent decades, the evidence suggests our children and young people are becoming increasingly unhealthy.

In 2019, almost 280 000 people aged 5–29 years, including almost 53 000 children aged 5–14 years, died in the Western Pacific Region – most from preventable causes, such as unintentional injuries (road accidents, falls and drowning) and intentional injuries (suicide).<sup>13</sup> The infectious causes of mortality for this age group included pneumonia and diarrhoeal diseases, which are preventable through immunization and sanitation, or curable with antibiotics.

Beyond risks to health that are causing young people to die from preventable causes today, the seeds of poor health later in life are frequently sown in childhood and adolescence. High rates of overweight and obesity among children and young people clearly have an impact on the current health of these children and young people, but of even greater concern is what this data tell us about the health and well-being of this generation in the years and decades to come.<sup>14</sup> Today’s data provide a preview of the future – unless we act now to change the future.

For example, exposure to risk factors for NCDs, which are the major cause of preventable death and disability globally, often begins in childhood and adolescence. The magnitude of these risks is rising among young people:<sup>15</sup>

- The number of obese children and adolescents aged 5–19 years increased more than tenfold globally, from 11 million in 1975 to 124 million in 2016.<sup>16</sup> The situation in the Western Pacific Region is more dire, with a twentyfold increase in the prevalence of overweight or obesity

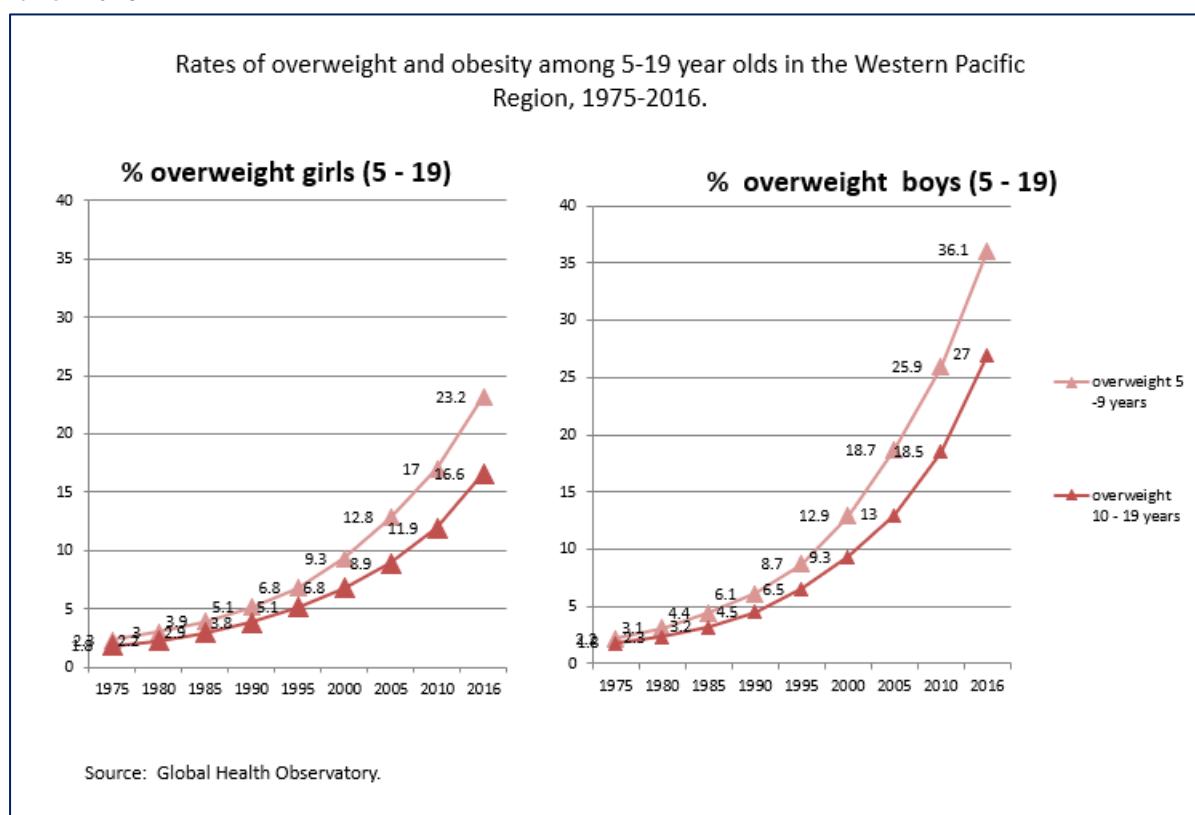
between 1975 and 2016. Currently, 17% of girls and 27% of boys aged 9–19 years, and 23% of girls and 36% of boys aged 5–9 years are overweight or obese in the Region (Fig. 2).

- Poor diets are a major contributor to childhood obesity. Increasing reliance upon highly processed foods and rising consumption of fats, salt, sugars and sugar-sweetened beverages are fuelling an escalation in overweight and obesity, with the most rapid rates of increase in low- and middle-income countries, particularly in Pacific island countries and areas (PICs).<sup>17</sup> Aggressive marketing by the food industry compounds the problem.<sup>18</sup>
- The obesity epidemic among young people is also attributable to low levels of physical activity. In the Western Pacific Region in 2016, 89% of girls and 83% of boys aged 11–17 years were doing less than 60 minutes of daily physical activity. In part, increasing physical inactivity is being fuelled by excessive screen time through computer, video gaming and media use.<sup>19</sup>
- At the same time, undernutrition remains pervasive in many parts of the Region. While the prevalence of stunting and underweight among children decreased from 1990 to 2013, there are still approximately 12 million children who are stunted and 5 million children and adolescents who are underweight in the Western Pacific Region.<sup>20</sup>
- Worldwide, more than a quarter of all people aged 15–19 years are current alcohol drinkers, amounting to 155 million adolescent drinkers. Prevalence of heavy episodic drinking among adolescents aged 15–19 years was 13.6% in 2016, with males most at risk. In the Western Pacific Region, among 10 PICs, current drinking prevalence in males 13–15 years ranged from 10% to over 40%.<sup>21</sup>
- Globally, at least one in 10 adolescents aged 13–15 years uses tobacco, although there are areas where this figure is much higher. In the Western Pacific Region, cigarette smoking among adolescents aged 13–15 years ranges from 4% in Viet Nam to nearly 48% in Papua New Guinea. Among boys in Kiribati, Palau and Papua New Guinea, tobacco use (including smokeless tobacco) exceeds 40%. And while the prevalence of current tobacco use among girls in the Western Pacific is lower than for boys, it is considerably higher than for women in the Region – which bodes very poorly for the health of these girls in the future (Fig. 3).<sup>22</sup> The use of electronic cigarettes (e-cigarettes) and other alternative tobacco products is rising among adolescents, surpassing smoking rates in several countries and areas. In Guam, for example, nearly 35% of adolescents aged 13–15 years are current users of e-cigarettes compared to 11% who are current cigarette smokers.<sup>23</sup>

Overweight and obesity, poor diets, physical inactivity, and tobacco and alcohol use during childhood can have permanent effects on physical and cognitive development – potentially condemning children and young people exposed to these risk factors in childhood and adolescence to a future burdened with chronic ill health, disability and premature mortality. Already, type 2 diabetes mellitus is rising among children and adolescents in the Western Pacific Region.<sup>24</sup> Action is urgently needed now to stave off this unhealthy future and nurture the health and well-being of today's young people in the Region.<sup>25</sup>

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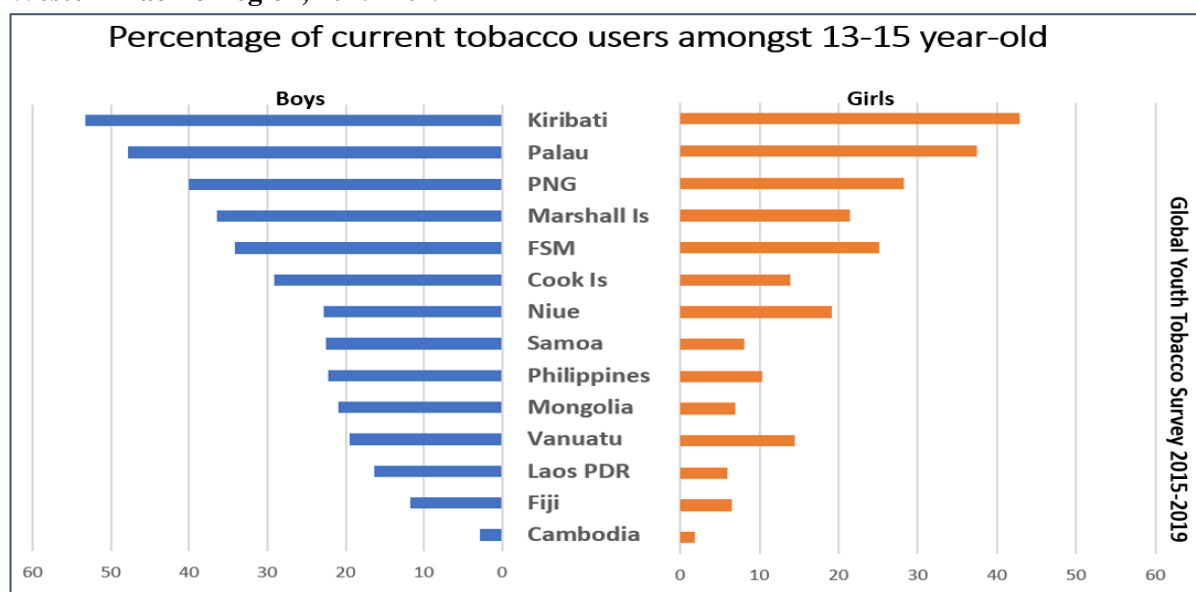
**Fig. 2. Rates of overweight and obesity among 5–19 year olds in the Western Pacific Region, 1975–2016**



In younger children, many of the risks for poor health arise in the context of the family. As children age during adolescence, schools become a more important context for both risks and responses to health concerns. Many of these precursors to ill health can be exacerbated in the school setting. For example, today's students may eat upwards of 4000 school meals by the time they graduate.<sup>26</sup> When unhealthy snacks and sugary drinks proliferate in school cafeterias and canteens, and school menus are not guided by sound nutritional standards, overweight and obesity are more likely. For children and adolescents who are not provided with or are unable to purchase meals at school, unhealthy lunches prepared from home compound the problem. When physical education classes are infrequent and safe playgrounds are not available, children and adolescents are unlikely to get sufficient physical activity.

Violence, bullying and substance abuse contribute to the growing mental health burden among children and adolescents. Violence against children and adolescents in the Western Pacific Region has been documented across multiple countries. In addition to the experience of interpersonal violence in children's homes, a significant proportion of violence surfaces in schools.<sup>27</sup> Schools are sometimes sites in which drug use among young people occurs; among the PICs affiliated with the United States of America, about one third of high school students report being given, offered or sold an illegal drug on school property.<sup>28</sup>

**Fig. 3. Tobacco use prevalence among adolescents 13–15 years by sex, selected countries in the Western Pacific Region, 2015–2019**



Source: Global Youth Tobacco Surveys, 2015–2019

The school environment may also, inadvertently, reinforce gender stereotypes that can impact negatively upon the mental health of both girls and boys. A recent review of low- and middle-income countries in the Asia Pacific region documented that by early adolescence, girls and boys have attitudes that support gender inequality, and these norms are strongly influenced – and enforced – by family, peers, the school environment and other societal structures.<sup>29</sup> A global review of evidence that includes data from countries from the Western Pacific Region corroborates this finding.<sup>30</sup> Implicit or explicit assumptions about gender are frequently encountered in the school setting.<sup>31</sup> These stereotypes propagate gender inequity, often into adulthood, that can have myriad adverse effects on the health status of both men and women. When teachers endorse cultural gender stereotypes, whether consciously or unconsciously, how they act and speak can propagate gender biases among their students.<sup>32</sup> Certain school policies may also unintentionally perpetuate gender inequities that impact students' health. For example, schools that segregate and limit female students' involvement to a perceived gender-specific sport (for example, gymnastics for girls, football for boys) can hamper girls' participation in physical activity.

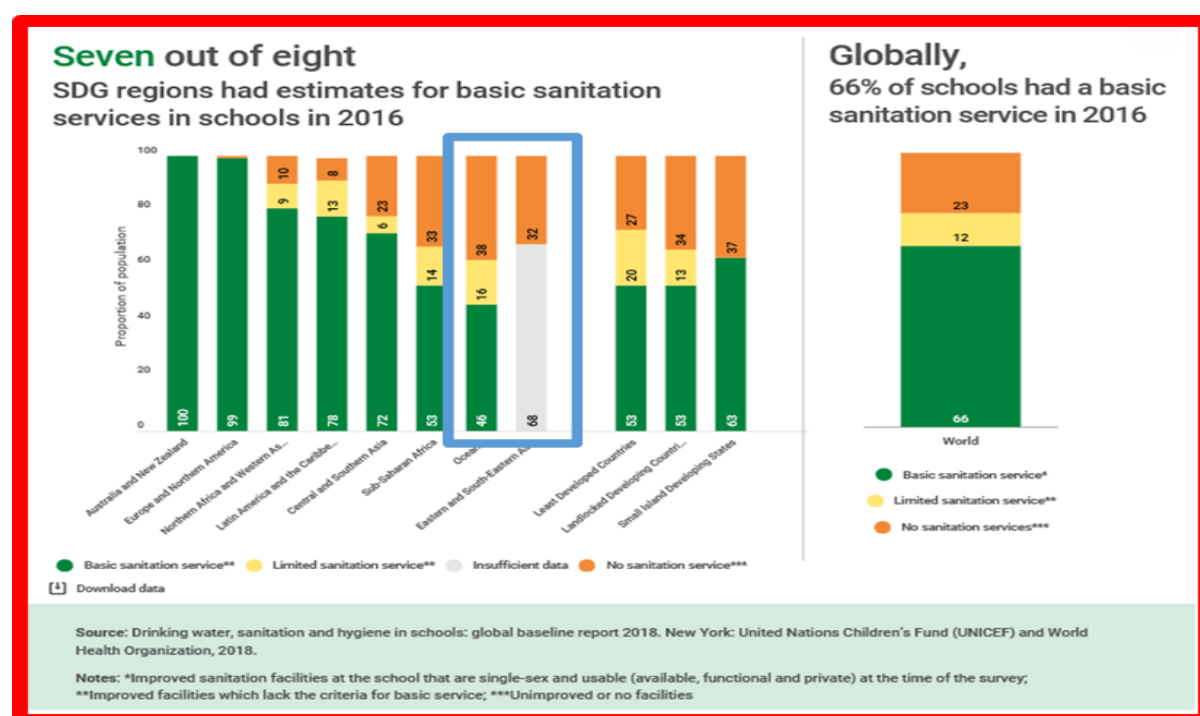
Schools play a pivotal role in supporting the emotional, social and mental well-being of students. Mental health conditions, such as childhood epilepsy, developmental disabilities, depression, anxiety and behavioural disorders, are major causes of illness and disability among young people. Worldwide, 10% of children and adolescents experience a mental disorder, but the majority of them do not seek help or receive care. Half of all mental health conditions start by 14 years of age.<sup>33</sup> Young people today face novel threats to their mental health, many of them rooted in school settings, for example, cyberbullying, academic stress, overuse of smartphones and social media, impact of school closures and prolonged virtual learning. Again, rates of mental illness among children and adolescents are worrisome for the current generation, but of even greater concern is what it portends for the future: mental health problems that go undetected and unmanaged early in life can lead to much more serious mental health problems in adulthood. Conversely, early investment in mental health promotion – in detection and (where possible) prevention, of risk factors for mental health problems, for instance through training school

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staff in looking for warning signs – is an investment in the mental health and well-being of this generation’s future well-being.<sup>34</sup>

Unsafe physical structures can also pose risks to children and adolescents’ health and safety. In some parts of the Region, old and poorly maintained school buildings may pose risks to safety, such as lead contamination of drinking water from ageing plumbing.<sup>35</sup> Chronic lead intoxication is linked to neurodevelopmental abnormalities in children and adolescents that can manifest as poor learning ability – affecting educational outcomes in the short term and employment and other prospects in the long term. Schools in disadvantaged communities are more likely to be situated near highways, factories, power plants and other sources of air pollution.<sup>36</sup> Basic sanitation to protect against diarrhoeal disease and other bacterial illnesses may be absent or inadequate in schools situated within poorer communities, reflecting the socioeconomic inequities within and across countries in the Region. For girls, lack of access to menstrual-care facilities can deter school attendance, worsening educational disparities.<sup>37</sup> In 2016, WHO and UNICEF estimated that less than half of schools in PICs had basic sanitation services (Fig. 4).<sup>38</sup> Infrastructure and resource gaps in schools arising from these economic inequities can have direct harmful effects on children and adolescents’ health in the short and medium terms – and subsequently, on their educational performance and life prospects.

**Fig. 4. Basic school sanitation services – 2016**



Note: In Fig. 4, OCEANIA (EXCLUDING AUSTRALIA AND NEW ZEALAND): American Samoa, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna.

In Fig. 4, EASTERN AND SOUTH-EASTERN ASIA: Brunei Darussalam, Cambodia, China, Hong Kong SAR (China), Macao SAR (China), Democratic People’s Republic of Korea, Indonesia, Japan, Lao People’s Democratic Republic, Malaysia, Myanmar, Mongolia, Philippines, Republic of Korea, Singapore, Thailand, Timor-Leste, and Viet Nam

## **Learning from the COVID-19 crisis: The need for a fresh and innovative perspective**

The coronavirus disease 2019 (COVID-19) pandemic highlights the critical role of schools in outbreak control during a health crisis. Technology and creativity are being employed by school districts to address some of the challenges of school closures during pandemic lockdowns, and to maintain school engagement with students forced to isolate or quarantine. Schools have become important communications hubs for information on preventive measures to protect against the pandemic. Vaccination roll-outs are being conducted effectively on school campuses. In some areas, social welfare programmes to address food insecurity and other pandemic-related social issues are school-based.

On the other hand, evidence is now accruing about the adverse health impacts of prolonged school closures on students' ability to learn effectively, as well as on their physical and mental health. The pandemic challenges the traditional concept of schools as designated physical structures separate from students' homes and communities. As lockdowns forced schools to reinvent themselves online, the division between school and home vanished, and online virtual school communities replaced geographic school settings. Students who are not in the classroom report increased loneliness, difficulty in concentrating and in retaining information, and heightened learning anxiety. Anxiety, depression and suicidal thoughts are increasing among school-aged children and adolescents, coinciding with the pandemic. Moreover, school closures have led to physical inactivity, unhealthy eating, sleep disruptions, increased vulnerability to domestic violence and online exploitation.<sup>39</sup> The heavy reliance on internet access has accentuated the "digital divide" arising from socioeconomic disparities in resource-challenged communities.

This health crisis compels the public health community to adopt a more flexible and innovative perspective towards healthy schools, including virtual classrooms. Recognizing that schools are the nexus connecting students and staff with families and communities – and society in general – provides additional impetus for this Regional Framework.

### **1.4 The opportunity**

#### **Schools as incubators for good health**

Schools play a crucial role in the formative years of children and adolescents. Schools also serve a protective function, providing a safety net for children and adolescents exposed to health risks at home. Schools, therefore, offer a strategic opportunity to reverse the upsurge in risk-factor exposure and ill health among young people and to be incubators for creating healthy children and adolescents with resilient futures.

There are an estimated 611 million children and adolescents in the Western Pacific Region.<sup>40</sup> A large majority of these children are in school,<sup>41</sup> spending up to six hours a day in a school setting for approximately nine months of the year. Thus, schools are a convenient setting for health education and delivery of health services. But beyond serving as a point of intervention and a setting for service delivery, there is potential to leverage the school environment for broader benefits to health by:

- fostering a mindset, as well as values and normative behaviours that prioritize health and well-being among students, staff and parents;

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- inculcating knowledge and skills among students – such as health and science literacy and self-efficacy – that build resilience, promote engaged citizenship, inoculate against unhealthy practices and misinformation, foster gender equity and entrench healthier behaviours, setting children and adolescents on a lifelong health trajectory;
- providing a safe and healthy student-centred learning environment for students, and a safe and healthy workplace for faculty and staff;
- transmitting and amplifying health-promoting values, policies and practices towards the larger ecosystem of families and communities;
- harmonizing and strengthening networks with key partners in civil society and government to leverage resources and coordinate activities and programmes; and
- serving as an incubator of health and well-being, and thus investing in a succession of healthy and resilient generations.

### 1.5 Methodology

In 2019, Member States unanimously endorsed *For the Future: Towards the Healthiest and Safest Region*, the Western Pacific's shared vision for WHO's work with Member States and partners over the coming five years. Recognizing that many of the root causes and potential solutions to the four thematic priorities identified in *For the Future* emanate during childhood and adolescence, acknowledging that schools are a strategic entry point to address these, and motivated in particular by concerns from Pacific island health ministers about the need to pay greater attention to the health of children and future generations, WHO in the Western Pacific Region recommitted to the task of revitalizing and strengthening the way the Organization, in collaboration with Member States, approaches health in schools. The goal was to identify new approaches to meet future challenges, using innovation to strengthen and elevate current perspectives on health-promoting schools into a transformative, future-looking model of health.

This *Regional Framework on Nurturing Resilient and Healthy Future Generations in the Western Pacific* was developed by WHO, working collaboratively with Member States and regional experts. The WHO Regional Office for the Western Pacific and country teams worked with a consultant to review existing documents, meeting reports and data to develop a draft Regional Framework. The draft underwent an initial round of technical expert peer review coordinated through the Regional Office, and further technical review by national counterparts and selected relevant stakeholders. It will be presented for consideration and endorsement by the seventy-second session of the WHO Regional Committee for the Western Pacific in October 2021.

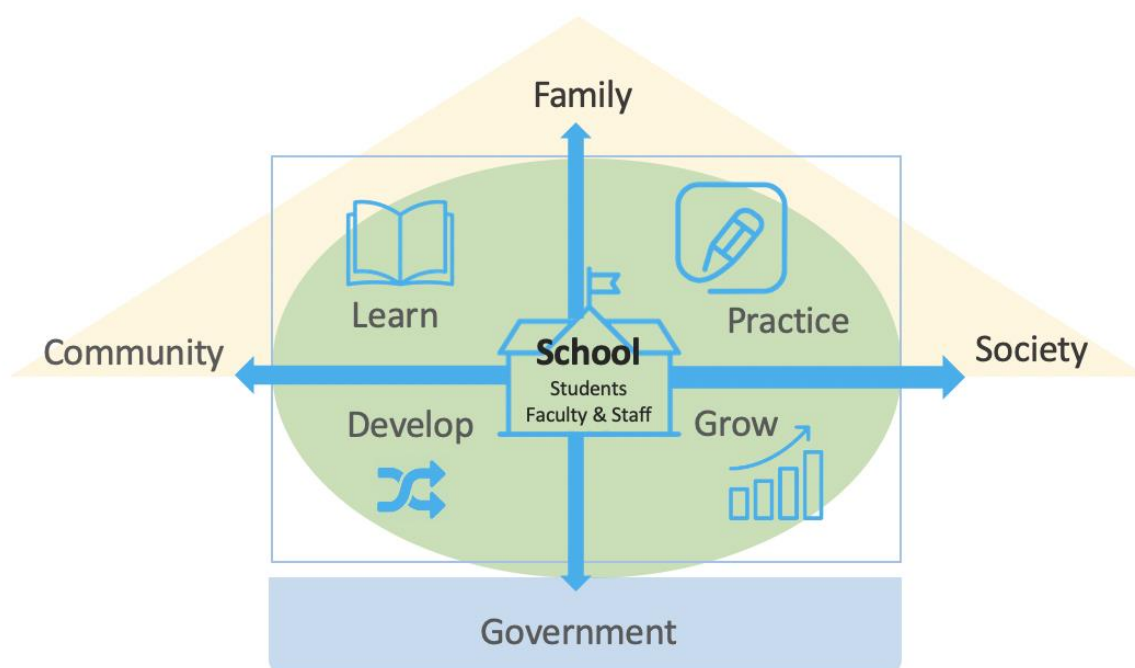


## 2. A framework for nurturing resilient and healthy future generations

### 2.1 Overview

The *Regional Framework on Nurturing Resilient and Healthy Future Generations in the Western Pacific* aims to support Member States to achieve the vision of health through the life course by focusing on nurturing healthy children and adolescents, and understanding that a healthy childhood and adolescence are the foundation for healthy future populations, including as people age. The strategic approach is focused on investing in schools as incubators for health, as sites where children and adolescents spend most of their formative years, and where family, community, society and government all intersect in their shared care of children and adolescents. The Regional Framework envisions schools as nurturing, supportive and transformative places for children to develop, learn, practise and grow into a healthy lifestyle that follows them into adulthood and beyond, and – at the same time – influences the broader community and society (Fig. 5).

**Fig. 5. A model for healthy schools**



In this model, schools, families, communities, society and governments all have critical roles to play in ensuring the health and well-being of our children and adolescents, and maximizing their potential to lead happy and healthy lives.

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### ***Schools***

A positive and affirming school environment can generate the conditions conducive to health – for example, through enlightened school policies, health-reinforcing teaching curricula, supportive and engaged relationships with teachers and peers, the provision of basic medical screening and health-care services, safe and healthy school environments, and role-modelling of healthy behaviours and respectful relationships. Schools support children to recognize, learn, understand and practise lifelong healthy behaviours. This requires an equity approach that promotes inclusion despite barriers to learning because of race, gender, culture, religion, ethnicity or socioeconomic status. Healthy schools are student-centred and responsive to students' needs to practise, experiment and adopt healthy behaviours. They also facilitate student empowerment to create youth leadership for learning, well-being, and health and civic engagement. Finally, schools provide the connections with neighbouring communities and civil society. Schools can help shape parents' understanding of health and safety issues, catalysing behaviour change within families. Behaviours and values learnt in school become normative and habitual as children grow, and through the connections that schools provide, expand to influence families, communities and the broader society.

### ***Families, communities and society***

Families, communities and society have an important role in supporting school programmes and reinforcing what children are taught in schools. To ensure that conditions in the home and neighbourhood promote healthy behaviours acquired in school, families can make changes in the home environment, modify their purchasing patterns and model desirable behaviours. For example, creating a tobacco- and drug-free home fortifies lessons learnt in school about tobacco and substance abuse prevention. Families and communities can be influenced to adopt healthier behaviours that the children learn in school, such as washing hands before meals and brushing teeth with fluoride toothpaste after meals. Equally, families and communities can also advocate for school initiatives that promote and teach health, such as increasing the time allotment for physical activity, establishing school gardens, or removing vending machines filled with sugary snacks and other unhealthy foods and drinks.

Beyond the school setting, families, communities and society have a moral responsibility to provide a safety net for children who are out of school. A 2017 UNESCO publication estimated that nearly 7 million children in South-East Asia are excluded from the formal educational system because of social determinants that confer heightened inequity – child labourers, child brides, children with disabilities and stateless or undocumented children are persistently over-represented.<sup>42</sup> A concerted effort across all sectors of society is necessary to identify and protect these children and enable them to enter the formal educational system. In the interim, there are multiple community settings where out-of-school children and adolescents may be reached (for instance, parks, malls, churches, public transport, community shelters and youth centres) using some of the suggested actions in this Regional Framework.

### ***Governments***

Governments have a role in providing leadership to develop policy and programme innovations to foster schools as environments that invest in health, and they have a role in spearheading cross-sectoral coordination to foster child and adolescent resilience. Taking a life-course approach to planning and policy development and practice, applying a gender and equity lens to ensure inclusion, and overseeing

the monitoring of programme activities and impacts on health burden and population indices of well-being are other roles for governments at both national and subnational levels.

Working in a collaborative and coordinated fashion, schools, families, communities and governments can ensure that schools serve as incubators of health and learning that are invested in supporting children and adolescents to become healthy, resilient and productive members of society.

## **2.2 Vision**

Today's generation of children in the Western Pacific Region grow up to be healthy, resilient and productive adults who maintain good health as they age.

## **2.3 Guiding principles**

This Regional Framework recognizes five overarching principles, which are outlined in sections 2.3.1 to 2.3.5.

### **2.3.1 *Evidence and data informed: using evidence to guide and inform action***

While the evidence base for new and evolving issues in this fresh approach to school health may not yet be universally established, whatever good evidence exists must be used to guide the development of policies and programmes. This Regional Framework strongly encourages Member States and other stakeholders to seek out reputable data and information in developing national policies, plans of action and interventions for schools that invest in health. Member States should consider the experiences of other countries in the Region that may have pilot-tested novel approaches or implemented best practices, and to apply the lessons learnt by these countries when adapting interventions for their populations. Resources should be directed at strengthening the regional evidence base of effective interventions – with a focus on evidence that demonstrates the long-term impacts of investing in the health of children and young people through schools.

This Regional Framework calls on WHO, including its collaborating centres, to proactively analyse and disseminate to Member States the evidence for best practices for healthy schools. Where evidence does not exist, particularly in relation to newly emerging health threats such as COVID-19, the Regional Framework supports the use of the precautionary principle to safeguard the health and safety of students, faculty and staff – that is, even where the evidence is still uncertain or evolving, decisions regarding interventions should have at their core the preservation and protection of public health.

### **2.3.2 *Beyond health: fostering intersectoral collaboration and networking at all levels***

Multisectoral participation, strong partnerships and networking are necessary for effective school health. At the national level, ministries of health and ministries of education are encouraged to work together to create a coordinated national approach to school health. In turn, these ministries need to engage with other partners – including other government ministries, statutory bodies, youth groups, civil society organizations, United Nations agencies, and other appropriate partners – for cross-sectoral coordination of resources and technical support, as well as alignment with established policies, practices and standards. Effective collaboration is also necessary at the local level. In particular, engaging and empowering youth to meaningfully participate in decision-making and evaluation of school policies

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and programmes, is essential. Mechanisms to foster these types of creative partnerships are vital for successful implementation of activities and strategies of this Regional Framework.

Several countries, including Australia<sup>43</sup> and the Republic of Korea,<sup>44</sup> have intersectoral mechanisms that facilitate the participation of the relevant national and local stakeholders to support school health. Member States are encouraged to review these examples for possible adaptation or replication.

### **2.3.3 Collaborative and inclusive: using a participatory and culturally competent approach to school health**

Effective engagement of students, teachers, school principals and administrators, communities, parents, guardians and other stakeholders is critical to ensure widespread buy-in and success. The Regional Framework strongly encourages Member States to actively facilitate student, faculty and staff, and community participation in the development, planning, implementation and evaluation of school health policies, practices and interventions. The implementation process should be adapted to address country-specific and community needs, and it should be inclusive. Local culture, language preferences and other unique characteristics of specific populations should be taken into consideration when designing the approaches and formats for implementation.

### **2.3.4 Iterative and evolving: assuring continuous learning and quality improvement**

The process that underpins this Regional Framework is an iterative one; it is premised upon an ongoing focus on assessment, capacity-building, prioritization, implementation and evaluation that will provide continuous feedback to improve and revise strategies and interventions throughout the life of the Regional Framework. Member States are encouraged to develop their own monitoring systems, adapted to their local needs and capacities, and to use the data generated to guide future revisions. The Regional Framework also recognizes that countries are at different stages of development and supports a phased or graduated approach that allows Member States to tailor their priorities and actions depending upon their local situation, needs, capacity and resources.

### **2.3.5 Equitable: recognizing and addressing inequities and the social, commercial and environmental determinants of health**

Finally, and perhaps most importantly, achieving the aspirations set out in this Regional Framework will require Member States to systematically address social inequities that directly or indirectly impact child and adolescent health and safety. Incorporating a perspective that considers gender, ethnicity, and other socioeconomic and commercial determinants of children and adolescents' health is critical, if Member States are to resolve the fundamental causes of poor health and elevated risks among those with increased vulnerabilities. A major gap acknowledged by the Regional Framework is the population of children who are not in school; Member States are strongly encouraged to determine which children are excluded from the formal education system and to determine ways to expand programmes and interventions to reach these children.

## **2.4 Purpose**

The Regional Framework is intended as an inspirational and aspirational document that motivates Member States, WHO and partners to invest in schools as social capital for health, in line with and as a

means to achieve the *For the Future* vision. It is meant to catalyse a fresh and innovative perspective, while acknowledging the value of other approaches to health-promoting schools. It also addresses a key component to the life-course approach to health, bridging maternal and child health and the *Regional Action Plan for Healthy Ageing in the Western Pacific*.

The *Regional Framework on Nurturing Resilient and Healthy Future Generations in the Western Pacific* is not meant to be a prescriptive document mandating a detailed implementation pathway or standards. Rather, it offers suggestions for actions to stimulate the transition from a more formulaic approach towards a transformative model of school health. The Regional Framework was designed as a starting point for Member States to adapt and expand, in light of their local context, capacities, and resources. It recognizes that countries are at varying stages of development and operate in diverse sociocultural and political contexts. The focus is on schools, specifically primary and secondary education, but countries may find opportunities to adapt various elements of this Regional Framework to conform to their specific local context, applying the strategic actions to higher levels of education, early childhood education (preschools) or alternative educational settings for children and adolescents.

## 2.5 Goals

### 2.5.1 Goal 1. Entrenching healthy behaviours in children that stick

*Schools will create an impact on students' behaviour by ensuring they have the knowledge, attitudes, values and skills to adopt healthier lifelong behaviours*

Schools have a tremendous capacity to mould, influence and inspire children and adolescents. When schools create nurturing and inspiring environments that create and reinforce knowledge, attitudes, values and life skills for healthy living, they are establishing the foundation for lifelong healthier behaviours and empowering students to achieve their highest capability and potential. Supportive environments – structural, social and policy related – also impact on the attitudes and behaviours of school faculty and staff, as well as others, such as family and community visitors.

For the greatest impact, inclusion must be encouraged, and barriers to equitable access must be removed from admission policies and practices. When students feel welcomed, respected, engaged and cared for, health and education outcomes improve. Equity in school policies establishes a foundation for future health and development as students mature into adults and take their place within their own families, communities and workplaces.

Furthermore, school policies and practices should reflect health as a core value, whether it is in the selection of classroom curricula or lunchroom menus, the adoption of tobacco-, alcohol- and drug-free policies, or the provision of mental wellness student and staff services. These policies and practices shape the physical environment of the school, which should address the need for safety, security and health-promoting resources. Likewise, the school curricula should reinforce the integral value of health while reaffirming the redemptive importance of a good education. Lessons taught should be modelled by faculty and staff, given the established influence of adult behaviours on the young. Finally, programmes and services should reflect the high priority given to health and make essential health services accessible to students. A *Cochrane Review* demonstrated that health interventions conducted in schools were correlated to reductions in body mass index, increased fitness, greater fruit and vegetable intake, reduced smoking and decreased bullying.<sup>45</sup> There are also essential health services,

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including medical screening, vision examinations, vaccinations, dental check-ups, etc. that ensure greater access to health care for children and adolescents when integrated into the school setting.<sup>46</sup>

Schools are also workplaces. Investing in faculty and staff health can yield benefits for individual staff and – through them – their students, as well as their families and communities. Enhancing staff capacities to embed health in curricula and learning activities and to model healthy behaviours strengthens their ability to be effective agents of change for their students.

### Suggested actions for schools

- Articulate health as a core value by embedding a health perspective into school policies and practices. Align school policies with best-practice recommendations and adapt or apply existing tools and guidance documents, such as the WHO–UNESCO publication *Making every school a health-promoting school – Implementation guidance* and the Pacific ECHO policy priorities, to the local context.
- Adopt equitable admission policies and integrate a gender and equity perspective into school policies and practices. Develop strategies to reach out to children who may otherwise be excluded from school enrolment, for example, child labourers, homeless or undocumented children, children with disabilities, children with learning issues, chronically ill children and children in remote areas. For example, expand virtual classroom capabilities using online platforms, when available, or create satellite classrooms.
- Engage and involve students, their families, faculty and staff in health policy and programme development and implementation.
- Ensure a safe and secure school environment, including through ensuring that school buildings, facilities, grounds and transport meet safety and sanitation standards and occupational safety standards. For example, provide an adequate supply of clean water and soap for handwashing, and a sufficient quantity of waste containers that are emptied regularly. For example, the Lovu Sangam school in Fiji prioritizes a healthy environment. Staff took action to minimize local hazards by organizing an occupational health and safety committee and conducting regular health inspections. Other efforts included declaring the school a smoke-free zone, beautifying school grounds, improving waste management and setting up adequate play space for students.<sup>47</sup>
- Augment the physical set-up in schools to reinforce health messages and health practices. For example, make drinking-water fountains readily available and remove vending machines dispensing soda and other sugar-sweetened beverages. Establish a safe area for physical activity and equip this area for exercise and play.
- Develop and enhance curricula that promote health literacy and reinforce health and healthy behaviours, reflecting a life-course approach that emphasizes the linkages between health and educational performance. Support ongoing teacher education and make training and technical assistance available to faculty to incorporate health into their curricula and build their capacity to deliver these curricula effectively.
- Incentivize and support healthy behaviour by faculty and staff, mindful of the impact of role-modelling on students.
- Initiate creative programmes and activities that emphasize health, such as maintaining a school vegetable garden for garden-based nutrition education.

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- Configure health services offered in school to address important health needs and concerns of students, faculty and staff. Explore ways to reach out to students' families and involve them in student health programmes and activities. For instance, incorporate mental wellness programmes that counter bullying and violence encountered in school, and encourage dialogue around mental health and mental illness to reduce stigma.
- Empower and train educators and parents to recognize children at risk – for example, those showing signs of mental distress or those with an abnormal body mass index – and secure the appropriate care for these children within the school system and the health-care system.
- When students are cited for an infraction of the rules, instead of suspension, consider healthier alternatives. Avoid remedial actions that undermine students' engagement with school. For example, in Guam, the Department of Education partnered with the Department of Public Health and Social Services to make online tobacco cessation counselling available for free to students caught smoking or vaping on campus, using computer equipment and internet connections in school. This replaced suspension, which only increased students' opportunities to smoke or vape, and kept the students in school as they explored strategies to break nicotine addiction.

**Suggested actions for governments**

- Foster collaboration between ministries of health and ministries of education, and other relevant government ministries, to create a coordinated approach to school health at national and subnational levels, with a consistent set of principles, policies and approach to implementation. Clearly designate responsibilities to relevant ministries and sectors in ensuring health care for children and students to avoid overlapping tasks and create good coordination between ministries and sectors. Incorporate a gender and equity perspective into this approach. For example, the Philippines launched the *Oplan Kalusugan* healthy schools programme led by the Department of Education in partnership with the Department of Health for the delivery of health education including: sexual and reproductive health; access to basic health services such as immunization and deworming, water, sanitation and hygiene (WASH); and school nutrition.<sup>48</sup>
- Ensure that all geographic areas, ethnic and religious groups, and socioeconomic sectors have access to formal education. Identify hard-to-reach populations (displaced families, the homeless, geographically remote families, undocumented families, etc.) and develop strategies to ensure that children from these groups have access to school.
- Allocate resources for schools to implement improvements in physical structures, curricula, and faculty and staff development so that they are better equipped to invest in health. Direct resources equitably, so that schools in disadvantaged circumstances can overcome existing gaps in resources, infrastructure and programme quality.
- Work with stakeholders at national and subnational levels to develop an agreed upon and consistent approach to school health.
- Offer training opportunities for school administrators and staff to prepare them for transforming their school environment into an effective incubator of lifelong healthy behaviours among their students.

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### Suggested actions for WHO

- Continue to advocate with governments and partners for a transformative, future-looking perspective on school health.
- Create an advisory group of relevant experts from the health and education fields to assist Member States in operationalizing the approach to school health proposed in this Regional Framework.
- Actively promote and facilitate dialogue and collaboration between the health and education sectors, including through convening regional and subregional meetings with Member States and partners from the health and education sectors to introduce and disseminate the Framework and advance its implementation.
- Facilitate cross-country sharing of replicable local solutions and best practices for school health. Collate data and experience on current school health interventions to create a robust regional evidence base on effective school health practices, with a focus not on short-term project evaluation but rather on building evidence that demonstrates the future benefits to society of investing in health through schools.
- Coordinate networking and international collaboration opportunities to link resources and technical expertise with specific country needs.
- Leverage the expertise of WHO collaborating centres to support implementation of the Framework, including through building the regional evidence base for the approach outlined in the Framework, and work with countries to evaluate local solutions and best practices that may have relevance for the rest of the Region.

#### 2.5.2 Goal 2. Schools influence the community through utilizing a spillover effect

##### *Schools and their students will become influencers who are able to catalyse change to improve health within their families and communities*

Schools are natural hubs within neighbourhoods, uniting families, educators and community partners to provide students with education, enrichment, health and social services, and opportunities to succeed in school and in life. Research has documented a significant positive correlation between school, family and community involvement on the one hand, and student success and well-being on the other.<sup>49</sup> Clearly, many positive outcomes occur when schools and the community work together. However, the potential of school–community involvement and engagement is not always fully realized.<sup>50</sup> Specifically, the benefits that accrue are not unidirectional, with the students as the only beneficiaries of the school–family–community partnership. The opposite is also true: students can transmit healthy behaviours to their families and communities. Acting as influencers, children and adolescents can internalize healthy behaviours acquired in school and effect change within their families and communities. Taken collectively, this spillover effect, in which schools can influence community behaviours, can contribute to transforming society in the long term.

Being engaged with students' parents, families and communities extends the institutional boundaries of influence of schools.<sup>51</sup> Schools that succeed in engaging families share three key practices. They:

- focus on building trusting collaborative relationships among teachers, students, families and community members;



- recognize, respect and address families' needs, as well as class and cultural differences; and
- embrace a philosophy of partnership in which power and responsibility are shared.<sup>20</sup>

Engagement and collaboration strengthen both the school and the community in relation to health and well-being, and they have longer-term impacts.

### **Suggested actions for schools**

- Develop the capacity of school staff to engage and develop trusting and respectful relationships with students, families and community partners in the development of school health initiatives.
- Embrace a philosophy of partnership and a willingness to share decision-making power with students and their families. Ensure that students, parents, school staff and community members understand that the responsibility for health and development is a collaborative enterprise.
- Encourage active student and parent groups that participate in school policy development, implementation and assessment.
- Provide learning and engagement opportunities specifically for families to enhance their capacity to recognize and address common student-health issues. For example, organize in-person or virtual seminars for parents on how to recognize the early warning signs of mental health issues and where to get help for their children.
- Empower students, faculty and staff to serve as health champions and leaders.
- Where possible, make school facilities and resources available to the greater community. For instance, playgrounds and gyms may be made available for community members after school hours.
- Consider making health outreach sessions available online for students' families and other community members. Use communication channels available to the school to disseminate important prevention measures during disease outbreaks and health emergencies.
- Facilitate linking school enrolment and health records with the primary health-care system, where national systems would allow for this, thereby linking school health clinics and facilities with the health system and broader efforts to achieve UHC.
- Establish networks of healthy schools to facilitate sharing of best practices, lessons learnt, effective strategies and success stories to leverage existing resources and expertise. For example, Tsun Tsin College, a secondary school in Hong Kong SAR (China), formed and co-led a local network of health-promoting schools in the same district, consisting of 19 primary schools and kindergartens. Student health ambassadors serve as helpers for the network's programmes.<sup>47</sup>

### **Suggested actions for governments**

- Foster intersectoral collaboration with other government agencies, the health-care system and civil society organizations that may have a role in promoting and operationalizing the approaches proposed in this Regional Framework. For example, in the Marshall Islands, the public school system developed a Learning Garden Programme with coordinators who serve as the liaison between the schools and the Ministry of Resources and Development, which provides supplies and tools needed for school garden maintenance.<sup>52</sup>
- Encourage partnership models between schools and communities that amplify healthy living, through grants and other support mechanisms. For example, provide grants to subsidize school–

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community gardens. Offer national recognition for best practice models of health campaigns, especially those that deliver co-benefits for the broader community, such as community COVID-19 vaccinations offered at school facilities.

- Regulate the promotion of unhealthy products in schools – for example, banning tobacco, alcohol and junk-food sponsorship of schools and school-related events, such as sports events and carnivals, and prohibit advertising and marketing of these products on school campuses.

### Suggested actions for WHO

- Facilitate cross-country sharing of replicable local solutions and best practices of strategic health partnerships between schools, families and communities.
- Showcase best practice examples of students influencing the health of their families and communities, including through the use of strategic communications. For example, in 2019 the United Nations Secretary-General recognized 13 youth climate champions from schools in Australia, Bhutan, China, Fiji, India, Indonesia, Japan, Kiribati, Malaysia, Nepal, the Republic of Korea, Samoa and Tonga for their work on initiating community action on climate-related issues,<sup>53</sup> which helped highlight the commitment of these young people to climate change issues and facilitated their further engagement in United Nations work on these issues.
- Leverage the skills and expertise of relevant WHO collaborating centres to build the regional evidence base on the participatory approach to school–family–community partnerships for improved population health – including evidence on the long-term value of this approach for the broader society – and provide technical assistance and capacity-building for Member States on establishing operational school–family–community partnerships for health.

### 2.5.3 Goal 3. Investing in schools today to build a healthier tomorrow

#### *Schools will provide the social capital for health for the future.*

Social capital is a precondition for healthy social and cognitive development of children and adolescents<sup>54,55</sup> and it comprises aspects of relationships, networks, norms, skills and trust.<sup>56</sup> School may be considered the primary context for educational outcomes. In addition to educational achievements, research has shown that the school environment has a significant influence on students' broader development, mental and physical health.<sup>57,58,59</sup> The evidence highlights a strong connection between school performance and indicators for health and well-being during adolescence<sup>60,61</sup> and into adult life.<sup>62</sup>

Education is inextricably linked with health, and thriving at school is an important predictor for adult health and well-being.<sup>63</sup> This highlights the need to coordinate and integrate both educational policies and health policies to promote positive outcomes in school performance, academic well-being and health during the significant years of development and learning. Further, governments and schools should pay attention to building social capital in the school context,<sup>64</sup> as an essential component for ensuring health throughout the life course and the economic viability of society.<sup>65</sup> Thus, investing in healthy schools is an investment in future health and development.

### **Suggested actions for schools**

- Adopt a continuous quality-improvement process that incorporates measures for enhancing the health of students, faculty and staff in quality monitoring. Adapt existing tools and guidance documents, such as the WHO–UNESCO publication *Making every school a health-promoting school – Global standards and indicators*, to the local context.
- Invest in teacher development and education to enhance the quality of pedagogy in schools.
- Consider using participatory approaches to monitoring, evaluation and learning that engage and involve students, parents and staff.
- Advocate for resources and technical support to ensure continuous quality assurance and capacity- building from government and community partners.
- Partner with students, faculty, families and communities in creating accountability mechanisms and indicators to track progress in operationalizing the approaches outlined in this Regional Framework.

### **Suggested actions for governments**

- Articulate the significant role that schools play in the nation’s development agenda and incorporate the school health perspective in sustainable development national action plans.
- Allocate sufficient resources to ensure progressive improvements in schools, encompassing policies, infrastructure, resources and operational capacity.
- Invest in continuous educational enhancement of the national pool of teachers, creating a process of constant upgrading of skills and knowledge. For example, the Australian Government currently funds the National Mental Health in Education Initiative to support educators to incorporate mental health and well-being into curricula and to support the mental health and well-being of students.
- Establish monitoring and evaluation frameworks and national standards for school health to assist schools in progress monitoring and continuous quality improvement. Utilize existing guides, such as the WHO–UNESCO publication *Making every school a health-promoting school – Global standards and indicators*.
- Provide incentives and funding for schools that fulfil and surpass national standards for school health, ensuring that the design of any such incentives do not favour wealthier schools and, thereby, exacerbate existing inequities. Support schools working to meet school health standards with technical assistance and resources.

### **Suggested actions for WHO**

- Support Member States to take a systems approach to health and education, creating strong linkages between schools and the health system – including through the actions outlined above under Goal 1 (convening of regional and subregional meetings, and the establishment of an advisory group).
- Build the investment case for healthy schools that articulates the co-benefits of the approach for schools and the broader society over the long-term, leveraging the skills and expertise of relevant WHO collaborating centres to do so.
- Assist countries in developing appropriate monitoring mechanisms for evaluation and continuous quality assessment. Support evaluation of current school health programmes in the

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Region to support the development of a robust regional evidence base for effective interventions.

- Provide technical assistance, training and support to Member States for conducting evaluation and progress assessments of school health.

## **2.6 Learn and improve**

As an aspirational document, this Regional Framework does not prescribe a one-size-fits-all evaluation plan or a detailed set of indicators to assess progress in operationalizing the school health approach. Instead, it promotes a learn-and-improve approach: that is, reflect on experience, learn from what works (and what does not), and use this knowledge and information to adapt and improve for the future.

Recognizing that countries are at differing levels of capacities and have unique and specific local contexts, the Regional Framework encourages ministries of health to engage with ministries of education in each country and area to develop their own approach to implementing the ideas outlined in this Regional Framework. Ministries are encouraged to track progress at the national level, consider challenges and service gaps, and identify ways forward through evaluations conducted by engaging all key players, using innovation and evidence-based practices to assure sustainability. Guided by the national approach, schools could then monitor their progress in attaining and implementing policies and standards and use this information within their school to set realistic goals, direct future planning, and constantly improve services and facilities. It will be critical to incorporate the dual perspectives of health and education into any assessment instruments.

As a guide to visualizing what a healthy school could look like, as well as establishing an approach to learn and improve, WHO suggests performing a mental “walk-through” within, around and beyond an imaginary healthy school. Sections 2.6.1 through 2.6.10 presents a walk through the school visualization exercise.

### **2.6.1 At the school entrance**

- Is the school welcoming and respectful of all students, regardless of race, ethnicity, religion, gender, sexual orientation, socioeconomic class and other social qualifiers?
- Does the school have strategies to reach difficult-to-reach children and adolescents (for example, children of newly migrated families, children living in poverty, etc.)?
- Is the school building safe and secure?
- Does the school building meet safety and sanitation standards?
- Are entrances and exits wheelchair accessible?
- Are entrances and exits located a safe distance from vehicular traffic?
- Is the school entrance protected from extremes of weather (excessive heat and sun, heavy rain and strong winds)?

### **2.6.2 At the principal’s office**

- Does the school’s vision and mission incorporate health as a fundamental element for learning?
- Do the school’s policies reflect the integral role of health in all school activities? For instance, is the school a tobacco-, alcohol- and drug-free environment?

- Are school policies equitable and fair for students and staff? Do they address how to engage hard-to-reach populations of children, such as child labourers, homeless and undocumented children, and children in geographically remote areas?
- Are school policies structured so that they do not undermine school engagement and disadvantage learning, but instead reinforce healthy behaviours? For example, instead of suspension for students caught for rule infractions, are there other remedial actions that could reinforce healthy behaviours through attendance in health education, health programmes or community service?
- Does the school leadership actively engage with students, their families and relevant community organizations in performing its stated mission?

#### **2.6.3 At the faculty and staff lounge**

- Are faculty and staff expected and empowered to model healthy behaviours?
- Does the faculty and staff lounge adhere to standards that define healthy settings and healthy workplaces? (For example, is it a tobacco-free lounge? Is it set up ergonomically?)
- Is there an employee assistance programme for faculty and staff who are undergoing health or other issues? (For example, is there counselling available to support staff mental health and wellness?)

#### **2.6.4 At the classroom**

- Is the classroom safe and secure from hazards – whether physical, psychological or social?
- Can people in wheelchairs safely access the classroom entrances, exits and seating?
- Does the classroom provide messages and cues that promote health?
- Does the class curriculum integrate knowledge, attitudes and skills that equip students to develop health literacy and adopt healthy behaviours?
- Do adults mirror healthy behaviours to the students in the classroom?
- Are students, as the Healthy Islands vision states, “nurtured in body and mind”? Are healthy and positive behaviours rewarded? How are unhealthy and negative behaviours discouraged?
- If students are ill or having difficulties or mental health problems, are there mechanisms in place to quickly recognize danger signs and get the students the help they need?

#### **2.6.5 At the lunchroom or cafeteria**

- Do all students have access to healthy and nutritious food?
- Is safe drinking water available?
- Do cafeteria staff adhere to food safety standards? Does food purchased for processing have clear labels on origin, expiration and nutrition information? Is cafeteria food handled and stored properly?
- Is there a quality assurance process to confirm that cafeteria staff adhere to food safety protocols?
- Are there environmental cues to prompt students to select nutritious food and to eat healthy?
- Are unhealthy food and drink readily available through canteen sales, vending machines, etc.?
- Are there handwashing facilities with running water and soap nearby?

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**2.6.6 At the school toilets**

- Are running water, soap and handwashing facilities always available for all students?
- Are sanitary toilets available for all students?
- Are toilets safe for students to use? Are there monitoring mechanisms to prevent school-based violence and bullying in toilets?
- Do girls have access to menstrual-care facilities?
- Are there wheelchair-accessible toilet facilities?

**2.6.7 At the school health clinic**

- Does the clinic provide adequate first aid and medical services for students who are ill? Is it properly equipped to render first aid and basic health care?
- Does the clinic provide preventive services (for example, vision checks, immunizations, etc.), primary health-care services (for example, deworming, first aid, mental health screening), and health education and outreach to students, especially those who may not have access to these services outside school?
- Is the clinic staffed by qualified health personnel?
- Are health clinic records linked to the primary care system?
- Does the clinic provide mental health services?
- Does the clinic reinforce good health behaviours through environmental cues and messaging?
- If the school does not have clinic, is there a process in place to ensure that students who are injured or become ill in school are able to obtain good and timely health-care services?

**2.6.8 At the school playground or gym**

- Is the playground or gym safe and secure? Are there protections from extreme weather, vehicular traffic, stray animals and animal waste, and other physical hazards?
- Is it conducive to healthy play and exercise?
- Are there monitoring mechanisms to prevent school-based violence and bullying in the playground?
- Are there facilities and equipment for sports and other physical activities? Are accommodations in place for students with disabilities?
- Is physical activity encouraged through environmental cues, messaging and physical set-up?
- Is safe drinking water readily available?
- Are first aid kits readily accessible in case of injuries and accidents?

**2.6.9 At the periphery of the school, between school grounds and the community at large**

- Are there effective partnerships between the school and surrounding communities and families?
- Does the school offer learning opportunities, such as webinars or in-person educational programmes, to families of students?
- Are school facilities such as the playground and library available for community use after school hours?
- Does the school play an active role in community initiatives, such as community gardens, farmers markets or community clean-ups?

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- Do families and community organizations support the school in its mission to care for its students? Do they get involved in school activities, especially those related to health such as school gardens?

**2.6.10 At the ministry of health and ministry of education**

- Is there a collaborative partnership between the ministries of health and education to promote and support the operationalization of the approaches outlined in this Regional Framework?
- Have these ministries articulated the pivotal role of schools in the national development agenda?
- Are there budgetary strategies within these ministries to support the continuous quality improvement of healthy schools?
- Are these ministries supporting national capacity-building and staff development and teacher education for healthy schools?
- Have these ministries developed a consistent national approach to guide the implementation of the approaches outlined in this Regional Framework?

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### 3. Conclusion

Schools that bring together individuals, families and communities to invest in health can positively influence both student health behaviours and learning,<sup>66</sup> at the same time creating social capital for a healthier future.<sup>67</sup> This Regional Framework reimagines school health using a fresh and more encompassing perspective, emphasizing evidence-based, collaborative and participatory approaches, with a view to reducing health inequities among children and adolescents, as well as nurturing healthy and resilient current and future generations. Member States are encouraged to align their national policies for healthy schools with this Regional Framework and to work with ministries of education, community partners and WHO in operationalizing the approaches outlined in this Regional Framework to address local needs.

Action to protect and promote the health of our children and adolescents is vital to ensuring health throughout the life course. This is critical for the Western Pacific Region to achieve its ambition of becoming the world's safest and healthiest region, as envisioned in *For the Future*. It is hoped that this Regional Framework will inspire and empower countries and areas in the Region to innovate, to learn from each other's experiences, to expand institutional and individual capacities to ensure safe and healthy schools, and to leverage existing resources to build on ongoing efforts to promote healthy schools using a "grounds up" approach, as detailed in *For the Future*. Doing so will enable the Western Pacific Region to make progress towards the SDGs, the global goals contained in WHO's Thirteenth General Programme of Work 2019–2023 and the vision of *For the Future*.



## References

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- <sup>1</sup> Kitagawa EM, Hauser PM. Differential mortality in the United States: a study in socioeconomic epidemiology. Cambridge (MA): Harvard University Press; 1973.
- <sup>2</sup> Case A, Fertig A, Paxson C. The lasting impact of childhood health and circumstance. *J Health Econ*. 2005;24:365–89.
- <sup>3</sup> Patton GC, Sawyer SM, Santelli JS, Ross DA, Afifi R, Allen NB, Arora M, Azzopardi P, Baldwin W, Bonell C, Kakuma R, Kennedy E, Mahon J, McGovern T, Mokdad AH, Patel V, Petroni S, Reavley N, Taiwo K, Waldfogel J, Wickremarathne D, Barroso C, Bhutta Z, Fatusi AO, Mattoo A, Diers J, Fang J, Ferguson J, Ssewamala F, Viner RM. Our future: a Lancet commission on adolescent health and wellbeing. *Lancet*. 2016 Jun 11;387(10036):2423–78. doi: 10.1016/S0140-6736(16)00579-1.
- <sup>4</sup> Bay JL, Hipkins R, Siddiqi K, Huque R, Dixon R, Shirley D, Tairea K, Yaqona D, Mason-Jones A, Vickers MH. School-based primary NCD risk reduction: education and public health perspectives. *Health Promot Int*. 2017 Apr 1;32(2):369–79. doi: 10.1093/heapro/daw096. PMID: 28011654.
- <sup>5</sup> World Health Organization, United Nations Educational, Scientific and Cultural Organization. Global standards for health promoting schools [concept note]. Geneva: World Health Organization; 2018. <https://www.who.int/publications/i/item/global-standards-for-health-promoting-schools> (accessed 6 July 2021).
- <sup>6</sup> Badri M, Nuaimi A, Yang G, Sheryani Y, Rashedi A. The effects of home and school on children's happiness: a structural equation model. *ICEP* 12, 17 (2018). <https://doi.org/10.1186/s40723-018-0056-z>.
- <sup>7</sup> Vieno A, Santinello M, Galbiati E, Mirandola M. School climate and well-being in early adolescence: a comprehensive model. *European Journal of School Psychology*. 2004;2:219–38.
- <sup>8</sup> Stiglbauer B, Gnambs T, Gamsjäger M, Batinic B. The upward spiral of adolescents' positive school experiences and happiness: investigating reciprocal effects over time. *Journal of School Psychology*. 2013;51:231–42.
- <sup>9</sup> Happy schools: a framework for learner well-being in the Asia Pacific. Paris: United Nations Educational, Scientific and Cultural Organization; 2016. <https://unesdoc.unesco.org/ark:/48223/pf0000244140> (accessed 20 June 2021).
- <sup>10</sup> Ball K, Jeffery RW, Abbott G, McNaughton SA, Crawford D. Is healthy behavior contagious: associations of social norms with physical activity and healthy eating. *Int J Behav Nutr Phys Act*. 2010 Dec 7;7:86. doi: 10.1186/1479-5868-7-86.
- <sup>11</sup> Making every school a health-promoting school: implementation guidance. Geneva: World Health Organization and the United Nations Educational, Scientific and Cultural Organization; 2021.
- <sup>12</sup> Health promoting schools: a framework for action. Manila: WHO Regional Office for the Western Pacific; 2009.
- <sup>13</sup> Global health estimates. Geneva: World Health Organization; 2019.

**Annex**

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<sup>14</sup> Consideration of the evidence on childhood obesity for the Commission on Ending Childhood Obesity: report of the Ad Hoc Working Group on Science and Evidence for Ending Childhood Obesity. Geneva: World Health Organization; 2016.

<sup>15</sup> Children: reducing mortality [fact sheet]. Geneva: World Health Organization; 2017. <http://www.who.int/mediacentre/factsheets/fs178/en/> (accessed 2 November 2017).

<sup>16</sup> NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128.9 million children, adolescents, and adults. *Lancet*. 2017 Dec 16;390(10113):2627–42. doi: 10.1016/S0140-6736(17)32129-3.

<sup>17</sup> Food and Agriculture Organization of the United Nations, United Nations Children's Fund, World Food Programme, World Health Organization. 2021. Asia and the Pacific regional overview of food security and nutrition 2020: maternal and child diets at the heart of improving nutrition. Bangkok: Food and Agriculture Organization of the United Nations. <https://doi.org/10.4060/cb2895en>.

<sup>18</sup> Protecting children from the harmful impact of food marketing [fact sheet]. Manila: WHO Regional Office for the Western Pacific; 2019. <https://www.who.int/publications/i/item/WPR-2019-RDO-006> (accessed on 6 July 2021).

<sup>19</sup> O'Brien W, Issartel J, Belton S. Relationship between physical activity, screen time and weight status among young adolescents. *Sports (Basel)*. 2018 Jun 23;6(3):57. doi:10.3390/sports6030057.

<sup>20</sup> Action plan to reduce the double burden of malnutrition in the Western Pacific Region (2015–2020). Manila: WHO Regional Office for the Western Pacific; 2015.

<sup>21</sup> Kessaram T, McKenzie J, Girin N, Roth A, Vivili P, Williams G, Hoy D. Alcohol use in the Pacific region: Results from the STEPwise approach to surveillance, Global School-Based Student Health Survey and Adolescents Risk Behavior Surveillance System. *Drug Alcohol Rev*. 2016;35:412–23.

<sup>22</sup> Adolescents and tobacco in the Western Pacific Region: global adolescents tobacco survey 2005–2014. Geneva: World Health Organization; 2016.

<sup>23</sup> Global Adolescents Tobacco Survey, Guam 2017. [https://cdn.who.int/media/docs/default-source/ncds/ncd-surveillance/data-reporting/guam/guam-gyts-2017-factsheet-\(ages-13-15\)-final\\_tag508.pdf](https://cdn.who.int/media/docs/default-source/ncds/ncd-surveillance/data-reporting/guam/guam-gyts-2017-factsheet-(ages-13-15)-final_tag508.pdf) (accessed 5 July 2021).

<sup>24</sup> Nanditha A, Ma RC, Ramachandran A, Snehalatha C, Chan JC, Chia KS, Shaw JE, Zimmet PZ. Diabetes in Asia and the Pacific: Implications for the Global Epidemic. *Diabetes Care*. 2016 Mar;39(3):472-85. doi: 10.2337/dc15-1536.

<sup>25</sup> Clark H, Coll-Seck AM, Banerjee A, Peterson S, Dalglish SL, Ameratunga S, Balabanova D, Bhan MK, Bhutta ZA, Borrazzo J, Claeson M, Doherty T, El-Jardali F, George AS, Gichaga A, Gram L, Hipgrave DB, Kwamie A, Meng Q, Mercer R, Narain S, Nsungwa-Sabiiti J, Olumide AO, Osrin D, Powell-Jackson T, Rasanathan K, Rasul I, Reid P, Requejo J, Rohde SS, Rollins N, Romedenne M, Singh Sachdev H, Saleh R, Shawar YR, Shiffman J,

---

Simon J, Sly PD, Stenberg K, Tomlinson M, Ved RR, Costello A. A future for the world's children? A WHO-UNICEF-Lancet Commission. *Lancet*. 2020 Feb 22;395(10224):605–58. doi: 10.1016/S0140-6736(19)32540-1.

<sup>26</sup> School food directly affects health and learning [webpage]. Chicago (IL): Healthy Schools Campaign. <https://healthyschoolscampaign.org/chicago-school-food/> (accessed 7 June 2021).

<sup>27</sup> Dunne MP, Choo WY, Madrid B, Subrahmanian R, Rumble L, Blight S, Maternowska MC. Violence against children in the Asia Pacific region: the situation is becoming clearer. *Asia Pac J Public Health*. 2015 Nov;27(8 Suppl):6S–8S. doi: 10.1177/1010539515602184.

<sup>28</sup> Adolescents risk behavior surveillance system. Atlanta (GA): United States Centers for Disease Control and Prevention; 2019.

<sup>29</sup> Kennedy E, Binder G, Humphries-Waa K, Tidhar T, Cini K, Comrie-Thomson L, Vaughan C, Francis K, Scott N, Wulan N, Patton G, Azzopardi P. Gender inequalities in health and wellbeing across the first two decades of life: an analysis of 40 low-income and middle-income countries in the Asia-Pacific region. *Lancet Glob Health*. 2020 Dec;8(12):e1473–e1488. doi: 10.1016/S2214-109X(20)30354-5.

<sup>30</sup> Kågesten A, Gibbs S, Blum RW, Moreau C, Chandra-Mouli V, Herbert A, Amin A. Understanding factors that shape gender attitudes in early adolescence globally: A mixed-methods systematic review. *PLoS One* 2016. doi: 10.1371/journal.pone.0157805.

<sup>31</sup> Smith MJ, Payne E. Binaries and biology: conversations with elementary education professionals after professional development on supporting transgender students. *The Educational Forum*, 2016;80(1):34–47.

<sup>32</sup> Bigler R, Hayes AR, Hamilton V. The role of schools in the early socialization of gender differences. In: Tremblay RE, Bolvin M, Peters RDeV, eds. Martin CL, topic ed. *Encyclopedia of Early Childhood Development* [online]; 2013. <https://www.child-encyclopedia.com/gender-early-socialization/according-experts/role-schools-early-socialization-gender-differences> (accessed 7 July 2021).

<sup>33</sup> Improving the mental and brain health of children and adolescents [webpage]. Geneva: World Health Organization; not dated. <https://www.who.int/activities/Improving-the-mental-and-brain-health-of-children-and-adolescents> (accessed 7 July 2021).

<sup>34</sup> Khan L, Parsonage M, Stubbs J. Investing in children's mental health: a review of evidence on the costs and benefits of increased service provision. London, UK: Centre for Mental Health; 2015.

<sup>35</sup> Rumpler J, Dietz E. Get the lead out: Ensuring safe drinking water for our children at school. Denver: Environment America Research and Policy Center; 2019.

<sup>36</sup> Bullard RD, Johnson GS, Torres AO. Environmental health and racial equity in the United States: building environmentally just, sustainable and livable communities. Washington (DC): American Public Health Association; 2011. [https://hefn.org/learn/resource/environmental\\_health\\_and\\_racial\\_equity\\_in\\_the\\_united\\_states\\_building\\_environmentally](https://hefn.org/learn/resource/environmental_health_and_racial_equity_in_the_united_states_building_environmentally) (accessed 26 June 2021).

Annex

---

- <sup>37</sup> Miiro G, Rutakumwa R, Nakiyingi-Miuro J, Nakuya K, Musoke S, Namakula J, Francis S, Torondel B, Gibson LJ, Ross DA, Weiss HA. Menstrual health and school absenteeism among adolescent girls in Uganda (MENISCUS): a feasibility study. *BMC Womens Health*. 2018 Jan 3;18(1):4. doi: 10.1186/s12905-017-0502-z.
- <sup>38</sup> Drinking water, sanitation and hygiene in schools: global baseline report 2018. New York (NY): United Nations Children's Fund and World Health Organization, 2018.
- <sup>39</sup> Kasai T, Hulshof K. School reopening can't wait. Project Syndicate; June 2021. <https://www.project-syndicate.org/commentary/overwhelming-case-for-reopening-schools-by-takeshi-kasai-and-karin-hulshof-2021-06> (accessed 8 July 2021).
- <sup>40</sup> IDF Diabetes Atlas, 9th edition. Brussels: International Diabetes Federation; 2019. <https://www.diabetesatlas.org/data/en/region/8/wp.html> (accessed 21 June 2021).
- <sup>41</sup> One in five children, adolescents and adolescents is out of school [fact sheet no. 48. UIS/FS/2018/ED/48]. Paris: UNESCO; 2018.
- <sup>42</sup> UNESCO Bangkok Office Asia and Pacific Regional Bureau for Education. Situation analysis of out-of-school children in nine Southeast Asian countries. Bangkok: United Nations Educational, Scientific and Cultural Organization; 2017. <https://unesdoc.unesco.org/ark:/48223/pf0000252749> (accessed 20 June 2021).
- <sup>43</sup> Tooher R, Collins J, Braunack-Mayer A, Burgess T, Skinner SR, O'Keefe M, Watson M, Marshall HS. Intersectoral collaboration to implement school-based health programmes: Australian perspectives. *Health Promot Int*. 2017 Apr 1;32(2):312–21. doi: 10.1093/heapro/dav120.
- <sup>44</sup> Nam EW, De Leeuw E, Moon JY, Ikeda N, Dorjsuren B, Park MB. Sustainable funding of health initiatives in Wonju, Republic of Korea via a tobacco consumption tax. *Health Promot Int*. 2011 Dec;26(4):457–64. doi: 10.1093/heapro/dar011.
- <sup>45</sup> Langford R, Bonell CP, Jones HE, Poulou T, Murphy SM, Waters E, Komro KA, Gibbs LF, Magnus D, Campbell R. The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement. *Cochrane Database Syst Rev*. 2014 Apr 16;(4):CD008958. doi: 10.1002/14651858.CD008958.pub2.
- <sup>46</sup> WHO guideline on school health services. Geneva: World Health Organization; 2021.
- <sup>47</sup> Health promoting schools: experiences from the Western Pacific Region. Manila: WHO Regional Office for the Western Pacific; 2017.
- <sup>48</sup> Making every school a health-promoting school: country case studies. Geneva: World Health Organization and United Nations Educational, Scientific and Cultural Organization; 2021.
- <sup>49</sup> Henderson AT, Mapp KL. A new wave of evidence: the impact of school, family and community connections on student achievement, annual synthesis 2002. Austin (TX): Southwest Education Development Laboratory, 2002.

- 
- <sup>50</sup> Gregoric C, Owens L. The impact of school-community involvement on students, teachers, and the community. In: Askill-Williams, H, ed. Transforming the future of learning with educational research. IGI Global; 2015: 221–39. <http://doi:10.4018/978-1-4666-7495-0.ch012>.
- <sup>51</sup> Donovan JA, McKelfresh DA. In community with students' parents and families. *NASPA Journal*. 2008;45:3:384–405. doi: 10.2202/1949-6605.1879.
- <sup>52</sup> School nutrition education programmes scoping study and capacity needs assessment – final report. Geneva: Food and Agriculture Organization of the United Nations; 2019.
- <sup>53</sup> 13 young climate champions from Asia-Pacific awarded 'Green Ticket' to attend first ever UN Youth Climate Summit [press release G/39/2019]. New York (NY): United Nations Economic and Social Commission for Asia and the Pacific; August 2019. <https://www.unescap.org/news/13-young-climate-champions-asia-pacific-awarded-green-ticket-attend-first-ever-un-youth-climate#> (accessed 8 July 2021).
- <sup>54</sup> Coleman JS. Social capital in the creation of human capital. *American Journal of Sociology*. 1988;94:94–120.
- <sup>55</sup> Coleman JS. Foundations of social theory. Cambridge (MA): Harvard University Press; 1990.
- <sup>56</sup> Schaefer-McDaniel N. Conceptualizing social capital among young people: toward a new theory. *Children, Adolescents and Environments*. 2004;14(1):140–50.
- <sup>57</sup> Eccles JS, Roeser RW. Schools as developmental contexts during adolescence. *Journal of Research on Adolescence*. 2011;21(1):225–241. doi: 10.1111/j.1532-7795.2010.00725.x.
- <sup>58</sup> Gustafsson JE, Allodi M, Alin Åkerman B, Eriksson C, Augustine L, Fischbein S, Granlund M, Gustafsson P, Ljungdahl S, Ogden T, Persson R. School, learning and mental health: a systematic review. Stockholm: The Royal Swedish Academy; 2010.
- <sup>59</sup> Sellstrom E, Bremberg S. Is there a “school effect” on pupil outcomes? A review of multilevel studies. *J Epidemiol Community Health*. 2006;60(2):149–55. doi:10.1136/jech.2005.036707.
- <sup>60</sup> Suhrcke M, de Paz Nieves C. The impact of health and health behaviours on educational outcomes in high income countries: a review of the evidence. Copenhagen: WHO Regional Office for Europe; 2011.
- <sup>61</sup> Due P, Krølner R, Rasmussen M, Andersen A, Damsgaard MT, Graham H, Holstein B. Pathways and mechanisms in adolescence contribute to adult health inequalities. *Scandinavian Journal of Public Health*. 2011;39:62–78. doi: 2011.10.1177/1403494810395989.
- <sup>62</sup> Hammond C, Feinstein L. Are those who flourished at school healthier adults? What role for adult education? Centre for Research on the Wider Benefits of Learning; 2006. <http://www.learningbenefits.net/Publications/ResRepIntros/ResRep17intro.htm> (accessed 10 June 2021).
- <sup>63</sup> Topitzes J, Godes O, Mersky JP, Ceglarek S, Reynolds AJ. Educational success and adult health: findings from the Chicago longitudinal study. *Prev Sci*. 2009;10(2):175–95. doi:10.1007/s11121-009-0121-5.

**Annex**

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<sup>64</sup> Lindfors P, Minkkinen J, Rimpelä A, and Hotulainen R. Family and school social capital, school burnout and academic achievement: a multilevel longitudinal analysis among Finnish pupils. *International Journal of Adolescence and Adolescents*. 2018;23:3:368–81. doi: 10.1080/02673843.2017.1389758.

<sup>65</sup> Israel GD, Beaulieu LJ. Investing in communities: social capital's role in keeping adolescents in school. *Journal of the Community Development Society*. 2004;34:2:35–57. doi: 10.1080/15575330409490111.

<sup>66</sup> National Academies of Sciences, Engineering, and Medicine. Promoting positive adolescent health behaviors and outcomes: thriving in the 21st century. Washington (DC): The National Academies Press; 2020. <https://doi.org/10.17226/25552>.

<sup>67</sup> Hawkins JD, Kosterman R, Catalano RF, Hill KG, Abbott RD. Effects of social development intervention in childhood fifteen years later. *Arch Pediatr Adolesc Med*. 2008;162(12):1133–41. doi:10.1001/archpedi.162.12.1133.