



Global Accelerated Action for the Health of Adolescents (AA-HA!)

Guidance to Support
Country Implementation

Second Edition



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Foreword

2023 marks the halfway point of the world's journey towards the Sustainable Development Goals, presenting an important moment to consolidate and advance advocacy, commitment, resource mobilization and joint efforts by all stakeholders to invest in adolescent health and well-being.

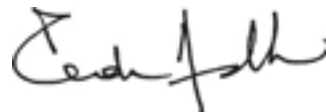
The first edition of the *Global accelerated action for the health of adolescents (AA-HA!): guidance to support country implementation*, published six years ago, helped to draw attention to the need for a comprehensive response to adolescent health after decades of neglect. Since its launch in May 2017, WHO and UN agencies from the H6 Partnership have been working closely with countries to support them in updating and developing comprehensive adolescent health strategies and plans. Today, many more governments are investing in a new generation of adolescent health programmes that are comprehensive, evidence-based and developed in close consultation with adolescents and youth.

This second edition of the AA-HA! guidance advances the case for investing in adolescent health and well-being in important ways. First, it integrates lessons from the application of the first edition of the AA-HA! guidance. Second, it provides the latest data on health, mortality, morbidity and well-being determinants and features the recent consensus on core indicators for adolescent health and well-being. Third, it builds on significant political and scientific advances since 2017 and integrates the adolescent well-being framework – developed in partnership with PMNCH and UN agencies from the H6 Partnership – into the programming process. And, finally, it integrates lessons from the COVID-19 pandemic.

Armed with new knowledge about how multisectoral action can contribute to reaping the triple dividend of benefits for adolescents now, for their future adult lives and for the next generation, we have a clearer vision of what is needed, how to deliver it and the priority actions and enhanced investments that are urgently required.

Our work to promote adolescent health and well-being cannot be successful without making adolescents feel safe, respected, empowered, fairly treated and duly recognized. This is why we established the WHO Youth Council – a dynamic network that will amplify the voices and experiences of young people and leverage their expertise, energy and ideas to promote public health.

The UN partnership that was created while developing the first edition of the AA-HA! guidance has been cemented in this second edition. We will work together with our global partners to improve adolescent health and well-being today, so that the health of future generations will be better tomorrow.



Dr Tedros Adhanom Ghebreyesus
WHO Director-General

Helga Fogstad
**Executive Director, Partnership for Maternal,
 Newborn and Child Health (PMNCH)**

PMNCH is pleased to be a partner in developing the second edition of the Global AA-HA! guidance. The guidance draws on five domains of the Adolescent Well-being Framework coordinated by PMNCH and will be instrumental in promoting and encouraging greater financial investment, policy shift and programme redesign to strengthen multisectoral programming for adolescent well-being in countries. To support national partners in implementation of AA-HA!, PMNCH and partners are developing an investment case and measurement approaches for adolescent well-being.

Drawing on the principles of Meaningful Adolescent and Youth Engagement developed by the adolescent and youth constituency of PMNCH, AA-HA! recognizes adolescents and youth as co-owners in the designing and delivery of strategies, policies and services that affect their well-being, their communities and their countries. While we celebrate successes, much more needs to be done for this population group to achieve their full potential, accelerate progress on SDGs and set the post-2030 agenda. We stand ready to support next steps.

Winnie Byanyima
**Executive Director, Joint United Nations
 Programme on HIV/AIDS (UNAIDS)**

The second edition reflects the progress in advancing the case for investing in adolescent health and well-being and addressing the inequalities preventing adolescents and youth from benefitting from a wide range of essential health services, including HIV services. The guidance pushes for a multisectoral, multisystem and youth-led approach. It provides strong evidence for holistic multisectoral interventions that recognize the connection between good health and nutrition, education, life skills and employability. This is in line with the Education Plus initiative championed by 15 countries across Africa and the African Union and jointly led by UNAIDS, UNESCO, UNFPA, UNICEF and UN Women. Education Plus is designed to ensure that girls complete secondary education and provides them with life skills, access to youth-friendly health services, violence-free environments and economic opportunities after school to prevent HIV, empower them and, by doing so, change the trajectory of AIDS on the African continent. It is also consistent with our efforts to support youth leadership in the AIDS response and bring together multiple partners around youth-centred initiatives worldwide.

Stefania Giannini
**Assistant Director-General for Education, United
 Nations Educational, Scientific and Cultural
 Organization (UNESCO)**

The evidence is compelling – a quality education is fundamental to health and well-being. And for children and adolescents to enjoy school and learn, they must be well nourished and healthy.

UNESCO applauds the revised AA-HA! guidance that shows how to leverage the symbiotic link between education and health and assimilates learnings from the COVID-19 pandemic and from the implementation of its first edition. The guidance plots a course towards a comprehensive, evidence-informed multi-sectoral approach to adolescent health, highlighting the crucial role of education and the inclusion of young people's voices in policy-making, thereby enriching our educational systems with their perspectives and vitality.

We believe that this updated guidance can serve as a vital compass for education policy-makers and practitioners across the globe to play a transformative role in improving adolescent education, health and well-being, thereby setting a solid foundation for a future generation that is healthier, better educated and empowered. By working together, we can shape a more promising, sustainable future for all.

Natalia Kanem
**United Nations Under-Secretary General and
 Executive Director, United Nations Population Fund
 (UNFPA)**

In our world of eight billion people, the future hinges on the health and well-being of our young people. For decades UNFPA has partnered with young people in advancing their sexual and reproductive health and well-being. In doing so, we have learned a lot about what adolescents need by listening to their voices and perspectives. We have come to understand the critical investments necessary to ensure that they navigate their formative years well informed and supported and emerge well equipped for the journey into adulthood.

This updated AA-HA! guidance encapsulates this wealth of knowledge and highlights the pressing need to strengthen, expand and sustain sexual and reproductive health policies and programmes for adolescent girls and boys worldwide. It directs governments, policy-makers, programme managers and practitioners towards initiatives that have proven effective in empowering adolescents with the knowledge, tools and resources to make informed decisions about their sexual and reproductive health and their lives, fostering a healthier and more equitable future for all.

Catherine Russell
**Executive Director, United Nations Children's Fund
 (UNICEF)**

This generation of adolescents is the largest the world has ever seen, and it faces some of the most complex challenges the world has ever known. Given the challenges they face – from conflict and climate change, to increasing poverty and pandemics – adolescents today have a diverse array of needs across the health and well-being spectrum. We must strive to equitably and comprehensively meet those needs to ensure that adolescents everywhere can live healthy, happy and productive lives. These guidelines outline the interventions that are essential to reducing risk and supporting adolescent health and well-being. UNICEF is committed to empowering adolescents, their caregivers and their communities to proactively care for their own health and well-being. UNICEF is also committed to accelerating efforts to strengthen social service systems and workforces to better support adolescents and their communities. Investments in adolescents yield a triple dividend: improving the well-being of today's adolescents; enhancing young people's future prospects; and improving outcomes for generations to come.

Cindy McCain
Executive Director, World Food Programme
(WFP)

WFP addresses the nutritional needs of adolescents through our food assistance, nutrition, HIV and school feeding programmes. This is essential in humanitarian and fragile settings, where young people are often undernourished, and girls are particularly vulnerable to micronutrient deficiencies.

Increasing adolescents' access to affordable and nutritious diets brings a broad range of benefits, supporting their future development and helping them realize their full potential.

The second edition of the AA-AH! guidance builds upon existing evidence and knowledge, shifting from a health-focused approach to a comprehensive strategy that includes ending hunger and malnutrition.

By advocating cross-sectoral and integrated initiatives, the report creates greater opportunities for the education and social protection sectors to join forces with health specialists to maximize the impact of investments in young people's nutrition, health and long-term well-being.

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Abbreviations

AA-HA!	Accelerated Action for the Health of Adolescents
ABR	adolescent birth rate
ADLAB	Adolescent Health Learning, Actions and Benchmarking
ART	antiretroviral therapy
ASHN	adolescent school health and nutrition
CBT	cognitive behavioural therapy
CRVS	civil registration and vital statistics
CSE	comprehensive sexuality education
DALYs	disability-adjusted life years
DHS	Demographic and Health Surveys
ENDS	electronic nicotine delivery systems
FGM	female genital mutilation
GAMA	Global Action for Measurement of Adolescent health
HEADSSS	home, education, activities/employment, drugs, suicidality, sex, safety
HICs	high-income countries
HMIS	health management information system
HPS	health-promoting schools
HPV	human papillomavirus
HSV-2	herpes simplex virus-2
ICT	information and communication technology
IHP+	International Health Partnership
LGBTI	lesbian, gay, bisexual, transgender and intersex
LICs	low-income countries
LMICs	low- and middle-income countries
M&E	monitoring and evaluation
MAYE	Meaningful Adolescent and Youth Engagement
MICS	Multiple Indicator Cluster Surveys
MOH	ministry of health
MOHW	Ministry of Health and Wellness (Mauritius)
MOU	memorandum of understanding
NCDs	noncommunicable diseases
NGO	nongovernmental organization

NSNP	National School Nutrition Programme
NTDs	neural tube defects
PAM	Programme for Adolescent Mothers
PMNCH	Partnership for Maternal, Newborn and Child Health
SDGs	Sustainable Development Goals
SHN	school health and nutrition
SHS	school health services
SRH	sexual and reproductive health
SRHR	sexual and reproductive health and rights
STI	sexually transmitted infection
TB	tuberculosis
TPT	TB preventive therapy
UHC	universal health coverage
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNEP	United Nations Environment Programme
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
UNFPA	United Nations Population Fund
VMMC	voluntary medical male circumcision
WASH	water, sanitation and hygiene
WFP	World Food Programme
WHO	World Health Organization
YLDs	years of healthy life lost due to disability



Glossary

Adolescent: A person ages 10–19 years. “Young adolescent” refers to 10–14 year olds, while “older adolescent” refers to 15–19 year olds. Table A shows the age spans covered by various terms used to describe people under the age of 25 years.

Table A. Ages covered by the terms “child”, “adolescent”, “youth”, “young adult” and “young person”

Term	Age in years																								
	0–9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
Child	■	■	■	■	■	■	■	■	■																
Adolescent		■	■	■	■	■	■	■	■	■	■														
Youth							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Young adult											■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Young person	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Source: United Nations Department of Economic and Social Affairs 2016 (1).

Adolescent well-being: Adolescents have the support, confidence and resources to thrive in contexts of secure and healthy relationships, realizing their full potential and rights.

Burden of disease or injury: The impact of a health problem in a population, as measured by rates of mortality and disability-adjusted life years (DALYs) (see below). It is not limited to disease but also includes other burdens, such as disability caused by injury.

Communicable diseases: Communicable, or infectious, diseases are caused by microorganisms such as bacteria, viruses, parasites and fungi that can be spread, directly or indirectly, from one person to another.

Community engagement: A process of developing relationships that enable people with common interests living in a particular area to work together to address health-related issues and promote well-being to achieve positive health impact and outcomes.

Country income level: Country income levels are grouped, using 2014 gross national annual income per capita, as:

low-income countries – US\$ 1045 or less
 lower middle-income countries – US\$ 1046–4125
 upper middle-income countries – US\$ 4126–12 735
 high-income countries – US\$ 12 736 or more.

Disability-adjusted life years (DALY): A measure that combines the estimated years of life lost through premature death and the estimated years of life lived in states of less than optimal health. The sum of DALYs across a population is a way to measure the gap between current health status and an ideal health situation in which the entire population lives to an advanced age, free of disease and disability.

Demographic dividend: Accelerated economic growth that may result from a decline in a country’s mortality and fertility rates and a subsequent change in the age structure of the population. With fewer births each year, a country’s young dependent population grows smaller in relation to the working-age population. With fewer people to support, there is an increase in the working population's productivity, which boosts per capita income.

Demographic transition: A shift in population structure; for example, population change that occurs as a country moves from high birth and death rates to lower birth and death rates and from a pre-industrial to an industrialized economic system.

Determinant: A factor that can affect the health of adolescents and their communities, including personal, social, economic and environmental factors. Determinants occur at different ecological levels: individual characteristics (for example, age, beliefs, income and social status, education, social support networks, genetics, gender and use of health services); the immediate environment (for example, parents, teachers, peers); social values and norms (for example, gender norms restricting girls’ access to education; encouragement of boys to take health-related risks); policies and laws (for example, related to tobacco and alcohol); macro-social factors (for example, distribution of money and resources); and the physical and biological environment (for example, malaria prevalence; access to toilets while menstruating). Some determinants may be interrelated and clustered, and together they affect adolescent development and the ability to learn and acquire skills.

Emergency situation: A single- or multiple-country event with minimal (Grade 1) to substantial (Grade 3) public health consequences that WHO has identified as requiring a response. In the months immediately after an emergency situation is graded, it is considered acute.

When it is likely to continue for more than six months, its grade may be removed, and it will be recategorized as protracted.

Epidemiological transition: An epidemiological shift; for example, from mortality due primarily to acute infectious diseases to that due to chronic, non-infectious, degenerative diseases, occurring as a result of higher standards of living and the introduction of medical and public health practices in high-income nations.

Equity: The absence of avoidable, unfair or remediable differences among groups of people, which may be defined socially, economically, demographically or geographically or by other means of stratification. Health equity means that, ideally, everyone has a fair opportunity to attain their full health potential and no one should be disadvantaged from achieving this potential.

Evidence-based intervention: Interventions found to be effective through rigorous evaluation. The particular standards used to evaluate effectiveness vary depending on many factors, including the type of health condition, the intervention and available data. For example, a biomedical intervention may be considered to have strong evidence of effectiveness if multiple experimental trials have consistently demonstrated positive impact on desired outcomes. However, such research is not always feasible, particularly in non-biomedical fields, where there may be a long and complex causal pathway between the implementation of an intervention and any potential impact on population health. In such cases other criteria may be used to identify interventions with the strongest evidence base.

Gender-transformative: A programmatic response that seeks to change existing structures, institutions and gender norms and relations into ones based on gender equality. Gender-transformative programmes not only recognize, assess and address gender differences but also create the conditions whereby women and men can examine the damaging aspects of gender norms and experiment with new behaviours to create more equitable roles and relationships.

Health system function: A key purpose and activity of a health system. WHO identifies four functions as critical for health systems: service provision; generation of human and physical resources that make service delivery possible; raising and pooling the resources used to pay for health care; and stewardship (that is, setting and enforcing the rules and providing strategic direction for all actors). These functions are performed in the pursuit of three goals: health, responsiveness and fair financing.

Health system strengthening: The process of identifying and implementing changes in policy and practice in a country's health system so that the country can respond better to health system

challenges. Health system strengthening also can be defined as any array of initiatives and strategies that enhance the functioning of a health system and lead to better health through improvements in access, coverage, quality or efficiency.

Humanitarian and fragile settings: Settings that face social, economic and environmental shocks and disasters. These include conflict and post-conflict situations, transnational crises, countries that have experienced one or more serious natural disasters and situations of protracted socioeconomic and political instability. In such settings health challenges are particularly acute among mobile populations, internally displaced communities and those in refugee or temporary camps.

Noncommunicable diseases: A group of conditions that are not mainly caused by an acute infection, result in long-term health consequences and often create a need for long-term treatment and care.

Programme: A coordinated and comprehensive set of planned, sequential health strategies, activities and services designed to achieve well-defined objectives and targets. A national programme usually has national, subnational and local coordinators and dedicated funding to support planned activities. Within the health sector, the term "national health programme" is often used to indicate national health care system components that administer specific services (for example, national programmes for HIV, adolescent health or school health services).

Programming: The stage of a sector's planning cycle in which newly identified priorities are translated into operational plans. "Programming" and "programme" overlap but are not identical concepts; programming – for adolescent health, for example – may happen in the absence of a specific programme, as part of the sector's strategic and operational planning cycles.

Protective factor: A factor that encourages and sustains positive behaviours, reduces the risk of negative health behaviours and outcomes and diminishes the effect of, and supports recovery from, negative health outcomes. Examples of protective factors for adolescent health include caring and meaningful relationships, appropriate structure and boundaries, opportunities for participation and contribution, and encouragement of self-expression.

Quality health services: Services that are:

- effective, providing evidence-based health care services to those who need them;
- safe, avoiding harm to people for whom the care is intended; and
- people-centred, providing care that responds to individual preferences, needs and values.

In addition, to realize the benefits of quality health care, health services must be:

- timely, reducing waiting times and sometimes harmful delays for both those who receive and those who give care;
- equitable, providing care that does not vary in quality on account of age, sex, gender, race, ethnicity, geographic location, religion, socioeconomic status, language or political affiliation;
- integrated, providing care that is coordinated across levels and providers;
- life-long, providing the full range of health services throughout the life course as needed; and
- efficient, maximizing the benefit of available resources and avoiding waste.

Risk factor: An attribute, characteristic or exposure that increases the likelihood of an individual suffering a negative health outcome immediately or in the future. Some conditions can be both a risk factor and a burden of disease. For example, iron deficiency anaemia is a risk factor for death or disability from postpartum haemorrhage but also causes lassitude and weakness.

School health: School health is a multisectoral approach to design and deliver coordinated and comprehensive strategies, activities and services, integrated and sustained within the education system, for protecting and promoting the physical, emotional and social development, health and well-being of students and the whole school community. The term is often used interchangeably with “school health programme”.

Years of healthy life lost due to disability (YLDs): One YLD represents the equivalent of one full year of healthy life lost due to disability or ill-health.

Years of life lost from mortality (YLL): One YLL represents the loss of one year of life. YLLs are calculated from the number of deaths multiplied by a global standard life expectancy at the age at which death occurs.



Executive summary

Scope and aims of this guidance

The year 2023 is a landmark one, with the mid-term review of the implementation of the 2030 Agenda for Sustainable Development (2). This review offers an important moment for consolidating and advancing advocacy, commitment, resource mobilization and joint efforts by all stakeholders to build sustainable development by investing in adolescent health and well-being.

The Global Accelerated Action for the Health of Adolescents (AA-HA!) guidance aims to assist governments in identifying national and subnational priorities and implementation strategies as they respond to the health and well-being challenges, opportunities and needs of adolescents in their countries. It is intended to be a reference document for national and subnational policy-makers and programme managers to assist them in planning, implementing and monitoring and evaluating adolescent health and well-being programmes.

The first edition of the AA-HA! guidance was published in 2017 (3). It built on the momentum created by the 2030 Agenda for Sustainable Development and the United Nations Secretary-General's Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) (the Global Strategy) (4). WHO developed the first edition in response to a request by the 68th World Health Assembly to develop global guidance on how to take accelerated action for the health of adolescents.

This second edition describes the same systematic approach to planning and implementing adolescent health and well-being programmes as in the first edition (see Fig. A in Introduction). The first chapter summarizes the main arguments for investing in adolescent health and well-being and summarizes opportunities and global threats. Chapters 2 and 3 then describe the current status of adolescent health and well-being worldwide and evidence-based interventions to improve it. Chapters 4–6 detail key steps in priority setting, planning, implementing and monitoring and evaluating adolescent health and well-being programmes.

The national-level programming process starts with understanding the country's epidemiological and development profile (needs assessment), analysing what is already being done and by whom (landscape analysis) and then undertaking a consultative process for setting national priorities for adolescent health and well-being. For nationally agreed priorities, the guidance describes options for programming and provides an inventory of key implementation strategies for intersectoral and single-sector actions. Finally, the guidance supports policy-makers with tools for designing robust monitoring and evaluation (M&E) frameworks to enhance accountability and improve programmes. Throughout the document case studies demonstrate that what is being recommended can be done and in some cases has already been implemented.

What is new in the second edition?

The second edition of the AA-HA! guidance amplifies AA-HA! messages and advances the case for investing in adolescent health and well-being in important ways.

- It integrates learnings from the application of the first edition of the AA-HA! guidance.
- It provides the latest data on the determinants of health, mortality, morbidity and well-being and highlights the recent consensus on core indicators for adolescent health and well-being.
- It builds on significant political and scientific advances since 2017 and integrates the concept of well-being into the programming process. Thus, the second edition takes the important step of moving from a largely health-centric perspective to a more holistic understanding of adolescent well-being, including its implication for programming.
- It incorporates learnings from the COVID-19 pandemic.

Key messages

Chapter 1. AA-HA! – advancing the case for investment in adolescent health and well-being

- Adolescence is one of the most rapid and formative phases of human development. The distinctive physical, cognitive, social, emotional and sexual development that takes place during adolescence demands special attention in national development policies, programmes and plans.
- The global consensus on a comprehensive framework for adolescent well-being sets the agenda for a new generation of adolescent programmes that consider the interconnectedness of protective and risk factors for adolescent well-being at multiple levels, encompassing the diverse policies and programmes that promote good health and optimum nutrition; education, life-skills and employability; connectedness, positive values and contribution to society; and agency and resilience, as well as the macro policies that shape safe and supportive environments.
- Investments in adolescent well-being bring a triple dividend of health and economic benefits – for adolescents now, during their future life and into the next generation. Thus, these investments enhance human capital. The smartest investments are the coordinated investments in health and education that bring mutually reinforcing benefits.
- The 2030 Agenda for Sustainable Development cannot be achieved without investment in adolescent health and well-being. This includes fulfilment of its goals related to poverty, hunger, education, gender equality, water and sanitation, economic growth, human settlement, climate change and peaceful and inclusive societies.
- The COVID-19 pandemic has brought into the spotlight the power of the global community to make investments in health a global priority. It has also highlighted the fact that the role of schools goes well beyond education to ensuring critical nutrition, social protection, mental health and other services. This offers unique momentum to reinvigorate global commitments to adolescent health, well-being and children's rights and to increase investments.

Chapter 2. The status of health and well-being of the world's adolescents

- More than 1.2 billion (16%) of the global population are adolescents, between the ages of 10 and 19 years.
- Over the last 20 years, mortality rates from all causes have declined among adolescents globally, with the largest decline in older (15–19 years) adolescent girls. However, progress has been uneven across different regions and adolescent population groups.
- Globally, road injury was the most important cause of death for both younger (10–14-year-old) and older (15–19-year-old) adolescent males in 2019. Among adolescent females, the most important causes

of death were diarrhoeal diseases in the younger group and tuberculosis (TB) in the older group. While some of the main causes of death (such as maternal conditions) varied by region, rates for other causes, including road traffic injury and self-harm, were consistently high across regions.

- Reductions in the burden of non-fatal diseases among adolescents have been limited over the past 20 years. In fact, there have been increases in some regions and age groups. Across regions, the main conditions causing this burden in 2019 were mental health conditions (depressive and anxiety disorders, childhood behavioural disorders), iron deficiency anaemia, skin diseases and migraine. Conditions such as malaria or drug use disorders were more common in certain regions.
- Globally, in 2019 across adolescent sex and age groups, the most important risk factors for mortality and morbidity included iron deficiency, unsafe water source, low birthweight and short gestation, and unsafe sanitation.
- Evidence is growing of the role of protective factors at individual, family and societal levels on adolescents' health and well-being.

Chapter 3. Understanding what works – the AA-HA! package of evidence-based interventions

- Today we know more than ever about supporting adolescent health and well-being. Many interventions have a substantial evidence base and, when implemented with fidelity, can have significant positive impacts on the health and well-being of adolescents. Countries can take effective action now to promote and protect adolescent health and well-being.
- Interventions for adolescents should operate at all levels of the ecological framework, from the individual level to the structural level. To reduce major burdens and risk factors, it is important to ensure that interventions – even those aimed at wider population groups – are tailored to adolescents' specific needs and circumstances, such as the provision of adolescent-responsive health services. Interventions should be delivered with quality and universal coverage, such as the enforcement of road traffic laws or the implementation of policies and legislation that reduce the affordability of tobacco, alcohol and unhealthy foods and beverages.
- Given the multidimensionality of adolescent health and well-being, collaboration across sectors through multisectoral or integrated programming is crucial. The education sector can be particularly important for influencing adolescent behaviour, health and well-being through intensive, long-term, large-scale initiatives by professionals.
- Gaps in the evidence base include limited knowledge of what works in humanitarian crises, gender transformative programmes and digital interventions.

Chapter 4. Setting national priorities

- National and subnational governments need to identify and address adolescent health and well-being programming priorities because:
 - the scope for adolescent health and well-being programmes is very broad;
 - the nature, scale and impact of adolescent health and well-being needs are unique in each country;
 - all governments face resource constraints, and so they must make difficult choices to ensure that resources are used most effectively.
- The process of national prioritization should be explicit, transparent and involve all relevant stakeholders across key sectors. This process should include:
 - a needs assessment to identify which conditions have the greatest impact on adolescent health, well-being and development, both among adolescents by age, sex and part of the country and among those most vulnerable;
 - a landscape analysis of existing adolescent health and well-being programmes, policies, legislation, capacity and resources within the country, as well as a review of current global and local guidance on evidence-based interventions; and
 - setting priorities by applying explicit criteria such as the magnitude and public health importance of the issue; the potential to address the needs of vulnerable populations and poorly served groups; the existence of effective, appropriate and acceptable interventions to reduce priority burdens; and the feasibility of delivering the intervention(s) and potential to go to full scale.
- Over time, countries should reassess their priorities and programming for adolescent health and well-being to ensure that they still meet changing needs. New trends in health and health services, economic development, education, employment, migration, urbanization, conflict, environmental degradation and technological innovation should all be considered.
- While national and subnational priorities guide local action, further contextualization of programme activities should take place locally, based on local data, by identifying priority groups of adolescents, including the most vulnerable, and the best ways to reach them with interventions and services, while making the most effective use of local resources.

Chapter 5. Programming: translating priorities into actions and plans

- The most powerful gains for adolescent well-being result from multisectoral action. Countries should invest in intersectoral programmes for adolescent health and well-being to leverage the amplifying effect of joint action. In parallel, single-sector action will make attention to adolescents' needs normative in all sectors – the Adolescent Well-being in All Policies Approach.
- The evidence is clear: the smartest investments are coordinated investments in health and education that reinforce each other. School health programmes are among the most common public health programmes. They are feasible in all settings, deliver significant gains for human capital and are cost-effective. Realizing the potential of every learner and every school requires transition to health-promoting education systems that embrace enhancing learners' health and well-being as a core mission. The WHO and UNESCO Global Standards for Health Promoting Schools provide a framework for countries to adopt this more holistic and system-oriented approach to school health at all levels of the educational system.
- Adolescent-responsive health systems are key to achieving universal health care (UHC). To guarantee explicit, ongoing, dedicated attention to adolescent health issues within the health sector, countries may consider establishing an adolescent health focal point in the ministry of health, with responsibilities for championing adolescent health within the ministry, coordinating systematic attention to adolescent needs in all health programmes and serving as a liaison for multisectoral action.
- Countries should ensure that adolescents' expectations and perspectives are heard in national programming processes. Adolescent leadership and participation should be institutionalized and actively supported during the design, implementation and M&E of programmes for adolescent health and well-being.
- Adolescents are a very diverse group, with diverse needs. "Leave no one behind" should be a key principle in programming for adolescent health. A concern for equity, with due attention to age, sex, disability and, in particular, vulnerability, should inform all stages of programming, from setting goals, targets and objectives through planning interventions, services and activities to defining indicators and monitoring progress and achievements.



- To assure sustainability, responsibility for funding programmes for adolescent health and well-being should be shifted towards domestic resources by including a focus on adolescents in national sectoral strategies, investment plans and budgets. Leveraging domestic resources for adolescent well-being will require better advocacy, based on investment cases for adolescent health priorities in the context of sectoral plans and budgets. External funding opportunities such as applications to the Global Financing Facility for Women, Children and Adolescents and the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) provide additional opportunities to increase funding.
- Monitoring, evaluation and research to improve the health and well-being of adolescents should draw on the opinions of adolescents themselves. Increasingly, youth-led participatory methods are being used, including engaging adolescents as active evaluators and in participatory research. Key principles for engaging adolescents in monitoring, evaluation and research include:
 - balancing their participation with the safety of their engagement
 - paying attention to the evolving capacity of adolescents to make informed decisions
 - gender and equity considerations
 - attention to disadvantaged, vulnerable or marginalized adolescents and,
 - if possible, integrating adolescents into evidence-generation activities as advocates, data collectors, analysts and researchers.

Chapter 6. Monitoring, evaluation and research

- To focus measurement on the most important adolescent health issues, the Global Action for Measurement of Adolescent health (GAMA) Advisory Group proposes 47 priority indicators. These indicators draw from and complement those included in the monitoring frameworks of the Sustainable Development Goals (SDGs) and the Global Strategy for Women's, Children's and Adolescents' Health. Building on existing systems, countries should – as much as possible – collect and use the data on these indicators to monitor progress towards improving the health of their adolescents.
- An approach to measurement of adolescent well-being is being developed. The approach will be designed for use at global, regional and country levels, encompassing multiple domains beyond health to provide a broad perspective of adolescent well-being.
- The rapid physical, emotional and social changes across the adolescent period pose special challenges for adolescent health programmes, making it essential to disaggregate data by age (five-year age groups) and sex.
- It is essential for adolescent health programmes to monitor the full range of indicators from inputs and processes through outputs, outcomes and impacts; these answer different questions and are useful for different purposes. Periodic evaluations of adolescent health programmes are essential and should build on routinely collected monitoring data.
- Over the last decade, WHO has conducted priority-setting exercises in areas of adolescent health. These exercises can help researchers and research funders to identify and prioritize areas that require particular attention.

Introduction

Aim of the guidance

The AA-HA! guidance aims to assist governments in identifying national and subnational priorities and implementation strategies as they respond to the health and well-being challenges, opportunities and needs of adolescents in their countries. It is intended as a reference document for national and subnational policy-makers and programme managers to assist them in planning, implementing, monitoring and evaluating adolescent health and well-being programmes.

The first edition

The first edition of the AA-HA! guidance was published in 2017 (3), building on the momentum created by the 2030 Agenda for Sustainable Development and the United Nations Secretary-General's Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) (the Global Strategy) in support of the 2030 Agenda (4) and in response to the request of the 68th World Health Assembly to develop global guidance on how to take accelerated action for the health of adolescents.

The second edition

The second edition uses the same systematic approach to planning and implementing adolescent health and well-being programmes as in the first edition (Fig. A). The overall structure of the document also has not changed from the first to the second edition.

“Overall, the AA-HA! guidance document is a useful reference for countries seeking to improve the health and well-being of their adolescent populations.

—Student (male), age 19–25, Uganda

After a brief introduction, which summarizes the main arguments for investing in adolescent health and well-being, as well as global opportunities and threats, the document describes the current status of adolescent health and well-being worldwide and evidence-based interventions to improve it. It then details the key steps in priority setting, planning, implementing, monitoring and evaluating adolescent health programmes. The national-level programming process starts with understanding the country's epidemiological and development profile (needs assessment), analysing what is already being done and by whom (landscape analysis) and then, in a consultative process, setting national priorities for adolescent health and well-being. For the agreed priorities, the guidance describes options for programming and presents an inventory of key implementation strategies for intersectoral and single-sector actions. Finally, the guidance supports policy-makers with tools for designing robust M&E frameworks to enhance accountability and improve programmes. The document presents case studies throughout to demonstrate that what is being recommended can be done and in some cases has already been implemented.



Figure A. A systematic approach to accelerate action for the health and well-being of adolescents (AA-HA!)

<p>Chapter 1</p>	<p>Building an investment case. This chapter provides key arguments about what is special about adolescents and why investing in them results in long-term societal benefits.</p>
<p>Chapter 2</p>	<p>Understanding the status of adolescent health and well-being worldwide. This chapter helps to understand the main causes of ill health in adolescents globally and regionally and the determinants of health and well-being.</p>
<p>Chapter 3</p>	<p>Identifying evidence-based interventions for adolescent health and well-being. This chapter provides a menu of evidence-based interventions across seven areas of adolescent health (unintentional injury; violence prevention; sexual and reproductive health (SRH) and HIV; communicable diseases; noncommunicable diseases, nutrition and physical activity; mental health, substance use and self-harm; interventions in humanitarian and fragile settings) and across well-being domains.</p>
<p>Chapter 4</p>	<p>Setting national priorities for adolescent health and well-being programmes. This chapter guides policy-makers in the process of needs assessment, landscape analysis and priority setting to inform the focus of national adolescent health and well-being programmes.</p>
<p>Chapter 5</p>	<p>Conceptualizing and implementing national adolescent health and well-being programmes. This chapter describes pathways for programming for adolescent well-being, approaches to multisectoral action and key implementation strategies for intersectoral and single-sector actions in key sectors (health, education, social protection, criminal justice, labour, telecommunications, roads and transportation, housing and urban planning, energy and environment).</p>
<p>Chapter 6</p>	<p>Strengthening accountability for adolescent health and well-being. This chapter guides policy-makers in principles of monitoring and evaluation of adolescent health and well-being programmes and in priorities for research.</p>
<p>Meaningful youth engagement in programming for adolescent well-being</p>	
<p>Addressing adolescent health and well-being in humanitarian and fragile settings</p>	

Whereas the second edition of the AA-HA! guidance features the same systematic approach to programming for adolescents as the first edition, its support for multisectoral action now provides an improved, evidence-based foundation for programming for adolescent health and well-being.

What is new in the second edition?

Building on the first edition, launched in 2017, this second edition of the AA-HA! guidance seeks to strengthen the understanding of the interplay between adolescent health and well-being and its determinants.

The main changes in the second edition are summarized below.

New data. The revised edition provides updated data on the adolescent population globally, their mortality, morbidity, selected health outcomes, risk and protective factors and determinants of their health and well-being (Chapter 2). Chapter 6 presents the latest developments to guide global and national measurement of adolescent health and well-being; it features the recent consensus on core indicators for adolescent health and well-being (5).

Building on significant political and scientific advances since 2017. The last five years have seen the launch of major global initiatives (6-8) and the emergence of new insights from research (8-11). Further, guidelines (12-15) and new guidance in support of universal health coverage (UHC) have become available on quality of care (6, 16, 17), providers' competencies, how to advocate investment in adolescent health and well-being within discussions about basic benefit packages (8, 18, 19) and the trade-off between specific programmes and overall system strengthening (20, 21). (See Chapter 5.) New evidence synthesis from UN agencies (6, 16, 22-24) has helped to better inform actions by sectors other than health to become more responsive to the needs and concerns of adolescents (6, 17, 25-30).

This wealth of up-to-date information and resources underpins the contents of the second edition, including the menu of evidence-based interventions (Chapter 3) and the approaches to programming (Chapter 5).

Integrating learnings from the application of the first edition of the AA-HA! guidance. Since the launch of the AA-HA! guidance in May 2017, many countries have used the guidance to develop or update comprehensive strategies and plans for adolescent health and well-being. The lessons from these processes are integrated into the second edition as new case studies and up-to-date reference documents.

Defining well-being and integrating into programmes. The first edition of the AA-HA! guidance promoted a positive development approach to programming, which integrated knowledge about the importance of protective factors such as agency and resilience into designing programmes. Since 2017 the thinking about adolescent well-being domains has evolved, and the UN H6+ agencies¹ and the Partnership for Maternal, Newborn and Child Health (PMNCH) developed a consensus framework for defining, programming and measuring adolescent well-being (see Fig. 1.1) (31). Therefore, the second edition takes the important step of moving from a largely health-centric perspective to a more holistic understanding of adolescent well-being, including its implication for programming (see Fig. 5.1).

Integrating lessons from COVID-19. Years, or even decades, of development progress have been stalled or reversed due to the multiple and widespread impacts of COVID-19 (32). The unprecedented school closures around the world during the COVID-19 pandemic and lockdowns have affected the learning, development and well-being of adolescents worldwide. This and other lessons from the pandemic are brought into the second edition of the guidance to inform the building of resilient educational and other systems critical to adolescent health and well-being.

How was the second edition developed?

The second edition of the AA-HA! guidance was developed in collaboration with all relevant departments in the World Health Organization (WHO), regional and country offices, other UN organizations, PMNCH and other global partners. To inform the need for and the scope of the revision of the second edition, eight multi-stakeholder consultations with Member States from all six WHO regions were held in 2021 (33). The AA-HA! Technical Working Group was established in February 2021. Its membership included young people, representatives of WHO departments, adolescent health focal points from WHO regional offices, UN agencies (UN Women, UNAIDS, UNESCO, UNFPA, UNICEF and WFP), the World Bank and PMNCH. The Technical Working Group directed the process by mapping new evidence, initiatives and programmatic experience and revised several iterations of the guidance.

¹ Joint United Nations Programme on HIV/AIDS (UNAIDS), United Nations Children's Fund (UNICEF), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), United Nations Population Fund (UNFPA), the World Bank Group and the World Food Programme (WFP).

Between 2 March 2023 and 11 April 2023, WHO held a global public consultation in six WHO official languages to collect inputs from the end users of the guidance and young people. The results of the consultation informed the final draft of the document, which was validated by the Technical Working Group in its third meeting, in

May 2023. Box A presents the key themes that emerged from the adolescent and young adults component of the public consultation – a synthesis of what 631 respondents said that they would want or expect the current document to cover, highlighting their priorities and concerns in the context of health and well-being.


Box A. What adolescents and young people wanted to see covered in the second edition of AA-HA! (synthesis of responses from 631 adolescents and young adults)

Mental health	Many respondents emphasized the need to prioritize mental health as the most crucial topic for the document to cover, given the recent surge in mental health struggles among young people.
Sexual and reproductive health	Several respondents also highlighted the importance of including topics related to sexual and reproductive health.
Access to health care	Some respondents expressed the need for free or affordable health care, tests and medicines for young adolescents.
Adolescent involvement and engagement	Respondents emphasized the importance of meaningful youth participation in health programmes and policies, focusing on planning, implementation, evaluation and adolescents' right to be heard, along with strategies and indicators for measuring engagement.
Social determinants of health	Several respondents also suggested that the document should address the social determinants of health that affect adolescents, such as poverty, gender inequality, discrimination and lack of access to education and health services.
Other topics	Other topics that were mentioned include substance use, oral hygiene, bullying and harassment, security, nutrition, physical activity, violence prevention, education, job opportunities and the recognition of the holistic aspects of health, such as employment and housing.

Chapter 1.

AA-HA! – advancing the case for investment in adolescent health and well-being

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Chapter 1.

AA-HA! – advancing the case for investment in adolescent health and well-being

Key messages

- Adolescence is one of the most rapid and formative phases of human development. The distinctive physical, cognitive, social, emotional and sexual development that takes place during adolescence demands special attention in national development policies, programmes and plans.
- The global consensus on a comprehensive framework for adolescent well-being sets the agenda for a new generation of adolescent programmes that consider the interconnectedness of protective and risk factors for adolescent well-being at multiple levels, encompassing the diverse policies and programmes that promote good health and optimum nutrition; education, life-skills and employability; connectedness, positive values and contribution to society; and agency and resilience as well as the macro policies that shape safe and supportive environments.
- Investments in adolescent well-being bring a triple dividend of health and economic benefits – for adolescents now, during their future life and into the next generation. Thus, these investments enhance human capital. The smartest investments are the coordinated investments in health and education that bring mutually reinforcing benefits.
- The 2030 Agenda for Sustainable Development cannot be achieved without investment in adolescent health and well-being. This includes fulfilment of its goals related to poverty, hunger, education, gender equality, water and sanitation, economic growth, human settlement, climate change and peaceful and inclusive societies.
- The COVID-19 pandemic has brought into the spotlight the power of the global community to make investments in health a global priority. It has also highlighted the fact that the role of schools goes well beyond education to ensuring critical nutrition, social protection, mental health and other services. This offers unique momentum to reinvigorate global commitments to adolescent health, well-being and children's rights and to increase investments.

Chapter overview

This chapter advances the case for investment in adolescent health and well-being based on key developments since the publication of the first edition of the guidance in 2017. First, it describes key developments since then that can better inform adolescent health and well-being programmes, including a consensus framework for adolescent well-being. Then, it explains what is special about adolescents that warrants dedicated attention in policies and programmes and why investing in adolescent health and well-being is worthwhile. It then summarizes the key learnings from the COVID-19 pandemic and describes other contemporary threats to adolescent health and well-being such as climate change and armed conflicts and displacements. Finally, the chapter presents examples of opportunities to advance the adolescent health and well-being agenda.

What is new in this chapter?

- summary of lessons learned from the first edition of the AA-HA! guidance
- key scientific findings and political and programmatic advances since 2017
- the adolescent well-being framework
- the investment case
- COVID-19 and other current threats to adolescent well-being, and opportunities.

1.1 Scientific, political and programmatic advances in adolescent health and well-being

The AA-HA! guidance was instrumental in accelerating action in regions and countries. Since its launch in May 2017, the WHO/Headquarters Interdepartmental Technical Working Group on Adolescent Health and Well-being and UN agencies from the H6+ partnership have been working closely with countries to support them in updating and developing comprehensive strategies and plans for adolescent health and well-being. By the end of 2022, most of the countries in the WHO African region, the Americas region and the South-East Asia region and selected countries in the Eastern Mediterranean region and Western Pacific region had used the AA-HA! guidance to inform their national plans (3, 34). Moreover, the guidance was an influential framework for informing regional initiatives and political commitments such as the Adolescent Health Flagship Programme for Africa (35, 36), the Plan of Action for Women's, Children's and Adolescents' Health 2018–2030 of the Pan American Health Organization (37), the Regional Framework of Joint Strategic Actions for Young People of the Eastern Mediterranean Region and the European Region adaptation of AA-HA! (38, 39).

The wide application of the guidance in diverse contexts has demonstrated that:

- The AA-HA! systematic approach to plan programmes for adolescent health and well-being is suitable for countries with different epidemiological profiles and diverse socio-political situations and developmental stages.
- The AA-HA! approach to provide menus of interventions and implementation strategies that countries can choose from, rather than a core package of interventions and strategies for all countries, is highly acceptable. The explicit process of national priority setting described in the guidance and the manual for facilitators (40) has guided country teams to arrive at national priorities through a transparent process of priority setting that is owned by all key stakeholders.
- Although the AA-HA! guidance was aiming to support primarily national programming, its application for district-level planning in a number of countries has proved that the approach can be successfully applied for subnational-level planning.
- The emphasis that AA-HA! has put on involving adolescents in the process of planning adolescent health and well-being programmes has facilitated an increased awareness by policy-makers of the importance of doing so. Further, as a result most, if not all, countries that have used the guidance have involved adolescents in decisions regarding national and subnational priorities.
- The emphasis that AA-HA! puts on intersectoral and multisectoral action has resulted in most countries involving sectors other than health in the process of national programming.
- Although the content of the guidance is dense, the level of detail is useful for practical application.
- The accompanying facilitators' manual (40) is a useful tool to enable country teams to steer the process of national priority setting and programming with little or no external assistance.

Advances have been made in promoting well-being as a positive vision of health. In the last six years, major initiatives were launched that advanced the positive vision of health that integrates physical, mental, spiritual and social well-being (32). The Global Conference on Health Promotion, and its resulting Geneva Charter for Well-being, emphasized that societies that promote well-being provide the foundation for all members of current and future generations to thrive on a healthy planet, no matter where they live (32). The meaning of well-being for adolescents was articulated by the UN H6+ agencies' Adolescent Well-being Initiative (31), which launched a multistakeholder call to action to prioritize adolescent well-being before the Global Forum for Adolescents in 2023. This forum will review progress and aim to increase political and financial investment in this population group. As part of the initiative, the UN H6+ Technical Working Group on Adolescent Health and Well-being agreed that adolescent well-being is achieved when adolescents have the support, confidence and resources to thrive in contexts of secure

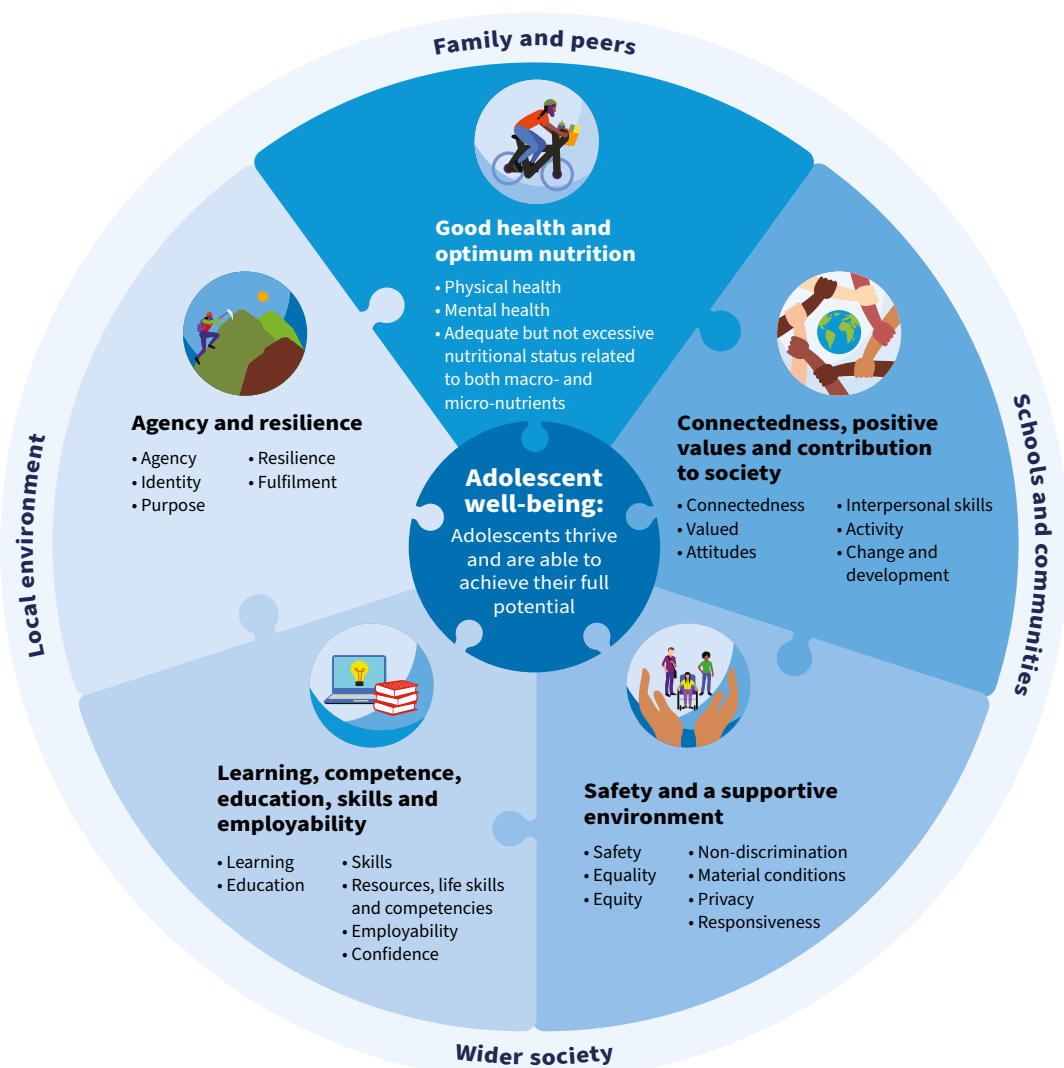
and healthy relationships, realizing their full potential and rights. They proposed a consensus conceptual framework for adolescent well-being that consists of five interrelated domains (Fig. 1.1) (3).

Definition of adolescent well-being:

“Adolescents have the support, confidence and resources to thrive in contexts of secure and healthy relationships, realizing their full potential and rights.

—UN H6+ Technical Working Group on Adolescent Health and Well-being

Fig. 1.1. The domains of adolescent well-being



The conceptual framework recognizes that health and nutrition is one of five important domains of adolescent well-being. More broadly, it sets the agenda for what matters for adolescents, focusing not only on their survival, but also on support for them to thrive. It aims to empower them with the tools to transform themselves and society at large (31). This understanding of well-being has implications for programmes, which should aim to increase adolescents' resilience and protective factors across domains (for example, a positive school environment and parents who provide structure and boundaries), rather than focusing mostly on reduction of risk factors (for example, tobacco and alcohol use). The conceptual framework of adolescent well-being was validated by eight regional-level workshops with adolescents and young people. A further eight multistakeholder consultations considered the framework's implications for programming across the multiple domains of adolescent well-being (7, 42) (see also the logical framework for programming in Chapter 5).

Progress has been made in promoting a focus on adolescents in reaching UHC targets. Adolescents took the spotlight in the lead-up to the United Nations High-level Meeting on Universal Health Coverage in 2019 that mobilized the highest-level political support for the entire health agenda under UHC (43). The resulting political declaration called for increased investment in health promotion and disease prevention, education, health communication and health literacy. It also called for increased investment in safe, healthy and resilient environments that enable adolescents to have increased skills and knowledge to make informed health decisions and to improve health-seeking behaviour (44).

There is renewed and unprecedented attention to school health. Today there is unparalleled attention to school health, as exemplified by the partnership of UN agencies for stepping up school health and nutrition (SHN) (45), the well-coordinated response to the needs of learners during the COVID-19 pandemic (46), the recognition by the Transforming Education Summit of learners' health and well-being as key to transforming education (47) and the uptake of the global initiative to Make Every School a Health Promoting School (8, 18).

The initiative Making Every School a Health Promoting School was formed to support school health and health-promoting school programmes and initiatives (48). The underlying goal is to ensure that education systems around the world promote the health and well-being of students, staff and communities. Making Every School a Health Promoting School is an alliance among the Food and Agriculture Organization of the United Nations (UN), UNAIDS, UNESCO, UNFPA, UNICEF, the

United Nations Environment Programme (UNEP), WFP and WHO (8). Following the launch of the initiative, more global and regional declarations have called for greater investments in school health (49-51), and the Global School Meals Coalition was formed to restore, improve and scale up sustainable school meals (52).

The investment case is stronger. Building the investment case for adolescents has brought new insights into the benefits of investing in adolescent health and well-being (10), the need to restructure health and social systems to better serve adolescents and how to better plan and fund intersectoral action (53, 54) (see section 1.2).

The UN has strengthened its work with and for youth. The UN has formulated the United Nations Youth Strategy – Youth 2030 – an ambitious system-wide strategy to guide work with and for young people around the world (55). The first progress report on the implementation of Youth 2030 was published in 2021, and it highlighted the UN system's response to the needs of youth during COVID-19 and the impact of the ambitious UN reform process on youth programming by UN Country Teams (56). The second report, published in 2022, highlighted progress achieved in 2021 across the UN system by UN agencies and UN country teams (57). The UNFPA's new strategy "My Body, My Life, My World!", which encapsulates the latest learning and evidence on adolescent and youth programming, is one example of how UN agencies focus on adolescents and youth and support the implementation of the UN Youth 2030 system-wide agenda (58).

“Adolescents are the future leaders; it is very important to ensure that they are well groomed and have a good foundation. This includes making sure that issues of mental health are addressed, and adolescent development in general.

—Student (female), age 19–25, Botswana

Meaningful adolescent and youth engagement (MAYE)

gets global consensus. The movement for MAYE has accelerated. The *Global Consensus Statement on Meaningful Adolescent and Youth Engagement*, which proposed definitions, key principles and recommendations, was co-signed by about 250 organizations within and outside the UN system (59), and its implementation is being monitored by the PMNCH (60). WHO has established the first WHO Youth Council, which will advise WHO on health and development issues that affect young people within a comprehensive and inclusive youth engagement strategy (48). The Youth Hub of the Global Health Workforce Network ensures that the Human Resources for Health agenda embodies youth-inclusive policy (61). From youth movements for accelerating action to end tuberculosis (TB) to engaging youth against AIDS to disseminate research findings, as well as consultations on the environment and noncommunicable diseases (NCDs), WHO has employed various means, including webinars, surveys, digital platforms, in-person engagements, audio-visual media, social media channels and publications to actively connect with adolescents (see, for example, Box 1.1) (48).

Adolescents are visible in many topic-specific agendas, and progress continues to improve adolescent health and well-being outcomes and their monitoring. Further developments have taken place since the launch of the first edition of this guidance in 2017 to accelerate action on specific domains of adolescent health and well-being:

- Adolescent health and well-being have been consistently addressed in World Health Assembly resolutions covering a diverse array of topics. These resolutions span areas such as human resources for health, violence against children, health emergencies, oral health, NCDs, neurological disorders, cervical cancer elimination, COVID-19 response, water and sanitation, community health workers, rheumatic diseases and cancer prevention within an integrated approach (Table 1.1).
- In 2019 the International Conference on Population and Development +25 celebrated and took stock of progress made in adolescent sexual and reproductive health (SRH) and rights in the 25 years since the original Conference in Cairo in 1994. While celebrating achievements, such as substantial reduction in child marriage and HIV infections, it identified the work that remains to be done to meet SRH needs and fulfil the SRH rights of adolescents (63).
- Renewed attention to adolescent mental health has resulted in new partnerships, such as the Joint Programme on Mental Health and Psychosocial Well-being and Development of Children and Adolescents, launched by WHO and UNICEF in 2020 (64). The programme establishes mutual commitments, a shared framework and a coordinated strategy to change laws, policies, services and family and community environments for better mental health and psychosocial well-being for the next generations (48).
- A number of organizations have documented experiences and developed new guidance based on the implementation of rights-based and gender-transformative approaches in programmes including those related to adolescent health and well-being (16, 17, 22-24, 65-68).
- For the first time, a comprehensive overview of the scale and consequences of children's and adolescents' exposure to electronic waste (e-waste), a term that refers to discarded electronic devices, equipment and components, was documented in a WHO report (69). The report summarized the latest scientific knowledge on the links between informal e-waste recycling activities and health outcomes in children, adolescents and pregnant women. These are the three most at-risk groups for adverse health outcomes, including impaired neurological and behavioural development, negative birth outcomes and immune system impacts.

Box 1.1. WHO mobilizes youth to end TB

In 2019 WHO launched a special youth initiative titled 1+1 to call for youth mobilization to help end TB. The initiative promotes engagement with young people and seeks to amplify their voices to end TB. Youth can have a multiplier effect to accelerate progress towards the ambitious 2022 targets of the UN High-level Meeting on Ending TB as well as the larger goal of ending TB by 2030, as included in the WHO

End TB Strategy and the Sustainable Development Goals (SDGs). The launch was followed by a Global Youth Townhall to end TB that culminated in a Youth Declaration to End TB. WHO is working with young people around the world to strengthen their engagement and implement the declaration.

Source: WHO 2023 (62).

- A UN declaration was made to protect adolescents from the harmful impact of marketing, advertising and promotional activities related to alcoholic beverages (70). Also, international management and guidance on substance use prevention and treatment has given attention to adolescents and young people (71, 72).
- In 2018 WHO announced the WHO Global Initiative for Childhood Cancer, bringing together stakeholders from around the world and across sectors. The initiative has the joint goals of increasing the childhood cancer survival rate by at least 60% by 2030 while reducing suffering and improving quality of life for children and adolescents with cancer (73).
- The Global Action for the Measurement of Adolescent Health (GAMA) Advisory Group – a collaborative effort among UNAIDS, UNESCO, UNFPA, UNICEF, UN Women, WHO, the WFP and the World Bank Group, facilitated development of global consensus about measurement of adolescent health and well-being globally (see Chapter 6) (5).

Table 1.1. World Health Assembly Resolutions (passed since 2017) with consideration of the health and well-being of adolescents

Reference	Year	Title	Commitments related to adolescent health and well-being
WHA75.17	2022	Human resources for health	Recommends implementing initiatives to promote decent jobs for youth and supports youth participation in the distribution, deployment and utilization of the health and care workforce.
WHA74.17	2021	Ending violence against children through health systems strengthening and multisectoral approaches	<p>Recognizes youth violence as one form of interpersonal violence and calls on countries to:</p> <ul style="list-style-type: none"> • establish policies and monitoring mechanisms for safeguarding children and identifying and responding to violence against children, especially adolescent girls; • establish an interministerial coordination process to prevent and eliminate violence against children; • include children, as appropriate to their evolving capacities, in advocacy, policy development and action; • promote an intercultural perspective when addressing violence against children in order to adapt effective interventions and meet the needs of children in different contexts and to strengthen the capacities of community health workers, communities and families to prevent situations of risk; • strengthen health system leadership and governance to prevent violence against children; • train and equip, among others, teachers, school administrators, religious leaders, parents and their representative organizations, justice and social welfare sector actors, detention officers, prison staff, health practitioners, sports workers and community and faith-based groups with the skills to prevent, identify and respond to violence against children, especially adolescent girls; • ensure that social protection and mental health services are accessible and available to all children at all times, including during lock-downs, quarantines and other types of confinement due to public health measures; • develop strategies, or include in existing strategies, measures for the prevention and elimination of all forms of violence against children with disabilities, who are particularly vulnerable.

Table 1.1 (continued). World Health Assembly Resolutions (passed since 2017) with consideration of the health and well-being of adolescents

Reference	Year	Title	Commitments related to adolescent health and well-being
WHA74.14	2021	Protecting, safeguarding and investing in the health and care workforce	Recognizes that the provision of decent work opportunities and career pathways for young people is fundamental for inclusive and sustainable economic and social recovery from the COVID pandemic.
WHA74.4	2021	Reducing the burden of noncommunicable diseases through strengthening prevention and control of diabetes	Recognizes the importance of reducing major risk factors, including unhealthy diets and physical inactivity, in the prevention and control of diabetes over the life course, especially among children and adolescents and their families, and the importance of early detection of diabetes and timely initiation of treatment.
WHA73.8	2020	Strengthening preparedness for health emergencies: implementation of the International Health Regulations (2005)	Recognizes the need to involve young people in planning and decision-making during health emergencies and to ensure the delivery of and universal access to health care services, including those for strong routine immunization, mental health and psychosocial support, trauma recovery, SRH and maternal, newborn and child health.
WHA73.2	2020	Global strategy to accelerate the elimination of cervical cancer as a public health problem and its associated goals and targets for the period 2020–2030	Recognizes the importance of integration of adolescent health services into the holistic health systems approach to cervical cancer prevention and control.
WHA73.1	2020	COVID-19 response	Recognizes children and adolescents as a group at risk during the COVID-19 pandemic and in need of protection; stresses the importance of age- and disability-sensitive and gender-responsive measures.
WHA72.3	2019	Community health workers delivering primary health care: opportunities and challenges	Recognizes the importance of decent jobs for young people for sustained, inclusive and sustainable economic growth, and that accelerating investments in job creation and decent work in primary health care will have a positive impact on young people.
WHA71.14	2018	Rheumatic fever and rheumatic heart disease	Calls for raising the profile of rheumatic heart disease and other noncommunicable diseases of children and adolescents on the global agenda.
WHA70.12	2017	Cancer prevention and control in the context of an integrated approach	Calls for developing or adapting guidance and tool kits to support comprehensive cancer prevention and control programmes, including for the management of cancers in children and adolescents, and to develop and implement evidence-based protocols for cancer management in children and adults, including palliative care.

1.2 Why invest in adolescent health and well-being?

There are at least five arguments why investing in adolescent health and well-being is crucial:

1. Adolescents have a fundamental right to health, and yet they bear a substantial proportion of the global disease and injury burden.

Adolescents, like all other people, have fundamental rights to life, development, the highest achievable standards of health and access to health services. These rights are enshrined in global human rights instruments to which almost all countries are signatories (74-76).

Despite this right, adolescents suffer a high burden of disease from preventable causes, mainly related to unintentional injuries, violence, SRH including HIV, communicable diseases such as acute respiratory infections and diarrhoeal diseases, NCDs, poor nutrition and lack of physical activity, and mental health, substance use and self-harm (77-79). Moreover, the COVID-19 pandemic exacerbated existing social inequalities that significantly hinder adolescents' ability to reach their full potential (80). Global, regional and national stakeholders contend that a rights-based approach to programmes should be reinforced to mitigate the impact of the pandemic on the lives of adolescents and young people and to ensure that the most vulnerable and disadvantaged are not left farther behind (7).

2. Investments in adolescent health and well-being bring a triple dividend of health and well-being benefits (81).

For adolescents now – Adolescent health and well-being is immediately benefited by promotion of health literacy (82) and positive behaviours (for example, good sleep habits and constructive forms of risk-taking, such as sport) and by prevention, early detection, treatment and rehabilitation of problems (for example, substance use disorders, mental disorders, injuries and sexually transmitted infections (STIs)) (83). For example, investing in preventing NCDs among adolescents has been estimated to reduce mortality by almost 10% even within the short term (83).

For adolescents' future lives – To help set a pattern of healthy lifestyles and reduce morbidity and premature mortality later in adulthood, support is needed to establish healthy behaviours in adolescence (for example, healthful diet, physical activity and, if sexually active, use of condoms and other contraceptives) and to reduce harmful exposures, conditions and behaviours (for example, air pollution, obesity, alcohol, drug and tobacco use). Investing in preventing NCDs among adolescents, for example, has been estimated to translate into 21 million avoided premature deaths from NCDs over the next 50 years (83).

For the next generation – The health of future offspring can be protected by promoting emotional well-being and healthy practices in adolescence now (for example, managing and resolving conflicts, appropriate vaccinations and good nutrition) and reducing risk factors and burdens (for example, lead and mercury exposure, interpersonal violence, female genital mutilation (FGM), substance use, early pregnancy and pregnancies in close succession).

3. Investments in adolescent health and well-being bring substantial economic benefits and enhance human and social capital.

Sustaining earlier investments – Human development occurs intensively throughout the first two decades of life. For a person to achieve full potential, early investments in maternal and child health programmes need to be sustained and amplified through investing in adolescent health and well-being (10, 84). Investing in adolescent health maintains and reinforces successful health and well-being interventions that children benefited from in early childhood and rectifies earlier health deficits (10, 85).

High cost-effectiveness and benefit-cost ratios from investing in adolescent health and well-being – Many programmes to improve adolescent well-being have a benefit-cost ratio of 5 to 10 (that is, an investment of US\$ 1 yields a return of US\$ 5–10), and some have a ratio of well over 10 (86). Addressing health and well-being needs in early adolescence through a school-based approach and addressing the needs of older adolescents through a mixed community, mass media and health systems approach yields high value for money (10, 87). The smartest are coordinated investments in health and education that bring mutually reinforcing benefits (10).

Additional benefits from greater productivity and enhanced human and social capital – The returns on investments in nutrition, health care, quality education and skills are manifested through greater productivity and enhanced human capital (88, 89), not least because adolescents comprise a substantial proportion of a country's population (16% of the world's population and 23% of the population of low-income countries (LICs)) (7). The substantial presence of adolescents within a nation's population presents significant opportunities for economic growth and social development when they are empowered. For example, investing in a comprehensive package of interventions to prevent NCDs during adolescence over a 50-year period would translate into about US\$ 400 billion in cumulative economic benefits (83). Investing in adolescents' connectedness and agency further potentiates the effects and increases social capital.

In low- and middle-income countries (LMICs), investment in adolescent health and well-being is likely to result in declines in fertility rates, which can contribute to faster economic growth. With fewer births each year, a country's young dependent population

grows smaller in relation to the working-age population (ages 15–64 years), creating a window of opportunity for rapid economic growth (90, 91). In high-income countries (HICs) as well, investment in the health and well-being of low-income adolescents, including those who have high birth rates and are more exposed to risk factors for ill health, can help to break the transmission of poverty and disadvantage across generations (92, 93).

4. Adolescents are not simply old children or young adults; they have particular needs.

Simply investing in population health without accounting for adolescents' special needs is not sufficient. Adolescence is one of the most rapidly changing, formative phases of human development (94).

Determinants of health and well-being take particular forms and have unique impacts in adolescence (Fig. 1.1). Therefore, the solutions need to be adolescent-specific. Section 1.3 details what is special about adolescence.

5. The 2030 Agenda for Sustainable Development cannot be achieved without investment in adolescent health and well-being.

Investment in adolescent health and well-being is essential to achieve the 17 SDGs and their 169 targets. Some SDGs, such as those addressing health and food security, broadly encompass the health and well-being of adolescents within their targets for broader populations. Others specifically address adolescents, as summarized in Box 1.2.

Box 1.2. SDG targets that specifically address adolescents

- Reduce by at least half the proportion of children living in poverty in all its dimensions according to national definitions (Target 1.2).
- Address the nutritional needs of adolescent girls (Target 2.2).
- Ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes (Target 4.1).
- Substantially increase the number of youths who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship (Target 4.4).
- Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for children in vulnerable situations (Target 4.5).
- Ensure that all youth achieve literacy and numeracy (Target 4.6).
- Build and upgrade education facilities that are child-sensitive and provide safe, non-violent, inclusive and effective learning environments for all (Target 4.a).
- End all forms of discrimination against all girls everywhere (Target 5.1).
- Eliminate all forms of violence against all girls in the public and private spheres, including trafficking and sexual and other types of exploitation (Target 5.2).
- Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation (Target 5.3).
- Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of girls at all levels (Target 5.c).
- Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of girls (Target 6.2).
- Achieve full and productive employment and decent work for all young people and equal pay for work of equal value (Target 8.5).
- By 2020 substantially reduce the proportion of youth not in employment, education or training (Target 8.6).
- Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms (Target 8.7).
- By 2020 develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization (Target 8.b).
- Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of children (Target 11.2).
- Provide universal access to safe, inclusive and accessible green and public spaces, in particular for children (Target 11.7).
- Promote mechanisms for raising capacity for effective climate change-related planning and management in least-developed countries and small island developing states, including focusing on youth (Target 13.b).
- End abuse, exploitation, trafficking and all forms of violence against and torture of children (Target 16.2).

1.3 What is special about adolescence?

The 1.3 billion adolescents in the world today represent more than one sixth of the global population (95). They are extremely diverse, differing not only in age but also in developmental stage as well as in culture, nationality, wealth, education, family, urban/rural residence and many other ways that have a great impact on their health and well-being. Nonetheless, across all societies and settings, adolescents share key developmental experiences as they transition from childhood to adulthood, which make adolescence a unique formative stage of human development. This stage is characterized by rapid physical growth, hormonal changes, sexual development, new and complex emotions, an increase in cognitive and intellectual

capacities, moral development and evolving relationships with peers and families (94, 96).

Critically, adolescents are not simply old children or young adults. The many determinants that influence human health take particular forms and have unique impacts in adolescence (97). Table 1.2 illustrates how such determinants can influence adolescent health and well-being at the individual, interpersonal, community, organizational, environmental, structural and macro levels of an ecological model. Determinants at different levels may interact to discriminate against some individuals. For example, children with disabilities (individual-level determinant) are 27–33% more likely to not attend secondary school (organizational-level determinant) when schools are not inclusive (98-100).

Table 1.2. Examples of factors at different ecological levels that have unique impacts in adolescence

Individual	Rapid physical, neurocognitive and psychosocial changes, for example, hormonal changes and puberty; new and complex sensations and emotions; sexual awareness and gender identity; a burst of electrical and physiological brain development; enhanced and evolving cognitive ability; context-influenced emotional and impulse control
Interpersonal	Evolving social competence; increased engagement beyond the family; questioning of authority; increasingly autonomous decision-making; heightened significance of peer relationships; formation of romantic relationships
Community	Increasing interest in fairness and justice; influence of community values and norms – for example, related to gender and age
Organizational	More years in education and training due to the expansion of primary and secondary education; later onset of employment and family formation; more independent involvement with health services while still having limited confidence in navigating health systems that may be ill-prepared to serve adolescents' special needs
Environmental	Water and sanitation facilities (for example, for menstruating girls); road infrastructure (for example, for young pedestrians without adult accompaniment); air quality and fire safety (for example, girls cooking on unsafe stoves); increased vulnerability to lead exposure and e-waste; inadequate legal and policy environment (for example, in the context of increasingly sophisticated advertising and techniques promoting unhealthy products)
Macroeconomic and other structural factors	Limited access to practical resources (for example, finances, transportation); limited representation in decision-making bodies and few opportunities for lobbying for laws and policies to protect health and rights, for example, for SRH; increased vulnerability in humanitarian and fragile settings; increased vulnerability to some aspects of globalization (for example, gaming addiction and online bullying due to internet and social media exposure; the transmission of alcohol marketing messages across national borders and jurisdictions, exacerbated by the difficulty to target young adult consumers without exposing cohorts of adolescents under the legal age to the same marketing; the vulnerability of youth working in industrial parks that often lack safety nets and age-appropriate information and services (101, 102), increased vulnerability to the consequences of poverty and food insecurity, climate change, unemployment or precarious employment conditions

1.3.1 Determinants at the individual level

Puberty is one of the most dynamic periods of biological development, greatly affecting physical, neurological, sexual and emotional well-being during adolescence and beyond as well. Puberty also sets trajectories for mental health, some forms of cancers and cardiovascular and metabolic risks over the life course (94). Therefore, its importance as a window of opportunity for interventions that may affect health throughout life cannot be overestimated (94).

Starting earlier than most recognize, typically between six and eight years of age, puberty begins with activating the adrenal glands. This contributes to rapid structural and functional development of the brain, influencing associated behaviours in adolescence, as well as influencing susceptibilities, such as mental health disorders and a range of cardio-metabolic conditions (94). The process of sexual maturation and achievement of reproductive capacity, which is followed by a growth spurt, marks a major change for both boys and girls. However, there is a marked gender dimension to how boys and girls experience puberty. For boys, society explicitly links puberty to sexual feelings in a positive way, whereas for girls this moment is often met with conflicting messages about sexuality, virginity, fertility and womanhood (103). Other differences, such as an increased risk of anxiety and depression in girls, especially in relation to menstrual problems, and increased social aggression and risk-taking in boys, are common (67). Socially constructed gender differences in how boys and girls experience puberty are also related to cultural taboos and stigma that force girls to sleep or eat away from their families or to miss school while they are menstruating. In many countries schools do not have toilets that facilitate privacy, cleanliness or proper disposal of menstruation-related products (103).

In early adolescence the brain undergoes a tremendous burst of neuro-physiological development (96, 104). Two key processes are involved: significant growth and change in regions of the prefrontal cortex and improved connectivity between regions of the prefrontal cortex and regions of the limbic system (94, 96). Changes occur more rapidly in the limbic system (responsible for pleasure seeking, reward processing, emotional response and sleep regulation) and at a somewhat slower rate in the prefrontal cortex (responsible for

decision-making, organization, impulse control and planning for the future) (96, 104). This developmentally normal mismatch between intense affective and behavioural reactions and less automatic cognitive ability to integrate executive control may explain some of the adolescent propensity for exploration, experimentation and risk-taking, resulting in greater vulnerability, especially when performing tasks under high pressure (94, 105). However, this also enables adolescents to respond in novel and adaptive ways (94) and increases adolescents' ability to adjust to changing social contexts (104). It is important to recognize adolescence as a window of opportunity for policies and programme strategies for constructive risk-taking, such as engagement in extreme sports, art and other activities that answer adolescents' pursuit of sensations. Specific learning or training experiences during adolescence (for example, mindfulness, emotion regulation (see Box 1.3)) may support building self-control and other cognitive, affective and social capacities (12, 104, 106).

As adolescents develop, cognitive domains, including learning, reasoning, information processing and memory, improve (94, 96, 104). Executive functioning capabilities, which facilitate self-regulation of thoughts, actions and emotions, continue to develop in keeping with changes in the prefrontal cortex (94). The evolving nature of emotional, social and cognitive capacity during adolescence has profound implications for how the policy goals of protection and autonomy are balanced (see Chapter 5, Box 5.13 on adolescent capacity for autonomous decision-making) (107, 108).

“There is the belief that adolescents do not think in a mature way about this theme [health and well-being]. When in reality everyone's opinion should be taken into account.

—Student (female), up to age 14, Mexico

Box 1.3. Mindfulness and other psychosocial interventions to promote social and emotional learning in adolescents

Mindfulness refers to activities meant to enhance the individual's ability to “pay attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (12). Enhanced self-regulation is achieved through enhanced attention control, improved emotion regulation and better self-awareness (109).

The latest neuroscientific findings on mindfulness-based practices suggest that it could induce neuroplasticity that supports building self-control and other cognitive, affective and social capacities in adolescents (109, 110). These skills can support

positive changes in school, work and relationships over the lifespan (110).

WHO recommends mindfulness as part of the social and emotional learning package that should be delivered universally to all adolescents (111). The package promotes emotional regulation, problem-solving, interpersonal skills, mindfulness, assertiveness and stress management. A school-based model to deliver this package is recommended, since universal interventions in schools may be easier to implement and less likely to cause stigmatization than in communities.

All these changes mean that young adolescent girls and boys should have timely access to information, advice, support and protection, and they should be enabled to make safe, healthy and informed choices as they transition through puberty. Healthy and positive options should be made available and easy, and health-compromising choices, difficult or inaccessible.

1.3.2 Determinants at interpersonal and community levels

At interpersonal and community levels, new social skills and competencies develop during adolescence, and family and peer relationships are transformed. Adolescents assign greater weight than adults to social outcomes such as peer acceptance, they are less resistant to peer pressure, and peer and family values increasingly diverge (94). They seek greater independence and responsibility and want to disengage from parental control while exercising more autonomy over their decisions, emotions and actions. At the same time, family remains an important determinant for a number of outcomes in adolescence, including obesity (112), mental health (113), school engagement (114), problematic internet use (115) and other outcomes (116). As adolescents increasingly move outside the confines of their families and start taking independent decisions – ranging from whom they spend time with to what food they eat – it is important to build around them safe and supportive environments so that they can explore their creativity and individuality without harm and by taking constructive forms of risks (104). The immediate environments of families, schools and communities become a powerful determinant of adolescent health and well-being.

In later adolescence the importance of peer group influence starts to diminish, and more complex and philosophical understandings of ethics, social issues and human rights develop. Consistent with

the growing development of values and concern for their communities, youth are often involved in social and political movements (24, 27, 117-119). However, opportunities for youth to engage in governance and participate in local and national decision-making processes depend largely on the political, socioeconomic and cultural contexts, and social norms in many parts of the world result in multiple forms of discrimination against youth participation in general and young women's participation in particular (119).

With the rapid expansion of digital media, interpersonal and social interactions and the ability of adolescents and youth to unite around a common cause have undergone, and continue to undergo, profound changes. This has raised questions about safe and health-promoting ways of using the internet, social media, mobile phones and other new communication technologies and how to ensure a safe, inclusive and empowering digital environment (120).

1.3.3 Determinants at organizational, environmental and structural levels

At the organizational level, **schools** – including primary, secondary, tertiary and vocational institutions – play a vitally important role in promoting and protecting adolescent health and well-being. Schools are essential for adolescents to acquire knowledge, socio-emotional skills including self-regulation and resilience and critical thinking skills that provide the foundation for a healthy future. Access to education and safe and supportive school environments have been linked to better health outcomes (8). A social-emotional environment at school that fosters equity, including gender equity, by promoting inclusiveness and welcoming diversity and not tolerating discrimination, bullying, corporal punishment or harassment is linked to better health and well-being outcomes (121). Conversely, education systems that do not address discrimination leave

behind vulnerable learners, such as those with disabilities, who are more likely to never attend school or to leave primary or upper-secondary school before finishing (100).

The education system is particularly well-situated to promote health and well-being among children and adolescents in poor communities that lack effective health systems – children who otherwise might not receive health interventions. There are typically more schools than health facilities in all income settings, and rural and poor areas are significantly more likely to have schools than health centres (122). In turn, good health is linked to reduced drop-out rates and greater educational attainment, educational performance, employment and productivity (47). Yet many schools lack the basic infrastructure and services to maintain health and well-being: 73 million of the most marginalized children are not reached by school feeding, and one of every three schools does not have drinking water or adequate sanitation (123). This is a problem even in HICs, where students avoid using toilets due to poor sanitary conditions, lack of privacy and security and limited access due to policies restricting access to toilets during classes (124-126).

Health systems also have a crucial influence on adolescent well-being. Adolescents have different health care needs than younger children and adults, due to their unique and rapidly evolving physical, sexual, cognitive and emotional development. These needs should be addressed in a developmentally sensitive manner (127). However, historically, most health systems have focused on services for mothers, younger children and the elderly. In many countries health systems performance for adolescents is poorer than for other population groups (11).

Determinants functioning at the **environmental** level can also profoundly affect adolescent health, well-being and development (128). For example, during adolescence, nutrition has a formative role in the timing and pattern of puberty, with consequences for cardio-respiratory fitness, neurodevelopment, immunity, adult height and muscle and fat mass accrual, as well as risk of NCDs in later life (69, 129, 130). Much of the environmental burden of disease on adolescents is completely preventable, for example, by improving water quality and sanitation, limiting pollution and safely disposing of chemical waste (69, 129, 130). The biological environment (for example, the prevalence of malaria or HIV), the food environment, the chemical environment (for example, pollutants such as lead, mercury and other endocrine disruptors) and the physical environment (for example, roads or water and sanitation infrastructure) can have profound effects on adolescent girls and boys (85, 128, 131). For instance, the most sensitive window of exposure to endocrine disruptors is during critical periods of human development such as puberty (128, 131, 132).

The **legal and policy** environment affects adolescent well-being in many ways, for example, through taxation, health warnings and restrictions to limit or prohibit harmful exposure to marketing by the tobacco, alcohol, food and beverage and fashion industries and to prohibit sales of alcohol and tobacco to minors (70, 71, 84, 121, 133-135). Adolescents are intensively consuming media, but in the absence of policy incentives they might be left out from participating in the digital economy. For example, adolescents and youth growing up in poverty are the least likely of all cohorts to participate in the digital economy due to lack of means to use technology or develop digital skills. The chances worsen for girls and for people with disabilities (58) and for the forcibly displaced (136).

Structural barriers constrain youth participation in political processes. Youth is not represented adequately in formal political institutions and processes such as parliaments, political parties, elections and public administration. People under the age of 35 are rarely found in formal political leadership positions. In one third of countries, eligibility for the national parliament starts at age 25 years or higher; it is common practice to refer to politicians as “young” if they are below 35–40 years of age. The situation is especially difficult for young women (119).

At the macroeconomic level, **global economic policies and trade agreements** can have impacts on adolescent health and well-being (135, 137). For example, modelling studies have shown that, where the availability of low-cost, nutrient-dense foods is limited, the diets of adolescent girls are less adequate, as girls’ recommendations for vitamin A and iron are higher than those for boys of the same age. This contributes to girls’ greater vulnerability to malnutrition (138).

Macroeconomic policies can create incentives for adolescents to stay in school and can influence whether there are fulfilling jobs for them to strive for after they leave school. Industrial parks can play a protective role by providing youth with opportunities for decent employment (139), but they also can be a source of risks if age-appropriate protection and services are lacking (see section 5.3.8). Poverty early in life can have a lasting effect on health and development in adolescence and on human capital development (70, 133, 137). Anti-poverty policies and programmes should complement specific health and nutrition interventions delivered at an individual level, particularly in the aftermath of the COVID-19 pandemic (137).

Notably, some determinants affect adolescent health and well-being across multiple ecological levels (12). For example, gender norms affect adolescents’ expectations and their sense of what is acceptable and appropriate at the individual level. At the interpersonal level, they may also influence family decisions about allocation of resources and the relative importance of education for boys and girls. At organizational

and structural levels, these norms are reflected in gender inequalities and restrictions in jobs and education (17, 22, 24, 140). Health literacy is another example. Although reflecting personal knowledge and competencies at the individual level, health literacy is accumulated through daily activities, in social interactions and across generations (thus influenced by interpersonal level factors) and is mediated by the organizational structures and availability of resources that enable adolescents to access, understand, appraise and use information and services in ways that promote and maintain good health and well-being for themselves and those around them (141).

1.4 The pandemic and other current threats to adolescent well-being, and opportunities

Adolescents today are healthier than decades ago and have more opportunities to develop their full potential. However, the scale and scope of the global threats to their well-being, including conflicts, climate crises and other humanitarian emergencies, all compounded by COVID-19, now put decades of progress at grave risk (142).

1.4.1 Shared learning from the COVID-19 pandemic

The shared learning from the direct and indirect impacts of the COVID-19 pandemic on adolescents can inform future collective actions and a holistic response should a new pandemic occur.

The COVID-19 pandemic has exposed social inequalities and highlighted the ecological, political, commercial, digital and social determinants of health and health inequities within and between social groups and nations. Adolescents have experienced lower COVID-19 morbidity and mortality than adults (143), but they have been disproportionately affected by public health and social measures designed to limit the spread of the pandemic, as described below (144).

- **School closures have severely disrupted education, and the digital divide put millions of adolescents at further disadvantage** by limiting access to remote learning opportunities for those without internet access, particularly many living in rural areas, those with disabilities, those in conflict and post-conflict settings, refugees, the displaced and those from minority communities and from poor families (145).

Case study 1.1

COVID-19 and the right to education in Colombia



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On March 16, 2020, the Colombian government suspended in-person school classes due to the national emergency of the COVID-19 pandemic. Later, in June, the government provided guidelines for remote classes and sanitary measures within the classrooms.

However, many parents felt that the public authorities did not uphold their duty to guarantee access to education for their children during the pandemic and had failed to take adequate measures, such as providing access to the internet and computers. They argued that they could not afford the technology needed for remote classes and that their children were discriminated against.

A group of parents brought a lawsuit on behalf of their children against public authorities, charging a violation to their right to education. The Court found that the COVID-19 pandemic had seriously disrupted the children's education, especially in impoverished communities. Further, it found that, due to the emergency, authorities had a special duty to reinforce the protection of the right to education, accounting for its economic burdens.

Since there was no internet connection in many towns and no cell phones or computers, among other things, authorities had to adapt to the emergency and ensure the right to remote education for children, always considering the best interests of the children. The Court established that authorities provide the necessary means for remote classes and ordered them to devise a plan to correct the shortcomings the pandemic had created in terms of education.

Source: COVID-19 litigation 2022 (160).

Millions of learners are at risk of never catching up on the months of education disrupted or even of not returning to school. For instance, it was estimated that globally, a school shutdown of 5 months could generate learning losses that have a present value of US\$ 10 trillion (146). See Case study 1.1 from Colombia on the disruption of education for the most vulnerable during the lockdown.

- **Loss of school-related safety nets, benefits and services.** Adolescents have been missing health and well-being activities offered as part of routine education programmes, such as physical activity, school meals, school-based or school-linked health services, deworming, clean water, sanitation and hygiene and other services for children with disabilities or those with specific needs such as learning support, speech therapy, counselling, behavioural support and social skills training (147, 148). (See Case study 5.7 from South Africa on efforts to restore school meals and nutrition services during the pandemic.)
- **The risk of violence against children in their homes, communities and online has increased,** exacerbated by the compromised ability of child protection systems to promptly detect and respond to cases of violence during lockdowns (149).
- **An increase in mental health problems and addictive behaviours** (for example, gaming) among youth was reported during the COVID-19 pandemic (150). It has been estimated that, in the first year of the COVID-19 pandemic, the proportion of youth experiencing clinically elevated symptoms of depression and anxiety doubled over pre-pandemic levels (151).
- **The risk of poor SRH increased.** Driven by an increase in sexual violence during social isolation and loss of livelihoods, adolescent pregnancy and child marriage increased during the pandemic (149, 152). The further result is young women forced to leave school and experiencing poor pregnancy outcomes, exacerbating the gender divide (153).
- **Decreased access to and coverage by essential services.** COVID-19 disproportionately impaired the delivery of health services to adolescents, disrupting essential health care and exacerbating health disparities. As a result of restrictions on movement and social contact as part of the pandemic response, routine immunization services suffered, threatening a resurgence of vaccine-preventable diseases such as measles, tetanus, yellow fever and hepatitis (154, 155) and highlighting the need for continued focus on routine immunizations against vaccine-preventable diseases in childhood and adolescence. Similarly, the pandemic has significantly disrupted childhood TB services, with the youngest children most affected (156). Furthermore, the reallocation of health care resources to address COVID-19 has led to reduced access to reproductive health services, mental health care and substance use treatment for adolescents (157, 158).

- **Decline in physical activity.** Lockdowns and other public health and social measures to control the pandemic changed work patterns and reduced opportunities for general mobility and access to fitness facilities (159). As a result, adolescents reduced their physical activity and increased sedentary behaviours.

Looking forward, it is important to appreciate that, should a new epidemic or pandemic occur, adolescents may face similar challenges if we do not adjust our response by learning from the COVID-19 pandemic.

1.4.2 Climate change

Effects of climate change, such as rising temperatures, severe storms, floods and droughts, are becoming more frequent, posing, along with much other disruption and hardship, a serious barrier to the realization of adolescent health, well-being and human rights (161-163). Evidence is emerging that climate change is associated in multiple ways with adverse health and well-being outcomes in adolescence (162, 164, 165):

- Rising temperatures increase the risk of heat-related mortality, adverse birth outcomes, infectious diseases and respiratory disorders.
- Excessive rainfall, extreme temperatures and drought are associated with undernutrition, particularly among young children.
- Higher temperatures, rainfall variability and air pollution are linked to poorer cognitive ability, lower school enrolment and leaving school earlier.
- In disaster-affected families, family functioning worsens (that is, hostile and anxious parenting, child neglect and violence, low connectedness, parent-child or family conflict).
- Gender-based violence increases during or after extreme climate events.
- Climate-related disasters disrupt education and training.

1.4.3 Armed conflicts and displacements

Worldwide, at least 415 million children under the age of 18 years were living in conflict-affected areas in 2018 (166). The number is assumed to have increased further following recent escalation of conflicts in Afghanistan, Ethiopia and Ukraine, exposing millions more families and children to enormous additional physical and mental health risks (167). As of May 2022, more than 100 million people were forcibly displaced worldwide by persecution, conflict, violence, human rights violations or events seriously disturbing public order (168). This amounts to more than a doubling compared with 10 years earlier; in 2012 there were 42.7 million forcibly displaced people. At least 40% of displaced people are children (<18 years) (168). Children and adolescents are exposed to family separation, physical violence and other violations of their human rights, including sexual

abuse and exploitation, military or other armed attacks, trafficking and limited access to education, health services and food (169, 170). Many suffer from neglect and violence due to parental substance use while in humanitarian settings (171). Chapter 2 details the state of health and well-being in humanitarian and fragile settings, and Chapter 5 describes effective national programming responses.

1.4.4 Opportunities

The COVID-19 pandemic has increased awareness of adolescent mental health and the importance of school-linked safety nets. It also offered a glimpse of what is possible when the global community comes together in solidarity and makes investments in health a global political priority (142). This recent experience opens a window of opportunity to invest long-term in strengthening the resilience to shocks of systems upon which adolescents' health and well-being depend. Needed steps include these:

- Reinvigorate global commitments to adolescent health, well-being and children's rights.
- Equitably scale up evidence-based interventions delivered through resilient primary health care to achieve UHC (142).
- Establish resilient, flexible and easily adaptable systems for delivering adequate nutrition, social protection and education (84, 167).

- Ensure equitable distribution of the systems and interventions supporting learning, development, health and well-being, addressing the digital divide, the gender divide, disability and the needs of marginalized and hard-to-reach adolescents in diverse settings (84, 167).

Broad multisectoral anti-poverty policies and programmes should be the foundation for strengthening such resilience. Strengthening is urgently needed to offset the increase in poverty brought about by the COVID-19 pandemic and to promote the health and development of adolescents in both the short and long terms (137).



Chapter 2.

The status of health and well-being of the world's adolescents

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Chapter 2.

The status of health and well-being of the world's adolescents

Key messages

- More than 1.2 billion (16%) of the global population are adolescents, between the ages of 10 and 19 years.
- Over the last 20 years, mortality rates from all causes have declined among adolescents globally, with the largest decline in older (15–19 years) adolescent girls. However, progress has been uneven across different regions and adolescent population groups.
- Globally, road injury was the most important cause of death for both younger (10–14-year-old) and older (15–19-year-old) adolescent males in 2019. Among adolescent females, the most important causes of death were diarrhoeal diseases in the younger group and TB in the older group. While some of the main causes of death (such as maternal conditions) varied by region, rates for other causes, including road traffic injury and self-harm, were consistently high across regions.
- Reductions in the burden of non-fatal diseases among adolescents have been limited over the past 20 years. In fact, there have been increases in some regions and age groups. Across regions, the main conditions causing this burden in 2019 were mental health conditions (depressive and anxiety disorders, childhood behavioural disorders), iron deficiency anaemia, skin diseases and migraine. Conditions such as malaria or drug use disorders were more common in certain regions.
- Globally, in 2019 across adolescent sex and age groups, the most important risk factors for mortality and morbidity included iron deficiency, unsafe water source, low birthweight and short gestation, and unsafe sanitation.
- Evidence is growing of the role of protective factors at individual, family and societal levels on adolescents' health and well-being.

Chapter overview

This chapter describes the situation of adolescent health and well-being. Section 2.1 presents an overview of the adolescent mortality and morbidity burden and risk factors for adolescent health and well-being. Section 2.2 presents an overview of protective factors for adolescent health and well-being. Section 2.3 then gives more details about selected outcomes and determinants for adolescent health and well-being. Finally, section 2.4 details the particular nature of adolescent health burdens in humanitarian and fragile settings.

What is new in this chapter?

- updated data on the adolescent population, their mortality, morbidity, selected health outcomes, and risk and protective factors, as well as determinants of their health and well-being
- the mortality and morbidity burden among adolescents, and the main causes, now presented separately rather than combined in disability-adjusted life years (DALYs). The morbidity burden is expressed as years of healthy life lost due to disability (YLDs) and captures morbidity as the amount of time lived in states of less than good health. For example, a YLD rate of 544 per 100 000 adolescent population for a specific condition means that, among 100 000 adolescents in a given year, 544 years of healthy life have been lost due to poor health related to this condition.
- an overview of protective factors for adolescent health and well-being.

Grouping of countries by modified WHO region (as referred to in this publication)

WHO African Region, LMICs: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.

WHO Region of the Americas, LMICs: Argentina, Belize, Bolivia (Plurinational State of), Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Venezuela (Bolivarian Republic of).

WHO Eastern Mediterranean Region, LMICs: Afghanistan, Djibouti, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Lebanon, Libya, Morocco, Pakistan, Somalia, Sudan, Syrian Arab Republic, Tunisia, Yemen.

WHO European Region, LMICs: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Kazakhstan, Kyrgyzstan, Montenegro, Republic of Moldova, Romania, Russian Federation, Serbia, Tajikistan, the former Yugoslav Republic of Macedonia, Türkiye, Turkmenistan, Ukraine, Uzbekistan.

WHO South-East Asia Region, LMICs: Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste.

WHO Western Pacific Region, LMICs: Cambodia, China, Fiji, Kiribati, Lao People's Democratic Republic, Malaysia, Micronesia (Federated States of), Mongolia, Papua New Guinea, Philippines, Samoa, Solomon Islands, Tonga, Vanuatu, Viet Nam.

HICs: Antigua and Barbuda, Australia, Austria, Bahamas, Bahrain, Barbados, Belgium, Brunei Darussalam, Canada, Chile, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Kuwait, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), New Zealand, Norway, Oman, Poland, Portugal, Qatar, Republic of Korea, Saudi Arabia, Seychelles, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Trinidad and Tobago, United Arab Emirates, United Kingdom, United States of America, Uruguay.

The mortality and morbidity data presented here come from the WHO Global Health Estimates 2019 (172). As in previous reports, mortality and morbidity estimates were generated globally and by WHO regions modified to include only LMICs (173, 174) (see chart on previous page). A separate group was created for all high-income WHO Member States globally. The income classifications were based on a country's gross national income per capita in the year 2019 (175). The relative rankings of cause of death and burden of disease reflect our best knowledge at this time, given the availability and quality of data on cause of death and on the prevalence and incidence of diseases around the world. As data quality improves, the estimates will become more robust, and the picture may change for certain regions. In addition to the Global Health Estimates, other data sources have been used in this chapter for selected outcomes and determinants for adolescent health and well-being.

2.1 Overview of the adolescent population and the mortality and morbidity burden

Over 1.2 billion of the world's population are adolescents, ages 10–19 years. Only about 11% of the world's adolescents live in HICs (Table 2.1), while about two thirds live in LMICs of the WHO African, South-East Asia and Western Pacific regions.

In 2019 an estimated 0.9 million adolescents died. Approximately two thirds of these deaths were in LMICs of the WHO African and South-East Asia regions, where about half of adolescents live. Their mortality rates (deaths per 100 000 adolescent population) were the highest of all the regions.

The global non-fatal disease burden among adolescents was 69 million YLDs in 2019. YLD rates from all causes were highest in African LMICs (6120 per 100 000) and lowest in Western Pacific LMICs (4211 per 100 000) in 2019 (Table 2.1).

Table 2.1. Overview of the burden of mortality and morbidity among adolescents globally and by modified WHO region, 2019

	Global	African LMICs	Americas LMICs	Eastern Mediterranean LMICs	European LMICs	South-East Asia LMICs	Western Pacific LMICs	HICs
Adolescent population in millions (% of global total)	1240 (100)	249 (20)	103 (8)	129 (10)	53 (4)	362 (29)	214 (17)	131 (11)
Adolescent deaths in thousands (%)	857 (100)	321 (38)	67 (8)	104 (12)	19 (2)	244 (28)	73 (8)	29 (3)
Mortality rate (deaths per 100 000 adolescents)	69	129	65	81	36	67	34	22
Adolescent YLDs in millions (%)	69 (100)	15 (22)	6 (8)	8 (11)	3 (4)	21 (30)	9 (13)	8 (11)
YLDs per 100 000 adolescents	5536	6120	5637	5919	4871	5776	4211	5762

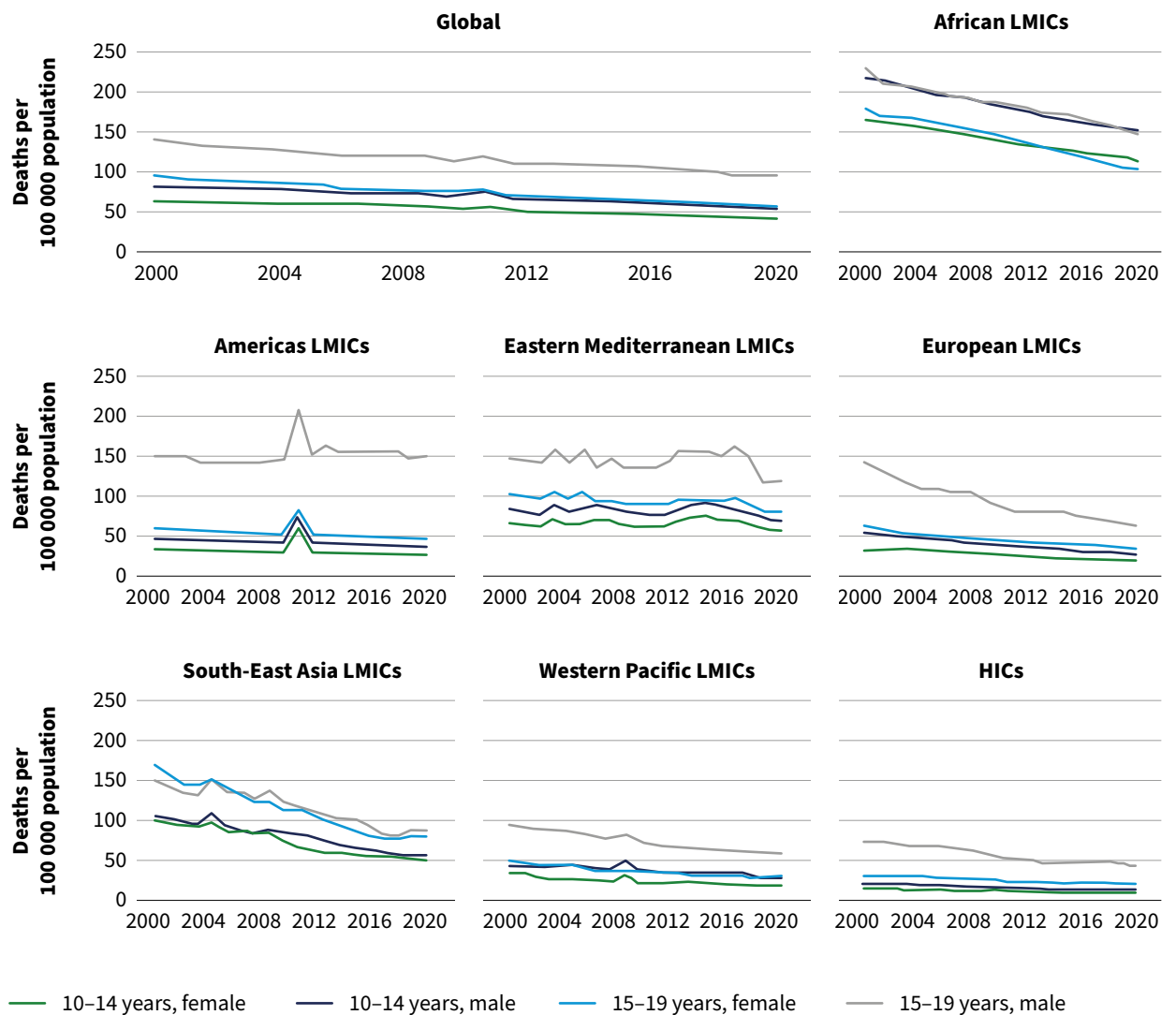
YLDs: years of healthy life lost due to disability
Source: WHO 2019 (172).

2.1.1 Mortality burden

An estimated 0.9 million adolescents between the ages of 10 to 19 years died in 2019. Fig. 2.1 shows estimates of global and regional trends of adolescent all-cause mortality by sex and age from 2000 to 2019. Global adolescent death rates are estimated to have fallen by approximately 27% since 2000. Older adolescents registered an approximately 10% greater decline than younger adolescents. The largest decline occurred in the female 15- to 19-year-old age group (34%). The decline in death rates occurred in most of the modified WHO regions; globally, the greatest overall decline, without age and sex disaggregation, was 51% in European LMICs and the lowest was 11% in the Americas LMICs. As seen in Fig 2.1, in some regions adolescent mortality was also influenced by natural disasters (for example, the earthquake in Haiti in 2010 or the earthquake and tsunami in the India Ocean in 2004) or by conflicts and wars.

Table 2.2 lists the five leading causes of adolescent deaths in 2019, at global and regional levels and by sex and age group. Road injury was the leading cause of death in males of both age groups (9/100 000 population among 10- to 14-year-old males and 18/100 000 population among 15- to 19-year-old males). For females the leading cause of death changed from diarrhoeal diseases in younger adolescents to TB for older adolescents. Some causes had a particularly high ranking only among males (for example, drowning) or females (for example, maternal conditions) or among younger adolescents (for example, lower respiratory infections) or older adolescents (for example, interpersonal violence and self-harm). Generally, while the mortality patterns among younger adolescents were similar to those of older children, ages 5–10 years, many of the main causes of mortality among older adolescents track into adulthood.

Fig. 2.1. Adolescent all-cause mortality by sex and age, globally and by modified WHO region, 2000–2019



Source: WHO 2019 (172).

Some conditions were major causes of death in most regions, such as road injury, self-harm and drowning. Other conditions were high-ranking causes of death only in specific modified WHO regions, for example, meningitis and HIV/AIDS in African LMICs; diarrhoeal

diseases and TB in South-East Asia LMICs; interpersonal violence in HICs and in LMICs in the Americas; diarrhoeal diseases in Eastern Mediterranean LMICs; congenital anomalies in European LMICs, HICs and Western Pacific LMICs; and leukaemia in Western Pacific LMICs.

Table 2.2. Main causes of adolescent mortality by sex, age, globally and by modified WHO region

		Injuries		Communicable, maternal, perinatal and nutritional conditions		
		Males		Females		
Age	Cause	Mortality rate (per 100 000)		Cause	Mortality rate (per 100 000)	
Global						
10–14 years	Road injury		9	Diarrhoeal diseases		8
	Diarrhoeal diseases		9	Road injury		5
	Drowning		4	Lower respiratory infections		3
	Lower respiratory infections		3	HIV/AIDS		3
	HIV/AIDS		3	Meningitis		2
15–19 years	Road injury		18	Tuberculosis		9
	Interpersonal violence		12	Maternal conditions		7
	Tuberculosis		10	Self-harm		5
	Self-harm		6	Road injury		5
	Diarrhoeal diseases		5	Diarrhoeal diseases		4
African LMICs						
10–14 years	Road injury		22	Diarrhoeal diseases		15
	Diarrhoeal diseases		18	Road injury		12
	HIV/AIDS		12	HIV/AIDS		11
	Lower respiratory infections		9	Meningitis		8
	Malaria		9	Lower respiratory infections		8
15–19 years	Road injury		27	Maternal conditions		20
	Tuberculosis		18	HIV/AIDS		13
	Interpersonal violence		17	Tuberculosis		12
	HIV/AIDS		13	Road injury		8
	Diarrhoeal diseases		8	Diarrhoeal diseases		6
Americas LMICs						
10–14 years	Interpersonal violence		6	Road injury		3
	Road injury		5	Interpersonal violence		2
	Leukaemia		3	Leukaemia		2
	Drowning		2	Congenital anomalies		2
	Congenital anomalies		1	Self-harm		1

Table 2.2 (continued). Main causes of adolescent mortality by sex, age, globally and by modified WHO region

	Males		Females	
Age	Cause	Mortality rate (per 100 000)	Cause	Mortality rate (per 100 000)
15–19 years	Interpersonal violence	66	Interpersonal violence	7
	Road injury	24	Road injury	6
	Self-harm	9	Self-harm	4
	Drowning	5	Maternal conditions	3
	Leukaemia	3	Leukaemia	2
Eastern Mediterranean LMICs				
10–14 years	Diarrhoeal diseases	11	Diarrhoeal diseases	9
	Road injury	8	Road injury	5
	Lower respiratory infections	4	Congenital anomalies	4
	Congenital anomalies	3	Lower respiratory infections	3
	Drowning	3	Violence and legal intervention	2
15–19 years	Road injury	20	Maternal conditions	9
	Interpersonal violence	10	Tuberculosis	6
	Self-harm	8	Diarrhoeal diseases	6
	Diarrhoeal diseases	8	Road injury	6
	Tuberculosis	7	Self-harm	4
European LMICs				
10–14 years	Road injury	4	Road injury	2
	Drowning	3	Lower respiratory infections	2
	Self-harm	2	Congenital anomalies	1
	Lower respiratory infections	2	Drowning	1
	Congenital anomalies	2	Self-harm	1
15–19 years	Road injury	12	Self-harm	6
	Self-harm	11	Road injury	5
	Interpersonal violence	4	Lower respiratory infections	2
	Drowning	4	Interpersonal violence	1
	Lower respiratory infections	2	Leukaemia	1
South-East Asia LMICs				
10–14 years	Diarrhoeal diseases	13	Diarrhoeal diseases	13
	Road injury	7	Tuberculosis	3
	Drowning	4	Lower respiratory infections	3
	Tuberculosis	3	Road injury	2
	Lower respiratory infections	2	Drowning	2

Table 2.2 (continued). Main causes of adolescent mortality by sex, age, globally and by modified WHO region

	Males		Females	
Age	Cause	Mortality rate (per 100 000)	Cause	Mortality rate (per 100 000)
15–19 years	Tuberculosis	19	Tuberculosis	21
	Road injury	16	Self-harm	11
	Diarrhoeal diseases	7	Diarrhoeal diseases	8
	Self-harm	6	Maternal conditions	4
	Interpersonal violence	4	Road injury	4
Western Pacific LMICs				
10–14 years	Drowning	6	Road injury	2
	Road injury	4	Drowning	2
	Leukaemia	2	Leukaemia	1
	Congenital anomalies	2	Congenital anomalies	1
	Falls	1	Rabies	1
15–19 years	Road injury	16	Road injury	5
	Drowning	6	Self-harm	2
	Self-harm	4	Leukaemia	2
	Leukaemia	2	Tuberculosis	1
	Tuberculosis	2	Drowning	1
HICs				
10–14 years	Road injury	2	Road injury	1
	Self-harm	2	Self-harm	1
	Congenital anomalies	1	Congenital anomalies	1
	Brain & nervous system cancers	1	Brain & nervous system cancers	1
	Leukaemia	1	Leukaemia	1
15–19 years	Road injury	10	Road injury	4
	Self-harm	9	Self-harm	4
	Interpersonal violence	6	Drug use disorders	2
	Drug use disorders	4	Interpersonal violence	1
	Drowning	1	Congenital anomalies	1

Source: WHO 2019 (172).

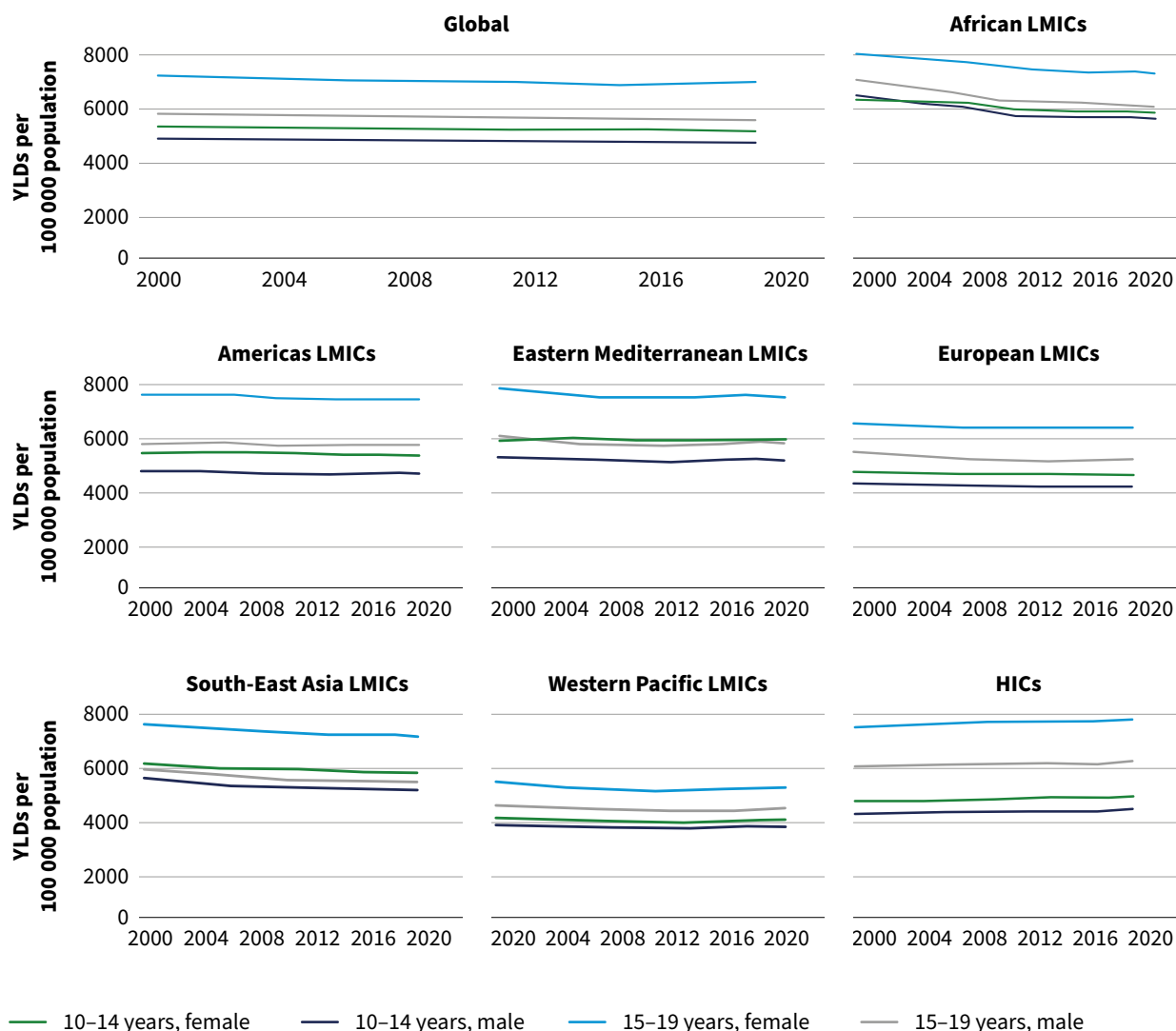
2.1.2 Morbidity burden

Fig. 2.2 presents estimates of global and regional trends in adolescent morbidity as YLDs, by sex and age, from 2000 to 2019. Since 2000 global adolescent morbidity rates changed little across age groups, sex and regions. The decline in morbidity was greatest in African LMICs, while in HICs an upward trend was observed. Morbidity was consistently higher among older female adolescents (6911 per 100 000 in 2019) than all other categories, at both global and regional levels. In 2000 the YLD rate for older female adolescents was 7163 per 100 000, while that for older male adolescents was 5712 per 100 000. Adolescent morbidity was consistently lowest among 10- to 14-year-old males (4782 per 100 000 in 2000 and 4572 per 100 000 in 2019).

Table 2.3 lists the five leading causes of adolescent morbidity at global and regional levels by sex and age group. Apart from iron deficiency anaemia, NCDs accounted for all YLDs in the top five causes in both age groups at the global level. The regional picture was similar, with HICs, Western Pacific LMICs and Americas LMICs having only NCDs as the top five causes of morbidity. The only communicable, maternal, perinatal and nutritional conditions appearing in the top five causes of morbidity were iron deficiency anaemia in African LMICs, South-East Asian LMICs and Eastern Mediterranean LMICs; malaria in African LMICs; and diarrhoeal diseases in European LMICs.

Among NCDs mental health disorders were the most common across all regions, in both age groups and regardless of sex. The most common mental health disorders were depressive disorders, anxiety disorders, childhood behavioural disorders and idiopathic intellectual disability.

Fig. 2.2. Adolescent morbidity from all causes, by sex and age, globally and by modified WHO region, 2000–2019



Source: WHO 2019 (172).

Table 2.3. Main causes of adolescent morbidity, by sex and age, globally and by modified WHO region, 2019

		Noncommunicable diseases		Communicable, maternal, perinatal and nutritional conditions		
		Males		Females		
Age	Cause	YLD rate (per 100 000)		Cause	YLD rate (per 100 000)	
Global						
10–14 years	Childhood behavioural disorders		544	Iron deficiency anaemia		525
	Iron deficiency anaemia		378	Anxiety disorders		416
	Anxiety disorders		265	Migraine		339
	Skin diseases		259	Childhood behavioural disorders		314
	Migraine		204	Skin diseases		292
15–19 years	Depressive disorders		371	Depressive disorders		631
	Childhood behavioural disorders		358	Anxiety disorders		535
	Anxiety disorders		334	Migraine		505
	Migraine		305	Iron deficiency anaemia		436
	Skin diseases		279	Gynaecological diseases		403
African LMICs						
10–14 years	Iron deficiency anaemia		668	Iron deficiency anaemia		709
	Childhood behavioural disorders		539	Anxiety disorders		381
	Anxiety disorders		255	Childhood behavioural disorders		345
	Skin diseases		248	Migraine		272
	Malaria		223	Skin diseases		267
15–19 years	Depressive disorders		459	Depressive disorders		689
	Childhood behavioural disorders		356	Anxiety disorders		498
	Anxiety disorders		345	Migraine		416
	Iron deficiency anaemia		296	Gynaecological diseases		371
	Migraine		277	Malaria		368
Americas LMICs						
10–14 years	Childhood behavioural disorders		580	Migraine		511
	Anxiety disorders		328	Anxiety disorders		508
	Asthma		296	Depressive disorders		369
	Migraine		283	Childhood behavioural disorders		346
	Skin diseases		269	Skin diseases		301

Table 2.3 (continued). Main causes of adolescent morbidity, by sex and age, globally and by modified WHO region, 2019

	Males		Females	
Age	Cause	YLD rate (per 100 000)	Cause	YLD rate (per 100 000)
15–19 years	Anxiety disorders	424	Depressive disorders	782
	Childhood behavioural disorders	390	Anxiety disorders	717
	Depressive disorders	370	Migraine	636
	Migraine	355	Gynaecological diseases	433
	Skin diseases	280	Back and neck pain	366
Eastern Mediterranean LMICs				
10–14 years	Childhood behavioural disorders	556	Iron deficiency anaemia	592
	Anxiety disorders	382	Anxiety disorders	533
	Iron deficiency anaemia	355	Migraine	388
	Migraine	278	Depressive disorders	311
	Idiopathic intellectual disability	274	Childhood behavioural disorders	301
15–19 years	Depressive disorders	481	Depressive disorders	797
	Anxiety disorders	452	Anxiety disorders	701
	Migraine	375	Migraine	551
	Childhood behavioural disorders	372	Gynaecological diseases	454
	Idiopathic intellectual disability	259	Iron deficiency anaemia	431
European LMICs				
10–14 years	Childhood behavioural disorders	576	Anxiety disorders	385
	Anxiety disorders	267	Childhood behavioural disorders	350
	Migraine	194	Migraine	332
	Skin diseases	179	Back and neck pain	233
	Diarrhoeal diseases	175	Skin diseases	232
15–19 years	Childhood behavioural disorders	387	Depressive disorders	608
	Depressive disorders	384	Anxiety disorders	511
	Anxiety disorders	331	Migraine	509
	Migraine	289	Back and neck pain	380
	Back and neck pain	286	Gynaecological diseases	356
South-East Asia LMICs				
10–14 years	Iron deficiency anaemia	588	Iron deficiency anaemia	939
	Childhood behavioural disorders	521	Migraine	359
	Idiopathic intellectual disability	340	Idiopathic intellectual disability	356
	Skin diseases	283	Skin diseases	314
	Preterm birth complications	255	Childhood behavioural disorders	305

Table 2.3 (continued). Main causes of adolescent morbidity, by sex and age, globally and by modified WHO region, 2019

	Males		Females	
Age	Cause	YLD rate (per 100 000)	Cause	YLD rate (per 100 000)
15–19 years	Childhood behavioural disorders	335	Iron deficiency anaemia	934
	Migraine	326	Migraine	525
	Idiopathic intellectual disability	317	Depressive disorders	455
	Depressive disorders	298	Gynaecological diseases	416
	Skin diseases	292	Anxiety disorders	357
Western Pacific LMICs				
10–14 years	Childhood behavioural disorders	532	Anxiety disorders	526
	Anxiety disorders	316	Skin diseases	356
	Skin diseases	311	Migraine	267
	Other hearing loss	175	Childhood behavioural disorders	259
	Uncorrected refractive errors	165	Back and neck pain	203
15–19 years	Skin diseases	355	Anxiety disorders	563
	Anxiety disorders	341	Migraine	413
	Childhood behavioural disorders	341	Skin diseases	409
	Back and neck pain	268	Depressive disorders	391
	Migraine	243	Gynaecological diseases	370
HICs				
10–14 years	Childhood behavioural disorders	590	Anxiety disorders	575
	Asthma	359	Depressive disorders	467
	Anxiety disorders	351	Migraine	360
	Back and neck pain	228	Childhood behavioural disorders	330
	Depressive disorders	217	Back and neck pain	312
15–19 years	Depressive disorders	561	Depressive disorders	1118
	Drug use disorders	491	Anxiety disorders	752
	Anxiety disorders	444	Migraine	605
	Childhood behavioural disorders	405	Back and neck pain	559
	Back and neck pain	382	Gynaecological diseases	426

YLDs: years of healthy life lost due to disability
Source: WHO 2019 (172).

2.2 Overview of risk factors for adolescent health and well-being

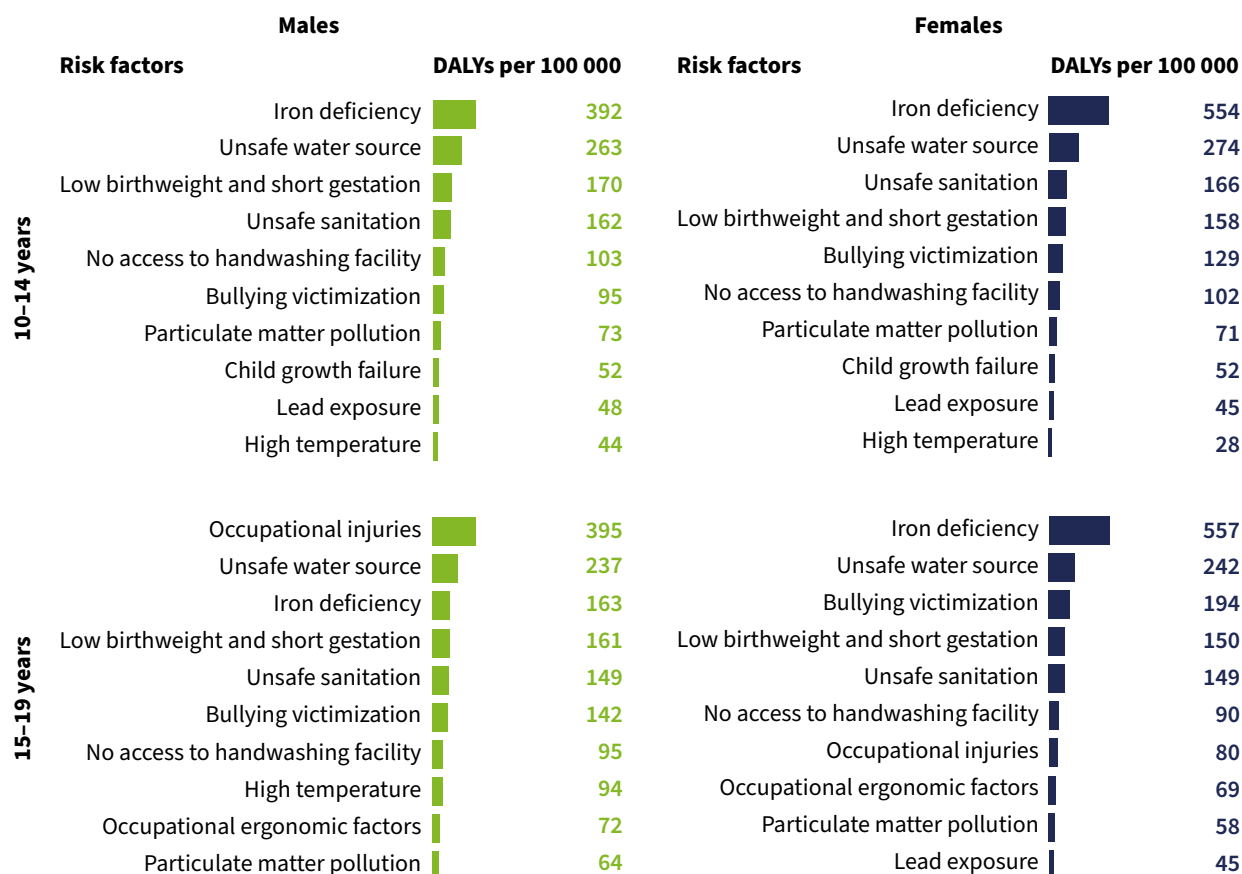
Most published literature on the global adolescent health burden focuses on mortality and morbidity (172, 176-179). Systematic global assessments of risk factors – such as those done for adults – are lacking for adolescents (180).

The Global Burden of Disease, an effort to measure epidemiological levels and trends worldwide, provides an opportunity to extract global risk factors for different population groups (181). Fig. 2.3 presents results of the 2019 Global Burden of Disease study, showing the top 10 risk factors associated with

adolescent DALYs. DALYs are a measure of overall health burden, combining mortality and morbidity.

In 2019 the leading risk factors for adolescent morbidity and mortality globally showed little variation by age group or by sex. Iron deficiency, unsafe water source, unsafe sanitation, no access to a handwashing facility, low birthweight and short gestation (less than 38 weeks), bullying victimization and particulate matter pollution were among the top 10 in both age groups and sexes. Some risk factors were in the top 10 list only among younger adolescents, such as child growth failure and lead exposure, while others were key among the older age group, such as occupational ergonomic factors.

Fig. 2.3. Top 10 global risk factors associated with adolescent DALYs, by sex and age, 2019



DALYs: disability-adjusted life years
 Source: Murray et al. 2020 (180).



2.3 Overview of protective factors for adolescent health and well-being

Protective factors are conditions, characteristics or behaviours that increase the probability of good health and well-being, minimize effects of stressful life events, increase an individual's ability to avoid hazards and promote social and emotional competence. Adolescent health and well-being can be improved by enhancing protective factors that build agency and resilience and that promote other dimensions of positive health and well-being (for the adolescent well-being framework, see section 1.1).

Evidence of the role of protective factors at individual, family and societal levels in adolescents' health and well-being is growing. For example, a survey of young people in nine Caribbean countries found that connectedness with parents and with school and attendance at religious services were associated with fewer health risk behaviours (182). A review of South African literature identified factors associated with adolescent health and well-being in relation to family relationships, social resources, religiosity and conservatism, and socioeconomic conditions (183). An analysis of indicators of youth–adult connectedness in two groups of adolescents at high risk for poor health outcomes found that strong, positive relationships with parents and other caring adults protected adolescents from a range of poor health-related outcomes and promoted positive development (184, 185). Results from the Global Early Adolescent Study showed that, across countries, feeling safe at school was associated with emotional and behavioural outcomes (184).

There is also growing evidence that health literacy is an asset for health and well-being, helping adolescents to pursue their full health potential and to act as informed participants in decision-making about their own health and development. According to WHO, “health literacy” constitutes the health-related personal knowledge and competencies that accumulate through daily activities and social interactions and across generations. Personal knowledge and competencies are mediated by organizational structures and the availability of resources that enable people to access, understand, appraise and use information and services in ways that promote and maintain good health and well-being for themselves and those around them (141).

Despite the importance of health literacy, its level among adolescents is often low. For example, as a part of the WHO collaborative Health Behaviour in School-aged Children survey of 2017/2018, a study provided findings on adolescent health literacy levels in 10 European countries. Data revealed great variation among countries and within countries. On average, low health literacy was found in 13.3% of adolescents (ages 13 and 15 years), while high health literacy was found in 19.5% of the same age group (82, 186).

Finally, there is increasing recognition that sleep has an important role in maintaining health and well-being of adolescents. This includes, for example, positive impacts of good sleep on weight control, mental health, pain and illness (187, 188). Although the association between sleep and good health has been well demonstrated (187, 189), and effective treatment is possible (190), epidemiological data on national or regional disease burden, distribution and risk factors are limited.

There has been recent progress in defining and measuring positive and protective factors in adolescent development. As discussed in Chapter 1, a new definition and conceptual framework on adolescent well-being have been developed by the United Nations H6+ Technical Working Group on Adolescent Health and Well-being and partners (31) (Fig. 1.1). The conceptual framework consists of five domains: 1) good health and optimal nutrition; 2) connectedness, positive values and contribution to society; 3) safety and a supportive environment; 4) learning, competence, education, skills and employability; and 5) agency and resilience. Currently, however, measurement to track progress in adolescent well-being across these domains at national and global levels is inconsistent, and global data, particularly on protective factors for adolescent well-being, are lacking (191). Where data exist, they often cover only a few countries or are not consistently tracked over time, or they cover only limited, specific aspects of adolescent well-being (192). Work is underway to propose a set of priority indicators for adolescent well-being and to develop guidance on M&E (193) (see Chapter 6).



2.4 Selected outcomes and determinants for adolescent health and well-being

2.4.1 Unintentional injury

The main categories of unintentional injury include road injuries, poisonings, falls, drowning, exposure to mechanical forces, natural disasters and fire, heat and hot substances (172). Together, unintentional injuries are the leading cause of death among adolescents.

Road injuries took the lives of over 100 000 adolescents (10–19 years) in 2019 globally (172). All sex, age and regional adolescent subgroups were affected, but, with 18 deaths per 100 000 population, older adolescent males experienced the greatest burden. Road injury was the leading or second leading cause of adolescent death in all seven modified WHO regions. Many of those who died were vulnerable road users, namely pedestrians, cyclists or users of motorized two-wheelers.

Drowning is also among the top causes of death among adolescents, in particular younger adolescent boys. More than 30 000 adolescents, over three quarters of them boys, are estimated to have drowned in 2019. South-East Asian and Western Pacific LMICs contributed 60% of the global number of adolescent deaths due to drowning. Drowning was among the top five causes of death in all regions except in African LMICs. Of note, however, is that African LMICs ranked third after South-East Asia and Western Pacific LMICs in absolute numbers of adolescent deaths due to drowning, but other disease burdens caused more adolescent deaths in the region (194).

Fire, heat and hot substances also make a substantial contribution to the global adolescent disease burden, with more than 6000 deaths reported in 2019. Approximately 56% of the global total number of deaths from fire, heat and hot substances occurred in African and South-East Asia LMICs (195), often due to open fire cooking or unsafe cookstoves.

2.4.2 Violence

Interpersonal violence is the intentional use of physical force or power by one person against another, with a high likelihood of causing injury, death, psychological harm, mal-development or deprivation (196). It includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation (197). Violence during adolescence can have severe short- and long-term physical, sexual and mental health consequences. It is a cause of injury, disabilities and gastrointestinal disorders and can lead to transmission of HIV and other STIs, post-traumatic stress, anxiety, depression, externalizing symptoms, eating disorders, problems with relationships, sleep disorders, self-harm and suicidal thoughts (198), poor school performance and dropout, early pregnancy,

reproductive health problems and other communicable diseases and NCDs.

Interpersonal violence is among the leading causes of death in adolescents and young people globally. Its prominence varies substantially by region, accounting for 40% of reported deaths in the Americas LMICs (up to 66 deaths per 100 000 among older adolescent boys) and 28% in African LMICs.

Child and adolescent maltreatment is a form of violence that is widespread but often hidden. Nearly one quarter of adults suffered physical abuse as a child or adolescent, 36% experienced emotional abuse, and 16% more experienced neglect. Overall, 18% of girls and 8% of boys have experienced some form of sexual abuse (199–202). Child and adolescent maltreatment can also coincide with other forms of violence against children and with intimate partner violence – for example, in the context of child marriage.

Youth violence is the intentional use of physical force or power by young people, ages 10–24 years, to threaten or harm others. It includes a range of acts such as fighting and bullying, gang-related violence, threats with weapons and homicide (203, 204).

A 2019 UNESCO report found that 32% of students reported having been bullied by their peers at school at least once in the last month. The proportion experiencing bullying varied by region, ranging from 23% of children in Central America, through 25% and 32% in Europe and North America, respectively, to 48% in sub-Saharan Africa (205). Worldwide, some 200 000 people ages 10–29 years are victims of homicides each year, which amounts to 42% of the annual total number of homicides (203).

The presence of gangs in the community, a local supply of illicit drugs and gang membership are known risk factors for youth violence. Gang violence is the intentional use of violence by a person or group of persons who are members of, or identify with, any long-lasting, street-orientated youth/armed group whose activity includes involvement in illegal acts (203). The magnitude of the problem varies; it is a great problem where there is a high concentration of gangs with access to guns and illicit drugs.

Young persons with disabilities (under the age of 18) are almost four times more likely than are their peers without disabilities to be victims of abuse. Young persons with intellectual disabilities, especially girls, face the greatest risk (206). Children and adolescents with disabilities are 32% more likely to experience severe physical punishment at home than those without disabilities (100). Also, children and adolescents with disabilities experience significantly higher rates of bullying than children without disabilities. There is evidence that more than one third of poorer mental health among adolescents with disabilities is explained by exposure to peers' bullying (100, 207).

Collective violence refers to the instrumental use of violence by members of a group against another group to achieve political, economic or social objectives (196). It includes coups, rebellions, revolutions, terrorism and war. Legal intervention refers to injuries inflicted by law-enforcing agents, suppressing disturbances, maintaining order and taking other legal action. Collective violence and legal intervention are major concerns in specific regions and in localized humanitarian and fragile settings. In 2019 collective violence and legal intervention combined were among the top five causes of adolescent death in Eastern Mediterranean LMICs, which recorded 4600 deaths, accounting for 62% of the global mortality specific to that cause (Table 2.2). The overall global burden has declined compared with 2015, however, when the Eastern Mediterranean LMICs recorded 27 000 adolescent deaths due to collective violence and legal intervention.

2.4.3 Sexual and reproductive health, HIV and other STIs

Contraception, unintended pregnancies and abortion

In many places adolescents cannot easily obtain contraceptives. Even when adolescents can obtain contraceptives, they may lack the agency or the resources to pay for them and knowledge of where to obtain them and how to use them correctly. They may face stigma when trying to obtain contraceptives (208). Laws and policies restricting provision of contraceptives based on age or marital status pose an important barrier to contraceptive use among adolescents. Legal barriers often combine with health workers' bias and/or unwillingness to acknowledge adolescents' sexual health needs.

In 2019 an estimated 21 million adolescents ages 15–19 years in LMICs had pregnancies, of which approximately half were unintended. Between 2.2 and 4 million of these unintended pregnancies ended in abortions, which are often unsafe in LMICs where abortion is illegal (209). This results in adolescent girls in LMICs suffering a significant and disproportionate share of deaths and morbidity from unsafe abortion practices, compared with adult women. Estimates suggest that 14% of all unsafe abortions in developing countries involve girls ages 15–19 years (210), while globally 11% of all births take place in this age group (211). Africa accounts for 26% of adolescents' unsafe abortions in developing countries, while Latin America and the Caribbean account for 15% (210).

Child marriage

Child marriage places girls at risk of pregnancy too young because girls who are married very early typically have limited autonomy to use contraception and delay childbearing (212). In many places girls accept pregnancy because they have limited educational and employment prospects. Often in such societies motherhood – within and sometimes outside marriage/union – is socially valued, and marriage or union and childbearing may be the best of the limited options available to adolescent girls (213). In 2021 there were an estimated 650 million girls and women living who had married before age 18 (213). Despite recent declines in child marriage – from 25% in 2008 to 19% in 2022 of girls being married before age 18 years – there are still about 12 million child marriages every year. Specific drivers vary by context and may vary over time, but the practice of child marriage is consistently rooted in gender inequality and harmful social norms and motivated by poverty, insecurity and barriers to girls' education (214).

Adolescent birth rate

Globally, the adolescent birth rate (ABR) has decreased from 65 births per 1000 women in 2000 to 43 births per 1000 women in 2021. Rates of change have been uneven, with the sharpest decline in southern Asia and slower declines in Latin America and the Caribbean and sub-Saharan Africa. This decrease is reflected in a similar decline in maternal mortality rates among girls ages 15–19 years (446).

While the estimated global ABR has declined, the actual number of childbirths to adolescents continues to be high. Approximately 12 million girls ages 15–19 years and at least 777 000 girls under 15 years give birth each year in LMICs. The largest numbers of births to adolescents occurs in sub-Saharan Africa, with an estimated 6 114 000 births in 2021 among 15–19 year olds and 332 000 births among those ages 10–14 years (446).

Complications from pregnancy and childbirth

Complications of pregnancy and childbirth are among the leading causes of death globally for girls ages 15–19 years. Maternal conditions include haemorrhage, sepsis, hypertensive disorders, obstructed labour, complications of abortion, indirect maternal deaths, late maternal deaths and maternal deaths aggravated by AIDS, TB and other infections or NCDs. Maternal conditions were the second leading cause of death in this group in 2019, causing seven deaths per 100 000 (Table 2.2). The rate of maternal mortality among 15- to 19-year-old girls was very high among African LMICs, at 20 per 100 000 population, followed by the Eastern Mediterranean, South-East Asia and Americas LMICs, at nine, four and three deaths per 100 000 population, respectively (210, 211, 216, 217).

Gender-based violence

While people of all ages are subjected to gender-based violence, it is particularly common in adolescence. Gender-based violence takes many forms. It encompasses violence by an intimate partner or family member; sexual violence; trafficking; acid throwing; FGM; child, early and forced marriage; and sexual harassment in schools, workplaces, public places and, increasingly, online through the internet or social media (218).

Estimates suggest that one in every five women and one in every 13 men report having been sexually abused before reaching the age of 18 (219). Both sexual violence and intimate partner violence are perpetrated mainly by men and boys against women and girls, but men, and especially boys, also may experience gender-based violence, although less commonly (220).

Adolescent girls are particularly at risk of sexual violence and abuse. Nearly one in every four married or partnered adolescent girls (15–19 years of age) is subjected to physical and/or sexual violence from a husband or other partner (221). Intimate partner violence disproportionately affects adolescent girls (15–19 years of age) in low- and lower-middle-income countries and regions. Differences between high- and lower-income regions are particularly stark for partner violence within the past 12 months, likely reflecting the challenges of leaving abusive relationships in resource-constrained settings and where levels of stigmatization may be high (222).

Children with disabilities have a nearly threefold greater risk of experiencing sexual violence than their non-disabled peers (223), and, for girls with disabilities, the highest risk is during adolescence (224). Adolescent girls with disabilities may also be subjected to forced sterilization, contraception or abortion at the request of family members or health care professionals. These procedures are often legitimized through claims of “medical necessity” or “best interest”, but they are considered acts of violence in human rights frameworks. Girls with intellectual or psychosocial disabilities and/or living in residential institutions are most at risk of this form of violence (224–229).

Sexual violence may result in multiple burdens, including physical injury, STIs, unintended pregnancy, non-pathological distress (for example, fear, anger, self-blame, shame, sadness or guilt), anxiety disorders (such as post-traumatic stress disorder), depression, medically unexplained somatic complaints, alcohol and other substance use disorders, and suicidal ideation and self-harm. Social trauma can include stigma, which can lead to social exclusion, discrimination and rejection by family and community (230).

Female genital mutilation

FGM comprises procedures to remove external genitalia partially or totally or otherwise to injure the female genital organs for nonmedical reasons (231). No form of FGM has health benefits. On the contrary, the removal of or damage to healthy genital tissue interferes with the natural functioning of the body and may cause various immediate and long-term health consequences (232). FGM is mostly carried out on girls between birth and age 15 years. The practice is prevalent in 30 countries in Africa and in several countries in Asia and the Middle East, but now it is also present across the globe due to international migration. In 2014, it was estimated that 12 million girls between the ages of 10 and 14 years in Africa have experienced health complications related to FGM, most notably in Ethiopia, Kenya, Nigeria and Uganda (232, 233).

HIV

In 2022 at least 1.7 million adolescents ages 10–19 years were living with HIV globally, with adolescent girls constituting 54% of the total estimate. Further, an estimated 140 000 adolescents were newly infected with HIV. Three quarters of these are girls. Only about 65% of adolescents (ages 10–19 years) living with HIV were receiving antiretroviral therapy (ART) in 2022 – much lower than the 77% ART coverage among adults (ages 15+ years) overall. Multiple factors, including age-disparate sex, low rates of condom use, sexual violence and coercion, gender norms and early sexual debut, contribute to the disproportionate risk of adolescent females acquiring HIV. In 2022 the estimated number of AIDS-related deaths among adolescents worldwide was 27 000. East and Southern Africa recorded the highest number of AIDS-related deaths – 16 000 among those ages 10–19 years (234). Stigma, discrimination, punitive laws and policies, violence and entrenched societal and gender inequalities continue to hinder access to HIV prevention and treatment for adolescents.

Other STIs

The incidence of other STIs among adolescents was 7089 per 100 000 population in 2019, with the highest incidence among young adolescents, ages 10–14 years (235). For both social and biological reasons, sexually active adolescents have a higher risk of acquiring STIs than other age groups. These reasons include increased exposure, biological susceptibility to infection and relatively poor access to and/or use of health services (236). For example, the peak time for acquiring infection with either human papillomavirus (HPV) or herpes simplex virus-2 (HSV-2) for both males and females is shortly after a person first becomes sexually active, which generally happens in adolescence (206, 215, 237, 238). Vaccination against HPV and screening and treatment of precancerous lesions are cost-effective ways to prevent cervical cancer (239).

2.4.4 Communicable diseases

Five of the top 10 causes of death among adolescents are communicable diseases (Fig. 2.4). Along with HIV/AIDS, the other four are diarrhoeal diseases, TB, lower respiratory infections and meningitis. These four diseases accounted for more than 200 000 deaths among adolescents in 2019, with specific disease death rates ranging from two per 100 000 for meningitis to six per 100 000 for diarrhoeal diseases.

Diarrhoeal diseases

Diarrhoeal diseases are mainly caused by infections that have a faecal-oral transmission route; the disease organisms are commonly ingested in contaminated food or water. These diseases are a particularly important cause of death in young adolescents. Globally, in 2019 diarrhoeal diseases ranked first as a cause of death among young adolescent girls and second among young adolescent boys, while ranking fifth among both sexes in the 15- to 19-year-old group. In 2019 diarrhoeal diseases had the greatest impact on adolescent health and well-being in African, South-East Asia and Western Pacific LMICs.

Lower respiratory infections

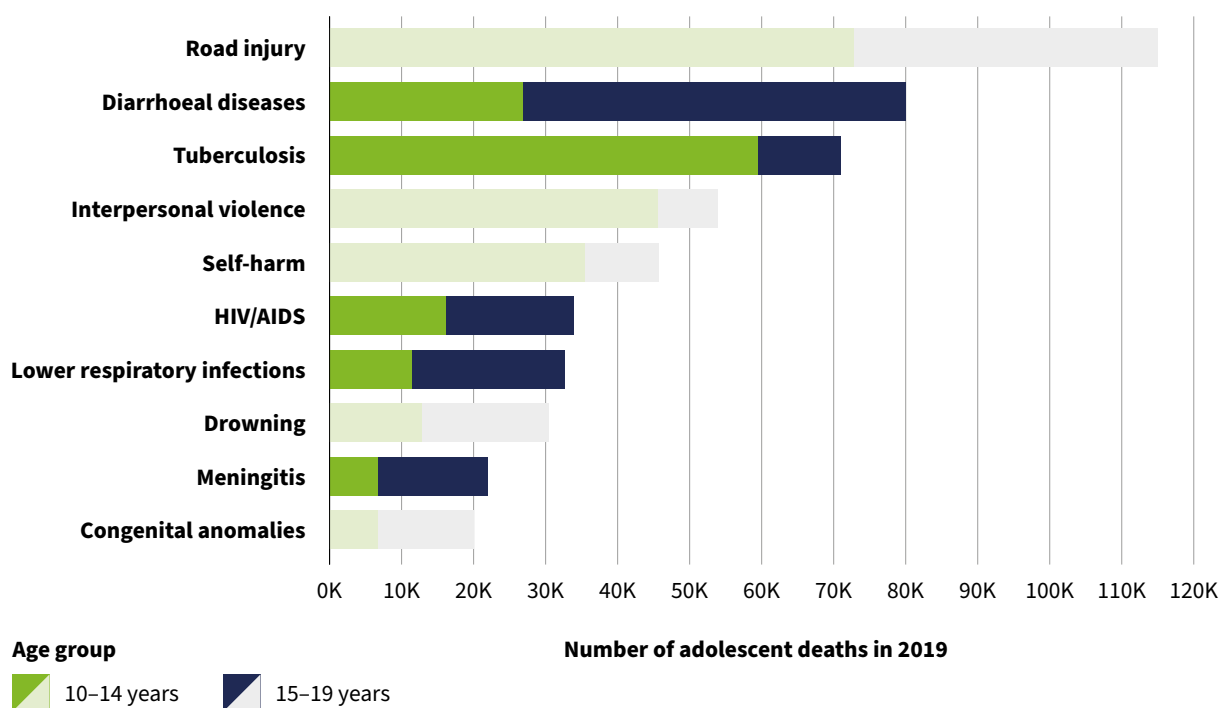
Lower respiratory infections, such as influenza, pneumococcal pneumonia and Haemophilus influenzae type b, were a major cause of adolescent death both globally and in most of the modified WHO regions in

2019. Lower respiratory infections were estimated to be a particularly frequent cause of death in young adolescents, who accounted for almost two thirds of the approximately 32 000 associated deaths among adolescents recorded globally in 2019.

TB

In 2019 approximately 1.8 million adolescents and young adults (ages 10–24 years) developed TB. An estimated 71 000 adolescents (ages 10–19) without HIV infection died of TB in 2019 (240). TB was the third leading cause of death in adolescents, with an overall rate of six per 100 000 population. The death rate was higher among older adolescents than younger adolescents. It was the leading cause of death among adolescent girls ages 15 to 19 and the third leading cause among boys of this age group. At the regional level, TB was in the top five causes of death for at least one age group in African, South-East Asia, Eastern Mediterranean and Western Pacific LMICs, corresponding to the high incidence and prevalence in these areas. Risk factors for developing TB include undernutrition, HIV infection, alcohol use, smoking and diabetes. However, there is considerable variation among countries in the relative contribution of these five risk factors and, thus, also variation in which of these factors need to be prioritized as part of national efforts to reduce the burden of TB. Addressing broader determinants of the TB epidemic requires multisectoral action and accountability (240).

Fig. 2.4. Communicable diseases among the top 10 causes of adolescent deaths in 2019, globally



Source: WHO 2019 (172).

Meningitis

Globally, meningitis was the ninth leading cause of death among adolescents in 2019, with an overall burden of almost 22 000 deaths. Younger adolescents accounted for approximately 70% of all the deaths due to meningitis. There was no difference by sex. Approximately 70% of all meningitis deaths among adolescents in 2019 occurred in African LMICs, and the remaining 30% were mainly in South-East Asia, Western Pacific and East Mediterranean LMICs. Meningococcal meningitis cases occur throughout the world. However, recurring large epidemics constitute an enormous public health burden in the 26 African countries within the so-called Meningitis Belt that spans Africa from Mauritania, Senegal, Gambia and Guinea-Bissau in the west to Sudan, Eritrea, Ethiopia, Kenya and the United Republic of Tanzania in the east.

COVID-19

Although experiencing much lower direct morbidity or mortality from COVID-19 than older people (241), adolescents have been severely affected by the pandemic response measures, including school closures, lockdowns, mobility limitations and widespread service disruptions (242). As described in Chapter 1, the pandemic has widened existing gender and age inequalities among adolescents and has led to increases in age- and gender-based violence. The inequalities, violence and economic challenges faced by adolescents due to COVID-19 and associated pandemic management measures have affected both their physical and mental well-being (144, 243).

2.4.5 Noncommunicable diseases

NCDs are non-transmissible diseases of often long duration, such as mental health conditions (described separately below), cancers, skin disease, migraine, asthma, stroke, heart disease, diabetes, uncorrected refractive error, hearing loss and oral diseases. Most of the top 10 causes of YLDs among the adolescent sex and age groups are NCDs, namely, anxiety disorders, childhood behavioural disorders, depressive disorders, migraine, back and neck pain, uncorrected refractive errors, hearing loss and idiopathic intellectual impairments. Most cases of these NCDs involve mental health.

Cancers

Leukaemia caused an estimated 15 000 adolescent deaths globally in 2019, ranking 13th among cause of death. Leukaemia was among the top five causes of death in sex- and age-disaggregated data for HICs (Table 2.2) and in the LMICs of the Western Pacific, Americas and European regions.

Skin diseases

Skin diseases, including dermatitis, psoriasis, scabies, fungal and viral skin diseases and acne vulgaris, are estimated to be the sixth leading cause of YLDs among adolescents globally in 2019. Skin diseases were among the top five causes of YLDs for both younger and older adolescents of both sexes in the LMICs of almost all modified WHO regions. Acne is the most prevalent skin disease in adolescents; it is nearly universal. Acne can range from mild to severe forms and can cause emotional distress and physical scarring (244, 245).

Migraine

Migraine is a neurological disorder characterized by recurrent headaches caused by the activation of a mechanism deep in the brain that leads to release of pain-producing inflammatory substances around the nerves and blood vessels of the head (246). In 2019 migraine was the fourth leading cause of morbidity among adolescents (340 YLDs per 100 000 population). At the regional level, migraine was consistently among the top five causes of YLDs in age- and sex-disaggregated data (Table 2.2). Females had a YLD rate for migraine twice that of males.

Asthma

Asthma is a chronic respiratory disease commonly affecting children and adolescents. Asthma ranked 12th as a cause of YLDs among adolescents globally in 2019. Among young adolescent boys, asthma was the second leading cause of YLDs in HICs and the third in Americas LMICs. The Global Asthma Network recently reported that, worldwide, one in every 20 school-aged children has severe asthma symptoms. Asthma diagnosis and treatment can be challenging in countries of all income classes. In LMICs under-diagnosis and inappropriate treatment frequently lead to uncontrolled asthma symptoms (247). Access to diagnostic tools and inhaled medicines, particularly inhaled corticosteroids, remains limited in many countries (247-249). In the years to come, the global climate crisis will likely contribute to asthma among adolescents, increasing the risk of acute asthma attacks through higher pollen levels, longer pollen seasons, worsening air quality and more frequent thunderstorms (162).

Congenital anomalies

Congenital anomalies such as neural tube defects (NTDs) (for example, spina bifida, orofacial clefts), heart anomalies and Down's syndrome generally have their largest effects in infants and younger children, but they also have a major impact on adolescent health and well-being (250). In 2019 congenital anomalies caused an estimated 20 000 deaths among adolescents and were the 10th leading cause of death, at a rate of two deaths per 100 000 adolescents. Congenital anomalies

also cause significant morbidity among adolescents. In 2019 congenital anomalies ranked 16th among causes of morbidity among adolescents, accounting for 1.2 million YLDs. Morbidity and mortality were distributed across all regions, but the highest burden was in African and South-East Asia LMICs.

Sensory impairments

Sensory impairments, especially impairments in vision or hearing (251-254), if unaddressed, have a significant impact on children and adolescents, including difficulties in communication, classroom learning, social functioning, cognitive abilities and quality of life (255-257). Globally, myopia affects an estimated 312 million children and adolescents under 19 years (258), making uncorrected myopia the leading cause of vision impairment and blindness among child populations. The prevalence of hearing loss in school-age children and adolescents ranges from 0.9% to 46.7% across studies included in a systematic review (259). Exposure to loud sounds and noises, especially in recreational settings, is a common cause of hearing loss in this age group. In the United States of America, for example, an estimated 12.5% of the population between ages 6 and 19 years have permanent hearing damage due to noise exposure (260). WHO estimates that, globally, over one billion young people are listening, with headphones/earphones or in discos and clubs, to music loud enough to damage hearing (261).

Oral health

Adolescents often are exposed to risk factors for NCDs that result in morbidity only later in life (262, 263). For oral diseases, high sugar intake, insufficient oral hygiene and the high likelihood of oral injuries and trauma through contact sports or risk-taking behaviours can set adolescents on a course for poor oral health throughout their lives. For example, untreated dental caries has many negative impacts in different phases of life. Repeated episodes of pain as well as chewing and sleeping difficulties reduce the quality of life and productivity. Access to primary oral health services is often limited by shortages of oral health care professionals in many areas and of oral health care facilities in most countries. Out-of-pocket costs for oral health care can be major reason that people postpone care. Paying for necessary oral health care is among the leading reasons for catastrophic health expenditures, leading to impoverishment and economic hardship (264).

2.4.6 Mental health

Mental health conditions are among the leading causes of illness and disability among adolescents. The global prevalence of mental disorders is estimated at 13.5%

for 10-14 year olds and 14.7% for 15-19 year olds (265). Multiple interlinked social, family and individual factors have an impact on the mental health of adolescents, and the maturing brain is highly susceptible to external influences. Exposure to violence, poverty, stigma, exclusion and living in humanitarian and fragile settings can increase the risk of developing mental health conditions. Increased use of digital technology may also adversely affect adolescents' mental health; however, the evidence is still inconclusive (266). If not addressed, adolescent mental health conditions can extend into adulthood, affecting physical and mental health and limiting opportunities for individuals to participate fully in their communities (111).

Self-harm is prevalent across all countries and contexts, and is a major cause of death among young people. During adolescence, it occurs mainly among older adolescents, and was the fourth leading cause of death in the 15-19 years age group, and the third leading cause of death for older adolescent girls in 2019 (172). In South-East Asia LMICs, where adolescents make up 29% of the global adolescent population, self-harm accounts for at least 40% of adolescent deaths. Self-harm was among the top five causes of death among adolescents in at least one age and sex category for each region except African LMICs, where it led to similarly high death rates but was outranked by other disease burdens.

Anxiety, depression and behavioural disorders were three of the four leading causes of morbidity among adolescents in 2019, with 4.8 million YLDs (172). These three mental health disorders dominated the global, regional, age- and sex-specific morbidity burden.

Anxiety disorders are the most common of all mental disorders. Adolescents with anxiety disorders experience intense and excessive fear and worry which is often accompanied by physical tension and other behavioural and cognitive symptoms. Anxiety disorders can interfere with daily activities and can impair an adolescent's family, social and school life. An estimated 3.6% of 10-14 year olds and 4.6% of 15-19 year olds have anxiety disorders (172). In 2019, anxiety disorders were a key cause of YLDs in all WHO regions, with YLD rates per 100 000 population ranging from 246 in South-East Asian LMICs to 530 in HICs. It is likely that the COVID-19 pandemic further increased anxiety among adolescents. Pooled estimates obtained in the first year of the COVID-19 pandemic suggested that, at the time, one in five youth were experiencing clinically elevated anxiety symptoms, representing about double the pre-pandemic estimates (151).

“Our mental health is damaged. We barely have someone to talk to about it without being criticized or called out because we have a certain mental issue. It’s hard to understand someone who grows up without support, but it’s always worth trying. It’s very important for us, as young people who will be ready to take over their roles in the world soon, to be supported by local NGOs, schools or organizations such as WHO and other UN departments.

—Student (female), 15–19 years, Serbia

Childhood behavioural disorders is an umbrella term that includes conduct disorders, which are characterized by repeated disruptive, aggressive, or defiant behaviour that is persistent, severe and inappropriate for the adolescent’s developmental level (267). These conditions can influence different aspects of adolescents’ lives, including their interactions with their caregivers, peers, and teachers. Childhood behavioural disorders were in the top five causes of adolescent morbidity in all modified WHO regions in 2019, regardless of sex or age group. The burden of these disorders is particularly high among 10- to 14-year-old males, for whom they were the leading cause of YLDs in 2019 (172).

Depressive disorder (also known as depression) is a common mental disorder. It involves a depressed mood or loss of pleasure or interest in activities for long periods of time. Depressive disorders accounted for 4.2 million YLDs among adolescents in 2019, at a global rate of 342 per 100 000 population. Regional morbidity rates ranged from 211 per 100 000 population in Western Pacific LMICs to 590 in HICs. Among older adolescents,

depressive disorders were the leading cause of morbidity globally and were in the top five in most modified WHO regions. Similar to anxiety disorders, depressive disorders appear to have increased among adolescents during the COVID-19 pandemic. A recent meta-analysis suggested that, during the first year of the pandemic, one of every four youth globally were experiencing depression symptoms, amounting to approximately double the pre-pandemic estimates (151).

2.4.7 Alcohol and drug use

Alcohol and drug use among adolescents is a major concern in countries of all income groups (269–271). Alcohol and drug use in children and adolescents is associated with neurocognitive alterations, which can lead to behavioural, emotional, social and academic problems in later life (272–274).

In HICs drug use disorders were among the top five causes of adolescent morbidity and mortality in 2019. Alcohol and drug use contribute to about 3.5 million deaths each year as well as to disabilities and poor health for millions of people. Substance use most commonly begins in adolescence.

Alcohol and drug use among adolescents is associated with a wide range of negative health and social consequences. These include accidents, violence and risky behaviours (such as unsafe sex and dangerous driving) (272), and they are an underlying cause of injuries (including those due to road traffic accidents), violence and premature deaths.

Worldwide, more than one quarter of all people ages 15–19 years were estimated to be current drinkers in 2016, amounting to 155 million adolescents. In 2016 the prevalence of heavy episodic drinking among all adolescents ages 15–19 years was 13.6%, which represents 45.7% of heavy episodic drinkers among those adolescents drinking any alcohol, with males most at risk (275).

Cannabis is the most widely used psychoactive drug among young people. Some 4.7% of people ages 15–16 years used cannabis at least once in 2018 (276, 277).

2.4.8 Tobacco use

The vast majority of people using tobacco today began doing so when they were adolescents. Prohibiting the sale of tobacco products to minors (under 18 years) and increasing the price of tobacco products through higher taxes, banning tobacco advertising and ensuring smoke-free environments are crucial. A global survey including adolescents ages 13 to 15 in 143 countries found that 11.3% (95% CI: 10.3–12.3%) of boys and 6.1% (5.6–6.6%) of girls reported smoking cigarettes on at least one day in the previous 30 days (278). The survey also found that 11.2% (9.9–12.6%) of boys and 7.0%

(6.4–7.7%) of girls reported use of tobacco products other than cigarettes, such as chewing tobacco, snuff, dip, cigars, cigarillos, pipe, electronic cigarettes) on at least one day in the previous 30 days (278). A recent international systematic review found that the use of e-cigarettes has risen; the international pooled prevalence of young people's lifetime e-cigarette use was 15.3%; current use was 7.7% (279).

2.4.9 Physical activity and sedentary behaviour

Physical activity provides fundamental health benefits for adolescents, including improved cardiorespiratory and muscular fitness, bone health, maintenance of a healthy body weight and psychosocial benefits (280). WHO recommends that adolescents engage in a weekly average of at least 60 minutes of moderate to vigorous physical activity per day. This activity may include not only play, games and sports, but also activity for transportation (such as cycling and walking) or physical education (280). Globally, in 2016 only one in every five adolescents was estimated to meet these guidelines (281).

Insufficient physical activity is common among adolescents in all WHO regions, and more common among female adolescents than among males (281, 282). Analysis of data from 298 school-based surveys, involving 1.6 million students ages 11–17 years in 146 countries and territories, found that, in 2016, 81% were insufficiently physically active (78% of boys and 85% of girls) (281). This pattern was similar in 2001, demonstrating the longstanding nature of the problem. The high prevalence of insufficient physical activity was widespread, with no significant differences identified among regions or country income group (281).

WHO guidelines for physical activity and sedentary behaviour recommend that school-age children and adolescents limit their sedentary time, particularly their recreational screen time (280). Recreational screen time is one of the reasons for the high prevalence of both insufficient physical activity and disturbed sleep (283, 284). Recreational screen time is defined as time spent watching screens (television, computer, mobile devices) for purposes other than education/study or work (280). Many adolescents spend a great deal of time looking at screens – smartphones, tablets, gaming consoles, computers and televisions (283). Growing evidence among child populations strongly correlates lifestyle factors, including intensive near vision activity (as a risk factor) and more time spent outdoors (as a protective factor) with the onset and progression of myopia (285).

2.4.10 Nutrition

Some of the key nutrition challenges during adolescence are malnutrition by deficit or excess (that is, undernutrition and obesity) and micronutrient deficiencies (such as deficiencies in iron, vitamin A or iodine). All these important threats to adequate nutrition may relate to socioeconomic circumstances, lifestyle, eating behaviours and underlying psychosocial factors (187). Many boys and girls in lower-income countries enter adolescence undernourished, making them more vulnerable to disease and early death. Most eating habits detrimental to health are acquired during adolescence and youth and then manifest as health problems in adulthood (286).

Iron deficiency anaemia is the leading nutritional deficiency associated with adolescent morbidity. Iron deficiency anaemia was one of the leading causes of adolescent YLDs in 2019. Except in older male adolescents, it was the leading cause of morbidity in both sexes and age groups. South-East Asia and African LMICs reported the highest and second highest morbidity rates secondary to iron deficiency anaemia in 2019 and contributed 50% and 30% of YLDs in these regions.

Overweight and obesity are defined as “abnormal or excessive fat accumulation that presents a risk to health”. WHO describes overweight and obesity as one of the most serious public health challenges of the 21st century (287). Globally, in 2016 more than one in every six adolescents was overweight. Prevalence varied across WHO regions, from less than 10% in South-East Asia to over 30% in the Americas (288). The wide variation across countries of overweight and obesity among adolescents may be due to differences in food quality and other health risk factors (289). Adolescents with intellectual disabilities are 1.5 and 1.8 times more likely to classify as overweight or obese than those without intellectual disabilities (290).

Nutrition has a profound impact on the current and future health and well-being of adolescents. A sustainable healthy diet and healthy eating practices during adolescence can limit any nutritional deficits and faltering of linear growth that occurred during the first decade of life and may help to avoid harmful behaviours that are contributing to the epidemic of NCDs in adulthood. Ensuring optimal nutrition among adolescents requires coordinated actions across multiple sectors, including, among others, health, education and agriculture (291).



2.5 Humanitarian and fragile settings

Humanitarian and fragile settings include areas affected by armed conflicts, natural disasters and other emergencies. In 2018 at least 415 million children and adolescents under age 18 years were living in such areas worldwide (166). The number of displaced adolescents increased from 13 million in 2009 to 19 million in 2017 (292). Globally, the worst rates of preventable mortality and morbidity among adolescents occur in humanitarian and fragile settings (293). Many health burdens increase in such contexts because governance and health infrastructures break down, and protective social and health services become much less accessible (293).

While often still children themselves, adolescents take on adult responsibilities in emergencies, including caring for siblings or raising money to support their families (292, 294). Those who are separated from their families during an emergency lack the livelihood, security and protection afforded by family structures. They may be compelled to drop out of school, marry early or engage in transactional sex in order to survive. Adolescents who are especially vulnerable in humanitarian and fragile settings include those who have a disability; those who are young (10–14 years); members of ethnic or religious minorities; child soldiers or those otherwise attached to fighting forces; young mothers; orphans; heads of households; survivors of sexual violence, trafficking and other forms of gender-based violence, those engaged in transactional sex; those in same-sex sexual relationships; and those who are HIV-positive (295).

In such crises key concerns for adolescent health and well-being include the following (294):

- malnutrition, for example, wasting, underweight or micronutrient deficiencies;
- inadequate assistance, treatment and care of adolescents with disabilities or injuries;
- violence, for example, as child soldiers, who are primarily boys, and survivors of sexual exploitation and abuse (including early or forced marriage and FGM), who are primarily girls and women;
- HIV and other STIs, early pregnancy, maternal conditions, unsafe abortion and general SRH needs, such as access to condoms and other forms of contraception;
- Water and sanitation needs, such as materials and facilities for management of menstrual hygiene;
- mental health problems, such as anxiety and trauma;
- interrupted supply of medicines for chronic conditions, such as asthma and type 1 diabetes;
- interrupted education; and
- separation from protective familial or peer networks, which adds to the risk of violence, abuse and exploitation (296).

Adolescent girls have a particularly heightened risk of abuse, violence and sexual exploitation during humanitarian crises. They are vulnerable to early sexual initiation, unwanted pregnancy and STIs, including HIV. They are readily targeted for abuse because they have limited life experience, options and skills to negotiate their rights. In many conflict-affected contexts, sexual and other gender-based violence, including forced marriage, is a weapon of war used against girls (297).

Even within a relatively protected family setting, resource scarcity, limited employment opportunities for caregivers and a lack of protection mechanisms during humanitarian crises may contribute to families arranging marriages for their daughters, in order to ease the household burden and secure dowry payments. Families may perceive having their daughters marry as a way to protect the girls and to preserve their honour in the face of external violations and vulnerabilities, such as sexual violence and harassment. In Jordan, for example, the proportion of registered marriages among the Syrian refugee community in which the bride was under age 18 rose from 12% in 2011 (roughly the same as the figure in pre-war Syria) to 18% in 2012 and as high as 25% by 2013 (231, 298). The number of Syrian boys under age 18 registered as married in 2011 and 2012 in Jordan was 1%, suggesting that girls are being married to older males (231). Child marriage among Syrian refugees has reportedly increased in Iraq and Lebanon as well (299).


As child soldiers, adolescent boys may experience combat-related injuries, such as the loss of hearing, sight or limbs (300). These injuries partly reflect the greater sensitivity of children's bodies and partly the ways in which they may be involved in conflicts – for example, being forced to undertake particularly dangerous tasks, such as laying and detecting landmines. Child recruits are also prone to health hazards not directly related to combat, including injuries from carrying weapons and other heavy loads, malnutrition, skin and respiratory infections and infectious diseases such as malaria. Girl recruits and, less commonly, young boys are often forced to have sex as well as to fight. In addition, child recruits are sometimes given drugs or alcohol to encourage them to fight, creating substance dependency. Adolescents recruited into regular government armies are usually subjected to the same military discipline as adult soldiers, including initiation rites, harsh exercises, punishments and denigration designed to break their will. The impact of such discipline on adolescents can be highly damaging mentally, emotionally and physically.

Finally, children and adolescents in emergency settings often have no access to education, which will limit their opportunities as adults. In addition, these young people do not have the protection from physical dangers around them that schools usually offer – including protection from abuse, exploitation and recruitment into armed groups. They also do not have access through schools to food, water and health care, nor to the psychosocial support that schools may offer (301).

Chapter 3.

Understanding what works – the AA-HA! package of evidence-based interventions

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Chapter 3.

Understanding what works – the AA-HA! package of evidence-based interventions

Key messages

- Today we know more than ever about supporting adolescent health and well-being. Many interventions have a substantial evidence base, and, when implemented with fidelity, can have significant positive impacts on the health and well-being of adolescents. Countries can take effective action now to promote and protect adolescent health and well-being.
- Interventions for adolescents should operate at all levels of the ecological framework, from the individual level to the structural level. To reduce major burdens and risk factors, it is important to ensure that interventions – even those aimed at wider population groups – are tailored to adolescents' specific needs and circumstances, such as the provision of adolescent-responsive health services. Interventions should be delivered with quality and universal coverage, such as the enforcement of road traffic laws or the implementation of policies and legislation that reduce the affordability of tobacco, alcohol and unhealthy foods and beverages.
- Given the multidimensionality of adolescent health and well-being, collaboration across sectors through multisectoral or integrated programming is crucial. The education sector can be particularly important for influencing adolescent behaviour, health and well-being through intensive, long-term, large-scale initiatives by professionals.
- Gaps in the evidence base include limited knowledge of what works in humanitarian crises, gender transformative programmes and digital interventions.

Chapter overview

Interventions are presented in section 3 by areas of adolescent health and development with the greatest disease burdens and risk factors. The interventions are selected primarily from the most recent relevant guidelines from all WHO departments. Interventions were also drawn from recommendations of other UN agencies with the relevant mandate (for example, from UNAIDS on HIV prevention interventions) and, as needed, from other major international agency publications and/or review articles in established academic journals.

The COVID-19 pandemic has shown a light on several important domains of adolescent health and well-being, including adolescent mental health, connections and supportive family and peer environments and the need for access to reproductive health and other services. Section 3.6 discusses responses to COVID-19 in adolescents.

3.1 Conceptualizing interventions for adolescent health and well-being

Evidence-based interventions for adolescent health and well-being take many forms, depending on the determinants or conditions of interest (for example, promoting mental health or better hygiene practices), the target population (for example, general population or adolescents only), the context (for example, humanitarian or high-income contexts), the ecological level (for example, targeting individuals or institutions) and the lead sector (for example, health sector or education sector).

In this section we describe interventions that fall into three categories:

Adolescent-specific interventions. Many effective interventions to address major adolescent conditions are specifically for adolescents, that is, they are directed exclusively, or mostly, to adolescents. Examples include HPV immunization, provision of school health services (SHS) and comprehensive sexuality education (CSE) (103).

Interventions with wider impacts but particular benefits for adolescents. Adolescents will benefit substantially from many interventions that address wider age groups or the population as a whole. For example, reducing urban air pollution contributes significantly to healthier urban environments, from which all will benefit. However, because of children and adolescents' greater vulnerability to air pollution, the impacts for them will be particularly powerful.

Interventions with wider impacts that need age-appropriate design to be effective for adolescents. Many organizational interventions (for example, improving the quality of primary care facilities) and structural interventions (for example, limiting the promotion

What is new in this chapter?

- the most recent evidence on proven adolescent health and well-being interventions
- guidelines published since the previous version of the AA-HA! guidance
- more substantial treatment of positive development interventions (section 3.2).

and availability of alcohol) need to be designed with adolescents in mind; otherwise, while being effective for adults or other population groups, they will be less effective for adolescents. For example, limiting access to alcohol and protecting against its marketing should take into account where adolescents meet and their particular susceptibility to online marketing. Similarly, improving the quality of care requires education and training of providers in adolescent-responsive care (302, 303). Many individual-level interventions also need age-appropriate adaptation (such as adolescent-friendly adherence and disclosure support to adolescents living with HIV).

This chapter summarizes all three types of interventions. It aims to make the adolescent-specific aspects of the interventions clear and highlights the importance of addressing the special needs of adolescents in the design and implementation of interventions at any level of the ecological framework, from structural or environmental to individual. At the structural and environmental levels, we describe interventions that operate in the macro-environment. Interventions at this level largely take the form of policies or legislation. At the organizational level, interventions involve systems-level responses in health but also in other sectors. At the level of the community or interpersonal environment, we describe interventions that operate in communities or families or with peers or partners. At the individual level, we describe interventions addressed to adolescents themselves, recognizing that they may require support to access and benefit from that intervention. Some interventions operate across multiple ecological levels (for example, adolescent participation). In each intervention area, example interventions are provided. The presentation here of examples of interventions is not exhaustive.

3.2 Positive health and development interventions

Positive developmental approaches are based on the fact that young people possess resources that can be developed, nurtured and cultivated. Such interventions enable these inherent resources to yield broad behavioural, developmental and well-being benefits. Positive interventions span many sectors and target different physical and psychosocial aspects of adolescent development. The main determinants of adolescent health and well-being are largely outside the domain of the health system – for example, family and community norms, education, labour markets, economic policies, legislative and political systems, food systems and the built environment (216).

Working with parents, families and communities is especially important because of their great influence on adolescent behaviour and health. The education sector also provides a critically important opportunity for intensive, long-term and large-scale initiatives by professionals.

Table 3.1 provides examples of key positive developmental interventions in the health sector, the education sector and the broader community.

“Governments can promote health education and awareness among adolescents through health and wellness education programmes in schools, in health care services and in the community. They can use media that is innovative and engaging, such as social media, online games, videos and podcasts, to reach and educate teens about health and wellness issues.

—Student (female), age 14, Mexico



Table 3.1. Interventions to promote positive development

Ecological level	Intervention	Further comment
Structural and environmental	Gender-responsive policies and programmes	To achieve the goal of gender equality, policies should respond to structural factors that perpetuate gender inequalities, and programmes need to apply the process and strategy of gender mainstreaming. Gender-responsive programmes encompass both gender-specific programmes (which intentionally address a specific group of girls or boys for a specific purpose and do not challenge gender roles and norms) and gender-transformative programmes (which target the causes of gender inequality; transform harmful gender roles, norms and relations; and promote gender equality). Section 5.2.8 provides more information and examples of good practices.
	Online protection for adolescents	Develop and implement a national strategy for children’s online protection, including a legal framework, law enforcement resources and reporting mechanisms, and education and awareness resources.
Organizational	Adolescent-responsive services and systems	Health care should be accessible and acceptable, promote health literacy and provide an appropriate package of services, including routine age-appropriate appointments (for example, vaccinations). Adolescent-friendly SRH services are especially important, as stigma and discrimination hinder adolescents’ access in many settings. Eight standards for good-quality services for adolescents have been developed; they are described in Fig. 5.5 (304).
	Positive youth development interventions (305)	Interventions to promote the 5Cs – competence, confidence, connection, character and caring – include resilience-building programmes as well as character development programmes.
	Making every school a health-promoting school (HPS) (19)	An HPS is “constantly strengthening its capacity as a healthy setting for living, learning and working”. The concept of HPS embodies a whole-school approach by using the organizational potential of schools to foster the physical, social–emotional and psychological conditions for health as well as education outcomes. Examples of interventions include school feeding programmes and hygiene and sanitation programmes in schools. WHO and UNESCO have established standards for HPS in eight domains: 1) government policies and resources, 2) school policies and resources, 3) school governance and leadership, 4) school and community partnerships, 5) school curriculum, 6) school social-emotional environment, 7) school physical environment and 8) SHS. Embedding health promotion in policy and institutions and a strong, interconnected system of governance by the education and health sectors are key elements for the successful implementation of sustainable HPS initiatives.
	Digital health interventions for health education and adolescent involvement in their own care	Such programmes explore the potential of digital health interventions focused on improving health care quality and access for adolescents (for example, chronic illness management and SRH education, such as STI prevention). These may employ a variety of digital approaches (for example, web-based on-demand information services, active video games, targeted client communication via text messaging and mobile phone or tablet software applications), consistent with WHO guidelines on digital health interventions.

Table 3.1 (continued). Interventions to promote positive development

Ecological level	Intervention	Further comment
Community and interpersonal	Civic engagement programmes	Meaningfully engaging and supporting youth in their communities can promote their sense of empowerment and promote self-efficacy, leading to improved health and well-being. This may involve creating demand for youth participation, including for the most vulnerable adolescents. Interventions include strengthening platforms for adolescent civic engagement and promoting community support to help adolescents develop skills and voice their opinions. UNICEF’s guidelines “Engaged and heard!” support the design of meaningful and equitable adolescent participation and civic engagement.
	Parenting or caregiver interventions	Interventions with parents promote positive behavioural modelling and stable emotional connections with their adolescent children. This improves adolescent self-regulation, psychological autonomy and protection. Parenting programmes can have multiple benefits for adolescents – for their mental health, communication skills, cyberbullying risk and onset of eating disorders, among others. Parents can also be supported to communicate with their children about SRH as a complement to school-based CSE. UNICEF programme guidance presents core content as well as key delivery strategies, including improving parent–adolescent communication, managing behavioural difficulties, using positive discipline techniques and creating a safe environment (306).
Individual	Adolescent participation initiatives	Facilitation of participation includes involving adolescents in programme design, implementation, governance and M&E.

Sources: UNICEF 2020 (307), UNICEF 2022 (308), House 2012 (309).



3.3 Interventions to prevent unintentional injury

Road traffic injury. While road traffic injury is a leading cause of adolescent death across the globe, the interventions most likely to reduce it may differ greatly, depending on the setting. For example, in countries where the main adolescent victims of road traffic accidents are adolescent drivers and their passengers, adolescent-specific interventions – for example, low blood alcohol limits, limiting the availability of alcohol and other restrictions on young drivers – may be the most effective interventions to reduce the adolescent burden (see Case study 3.1 from Germany). However,

in countries where few adolescents are drivers, but the rates of road traffic injury among adolescent pedestrians, cyclists and public transport passengers are very high, better implementation of population-level interventions may be more effective – for example, legal disincentives to driving unsafely and lower speed limits. Such situations are most likely in middle-income countries and especially LICs, where road traffic injuries and deaths largely involve vulnerable road users, that is, motorcyclists, pedestrians and cyclists. In practice, a mix of interventions of both types, tailored to the specific setting, is likely to maximize impact (Table 3.2).

Case study 3.1

Success in zero-tolerance approach for alcohol consumption among young drivers in Germany



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In 2007 Germany implemented a law targeting young/novice drivers and their drinking behaviours to reduce alcohol-related driving incidents. Evidence has linked high-risk behaviours such as alcohol consumption with increased collisions. The new law implemented zero tolerance for alcohol consumption among new drivers, those within their first two years of driving and drivers under the age of 21. Young/novice drivers who are caught drinking and driving could have their licenses suspended or, depending on the circumstances, could be fined 125–1000 euros.

Assessments conducted after the implementation of the law reported reduced traffic-related incidents among the first cohort of young/novice drivers when compared with a reference group of young/novice drivers before implementation of the law. This was confirmed in a follow-up evaluation.

Source: Adminaité-Fodor et al. 2022 (310).

Table 3.2. Interventions to prevent and mitigate road traffic injuries among adolescents

Ecological level	Intervention	Further comment
Structural and environmental	Drinking age laws	Raising the legal drinking age to 21 years reduces drinking, driving after drinking and alcohol-related accidents and injuries among youth.
	Blood alcohol concentration laws	Set a lower permitted blood alcohol concentration limit (0.02 g/dl) for young drivers than recommended for older drivers (0.05 g/dl). Enforce blood alcohol concentration limits by, for example, random breath testing of all drivers at a certain point or only those who appear to be alcohol-impaired.
	Protection against alcohol marketing	Limits on easy access to alcohol and its marketing, including school policies of zero tolerance.
	Seat belt laws	When laws requiring seat belt use are enforced, rates of use increase, and fatality rates decrease. Although most countries now have such laws, half or more of all vehicles in LICs lack properly functioning seat belts.
	Helmet laws	Enact mandatory helmet laws for two-wheeled vehicles and enforce them. Establish a required safety standard for helmets that are effective in reducing head injuries.
	Mobile phone laws	The evidence on whether penalties for mobile phone use while driving reduce road traffic fatalities is still developing. Emerging evidence suggests a potential decrease in the prevalence of mobile phone use and fatalities where bans on hand-held phone use and texting are enforced.
	Speed limits	Roads with high levels of pedestrian, child or cyclist activity should allow speeds no higher than 30 km/h. Limits should be enforced in such a way that drivers believe there is a high chance of being caught if they speed.
	Restriction of young or inexperienced drivers	A graduated licensing system phases in young drivers' privileges over time, such as first an extended learner period involving training and low-risk, supervised driving, then a licence with temporary restrictions (for example, on the number of passengers or operation of vehicle during certain hours of the day) and, ultimately, a full licence.
	Restriction of availability of alcohol to young drivers	Reducing hours, days or locations where alcohol can be sold and reducing demand through appropriate taxation and pricing mechanisms are cost-effective ways to reduce drinking and driving among young people.
	Legal disincentives to unsafe driving	Make unsafe behaviour less attractive, for example, give penalty points or take away licences of people who drive while alcohol-impaired.
	Traffic-calming and safety measures	Examples include infrastructural engineering measures (for example, speed humps, mini-roundabouts or designated pedestrian crossings), visual changes (for example, road lighting or surface treatment), redistribution of traffic (for example, one-way streets) and promotion of safe public transport.

Table 3.2 (continued). Interventions to prevent and mitigate road traffic injuries among adolescents

Ecological level	Intervention	Further comment
Organizational	Pre-hospital care	Standardize formal emergency medical services, including equipping vehicles with supplies and devices for children as well as adults. Where no pre-hospital trauma care system exists, teach interested community members basic first aid techniques, build on existing informal systems of pre-hospital care and transport and initiate emergency services on busy roads with high-frequency crash sites.
	Hospital care	Improve the organization and planning of trauma care services in an affordable and sustainable way to raise the quality and outcome of care.
	Rehabilitation	Improve services in health care facilities and community-based rehabilitation to minimize the extent of disability after injury and help adolescents with disability to achieve their highest potential.
Community	Alcohol campaigns	Make drinking and driving less publicly acceptable; alert people to risk of detection, arrest and its consequences; and raise public support for enforcement.
	Designated driver campaigns	Designated drivers choose not to drink alcohol so they can safely drive others who have drunk alcohol. Such initiatives should be targeted only at young people over the minimum drinking age, to avoid seeming to tolerate underage drinking.
	Seat belt campaigns	Public campaigns about seat belt laws can target adolescents to increase awareness and change risk-taking social norms.
	Helmet campaigns	Educate adolescents about the benefits of wearing helmets on two-wheeled vehicles, using peer pressure to change youth norms regarding helmet acceptability and to reinforce laws on helmet-wearing.
	Community-based projects	Community projects can involve parents and peers to encourage adolescents to wear seat belts.
Individual	Helmet distribution	Programmes that provide helmets at reduced or no cost enable adolescents with little disposable income to use them. Distribution can be taken to scale through the school system.
	Motorized two-wheeler interventions	Promote use of daytime running lights, reflective or fluorescent clothing, light-coloured clothing and helmets, and reflectors on the back of vehicles.
	Cyclist interventions	Promote front, rear and wheel reflectors, bicycle lamps, reflective jackets or vests and helmets.
	Pedestrian interventions	Promote white or light-coloured clothing for visibility, reflective strips on clothing or articles such as backpacks, walking in good lighting, and walking facing oncoming traffic.

Sources: WHO 2007 (311), Olsson 2020 (312), WHO 2015 (313), WHO 2017 (314).

Table 3.3. Interventions to prevent drowning

Ecological level	Intervention	Further comment
Structural and environmental	Appropriate policies and legislation	Setting and enforcing safe boating, shipping and ferry regulations; building resilience and managing flood risks locally and nationally; coordinating drowning-prevention efforts with those of other sectors and agendas; developing a national water safety plan.
Community and interpersonal	Infrastructure improvements	Improved community infrastructure (for example, barriers preventing access to water supply, bridges and levees); installing barriers to limit access to water.
	Training	Training community members in safe rescue and resuscitation.
	Public awareness	Strengthening public awareness of adolescent vulnerability to drowning (because they tend to be less supervised than small children and are more likely to consume alcohol and engage in other risky behaviour around water).
Individual	Public swimming programmes	Make teaching school-age children basic swimming, water safety and safe rescue skills available free of charge.

Source: WHO 2017 (317).

Drowning. Adolescent drowning can be prevented through strategies targeting the general population as well as communities at risk. Many of these have been successfully implemented in low-income settings and settings that are prone to flood risks (315, 316) (Table 3.3).

Burns. Burns are one the few forms of injury that have a higher burden in adolescent females than males (195). This is because worldwide approximately 2 billion people in LMICs – the vast majority female – cook on unsafe fires or very basic traditional stoves in their own homes or as domestic workers (318, 319). Due to their youth, young women are, on average, less skilful and so more prone to burns than adult women (320).

Burns are preventable. HICs have made considerable progress in lowering rates of burn deaths, using a combination of prevention strategies and improvements in the care of people with burns. Most of these advances in prevention and care have been incompletely applied in LMICs. Increased efforts to do so would likely lead to significant reductions in burn-related death and disability (195).

Prevention strategies should address the hazards for specific burn injuries, education for vulnerable populations and training of communities in first aid. An effective burn prevention plan should be multisectoral and include broad efforts to:

1. improve awareness
2. develop and enforce effective policy
3. describe the burden and identify risk factors
4. set research priorities, giving highest priority to the most promising interventions
5. implement burn prevention programmes
6. strengthen burn care
7. strengthen capacities to carry out all of the above.

Careful assessment of the cause of adolescent injury is also important; some adolescents or their guardians may falsely state that an injury was due to an accident when in fact it was due to self-harm or interpersonal violence. In some countries, for example, so-called honour killings and death by fire account for a significant number of reported cases of familial or intimate partner violence against adolescent girls, and survivors of such assaults may be compelled by the perpetrators to claim that the injuries were accidental (300, 318). Similarly, alcohol/drug use is a major risk factor for many forms of injury, both when an adolescent is the drinker and when the drinker (for example, a parent or an intimate partner) causes harm to an adolescent (98, 321). In these instances, additional interventions related to mental health and substance use disorder and/or legal interventions may be warranted. Examples are discussed later in this section.

3.4 Violence interventions

Violence against adolescents can have strong, long-lasting effects on brain function, mental health, health

risk behaviours, risk of non-communicable diseases, risk of infectious diseases such as HIV and STIs and social functioning (Tables 3.4 and 3.5).

Table 3.4. Interventions to address youth violence

Ecological level	Intervention	Further comment
Structural and environmental	Laws banning violent punishment and criminalizing sexual abuse and exploitation	Institute laws banning violent punishment of children by parents, teachers or other caregivers. Legislation that criminalizes sexual abuse and exploitation of children and adolescents, including laws criminalizing child marriage, forced labour, trafficking, child pornography, harmful practices and online harms (see Box 3.1).
	Reduce access to and misuse of firearms	Programmes may require new legislation, additional police to supervise implementation, public awareness campaigns and more elaborate monitoring systems.
	Reduce access to and the harmful use of alcohol	Regulate the marketing of alcohol to adolescents, institute laws that prevent alcohol misuse, restrict alcohol availability, reduce demand through taxation and pricing, raise awareness and support for policies and implement interventions for the harmful use of alcohol.
	Income and economic strengthening, including to attend school	Cash transfers, group saving and loans and/or microfinance programmes combined with gender equity training can reduce violence through a number of pathways, including lowering household stress, improved parental monitoring, or delaying sexual debut. Grants to cover school costs (for example, school fees and supplies) as well as opportunity costs (for example, when families lose income from child labour) have been successful at keeping adolescents in school.
	Spatial modifications and urban upgrading	For areas with high levels of violence, situational crime prevention includes a security assessment, a stakeholder analysis and a planning process involving communities, local government and housing, transport and other sectors.
	Poverty de-concentration	These strategies offer vouchers or other incentives for residents of economically impoverished public housing complexes to move to less impoverished neighbourhoods.
	Hotspot policing	Police resources are deployed in areas where crime is prevalent. Mapping technology and geographic analysis help identify hotspots based on combined crime statistics, hospital emergency records, vandalism and shoplifting data and other sources.
	Addressing restrictive and harmful gender and social norms	Community mobilization programmes and programmes that increase bystander's intention to intervene can prevent violence, particularly against dating partners and acquaintances.

Table 3.4 (continued). Interventions to address youth violence

Ecological level	Intervention	Further comment
Organizational	Demand- and supply-side interventions for drug control	Drug control may focus on reducing drug demand, drug supply or both. Most interventions require substantial technical capacity within health services and the police force.
	School-based violence prevention	<p>Work with teachers on values and beliefs, and train them in positive discipline and classroom management, including in pre-service training.</p> <p>Prevent violence through curriculum-based activities.</p> <p>Train teachers to recognize and explain bullying to students, what to do when it occurs, effective relationship skills and skills for bystanders.</p> <p>Establish school policies and coordination procedures to support a whole-school approach.</p> <p>Review and adapt school buildings and grounds; ensure that the annual budget includes funding for improving school infrastructure for student safety.</p> <p>Address online abuse in school safety programmes (bullying prevention, dating abuse prevention, sexual education) (322).</p> <p>(See Case study 3.2, which describes a peer violence programme in Indonesia to reduce bullying and victimization in schools.)</p>
	Health facility responses to child maltreatment	Health care providers should seek explanations for injuries or symptoms that may be caused by physical, sexual or emotional abuse or neglect from parents and carers from the adolescent in an open and nonjudgmental manner, seeking their informed consent for all decisions and actions taken and appropriate with their age, evolving capacity and the legal age of consent for obtaining clinical care. To do so, health facilities may require additional training and ongoing support, enabling staff to adequately care for maltreated adolescents, have access to safe, private and properly resourced locations for exams, and document and report crimes as needed (323).
Community	Gang and street violence prevention interventions	This may focus on reducing gang enrolment, helping members leave gangs and/or suppressing gang activities. Community leaders are engaged to convey a strong message that gang violence is unacceptable. Police involvement, vocational training and personal development activities may also be included.
	Community- and problem-oriented policing	The systematic use of police–community partnerships and problem-solving techniques identifies and targets underlying problems to alleviate violence. Necessary preconditions are a legitimate, accountable, non-repressive, non-corrupt and professional policing system and good relations between police, local government and the public.

Table 3.4 (continued). Interventions to address youth violence

Ecological level	Intervention	Further comment
Interpersonal	Parenting programmes and home visiting	The goals of the programmes are to promote parental understanding of adolescent development and to strengthen parents' ability to assist their adolescents in regulating their behaviour. Programmes can be delivered through home visits or in community settings. Home-visiting programmes can monitor and support families where there is a high risk of maltreatment (324).
	Peer mediation	Peer mediators may be nominated by a class and receive 20–25 hours of training on how to mitigate peer conflicts and seek help if needed. Other students may also be trained in conflict resolution skills.
	Dating violence prevention	School-based or after-school participatory activities address the characteristics of caring and abusive relationships, how to develop a support structure of friends, communication skills, and where and how to seek help in case of sexual assault.
Individual	Life-skills development and social and emotional learning	These age-specific programmes help adolescents to understand and manage anger and other emotions, show empathy for others and establish relationships. They involve 20–150 classroom sessions over several years (325).
	After-school and other structured leisure time activities	Structured leisure time activities can include cognitive and academic skills development; arts, crafts, cooking, sports, music, dance and theatre; activities related to health and nutrition; and community and parental engagement.
	Academic enrichment	Adolescents are targeted through mass media, after-school lessons or private tutoring to help them keep up with school requirements and prevent them from dropping out of school.
	Vocational training	Vocational training for at-risk youth can have a meaningful impact on violence prevention if integrated with economic development and job creation. Programmes need to ensure the capacity of training institutions, make technical equipment available, cooperate with businesses and set up sustainable financing models.
	Mentoring	Volunteer mentors receive training in adolescent development, relationship-building, problem-solving, communicating and specific concerns (for example, alcohol and drug use). A mentor shares knowledge, skills and perspectives to promote an at-risk adolescent's positive development.
	Therapeutic approaches	Qualified mental health specialists or social workers engage with individual adolescents on social skills and behavioural training, anger- and self-control techniques and cognitive elements (for example, moral reasoning and perspective-taking to appreciate the negative impacts of violence on victims). Families and social networks of at-risk adolescents may also be targeted.

Sources: WHO 2015 (203), WHO 2016 (326), WHO 2019 (327), WHO 2019 (322), Huston et al. 2003 (328), Ozer et al. 2009 (329), WHO 2019 (330), Cancian et al. 2013 (331).

Table 3.5. Prevention and response to sexual and other forms of gender-based violence

Ecological level	Intervention	Further comment
Structural and environmental	Systems strengthening and integration	Strengthen the system response by integrating services for gender-based violence into existing primary health care programmes, including dedicated adolescent services and SRH and HIV services reaching adolescents.
Organizational	Health services for adolescent survivors of sexual and/or intimate partner violence	<p>Health care providers should consider exposure to child maltreatment when assessing adolescents with conditions that may be caused or complicated by maltreatment, in order to improve diagnosis/identification and subsequent care, without putting the child at increased risk (323).</p> <p>Train and support health workers to empathically provide first-line support when indicated by signs and symptoms. First-line support is survivor-centred and uses the LIVES-CC approach, which involves Listening to children and adolescents, Inquiring about their needs, Validating, Enhancing their safety and facilitating social Support; creating a Child- and adolescent-friendly environment, including training providers and providing support to non-offending Caregivers to support the adolescent (330).</p> <p>Mental health care should be delivered in accordance with WHO guidelines.</p> <p>Referral for other legal, psychosocial and shelter needs should also be available.</p>
	Interventions to reduce and respond to interpersonal violence	These include school-based programmes to prevent dating violence, multicomponent violence-prevention programmes, school-based training to help children recognize and potentially avoid sexually abusive situations, school-based social and emotional skills development initiatives, and counselling services.
Community and interpersonal	Interventions to reduce and respond to interpersonal violence	These interventions are based on social norms theory and focused on changing social and cultural gender norms. They include media-awareness campaigns and targeted work with men and boys (323, 330).
	Support for survivors	Involve non-offending parents or caregivers only if the adolescent specifically wants or agrees to it, or their safety or life is at risk.
Individual	Support for survivors	<p>Interventions are specifically for children exposed to such violence, such as psychological treatment to improve cognitive, emotional and behavioural outcomes.</p> <p>Identify and treat conduct and emotional disorders.</p>

Sources: WHO 2014 (333), WHO 2017 (334), WHO 2013 (335), WHO 2017 (336).

WHO recommends that child abuse interventions be multifaceted to address the specific needs of adolescents more effectively, including enhancement of professional training and education about the nature and impact of adolescent maltreatment among all cadres of health professionals; development and scale-up of prevention and treatment services for maltreated adolescents and their families; and systems that better assess and intervene with maltreated adolescents (337). Furthermore, these interventions should consider intersecting factors that add to the risk of violence and abuse among specific groups of adolescents, such

as those with disabilities, and that affect their access to appropriate services and support. Comprehensive activities that help to prevent violence and that involve all stakeholders who are important in a young person's life have proved to be more effective in preventing violence than activities that focus only on one particular target group. This approach encourages entire schools and communities to share the same vision of reducing violence, and it supports teachers, health care workers, parents and the community to work with adolescents towards this common goal.

Case study 3.2

Roots, Indonesian peer violence programme, reduces bullying and victimization in schools



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In line with the Indonesian Ministry of Women Empowerment and Child Protection's goal of preventing and reducing violence and bullying among youth, UNICEF and partners implemented an adapted version of the US anti-bullying intervention programme Roots. The Roots programme is geared towards improving anti-bullying efforts through student-led activities. It draws from evidence-based effective anti-violence and anti-bullying intervention tools that have been used successfully in a number of countries.

In Indonesia the Roots intervention included a teacher training programme to increase teachers' knowledge of positive discipline practices. The intervention recruited students to serve as change agents after being voted by their peers to serve in that role. The change agents hold regular sessions to identify violence- and bullying-related problems in their schools and work on solutions with young facilitators. Schools that took part in the programme successfully developed anti-bullying agreements and saw a reduction in bullying- and victimization-related incidents. However, in certain areas where the programme was implemented, the number of identified bullying-related incidents increased due to improved mechanisms for reporting bullying. Overall, in all regions of Indonesia, notable improvements were observed in students, change agents and teachers in their responses to bullying.

Source: UNICEF 2003 (332).

Box 3.1. Strategies to reduce online violence against children and adolescents

Digital technology is now a regular part of adolescence. Digital technologies provide many benefits, but they also can harm. Violence against children online, also called technology-facilitated violence, is the use of computers, mobile phones or other forms of digital communication to access, threaten and/or harm children or adolescents. It can result in short- and long-term physical, sexual or emotional suffering. Online violence takes many forms. Sometimes adolescents meet future perpetrators for the first time online. Sexual abuse can be filmed and the images disseminated online. Unsolicited texting of sexual material (“sexting”) and sexual extortion can include sending sexual messages or images to children or pressuring children to send sexually explicit messages or images, or using these without consent. Online contact can try to lure a child into meeting for sexual contact. In other instances, bullying in school can continue through social media at home, exposing young people to online threats or hate speech (including racist, homophobic and sexist messages.)

WHO suggests the following strategies to counteract online violence against adolescents (338):

- Strengthen laws and improve enforcement. This can be achieved by enacting comprehensive national legislation to protect young people from violence online and offline. Training law enforcement to recognize and respond to online abuse and creating safe and accessible reporting mechanisms are important parts of the structural response.
- Address risk factors that make children vulnerable to recruitment by sex offenders. Poverty, drug use and neglect are known determinants of child recruitment. Address these risks by improving economic opportunities, preventing drug use and stabilizing families.
- Provide technological oversight. Working with digital services providers, embed safety features in the design of online services, reduce production and dissemination of child sexual abuse imagery, and prevent abusers from using digital platforms to access young people.
- Engage parents, caregivers and teachers. Parenting programmes can teach parents how to talk to their children about online safety. Digital safety should be integrated into school curricula, and teachers should be trained to respond to online threats or abuse.

3.5 Sexual and reproductive health interventions, including HIV

Adolescent SRH knowledge and access to SRH services are limited in many LMICs. Despite efforts to improve uptake, unmet needs remain high, and

many adolescents suffer adverse outcomes such as unintended pregnancy, unsafe abortions, sexual violence and STIs, including HIV. Girls are particularly vulnerable and disproportionately affected by poor SRH services and inadequate SRH education (Tables 3.6–3.9).



Table 3.6. SRH interventions, including HIV

Ecological level	Intervention	Further comment
Structural and environmental	Policies and funded implementation plans	Develop and implement laws and policies clearly stating that all adolescents can obtain accurate, comprehensive SRH information, decision-making support from a qualified health care professional, respectful treatment, and voluntary choice of a full range of contraceptive methods, regardless of age, marital status or parity. Include adolescent contraception in UHC and national insurance schemes and/or use other approaches such as offering vouchers or offering subsidized services through social marketing, social franchising and cost-recovery schemes. Implement interventions to reduce the financial cost of contraceptives or make them free for adolescents.
Organizational	Peer education programmes	Peer education should not be used in isolation, but rather as part of a package providing information, building positive attitudes and promoting behaviour change and increased service use. Peer education programmes must also be accessible to and inclusive of marginalized groups of adolescents, such as those with disabilities, not only increasing their access to health information, but also strengthening their protective peer networks (339).
	Providing comprehensive sexuality education	In all countries, CSE should be integrated into school curricula and include the promotion of gender equality and respect for human rights. Training and information should be provided to relevant health sector workers, including at the policy level. To reach adolescents who are out of school, include focus on both school-based and out-of-school CSE, and build synergies between the two. Identify and address barriers to accessing CSE programmes faced by some groups of adolescents, such as those with disabilities (340). Begin CSE programmes in childhood and continue through adolescence, taking care to follow the International Technical Guidance on Sexuality Education.
	Provide contraceptive counselling and services	Contraceptive care should be accessible, acceptable and age-appropriate, and adolescents should not be stigmatized, discriminated against or prohibited from accessing it. Adolescent-friendly health services that take a client-centred approach can help health care workers to understand and respond to the differing and changing needs of different groups of adolescents. Implement interventions at scale that provide accurate information and education about contraceptives, in particular curriculum-based sexuality education, to increase contraceptive use among adolescents. The full range of methods, including emergency contraception, should be provided where legally available. Health workers should be trained and informed regarding the circumstances in which they are permitted to provide safe abortion care by their country's laws and policies.
	Provide STI and HIV prevention and care services	STI and HIV testing and care services should be provided in a way that protects privacy and confidentiality. Adolescents receiving antiretroviral therapy (ART) should be carefully monitored and supported to help them stay on their medication even if they face challenges from, for example, side-effects. Box 3.2 discusses integration of STI and HIV services with contraceptive services.

Table 3.6 (continued). SRH interventions, including HIV

Ecological level	Intervention	Further comment
Organizational	Leverage digital decision support and patient management systems to strengthen care coordination and quality of service delivery (341-343)	Software systems can reinforce WHO-recommended clinical care guidelines with decision support and patient management that strengthen health care providers' capacity to support, screen, refer and manage adolescents in relation to their SRH needs.
Community and interpersonal	Offer a range of channels for young people to access contraception and reach them where they are	Expand community-based distribution and supply, including mobile outreach services, pharmacies and drug shops, and school- or workplace-based services.
	Care of adolescents living with HIV	Provide comprehensive care of children (including adolescents) living with, or exposed to, HIV.
Individual	Adolescent participation	Engage a diversity of young people as dedicated advocates to create momentum for scale-up. Invest in youth leadership who reflect different groups, including indigenous and gender minorities, and persons with disabilities.
	Adolescent HIV prevention	Offer voluntary medical male circumcision (VMMC) in countries with generalized HIV epidemics, as well as access to condoms and other contraceptive methods. Behavioural interventions commonly address knowledge, attitudes, risk perception, norms, HIV service demand and skills. These include interpersonal and media communication and financial and other incentives as part of a comprehensive package.
	Adolescent HIV treatment	ART should be initiated in all adolescents living with HIV regardless of WHO clinical stage and at any CD4 cell count. It is critical that ART should be initiated in all adolescents with severe or advanced HIV clinical disease (WHO clinical stage 3 or 4) and adolescents with CD4 count ≤ 350 cells/mm ³ .

Sources: UNESCO 2018 (103), Chandra-Mouli et al. 2015 (344), Igras et al. 2014 (345), Siddiqui et al. 2020 (346), WHO 2021 (347), UNESCO 2009 (349), Global HIV Prevention Coalition 2019 (350), Family Planning and High Impact Practices 2013 (351).

Box 3.2. Integration of HIV and STI services with contraceptive services

Integrated services can expand reach, quality and care to better serve adolescent girls and women at high risk of acquiring HIV or other STIs and who are accessing contraception.

- Adolescent girls and young women should have more contraceptive choices in all types of service delivery settings, including family planning clinics and primary health care facilities. These services should include free male and female condoms, which are the only multipurpose method for preventing HIV, STIs and unintended pregnancy.
- Adolescent girls and young women accessing contraceptive services – especially in high HIV burden countries – should have easy and affordable access to quality integrated HIV and STI testing, prevention and treatment services that are responsive to the rights and preferences of adolescent girls and women.

- The rights of adolescent girls and women to full and unbiased information should be guaranteed in all health care settings and in the community. This includes basic information on STI and HIV risk factors; advantages, disadvantages and risks of contraceptive methods, including the message that methods other than condoms do not prevent STIs or HIV; and any relevant regulatory changes and requirements that might affect their choices, such as age-related bans on contraceptives, bans on SRH services or changes in abortion laws.
- Contraceptive, HIV and STI services need to be part of a broader health response that includes both SRH and primary health care services in the context of UHC.

Source: WHO 2020 (352).

Table 3.7. Interventions to prevent FGM

Ecological level	Intervention	Further comment
Structural and environmental	Introduction and enforcement of anti-FGM laws	For more information, see WHO (353), Crisman et al. (354), WHO (355-357).
	Mass media initiatives	Mass media include radio and TV and can carry music, storytelling and poems (355).
Organizational	Health sector support to survivors	Recommendations include deinfibulation, support for mental health and female sexual health. For girls and women living with any form of FGM, cognitive behavioural therapy (CBT) should be considered if they are experiencing symptoms consistent with anxiety disorders, depression or post-traumatic stress disorder, and sexual counselling is recommended for preventing or treating female sexual dysfunction (356).
	Health workers can act as opinion leaders	Person-centred communication for FGM prevention using the “ABCD approach (Assess client’s views on FGM; address and challenge their Beliefs; explore the possibility of Change; and with the client Decide on the next steps to be taken)” has proved effective in changing knowledge and attitudes of women attending antenatal care in FGM-prevalent settings (357).
Community and interpersonal	Communication for change	For more information, see WHO (353, 355-357).
	Alternative rite of passage rituals	For more information, see WHO (353, 355-357).

Table 3.8. Interventions to prevent early and child marriage

Ecological level	Intervention	Further comment
Structural and environmental	Political leadership, planners and community leaders formulate and enforce laws and policies to prohibit child marriage	A multisectoral, multipronged approach is likely to be more effective in ending child marriage than changing laws and policies alone.
	Social protection	This can include transfers, insurance and services to improve resilience, reduce economic stress and prevent negative household coping strategies such as child marriage.
Organizational	Increasing educational opportunities for girls through formal and non-formal channels	Improving access to education for adolescents has many positive benefits, including reduction in child marriage rates.
	Investing in girls' education and vocational skills training	The more time a girl spends in education, the greater the reduction in risk of child marriage.
	Identify the key drivers of child marriage in local settings	Although gender discrimination is a central determinant of child marriage, the precipitating factors vary from place to place. They include poverty, lack of opportunities to study and work, restrictive social and cultural norms and insecurity resulting from war or civil strife. The mix of these and other factors will determine the package of actions to use in each setting (358).
	Improved access to services for married adolescents	This could take the form of psychological support and/or reproductive health services. With limited agency and power in marital relationships and, in some cases, restricted mobility, adolescent girls may require special outreach of youth-friendly services.
Community and interpersonal	Implementing interventions to inform and empower girls	

Sources: Save the Children 2016 (297), WHO 2011 (359).

Table 3.9. Promotion of pre-conception, antenatal and pregnancy care for adolescents

Ecological level	Intervention	Further comment
Organizational	Leverage digital decision support and patient management systems to strengthen care coordination and quality of service delivery.	Software systems that reinforce WHO-recommended clinical care guidelines with decision support and patient management strengthen health care providers' capacity to support, screen, refer and manage adolescents in relation to their antenatal health needs in an adolescent-friendly manner (341).
Community and interpersonal	<p>Ensure access to adolescent-friendly antenatal, childbirth and postnatal services that are accessible, acceptable and appropriate for adolescents.</p> <p>Address delays in seeking and receiving appropriate maternal health care.</p> <p>Expand availability of effective antenatal, childbirth and postnatal care to adolescents.</p>	<p>Antenatal care includes birth preparedness and complication readiness. Interventions are recommended that increase the use of skilled care at birth and the timely use of postnatal care for the adolescent girl, the newborn and the family.</p> <p>Interventions to promote the involvement of men during pregnancy, childbirth and after delivery are recommended to facilitate and support improved self-care of women, improved home care practices for women and newborns, improved use of skilled care during pregnancy, childbirth and the postnatal period for women and newborns, and increased timely use of facility care for obstetric and newborn complications.</p> <p>These interventions are recommended, provided that they are implemented in a way that respects, promotes and facilitates women's choices and their autonomy in decision-making and supports women in taking care of themselves and their newborns. To ensure this, rigorous M&E of implementation is recommended.</p> <p>Where traditional birth attendants remain the main providers of care at birth, engagement and dialogue with traditional birth attendants, women, families, communities and service providers are recommended to define and agree on alternative roles for traditional birth attendants, recognizing the important role that they can play in supporting the health of women and newborns.</p> <p>Use of lay health workers, including trained traditional birth attendants, to promote the uptake of a number of positive maternal- and newborn-related health care behaviours and services, providing continuous social support during labour in the presence of a skilled birth attendant, and administering misoprostol to prevent postpartum haemorrhage.</p> <p>Use of lay health workers, including trained traditional birth attendants, to deliver the following interventions is recommended, with focused M&E: distribution of certain oral supplement interventions to pregnant women (calcium supplementation in women living in areas with low levels of calcium intake, routine iron and folate supplementation in pregnant women, intermittent presumptive therapy for malaria in pregnant women living in endemic areas, and vitamin A supplementation in pregnant women living in areas where severe vitamin A deficiency is a serious public health problem) and the initiation and maintenance of injectable contraceptives using a standard syringe or the Sayana Press.</p> <p>Task-sharing the promotion of health-related behaviours for maternal and newborn health to a broad range of cadres, including lay health workers, auxiliary nurses, nurses, midwives and doctors, is recommended.</p> <p>Task-sharing the provision of recommended postpartum contraceptive methods to a broad range of cadres, including auxiliary nurses, nurses, midwives and doctors, is recommended.</p>

Table 3.9 (continued). Promotion of pre-conception, antenatal and pregnancy care for adolescents

Ecological level	Intervention	Further comment
Community and interpersonal		<p>Continuous companionship during labour and birth is recommended for improving labour outcomes.</p> <p>Community mobilization through facilitated participatory learning and action cycles with women's groups is recommended to improve maternal and newborn health, particularly in rural settings with limited access to health services. Women's groups can help to create spaces for discussion where women identify priority maternal and newborn health problems and develop and advocate local solutions. Results from research suggest that women's groups could increase community openness and concern about women's and children health, increase community capacity to address health problems and strengthen linkages between communities, frontline workers and health services.</p> <p>Community participation in quality improvement processes for maternity care services is recommended to improve quality of care from the perspectives of women, communities and health care providers. Mechanisms that ensure meaningful inclusion of women's voices are also recommended.</p> <p>Community participation in programme planning, implementation and monitoring is recommended to improve use of skilled care during pregnancy, childbirth and the postnatal period for women and newborns, increase the timely use of facility care for obstetric and newborn complications and improve maternal and newborn health. Mechanisms that ensure women's voices are meaningfully included are also recommended.</p> <p>Maternity waiting homes are recommended to be established close to a health facility where essential childbirth care and/or care for obstetric and newborn complications are provided, to increase access to skilled care for populations living in remote areas or with limited access to services.</p> <p>Community-organized transport schemes are recommended in settings where other sources of transport are less sustainable and not reliable. However, measures should be taken to ensure the sustainability, efficacy and reliability of these schemes while seeking long-term solutions to transport needs.</p>
Individual	<p>Improve the use of antenatal, childbirth and postnatal care of pregnant adolescents.</p> <p>Provide nutritional support during pregnancy.</p>	<p>Provide nutritional and other care, including deworming during pregnancy and control of infections and infectious diseases, especially malaria (360).</p>

Sources: WHO 2015 (361), WHO 2016 (362).

Broad maternal health interventions that reduce delays in seeking and receiving appropriate health care can reduce adolescent maternal disorders, including those detailed in the 2015 *WHO recommendations on health promotion interventions for maternal and newborn health* (361) and the 2022 *WHO recommendations on maternal and newborn care for a positive postnatal experience* (363).

Actions can be taken to improve adolescents' use of antenatal, childbirth and postnatal care:

- Expand the availability of such services and emergency obstetric care.
- Reinforce recommended care practices for adolescent-friendly services through digital decision support for health care providers and client management software systems (341).
- Inform adolescents and community members about the importance of this care.
- Follow up to ensure that adolescents, their families and communities are well prepared for childbirth and possible related emergencies (359).

Care for a pregnant adolescent should include the following:

- social support (including home visits)
- nutritional support (including counselling and supplementation)
- advice on avoiding household air pollution
- systematic assessment for violence
- screening and brief interventions on alcohol and drug use among pregnant women
- a plan for birth
- management of anaemia and malaria, where endemic
- counselling during the first visit about the option to abort (where this is legal) (210, 362)
- counselling on breastfeeding and postpartum contraception; postpartum contraceptive services are especially important to support healthy child spacing and to prevent repeat pregnancies that are too close together (363, 364).

3.6 Communicable disease interventions

As described in Chapter 2, infectious diseases (such as TB and respiratory infections) remain the leading cause of mortality and morbidity in LMICs. Interventions to improve case detection and management of high-burden diseases in this age group are crucially needed. In some cases, for example, water and sanitation interventions to prevent diarrhoeal disease can be easily expanded along the lines of those for younger children. In other cases, such as for vaccinations, further attention may be needed to ensure that the unique needs and vulnerabilities of adolescents are addressed.

Routine immunization is an important public health strategy to address a number of vaccine-preventable diseases. The benefits of vaccination go beyond early childhood, continuing through adolescence (Table 3.10). In addition to the HPV vaccine, which is the vaccine most commonly associated with adolescents, other vaccines administered for adolescents include tetanus–diphtheria, seasonal influenza, cholera, dengue, rabies, typhoid, COVID-19 (see Box 3.3) and meningitis. Promising vaccines are in the pipeline against respiratory syncytial virus, malaria, TB and all influenza virus strains (365).

Box 3.3. Working together across the UN to promote scientifically credible advice on adolescents and COVID-19

During the COVID-19 pandemic, WHO worked closely with UNESCO, UNFPA, UNICEF and other UN agencies to make the scientific advice, data and research on adolescent- and school-specific considerations during the pandemic readily available to policy-makers, adolescents and their families.

A resource bank was created to give health and education policy-makers, educational staff, parents and students easy access to guidance on:

- public health and social measures
- masks
- ventilation
- vaccinations
- case investigation in schools
- school readiness
- maintaining continuity of learning during school closures
- maintaining essential health promotion and care services
- situation updates

- resources for students
- resources for parents
- health promotion in schools.

Questions and answers for adolescents on issues related to the risk of acquiring the infection, protective measures, the continuity of sport and other leisure activities and access to services were developed and kept up-to-date to help promote scientifically reliable advice to adolescents and their families.

For more information see:

<https://www.who.int/teams/maternal-newborn-child-adolescent-health-and-ageing/covid-19/mca-and-covid-19-educational-institutions>

<https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-adolescents-and-youth>

<https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-schools>



Table 3.10. Prevention, detection and treatment of communicable diseases

Disease	Ecological level	Intervention	Further comment
TB	Structural and environmental	Develop clear national child and adolescent TB targets.	WHO TB estimates provide a good starting point in the development of national targets. The global targets include the SDG target on ending TB by 2030.
		Implement policies for the transition of adolescents from paediatric to adult TB services.	Services need to be made adolescent-friendly. They need to respect privacy and confidentiality to avoid stigma. They need to have flexible opening hours so that adolescents do not need to take time off from school. Adolescents should have access to shorter treatment options (for treatment of TB infection and treatment of TB disease), which are known to increase adherence and treatment completion. As much as possible, services need to be offered for TB and co-morbidities at the same time and place (368).
	Organizational	Expand the provision of services to cover the full cascade of care. Systematically implement TB screening for children and adolescents at public and private in- and outpatient settings.	The full cascade of care includes TB prevention, screening, diagnosis, treatment of drug-susceptible TB, treatment of TB meningitis, treatment of multidrug-resistant and rifampicin-resistant TB, treatment of extrapulmonary TB, post-TB and rehabilitation of TB-related functional impairments. This care should be offered in facilities focusing on adult and paediatric chest and TB, nutrition, HIV, adolescent health, ANC, immunization and dedicated screening events, followed by appropriate management or referral to TB preventive, treatment and rehabilitative care services. Symptom screening, chest X-ray or molecular WHO-recommended rapid diagnostic tests should be used alone or in combination. Consider bi-directional screening for COVID-19 and TB in settings with a high burden of TB.
	Community and interpersonal	If adolescents younger than 15 years are in close contact with someone with TB, systematic screening for TB disease should be conducted. Empower communities and implement peer programmes to strengthen TB response and social accountability mechanisms.	Screening looks for anyone with cough, fever or poor weight gain and/or employs chest radiography. This can include working with community health and outreach workers and primary care providers to scale up active contact tracing, provide family-integrated TB treatment and preventive therapy, and engage adolescents who are receiving care. Peer counselling has been shown to lead to a significantly higher treatment completion rate than usual care (368, 369).
Individual	Limit exposure to household environmental risks.	This can include reducing exposure to alcohol, tobacco smoke or indoor air pollution.	

Table 3.10 (continued). Prevention, detection and treatment of communicable diseases

Disease	Ecological level	Intervention	Further comment
Respiratory tract infections	Structural and environmental	Improve standards and introduce public policies to reduce exposure of adolescents to air pollution (370).	Ambient air pollution has an impact on mortality from respiratory infections and is especially harmful in contexts of undernutrition and poor health care (371).
	Organizational	Integrate environmental health into health professional training programmes.	All health professionals should consider air pollution a major risk factor for their patients and understand the sources of environmental exposure in the communities they serve.
	Community and interpersonal	Educate families and communities.	This can include information regarding the causes and consequences of exposure to indoor air pollution and household mitigation measures.
	Individual	Reduce adolescent and general population exposure to indoor air pollution while meeting household energy needs and decreasing the amount of fuel needed.	Measures include: <ul style="list-style-type: none"> • switching from wood, dung or charcoal to more efficient, modern and less polluting fuels; • locating a stove outside of the home or in a well-ventilated area; • ventilating cooking areas using eaves and smoke hoods; and • changing behaviours, such as keeping children away from smoking hearths, drying fuel wood before use, using lids on pots to shorten cooking time and improving ventilation by opening windows and doors.
Diarrhoeal diseases	Structural and environmental	Policies and programmes to promote safe water, sanitation and hand washing	These can include implementing: <ul style="list-style-type: none"> • water safety plans and guidelines for drinking-water quality at a national level; • sanitation safety plans and guidelines for safe use and disposal of wastewater, greywater and excreta; and • policies and programmes to promote the widespread adoption of appropriate hand-washing practices.
	Organizational	Ensure that schools and health facilities are equipped with proper water and sanitation infrastructure.	Building such infrastructure in schools leads to a significant reduction in school absence due to diarrhoea.
		Promote hand-washing programmes in schools.	Expanded hand-washing programmes in schools (including soap for school sinks, peer hygiene monitors) can lead to reduced absenteeism (372).

Table 3.10 (continued). Prevention, detection and treatment of communicable diseases

Disease	Ecological level	Intervention	Further comment
Diarrhoeal diseases	Community and interpersonal	Scale up water treatment programmes	Evidence suggests that water treatment probably reduces diarrhoea by almost 40%. This can include: LifeStraw filter-treated water, ceramic water purifier, iron-rich ceramic purifier and the concrete BioSand filter.
		Educate communities about water safety and improved sanitation measures.	This can include safe storage of household water, increased access to basic sanitation at the household level, improved sanitation in households (for example, flushing to a pit or septic tank, dry pit latrine with slab or composting toilet).
	Individual	Maintain good hand-washing practices, washing hands with soap before eating and after using the toilet.	Hand washing with soap is an effective preventive intervention against infectious diseases, including reducing diarrhoeal disease by 23–48% (373).
Meningitis (374)	Structural and environmental	Strengthen primary health care and health systems and increase immunization coverage.	This includes introducing and expanding licensed/WHO-prequalified vaccines in countries in line with WHO recommendations and implementing locally appropriate immunization strategies to achieve and maintain high vaccination coverage.
	Organizational	Develop, update and implement strategies on surveillance, preparedness and response to meningitis epidemics.	To guide investigation and control measures, these strategies should pay careful attention to geographical units (for example, districts, subdistricts), including consideration of mass gathering issues (such as in refugee camps) and improving infection prevention and control programmes.
		Fight antimicrobial resistance by expanding vaccination. Use schools as platforms to share information on detection, monitoring and management of meningitis sequelae.	Antibiotics for close contacts of those with meningococcal disease, when given promptly, decrease the risk of transmission. However, high usage of antibiotics in the treatment of suspected meningitis can lead to antimicrobial resistance.
	Community and interpersonal	Create community awareness of meningitis, including dispelling myths and addressing vaccine hesitancy.	Integrated communication programmes and activities can increase population awareness of the risk, symptoms, signs and consequences of meningitis and sepsis and of the recommended health-seeking response.
	Individual	Increase the availability of appropriate rehabilitative care for adolescents with functioning difficulties resulting from meningitis.	Meningitis can cause severe long-term complications, including neurological problems such as hearing loss, visual impairment, seizures and learning impairments. Adolescents can also suffer from depressive symptoms and fatigue that can lower educational attainment and reduce the quality of life (375).

Sources: WHO 2018 (376), WHO 2022 (377).

3.7 Noncommunicable disease interventions

As discussed in Chapter 2, some of the major causes of adolescent death and disease are NCDs such as cancer, migraines, skin diseases and asthma. Congenital anomalies and iron deficiency anaemia also contribute to adolescents' disease burden. NCDs can manifest during adolescence or later in life as a result of risk factors experienced during adolescence (such as tobacco use, which may contribute to chronic

obstructive pulmonary disease (COPD) or cancer during adulthood). Boxes 3.4–3.8 discuss several NCDs during adolescence. Indeed, many of the NCDs and their burdens seen in adults begin as risk behaviours in adolescence, underscoring the importance of intervening with adolescents to protect their health in both the short term and long term. This section focuses on experiences of NCDs during adolescence, while subsequent sections focus on adolescent risk factors for NCDs later in life.

Box 3.4. Leukaemia and other cancers during adolescence

WHO provides detailed guidance on leukaemia and other cancers in the series on cancer control, which includes six publications on planning, prevention, early detection, diagnosis and treatment, palliative care and policy and advocacy. Each provides examples of priority interventions and categorizes them according to the available level of resources, that is, core (with existing resources), expanded (with a projected increase in, or reallocation of, resources) and desirable (when more resources become available). Taking the example of a low-resource country in which less than 20% of children with acute lymphocytic leukaemia have access to full treatment and over 80% die within five years, these guides recommend to:

- include palliative care medication, chemotherapy drugs and antibiotics for treating paediatric acute lymphatic leukaemia in the national essential medicines list (core);

- improve quality and coverage of diagnostic, treatment and palliative care services for acute lymphatic leukaemia in children, and mobilize further social support for patients and their families (expanded); and
- develop special strategies for increasing the adherence of children to treatment for acute lymphatic leukaemia (desirable).

Recent evidence supports the efficacy of motor and exercise intervention for adolescents with acute lymphoblastic leukaemia. While evidence is still growing, there is also support for interventions using various digital modalities to improve health behaviours and reduce cancer-related symptoms among adolescent survivors.

Sources: WHO 2006 (378), WHO 2007 (379), WHO 2007 (380), WHO 2007 (381), WHO 2008 (382), Devine et al. 2018 (383), Coombs et al. 2020 (384), WHO 2008 (385).

Box 3.5. Management of asthma

Asthma symptoms include cough, wheeze and difficulty breathing. These symptoms typically vary from day to day and can be made worse by exposure to triggers, including dust, fumes, smoke and viral infections. Effective long-term management with inhaled medicines, including an inhaled corticosteroid, can improve daily symptoms and reduce asthma attacks. Long-term management is important to avoid school absence and the need for emergency health care and its associated costs

for the family and health system. For resource-limited settings, the WHO package of essential noncommunicable (PEN) disease interventions for primary health care includes guidance for the acute and long-term management of asthma, using core medicines included in the WHO Essential Medicines List (386, 387). Effective long-term management with inhaled medications can control the disease and enable people with asthma to enjoy normal, active lives.

Box 3.6. Skin diseases

Several skin diseases are associated with long-term disfigurement, disability and stigma. Among adolescents, they are known to contribute to psychological burden, anxiety and depression (388). In 2018 WHO developed a pictorial training guide to combine control, treatment and care activities for skin-related diseases to maximize the use of limited resources and expand treatment coverage. The training guide is designed for frontline health workers who do not have thorough knowledge of common skin diseases, particularly those manifesting as a result of neglected tropical diseases.

In general populations, patient education has been found to be effective in improving quality of life and decreasing the severity of skin diseases, even in the long-term management of chronic skin diseases. Detailed guidance to clinicians on diagnosing, treating and managing acne, different kinds of eczema and other skin conditions – including key clinical features and treatment for severe, moderate and mild forms of these conditions – can be found in the WHO 2011 IMAI District Clinician Manual.

Sources: WHO 2018 (389), De Bes et al. 2011 (390), WHO 2011 (391).

Box 3.7. HPV vaccination to reduce cervical cancer risk

Worldwide, cervical cancer is the fourth most frequent cancer in women, with an estimated 604 000 new cases in 2020. In HICs programmes are in place to vaccinate girls against HPV and for women to get screened regularly and treated adequately. Screening allows precancerous lesions to be identified at stages when they can easily be treated. In LMICs, however, there is limited access to these preventive measures, and cervical cancer often is not identified until it has further advanced and symptoms develop. In addition, access to treatment of cancerous lesions (for example, cancer surgery, radiotherapy and chemotherapy) may be limited, resulting in a higher rate of death from cervical cancer in these countries. A large majority of cervical cancer cases (more than 95%) are due to HPV. HPV is the most common viral infection of the reproductive tract. Most sexually active women and men will be infected at some point in their lives, and some may be repeatedly infected. More than 90% of the infected populations eventually clear the infection, but, when infection becomes chronic, it can lead to precancerous lesions and invasive cancer.

WHO recommends that:

- HPV vaccination should be offered to girls 9–14 years old. The vaccines work best if administered prior to exposure to HPV. Some countries have started to vaccinate boys, as the vaccination

prevents HPV-related diseases and cancers in males. HPV vaccine can be an important pillar of adolescent health programmes.

- Girls and boys should be offered health information regarding sex education, tailored to age.
- Condoms should be promoted and provided to those who are sexually active.
- Male circumcision should be encouraged.

HPV vaccines have been shown to be safe and effective in preventing HPV infections, high-grade precancerous lesions and invasive cancer. There are currently six vaccines licensed and four prequalified by WHO, all protecting against HPV types 16 and 18, which are known to cause at least 70% of cervical cancers. The 9-valent vaccine protects against five additional oncogenic HPV types, which cause a further 20% of cervical cancers. Two of the vaccines also protect against HPV types 6 and 11, which cause anogenital warts.

As of December 2022, 125 countries (64%) have introduced the HPV vaccine in their national immunization programme for girls, and 47 countries (24%) also for boys.

Sources: WHO 2022 (239), WHO 2022 (392).

Box 3.8. Prevention and management of unaddressed sensory (vision or hearing) impairments in adolescents

Most common causes of vision loss and many common causes of hearing loss in adolescents can be prevented or treated. To prevent and address vision loss in adolescents, WHO recommends (393):

- increasing the accessibility and availability of spectacles or contact lenses, both of which can fully correct reduced vision due to myopia and other refractive errors; spectacles are among the most practical and cost-effective of all health care interventions;
- regular screening for refractive errors for preschool and school-age children in order to avoid the impact on academic performance of seeing poorly in school; and
- public health campaigns to reduce time spent at near-vision activities and encourage more time spent outdoors, to reduce the onset and slow the progression of myopia.

To prevent and address hearing loss in adolescents, WHO recommends (261, 394-396):

- raising awareness among adolescents, parents and teachers about healthy ear care and safe listening (for prevention of noise-induced hearing loss);
- adoption, by private-sector entities, of the WHO-ITU global standard for safe listening devices; when implemented in devices such as smartphones and headphones, these standards can help to moderate adolescents' exposure to loud sounds and so protect their hearing.
- implementation by governments of the WHO global standard for safe listening entertainment venues, which is intended to protect the hearing of young people at concerts and clubs; and
- regular school-based screening for ear and hearing problems, which can facilitate their early identification and timely management.

Sources: WHO 2022 (239), WHO 2022 (392).

3.8 Interventions for the prevention and treatment of mental health conditions

As Chapter 2 describes, the prevalence of mental health conditions among adolescents is unacceptably high. Up to 50% of all mental health conditions start before the age of 14 years, and as many as one in every five adolescents experiences a mental disorder each year. Suicide is one of the leading causes of death among older adolescents. Poor adolescent mental health

is associated with a range of high-risk behaviours, including self-harm; tobacco, alcohol and substance use; risky sexual behaviours; and exposure to violence, the serious effects of which persist throughout life. The COVID-19 pandemic severely reduced the well-being of young people and put them at increased risk of suicide, substance use and other mental health problems (111). Additionally, adolescents living in challenging situations, such as protracted conflicts, may need more mental health attention. Tables 3.11 and 3.12 present interventions.

Table 3.11. Interventions to address common mental health conditions in adolescence, including anxiety, depression, post-traumatic stress disorder and developmental delays

Ecological level	Intervention	Further comment
Structural and environmental	Ensure the development and implementation of policies and laws to protect and promote adolescent mental health and to reduce engagement in risk behaviours.	Policies and laws for adolescents' mental health can provide a basis for addressing socioeconomic determinants of adolescent mental health, strengthen of care systems, guide the development of training programmes for frontline workers, and inform public health monitoring and research.
Organizational	Develop a network of interconnected community-based mental health services delivered through health and non-health settings.	The structure of services varies by context but could include mental health services integrated in general health care; community mental health services, services that deliver mental health care in non-health settings, including schools and informal support delivered by community providers. These interventions can include:
	Strengthening mental health using an HPS and systems approach	<ul style="list-style-type: none"> • supporting pre-service and in-service training and professional development in whole-school approaches to mental health for school staff, including the mental health and leadership teams (for example, training in addressing online bullying, identifying signs of distress and need for health services, crisis management, suicide prevention and protocols for referring learners and their families to mental health services); • establishing an HPS committee to plan, implement and evaluate mental health initiatives; the committee can be made up of education sector staff, learners, parents and carers, community and religious leaders, health staff and representatives of civil society organizations; • involving all teachers, school health staff, student representatives, and parents and carers in decision-making to promote HPS and mental health; • developing and communicating relevant school policies and standards in all local languages (for example, anti-bullying, respectful relationships, child protection policies); • school-based programmes focused on cognitive, problem-solving and social skills; and • community-based interventions to reduce child abuse, neglect and bullying.
	Selective interventions with adolescents at relatively high risk of depression	Interventions to help adolescents cope with major life events (such as parents' divorce or a parent dying) or avoiding the transfer of depression and related problems from depressed parents to adolescents.

Table 3.11. (continued) Interventions to address common mental health conditions in adolescence, including anxiety, depression, post-traumatic stress disorder and developmental delays

Ecological level	Intervention	Further comment
Organizational	Expand capacity of the workforce, including specialist mental health and non-specialist frontline workers through appropriate training, recruitment and retention programmes. Develop a network of interconnected community-based mental health services delivered through health and non-health settings.	The number and diversity of mental health practitioners vary across contexts. Bolstering this capacity is an important national strategy to increase the coverage of services, along with exploring telehealth and peer-based strategies.
	Provide psychosocial interventions to adolescents affected by humanitarian crises	These interventions are particularly beneficial for preventing mental disorders (depression, anxiety and disorders related specifically to stress) and may be considered for reducing substance use in these populations.
	Consider psychosocial interventions for pregnant adolescents and adolescent parents	Cognitive behavioural skills-building programmes are an example that could be considered for this group.
Community and interpersonal	Parenting skills	Supporting parents and families can include: <ul style="list-style-type: none"> • promoting positive, stable emotional connections between parents and adolescents (for example, to enhance adolescent self-esteem and social competence); • assisting parents to establish rules, communicate expectations and exercise consistent and effective monitoring of adolescent behaviours (for example, to reduce adolescent risk-related sexual behaviour, substance use and delinquency); • assisting parents to respect the individuality of adolescents and to avoid intrusive, manipulative and unduly controlling behaviours (for example, to reduce adolescent antisocial behaviours); • encouraging parents to adopt attitudes and behaviours that are supportive of health (such as not smoking) while also reflecting supportive prevailing social norms of adolescent behaviour positively. • psychoeducation for the parents of adolescents with developmental delay or disorder to share information about the condition and to aid them in seeking and receiving services for their adolescents; and • care for children with developmental delays.

Table 3.11. (continued) Interventions to address common mental health conditions in adolescence, including anxiety, depression, post-traumatic stress disorder and developmental delays

Ecological level	Intervention	Further comment
Individual	Preventive interventions for all adolescents, for adolescents exposed to adversities, and for adolescents with existing symptoms of mental health conditions.	<p>For all adolescents:</p> <ul style="list-style-type: none"> • Universally delivered psychosocial interventions to enhance social and emotional learning should be provided. • For adolescents exposed to adversities and specific life circumstances, targeted interventions should be provided. For example, <ul style="list-style-type: none"> – For adolescents affected by humanitarian emergencies, key intervention components are stress management, relaxation strategies and care for the implementers' wellbeing. – For pregnant and parenting adolescents, psychosocial interventions, based on cognitive behavioural skills building strategies, should be considered. – For adolescents experiencing symptoms of mental health conditions, indicated psychosocial interventions should be provided for adolescents with emotional symptoms (group-based CBT) and with disruptive/oppositional behaviours (training for parents, problem-solving and interpersonal skills training).

Sources: WHO 2020 (111), WHO 2019 (267), WHO 2021 (12).



Table 3.12. Preventing adolescent suicide

Ecological level	Intervention	Further comment
Structural and environmental	Adoption of national mental health policies	Related to suicide, these should focus on: strengthening effective leadership and governance; providing comprehensive, integrated and responsive services in community-based settings; implementing strategies for prevention; and strengthening information systems, evidence and research.
	Policies to reduce harmful use of alcohol	Depressed adolescents may also use alcohol to self-medicate, which, combined with driving, could increase the risk of suicide attempts. Policy options include policies related to drink-driving and the marketing and availability of alcohol.
	Restriction of access to means	Restrictions includes legislation to limit access to pesticides, firearms and medications commonly used in suicide, and safer storage and disposal of these, as well as infrastructure interventions to prevent suicide by jumping.
	Responsible media reporting	Media guidelines should stress avoidance of detailed descriptions of suicidal acts, sensationalism, glamorization and oversimplification; use of responsible language; minimizing the prominence of suicide reports; and educating the public about suicide, as well as making available ways to prevent suicide and care for people who have attempted suicide.
Organizational	Improved access to health care	Adequate, prompt and accessible treatment for mental and substance use disorders can reduce the risk of suicidal behaviour. Implementing policies and practices for mental health literacy throughout health systems and institutions is also key.
	Surveillance of suicide and suicide attempts	Develop sustainable long-term surveillance of suicide cases, and of hospital presentations due to suicide attempts and self-harm, to provide critical information for prevention, intervention and treatment.
	Electronic media strategies for service delivery	Online suicide prevention strategies include self-help programmes and professionals engaging in chats or therapy with suicidal individuals. Text messaging is an alternative, particularly when the internet is not accessible.
	Raising awareness about mental health, substance use disorders and suicide	Awareness-raising campaigns aim to reduce stigma and promote help-seeking and access to care. The various media (such as television, print media, the internet, social media and posters) can reinforce key messages. At the local level, awareness-raising can focus on specific vulnerable populations.

Table 3.12 (continued). Preventing adolescent suicide

Ecological level	Intervention	Further comment
Community and interpersonal	Interventions for vulnerable groups with a higher risk of suicide	These interventions should be tailored to and focused on groups that are most at risk of suicide in particular settings. For example, interventions focusing on lesbian, gay, bisexual, transgender and intersex (LGBTI) adolescents should address risk factors such as mental disorders, substance abuse, stigma, prejudice and individual and institutional discrimination.
	Gatekeeper training	For people in a position to identify whether someone may be contemplating suicide (such as clinicians or teachers), gatekeeper training develops knowledge, attitudes and skills for identifying adolescents at risk, determining the level of risk and referring at-risk adolescents for treatment.
	Crisis helplines	Crisis helplines are public call centres that people can turn to when other social support or professional care is unavailable or not preferred. Helplines can be in place for the wider population or may target certain vulnerable groups with peer assistance.
Individual	Assessment and management of suicidal behaviours	The WHO <i>mhGAP intervention guide</i> (267) recommends assessing comprehensively everyone presenting with self-harm thoughts or plans, or who has carried out acts of self-harm. The guide recommends asking any person over 10 years of age who is experiencing a priority mental, neurological or substance-use disorder – or chronic pain or acute emotional distress – about thoughts, plans or acts related to self-harm and suicide.
	Assessment and management of mental and substance use disorders	This involves training primary health care workers to recognize depression and other mental and substance use disorders and to perform detailed evaluations of suicide risk. Training should take place repeatedly over years and should involve the majority of health care workers in a country.
	Develop social and emotional life skills in adolescents	Rather than focusing explicitly on suicide, social and emotional learning programmes, including in schools, should employ a positive mental health approach and train emotional regulation, problem solving and coping skills. Initiatives may be delivered together with gatekeeper training and school environment interventions. Adolescents should also be educated on healthy use of the Internet and social media to build healthy social support; and recognise and respond to unhealthy online activity.

Sources: UNICEF 2021 (100), WHO 2019 (267), WHO 2021 (397), WHO 2016 (394).

3.9 Interventions to address alcohol and drug use

Use of psychoactive substances usually starts in adolescence and even childhood. The earlier substance use starts, the greater the risks for more rapid progression to heavy use and substance use disorders. It is important to remember, though, that the highest proportion of adolescents typically fall into a low-use group, which at times includes experimental or low levels of alcohol or drug use. Even at a low level, however, alcohol and drug use can affect normal

development, result in a range of negative health and social outcomes and can lead towards the development of substance use disorders (397). Higher risk of poor outcomes might be associated with use of multiple substances, with those in lower socioeconomic groups and older age groups at highest risk (398). Attention should be given to preventing the initiation of alcohol and drug use among children and adolescents, to helping them quit substance use and to reducing its negative consequences, while addressing the special needs of this group (Table 3.13).

Table 3.13. Interventions to prevent alcohol and drug use and address substance use disorders among adolescents

Ecological level	Intervention	Further comment
Structural and environmental	Strengthen restrictions on alcohol and drug availability	Enacting and enforcing restrictions on commercial or public availability of alcohol through laws, policies and programmes are important ways to reduce harmful use of alcohol. Such strategies provide essential measures to prevent easy access to alcohol by young people and other vulnerable and high-risk groups. This includes reducing the density of alcohol outlets and hours or days when alcohol beverages can be sold. It also includes laws and policies setting a minimum age for purchase or consumption of alcoholic beverages, preventing sales to, and consumption of, alcoholic beverages by those below the legal age and placing liability for violations on sellers and servers.
	Advance and enforce drink-driving counter measures	Road users who are impaired by alcohol have a significantly higher risk of being involved in a crash. Enacting and enforcing strong drink-driving laws will help to turn the tide, as will sobriety checkpoints and random breath testing to enforce low blood alcohol concentration limits.
	Enforce bans or comprehensive restrictions on alcohol advertising, sponsorship and promotion	Bans and comprehensive restrictions on alcohol advertising, sponsorship and promotion are both effective and cost-effective. Enacting and enforcing restrictions on exposure in the digital world, too, will bring public health benefits and help protect children, adolescents and abstainers from the pressure to start consuming alcohol.
	Raise prices on alcohol through excise taxes and pricing policies	Alcohol taxation and pricing policies are among the most effective and cost-effective alcohol control measures. An increase in excise taxes on alcoholic beverages is a proven measure to reduce harmful use of alcohol, and it provides governments with revenue to offset the economic costs of harmful use of alcohol.
	Facilitate access to screening, brief interventions and treatment for drug and alcohol abuse	Health professionals have an important role in helping people to reduce or stop drinking to reduce health risks, and health services have to provide effective interventions for those in need of help and their families.
	Carry out population-based interventions in accordance with drug conventions (1961, 1971 and 1988), as well as implementation of recommendations of the UN General Assembly Special Session (UNGASS) on the World Drug Problem (2016)	Documents call for a range of actions, including restricting availability, distribution, production, export and import of psychoactive drugs, preventing the initiation and continuation of drug use by children, adolescents and young people, and addressing the specific needs of adolescents in treatment of drug use disorders.

Table 3.13 (continued). Interventions to prevent alcohol and drug use and address substance use disorders among adolescents

Ecological level	Intervention	Further comment
Organizational	Keeping children in schools, school policies on substance use and other interventions in educational settings	School policies mandate that substances should not be used by students and staff on school premises and during school functions and activities. Policies also create transparent and non-punitive mechanisms to address incidents of use, transforming them into educational and health-promoting opportunities. Other interventions may include prevention based on individual psychological vulnerabilities and wider programmes to increase access to education.
	Addressing special needs of children and adolescents in treatment programmes for substance use disorders	To treat children with substance use disorders, it is necessary to design psychosocial treatments to fit their needs, level of cognitive development, life experiences and legal status. This includes psychosocial and pharmacological interventions, such as management of withdrawal, continued treatment and relapse prevention.
Community and interpersonal	Community-based multicomponent initiatives	At the community level, creating partnerships, task forces, coalitions, action groups, etc., brings together different actors to address substance use and mitigate harm. Some community partnerships are spontaneous. However, the existence of community partnerships on a large scale is usually the product of a special programme providing financial and technical support to communities to deliver and sustain evidence-based prevention interventions and policies. Community-based initiatives are normally multicomponent, taking action in different settings (for example, schools, families, media, enforcement). They also include mobilizing communities to prevent the selling of alcohol to, and consumption by, those below the legal minimum age.
	Develop and support alcohol-free environments, especially for youth and other at-risk groups	Communities can be supported and empowered by governments and other stakeholders to use their local knowledge and expertise in adopting effective approaches to prevent and reduce the harmful use of alcohol by changing collective (for example, using social marketing, messaging or reducing access in the community) rather than individual behaviour, while being sensitive to cultural norms, beliefs and value systems.
	Family-based and parenting skills programmes	Parenting skills programmes support parents in simple ways. A warm child-rearing style – where parents set rules for acceptable behaviour, closely monitor free time and friendship patterns, help adolescents develop personal and social skills, and are role models – is one of the most powerful protective factors against substance use and other risky behaviours.
Individual	Personal and social skills education addressing individual psychological vulnerabilities	Some personality traits, such as sensation-seeking, impulsivity, anxiety sensitivity or hopelessness, are associated with increased risk of substance use. Personal and social skills education helps at-risk adolescents deal constructively with emotions arising from their personalities instead of using negative coping strategies such as alcohol use. Such programmes provide opportunities to learn skills to cope with difficult situations in daily life in a safe and healthy way.

Table 3.13 (continued). Interventions to prevent alcohol and drug use and address substance use disorders among adolescents

Ecological level	Intervention	Further comment
Individual	Addressing mental health disorders	Mental disorders (for example, anxiety, depression) and behavioural disorders (for example, attention deficit hyperactivity disorder or conduct disorder) are associated with higher risk of substance use later in adolescence and beyond. In both childhood and adolescence, supporting children, adolescents and parents to address emotional and behavioural disorders as early as possible is an important prevention strategy.
	Prevention education based on social competence and influence	In skills-based prevention programmes, trained teachers engage students in interactive activities to give young people the opportunity to learn and practice a range of personal and social skills (social competence). These programmes focus on fostering abilities that allow young people to counter social pressures from peers to use drugs or alcohol and in general to cope with challenging life situations in a healthy way.
	Mentoring	“Natural” mentoring refers to the relationships and interactions between children/adolescents and non-related adults, such as teachers, coaches and community leaders. It has been found to be linked to reduced rates of substance use and violence. These programmes match a youth, especially from marginalized circumstances, with an adult who commits to arranging activities and spending time with the youth regularly.

Sources: Squeglia et al. 2016 (399), Tomczyk et al. 2016 (400).

3.10 Interventions to address tobacco use

Tobacco kills up to half its users directly and many others through exposure to second-hand smoke (401). It is considered one of the biggest public health threats. When tobacco users become aware of the dangers of tobacco, most want to quit. However, nicotine in tobacco products is highly addictive; without cessation support, only 4% of users who attempt to quit tobacco use succeed. Professional support and proven cessation medications can more than double a tobacco user's chances of quitting (401). These and other interventions are presented in Table 3.14.

Increasingly, young people are being exposed to electronic nicotine delivery systems (ENDS), also known as vaping or electronic cigarettes (e-cigarette). E-cigarettes are particularly risky when used by adolescents. Nicotine is highly addictive and can affect young people's brains, which continue to develop up to their mid-twenties.

Like tobacco smoking, ENDS use increases the risk of heart disease and lung disorders. There is some evidence of a link between adolescent vaping and smoking initiation (402, 403). However, it is too early to provide a clear answer on the long-term impacts of using e-cigarettes or being exposed to them.

Advertising, marketing and promotion of ENDS have grown rapidly, through internet and social media channels in particular. In many cases, this marketing gives rise to concern about deceptive health claims, deceptive claims about the ease of stopping, and targeting youth (especially with the use of flavours).

Table 3.14. Interventions to reduce tobacco use and exposure

Ecological level	Intervention	Further comment
Structural and environmental	Reduce the affordability of tobacco	Increase tobacco excise taxes to make tobacco products more costly.
	Ban tobacco advertising	Enforce comprehensive bans on tobacco advertising, promotion and sponsorship, including cross-border advertising and on the internet and social media. Also, actively promote smoke-free entertainment media, cinema and drama.
	Smoke-free environments	Create bylaws ensuring completely smoke-free environments in all schools, recreational areas, indoor workplaces, public places and public transport.
Organizational and community	Campaigns to raise awareness of the dangers of tobacco	Conduct regular and effective mass media campaigns to raise awareness of the dangers of tobacco. Require pictorial health warnings on packaging and advertising.
	Tobacco prevention in school programmes	Integrate tobacco prevention into school policies, skills-based health education and health services. See the WHO report, <i>Tobacco use prevention: an important entry point for the development of health-promoting schools (404)</i> for age-appropriate knowledge, attitude- and skills-building targets. In no circumstances should these programmes be implemented in collaboration with or funded by the tobacco industry.
Interpersonal and individual	Guidance on stopping tobacco use	Clinicians should encourage all non-smokers not to start smoking, strongly advise all smokers to stop smoking and support their efforts, and advise individuals who use other forms of tobacco to quit. See WHO's <i>Toolkit for delivering the 5A's and 5R's brief tobacco interventions in primary care</i> for specific guidance (405).

3.11 Physical activity and sedentary behaviour interventions

Regular physical activity is proven to help prevent and manage NCDs such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension

and maintain healthy body weight, and it can improve mental health, quality of life and well-being. Despite these benefits, more than 80% of the world's adolescent population is not physically active enough. Interventions to promote physical activity are listed in Table 3.15.

Table 3.15. Interventions to promote adolescent physical activity

Ecological level	Intervention	Further comment
Structural and environmental	Urban planning policies	Governments should partner with communities, the private sector and nongovernmental organizations (NGOs) to develop inclusive safe spaces for physical activity and accessible facilities for sports, recreation and leisure. Active transport policies should ensure that walking, cycling and other non-motorized transport are accessible and safe for all. Provide free or subsidized transportation to accessible fitness and sports centres (for example, for adolescents with disabilities).
	School and public facilities	Adequate facilities should be available on school premises, at youth workplaces and in public spaces for physical activity during recreational time for all adolescents (including those with disabilities), with the provision of gender-friendly spaces where appropriate.
Organizational and community	Public awareness programmes on physical activity	Provide guidance to children and adolescents, their parents, caregivers, teachers and health professionals on healthy body size, physical activity, sleep behaviours and appropriate use of on-screen entertainment.
	Physical education curricula in schools	A good physical education curriculum develops abilities and conditioning, provides activity for all children including those with specific needs, encourages continued sports and physical activity in later life and provides recreation and relaxation. Implement best-practice communication campaigns, linked with community-based programmes, to heighten awareness, knowledge and understanding of, and appreciation for, the multiple health benefits of regular physical activity and less sedentary behaviour, according to ability, for individual, family and community well-being.
	Regular, structured sports activities	Regular, structured sports activities for adolescents strengthen the link between physical activity, sports and health and reduce sedentary behaviours.
Interpersonal and individual	Guidance on physical activity for adolescents	Healthy physical activity for adolescents entails at least 60 minutes of moderate to vigorous activity per day on average over the week: <ul style="list-style-type: none"> • incorporate aerobic activities of vigorous intensity, as well as those that strengthen muscle and bone, at least three days a week; and • limit sedentary time, particularly recreational screen time. Implement regular mass participation initiatives in public spaces, engaging entire communities, to provide free access to enjoyable and affordable, socially and culturally appropriate physical activity.

Sources: WHO 2010 (406), WHO 2018 (407).

3.12 Adolescent nutrition interventions

Optimal nutrition practices can have profound benefits for the current and future health and well-being of adolescents (408). During this second intense growth window, nutritional deficiencies that persisted from childhood can be addressed and catch-up growth may be possible. Additionally, adolescence provides an opportunity to adopt healthy eating habits that can have life-long impacts (see Tables 3.16–3.18 and Box 3.9). The nutritional challenges that adolescents face

include micronutrient deficiencies, food insecurity, suboptimal diet quality and obesity.

Achieving optimal nutrition among adolescents requires coordinated actions that ideally include health, education, social protection, media and other areas. Schools can deliver interventions to high-risk groups, for example, iron and folic acid supplementation for adolescent girls. At the same time, health professionals can implement screening and treatment programmes and are trusted for information.

Table 3.16. Interventions to promote healthy diets among adolescents

Ecological level	Intervention	Further comment
Structural and environmental	Nutrient profiles	Develop and use nutrient profiles to identify unhealthy foods and beverages.
	Nutrient labelling system	Implement a standardized global nutrient labelling system, control the use of misleading health and nutrition claims, and implement mandatory front-of-pack labelling.
	Reduce access and affordability of unhealthy foods and beverages	Tax and increase the pricing of energy-dense, nutrient-poor foods and sugar-sweetened beverages. Government policy action is required to restrict the availability of highly processed foods.
	Reduce the impact of marketing of unhealthy foods and beverages	Target foods and beverages high in sugar, salt and fat. Establish cooperation between Member States related to cross-border marketing. Implement the WHO “Set of Recommendations on the Marketing of Foods and Non-Alcoholic Beverages to Children.”
	Food policies and standards	These should have clear definitions for the key components of food policies, thereby allowing for a standard implementation process.
	Social protection	Cash transfers to increase uptake of healthy meals and micronutrient supplementation. (See Case study 3.3 on preventing teen pregnancies and supporting pregnant teenagers in Ecuador.)
Organizational	Healthy food environments in schools and other public institutions	Require settings frequented by adolescents (such as schools, child care settings, children’s sports facilities and events and youth workplaces) to create healthy food environments.
	Improved access to healthy food	Improve the availability and affordability of healthy foods in public institutions and settings, particularly in disadvantaged communities.
	Nutrition education	Nutrition education can cover growing school gardens, dietary diversity, the food environment and practical food preparation skills. The school curricula can also support nutrition and food preparation.

Table 3.16 (continued). Interventions to promote healthy diets among adolescents

Ecological level	Intervention	Further comment
Community and interpersonal	Nutrition literacy campaigns	Ensure that appropriate and context-specific nutrition information and guidelines are developed and disseminated in a simple, understandable and accessible manner to all. Use social media to promote healthy behaviour or influence social norms and provide interventions for overweight and obesity control.
	Campaigns to raise awareness of adolescent obesity	Campaigns should target policy-makers, medical staff, adults, adolescents and children in general, promoting capacity-building related to adolescent obesity and its risk factors.
	Community ownership of interventions	Increase community ownership of interventions, inclusive of culturally relevant information. Include mentoring from community members to increase the impact of interventions.
Individual	Guidance on a healthy diet	For example, clinical dietary guidance for adolescents includes: <ul style="list-style-type: none"> • Restrict sodium intake to less than 2 g per day, reduce salt when cooking, and limit processed and fast foods. • Restrict free sugars to less than 10% of total energy intake. A further reduction to below 5%, or roughly 25 g (six teaspoons) per day, would provide additional health benefits. • Have five servings (400–500 g) of fruit and vegetables per day. One serving is equivalent to one orange, apple, mango or banana or three tablespoons of cooked vegetables. • Limit fatty meat, dairy fat and cooking oil (less than two tablespoons per day); replace palm and coconut oil with olive, soya, corn, rapeseed or safflower oil; replace other meat with chicken (without skin). • Fortify all food-grade salt used in household and food processing with iodine as a safe and effective strategy for the prevention and control of iodine deficiency disorders. • Offer daily iron supplementation as a public health intervention for menstruating adult women and adolescent girls living in settings where anaemia is highly prevalent (40% or higher prevalence), for the prevention of anaemia and iron deficiency. • Offer intermittent iron and folic acid supplementation as a public health intervention for menstruating women to improve haemoglobin concentration and iron status and reduce the risk of anaemia in populations where the prevalence of anaemia among non-pregnant women of reproductive age is 20% or higher.
	Weight management interventions for obese adolescents	Develop and support family-based, multicomponent, lifestyle weight management services for adolescents who are overweight (including nutrition, physical activity and psychosocial support). These should be delivered by multi-professional teams as part of UHC.

Sources: Hargreaves et al. 2021 (135), WHO 2018 (291), WHO 2010 (409).

Box 3.9. WHO recommendations for healthy diets in adolescence

Sugar intake for adults and children (2015)

WHO recommends a reduced intake of free sugars throughout the life course. In both adults and children, WHO recommends reducing the intake of free sugars to less than 10% of total energy intake and suggests a further reduction to below 5% of total energy intake (411).

Potassium intake for adults and children (2012)

WHO suggests an increase in potassium intake from food to control blood pressure in children ages 2–15 years. The recommended potassium intake of at least 90 mmol/day in adults should be adjusted

downward for children, based on the energy requirements of children relative to those of adults (412).

Sodium intake for adults and children (2012)

WHO recommends a reduction in sodium intake to control blood pressure in children ages 2–15 years. The recommended maximum level of intake of 2 g/day in adults should be adjusted downward based on the energy requirements of children relative to those of adults (413).

Sources: WHO 2022 (239), WHO 2022 (392).

Case study 3.3

Cash transfers improve outcomes for pregnant teenage girls in Ecuador



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On the northern Ecuadorian border, a pilot cash transfer programme offered cash transfers to improve the diet of pregnant adolescent girls. The programme ran from July to December 2019 and was jointly implemented by three government ministries, the WFP and Plan International. Areas targeted were communities at high risk of gender-based violence and teenage pregnancy. Girls residing in mostly rural and peri-urban settings who were considered poor or extremely poor were invited to participate. The project provided cash transfers the equivalent of US\$ 50 to cover costs of recommended diets that they could otherwise not afford. Recipients used funds to pay for food, sanitation products and health services. In addition to the cash transfer, they received site visits from implementers to encourage healthy eating and lead information sessions on food security and healthy sexual behaviours. Despite the programme's short duration, recipients of the cash transfers increased the number of food groups consumed by 29%. Also, the proportion of women who had consumed at least five out of the 10 pre-defined food groups the previous day or night increased from 34% to 60%. In addition to better diets, more girls reported having antenatal check-ups and understanding the importance of using medical services.

Source: Bernardini 2021 (410).

Table 3.17. Management of acute malnutrition among TB-infected adolescents

Ecological level	Intervention	Further comment
Individual level	<p>Assess adolescents presenting with weight loss for underlying causes and manage accordingly.</p> <p>Offer nutritional counselling and information on optimal, healthy weight.</p> <p>Enrol adolescents at risk of malnutrition in programmes that offer nutritional assessment, counselling and support, if available.</p> <p>All people with active TB should receive TB diagnosis, treatment and care according to WHO guidelines and international standards of care.</p>	<p><i>Management of severe acute malnutrition</i></p> <p>School-age children and adolescents (5–19 years) and adults, including pregnant and lactating women, with active TB and severe acute malnutrition should be treated in accordance with the WHO recommendations for management of severe acute malnutrition.</p> <p><i>Management of moderate undernutrition</i></p> <p>School-age children and adolescents (5–19 years) and adults, including lactating women, with active TB and moderate undernutrition who fail to regain normal body mass index after two months' TB treatment, as well as those who are losing weight during TB treatment, should be evaluated for adherence and comorbid conditions. They should also receive nutrition assessment and counselling and, if indicated, be provided with locally available nutrient-rich or fortified supplementary foods as necessary to restore normal nutritional status.</p> <p>Pregnant women with active TB and moderate undernutrition or with inadequate weight gain should be provided with locally available nutrient-rich or fortified supplementary foods as necessary to achieve an average weekly weight gain of at least approximately 300 g in the second and third trimesters.</p> <p>Patients with active multidrug-resistant TB and moderate undernutrition should be provided with locally available nutrient-rich or fortified supplementary foods as necessary to restore normal nutritional status.</p> <p>An adequate diet, containing all essential macro- and micronutrients, is necessary for the well-being and health of all people, including those with TB or other infections.</p>

Source: WHO 2013 (414).

Table 3.18. Micronutrients, including fortification and supplementation, for adolescents

Ecological level	Intervention	Further comment
Structural and environmental level	Prevent and control iron deficiency and iron deficiency anaemia.	Fortification of maize flour and corn meal with iron is recommended to prevent iron deficiency in populations, particularly vulnerable groups such as children and women. Fortification of maize flour and corn meal with folic acid is recommended to reduce the risk of occurrence of births with neural tube defects (NTDs).
	Prevent and control iodine deficiency disorders. Reduce the risk of folic acid deficiencies and occurrence of births with neural tube defects. Fortify staple foods such as flour with micronutrients. Fortify condiments such as salt with appropriate fortificants.	All food-grade salt used in households and food processing should be fortified with iodine as a safe and effective strategy for the prevention and control of iodine deficiency disorders in populations living in stable and emergency settings. At the population level, red blood cell folate concentrations should be above 400 ng/mL (906 nmol/L) in women of reproductive age to achieve the greatest reduction of NTDs. This red blood cell folate threshold can be used as an indicator of folate insufficiency in women of reproductive age. Because low folate concentrations cannot explain all cases of NTDs, this threshold cannot predict the individual risk of having an NTD-affected pregnancy; thus, it is useful only at the population level. No serum folate threshold is recommended for prevention of NTDs in women of reproductive age at the population level. Countries interested in using this indicator may consider first establishing the relationship between serum and red blood cell folate and then using the threshold value for red blood cell folate to establish the corresponding threshold in serum. Microbiological assay is recommended as the most reliable method to obtain comparable results for red blood cell folate across countries.
Community and interpersonal	Prevent and control micronutrient deficiency among vulnerable groups.	Daily iron supplementation is recommended as a public health intervention in menstruating adult women and adolescent girls living in settings where anaemia is highly prevalent (40% or higher) for the prevention of anaemia and iron deficiency.
	Set up distribution mechanisms to reach menstruating adolescent girls in areas where anaemia is a significant public health problem.	Intermittent iron and folic acid supplementation are recommended as a public health intervention in menstruating women living in settings where anaemia is highly prevalent, to improve haemoglobin concentration and iron status and reduce the risk of anaemia in populations where the prevalence of anaemia among non-pregnant women of reproductive age is 20% or higher. Daily iron supplementation is recommended as a public health intervention in school-age children ages 60 months and older living in settings where anaemia is highly prevalent, for preventing iron deficiency and anaemia. In malaria-endemic areas, iron supplementation should be provided to infants and children in conjunction with public health measures to prevent, diagnose and treat malaria. Intermittent iron supplementation is recommended as a public health intervention in preschool and school-age children to improve iron status and reduce the risk of anaemia in settings where the prevalence of anaemia in preschool or school-age children is 20% or higher.

Table 3.18 (continued). Micronutrients, including fortification and supplementation, for adolescents

Ecological level	Intervention	Further comment
Community and interpersonal		<p>Oral iron supplementation, either alone or in combination with folic acid supplementation, may be provided to postpartum women for 6–12 weeks following delivery to reduce the risk of anaemia in settings where gestational anaemia is of public health concern.</p> <p>Routine use of multiple micronutrient powders during pregnancy is not recommended as an alternative to standard iron and folic acid supplementation during pregnancy to improve maternal and infant health outcomes.</p> <p>Vitamin A supplementation in postpartum women is not recommended for the prevention of maternal and infant morbidity and mortality.</p>
Individual	Treat anaemia in those diagnosed.	Follow national guidelines for the treatment of anaemia.

Sources: WHO Regional Office for South-East Asia 2011 (415), WHO 2016 (416), UNICEF 2023 (417), Fernandez-Gaxiola and De-Regil 2019 (418), WHO 1999 (419).

3.13 Interventions in humanitarian and fragile settings

Humanitarian emergencies increase risks to, and exacerbate the vulnerabilities of, young people. Protective family and social ties can be disrupted, and risks of abuse and exploitation increase as security systems no longer function. Increasingly, forced displacements and humanitarian crises unfold over longer periods of time, months or years, sometimes affecting young people for large portions of their adolescence. Table 3.19 presents interventions to support adolescents in these settings.

Launched at the World Humanitarian Summit (2016), the Compact for Young People in Humanitarian Action is a collective commitment of more than 60 humanitarian actors “working to ensure that the priorities of young people are addressed and informed, consulted, and meaningfully engaged throughout all stages of humanitarian action.” Five key actions were identified (420):

- Action 1: Promote and increase age- and gender-responsive and inclusive programmes that contribute to the protection, health and development of young women, young men, girls and boys within humanitarian settings;
- Action 2: Support systematic inclusion of engagement and partnership with youth in all phases of humanitarian action through sharing of information and involvement in decision-making processes at all levels, including budget allocations;
- Action 3: Recognize and strengthen young people’s capacities and capabilities to be effective humanitarian actors in prevention, preparedness, response and recovery. and empower and support local youth-led initiatives and organizations in humanitarian response, such as those targeting affected youth, including young refugees and internally displaced persons living in informal urban settlements and slums;
- Action 4: Increase resources intended to address the needs and priorities of adolescents and youth affected by humanitarian crises, including disasters, conflict and displacement, and identify ways to more accurately track and report on the resources allocated to young people in humanitarian contexts; and
- Action 5: Ensure the generation and use of age- and sex-disaggregated data pertaining to adolescents and youth in humanitarian settings.

Table 3.19. Interventions to support adolescents in humanitarian and fragile settings

Intervention	Further comment
Nutrition	Assess conditions and ensure adequate rations for adolescent population groups according to age, gender, weight, physical activity levels and other key factors, considering both energy and micronutrient requirements.
Disability and injury	Ensure that core health services are accessible to adolescents with disabilities and adolescents with functioning difficulties resulting from injury in an emergency, including rehabilitation services and essential medicines in the appropriate dosages and formulations.
Violence	Provide medical screening of former child soldiers, clinical management and community-based psychosocial support for survivors of sexual and other gender-based violence and support their reintegration into families and communities. Create virtual and physical safe spaces, including in schools.
Sexual and reproductive health	Several evidence-based SRH interventions may be effective for young people in humanitarian and LMIC settings, in particular contraceptive and condom use skills and STI and HIV prevention. Consider implementing a minimal initial SRH service package and, as feasible, build a more comprehensive response, including psychosocial support, a protection system that addresses sexual violence and child marriage, and family planning and STI programmes for adolescents.
Water, sanitation and hygiene	Ensure safe access to and use and maintenance of toilets, materials and facilities for menstrual hygiene management, water and soap or ash for hand-washing, the hygienic collection and storage of water for consumption and use, hygienic food storage and preparation and efficient waste management.
Peacebuilding	Promote peacebuilding by creating safe spaces, enhancing knowledge and skills through education, building trust between youth and governments, promoting intergenerational exchange and supporting youth to contribute to their communities. The Youth4Peace portal (https://www.youth4peace.info/) provides a knowledge hub to share the positive contributions of youth to peace processes and conflict resolution.
Mental health	Promote inclusive recreational activities for adolescents, restart of formal or informal education and involvement in concrete and purposeful activities of interest. Employ psychological first aid techniques to provide general support for adolescents and their parents. For first-line management of adolescent mental, neurological and substance-use conditions by non-specialist health care providers, follow the mhGAP humanitarian intervention guide (13). Play-based programming, using sport and play, is increasingly showing promise. Consider these in refugee centres and adolescent-friendly spaces.

Sources: WHO 2015 (13), Inter-agency Working Group on Reproductive Health in Crises 2010 (295), House et al. 2012 (309), WHO 2016 (326), UNICEF 2004 (421), The Sphere Project 2011 (422), Desrosiers et al. 2020 (423), WHO 2015 (424), Youth Power2 2022 (425), UN 2018 (426), WHO 2003 (427), WHO 2011 (428), WHO 2004 (429), WHO 2013 (430), WHO 2004 (431), WHO 2012 (432), UNHCR 2010 (433), WHO 2006 (434), Lathia et al. 2020 (435).

Chapter 4.

Setting national priorities

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Chapter 4.

Setting national priorities

Key messages

- National and subnational governments need to identify and address adolescent health and well-being programming priorities because:
 - the scope for adolescent health and well-being programmes is very broad;
 - the nature, scale and impact of adolescent health and well-being needs are unique in each country;
 - all governments face resource constraints, and so they must make difficult choices to ensure that resources are used most effectively.
- The process of national prioritization should be explicit, transparent and involve all relevant stakeholders across key sectors. This process should include:
 - a needs assessment to identify which conditions have the greatest impact on adolescent health, well-being and development, both among adolescents by age, sex and part of the country and among those most vulnerable;
 - a landscape analysis of existing adolescent health and well-being programmes, policies, legislation, capacity and resources within the country, as well as a review of current global and local guidance on evidence-based interventions; and
 - setting priorities by applying explicit criteria such as the magnitude and public health importance of the issue; the potential to address the needs of vulnerable populations and poorly served groups; the existence of effective, appropriate and acceptable interventions to reduce priority burdens; and the feasibility of delivering the intervention(s) and potential to go to full scale.
- Over time, countries should reassess their priorities and programming for adolescent health and well-being to ensure that they still meet changing needs. New trends in health and health services, economic development, education, employment, migration, urbanization, conflict, environmental degradation and technological innovation should all be considered.
- While national and subnational priorities guide local action, further contextualization of programme activities should take place locally, based on local data, by identifying priority groups of adolescents, including the most vulnerable, and the best ways to reach them with interventions and services, while making the most effective use of local resources.

Chapter overview

Programming for adolescent health and well-being starts with identifying priorities. This chapter explains why prioritization is necessary and describes the process of national prioritization and its steps. It provides examples of how this process is conducted so as to integrate considerations across all domains of well-being.

Governments have increasingly recognized that diverse and complex needs for adolescent health and well-being, as described in Chapters 1 and 2, require prioritization so that effective use of national resources is optimized. The national prioritization process consists of three steps: 1) needs assessment, 2) landscape analysis and 3) priority setting (see chart below). Time, human resource capacity and funding will often dictate the level and depth of these steps.

Mechanisms should be put in place to ensure that adolescents participate and are able to contribute meaningfully to each step.

Guided by the first edition of the AA-HA! guidance, many countries have applied these steps to achieve national consensus on priorities for adolescent health and well-being. As countries will now be developing a new generation of programmes that will better integrate considerations of well-being, it is important that needs are assessed, and the landscape analysis is conducted, across all domains of well-being. Box 4.1 presents the example of TB.

What is new in this chapter?

- the process of national prioritization, explained through the lenses of all domains of well-being
- a sharper focus on gender analysis during needs assessment and landscape analysis
- priority setting at subnational and local levels
- new case studies.

Step 1. Needs assessment

A needs assessment takes stock of the adolescent health and well-being situation in the country, considering its current status as well as trends and inequities in exposure to risk factors, burdens and health service access. It identifies which conditions have the greatest impact on adolescent health and development, both among adolescents in general and among those most at risk. It should also account for differences between girls and boys and between younger and older adolescents, as well as other factors, such as disability and socioeconomic status, that affect health equity.

Step 2. Landscape analysis

A landscape analysis reviews the country's existing adolescent health and well-being programmes and policies as well as related legislation, capacity and resources. It should also examine the barriers to services that all adolescents and vulnerable sub-populations face. In addition, the landscape analysis should review current global and local guidance to determine which interventions are evidence-based and most effective to address the conditions identified in the needs assessment.

Step 3. Priority setting

A priority-setting exercise considers the high-priority adolescent conditions and populations identified in Step 1 and the most feasible evidence-based interventions and delivery mechanisms to address them, as identified in Step 2. This process considers the most vulnerable adolescents; the urgency, frequency, scale and consequences of burdens; the existence of effective, appropriate and acceptable interventions to reduce them; and the availability of resources and the capacity to implement or expand priority interventions equitably.

Box 4.1. Needs assessment and landscape analysis across well-being domains in the context of adolescents with TB

Physical and mental health

Assessing the needs of adolescents with TB

- What is known about how adherence, particularly related to side-effects, stigma, mental health and quality of life, are adversely affected by TB treatment, especially second-line treatment?
- What is the prevalence of substance or alcohol use among adolescents with TB?
- What is known about the impacts of substance or alcohol use on adverse events and TB care outcomes?
- Are there data on TB risk and outcomes for pregnant adolescents?
- What are the effects of family challenges, poverty, stigma, attending work or school, and migration, on adolescent engagement with TB treatment?
- How do fear of stigma, concerns about confidentiality, travel costs and need to attend school or work affect equal access for all adolescents to facility-based directly observed therapy?

Landscape analysis

- What are the current strategies for recognizing and managing substance or alcohol use in adolescents with TB?
- Are adolescents an explicit beneficiary group for TB preventive therapy (TPT), and are they prioritized for TPT provision?
- Are data on TPT uptake and completion for adolescents regularly reported?
- How do stigma, costs and other challenges associated with clinic visits affect coverage with TPT?
- Is facility-based directly observed therapy equally accessible and acceptable for all adolescents?

Connectedness and positive contribution to society

Assessing the needs

- What are the psychosocial and emotional impacts on adolescents of prolonged isolation and hospitalization?

Landscape analysis

- Are inpatient facilities responsive to adolescents and conducive to maintaining family and peer relationships during prolonged period of hospitalization?

Safety and a supportive environment

Assessing the needs

- What is known about how well the rights of adolescents with TB are protected, including rights to safety, basic needs, access to health care without discrimination, protection against unnecessary hospitalization and benefit from scientific progress?
- What is known about the impact on adolescents and their families of catastrophic expenditures, loss of income and food insecurity from TB and its treatment?
- Are gender differences observed for certain outcomes, such as adolescent females' increased risk of HIV infection and subsequent TB?

Landscape analysis

- Are there mechanisms to monitor whether the rights of adolescents with TB are protected, including rights to safety, basic needs, access to health care without discrimination, protection against unnecessary hospitalization and benefit from scientific progress? Are there mechanisms for complaint and redress?

Learning, competence, education, skills and employability

Assessing the needs

- What is known about the impacts on education of TB and its treatment, including impacts of prolonged isolation or hospitalization?

Landscape analysis

- What are the mechanisms to prevent and mitigate the disruption in education resulting from TB and its treatment and to ensure that adolescents' future livelihoods are not affected?

Agency and resilience

Assessing the needs

- What is known about how stigma and hierarchical models of care such as facility-based treatment undermine adolescents' agency?
- What are the threats to social networks related to the potential stigma of TB and its treatment?
- What is the impact of increased mental health challenges on adolescent resilience?

Landscape analysis

- Are there peer support groups and other mechanisms to support adolescents with TB in finding a sense of purpose or meaning in their experience of illness?

4.1 Needs assessment

What is a needs assessment?

A needs assessment involves a systematic national review of the health and well-being status of adolescents (105). It should include a review of available data disaggregated by sex, age groups, disability, education level, school status, literacy level, marital status, location (for example, urban versus rural), living arrangements, socioeconomic status, access to and use of digital applications and services that affect adolescent health and well-being and other variables that may be important in the local context, such as ethnicity. As part of a needs assessment, it is critical to conduct a gender analysis (see Box 4.2).

What type of data should be analysed during a needs assessment?

The needs assessment should use the most recent data from accurate and representative research to identify the main causes of adolescent mortality, morbidity and disease prevalence and contributing risk and protective factors across all domains of health and well-being. Chapter 2 presents a needs assessment at the global level. Ideally, a similar assessment would be conducted at the country level and at subnational levels. Since estimates of global and regional disease burdens might not reflect some local problems, needs assessments should be guided by, but not limited to, the conditions described in Chapter 2. For example, in some contexts venomous snakebites are a problem, and young working adolescents, ages 10–14 years, are at higher risk than others (436–438). In Nepal, for example, snakebites surfaced as one of the priority problems when AA-HA! municipal-level prioritization was undertaken.

Box 4.2. Questions for a gender analysis of adolescent health and well-being programming

- How do girls and boys get information about essential services, and what are their preferred channels/methods/platforms/trusted sources? How do these differ for girls and boys and for girls and boys from urban versus rural areas, different ages and ethnicities, and those with disabilities?
- Who makes decisions about adolescents' access to essential and time-sensitive services such as contraception? What resources do parents/legal guardians need to ensure access for their children (for example, information, money, time, transportation)? Who has access to and control over these resources?
- How does the need for confidentiality affect boys and girls differently? For example, do girls and boys have different access to resources (such as freedom of movement, access to cash, unsupervised time) that might affect their ability to obtain care in confidence?
- In specific neighbourhoods or communities, who can access households for outreach activities when house-to-house campaigns take place? Are there areas where only female health workers or volunteers are permitted to enter households? How does access (or lack of it) affect planning for frontline workers, such as social mobilizers and vaccinators?
- Are girls equally and meaningfully participating in programme design, implementation and M&E at different levels? What could be done to further increase their participation?
- What are the barriers to access to health centres for girls and boys (barriers related to, for example, quality, safety, availability, access and space in waiting areas)? How could these barriers be addressed?
- What are the possible barriers shaped by sociocultural and gender norms, as well as laws and policies, that might hamper timely access to critical services or, for example, the effectiveness of outreach services for the most vulnerable?
- How are health workers recruited, trained, supported and supervised? What are their opportunities to progress professionally and to be fairly remunerated? Are there issues related to worker safety, workload or flexibility of working hours? Do health workers receive gender awareness training?
- Have girls and boys from different backgrounds been consulted and involved in designing, monitoring and evaluating health care services? If so, in what ways?
- Are monitoring activities reaching boys and girls equally to hear their experiences and perspectives?

Source: WHO 2021 (68).

It is critical that the needs assessment consider data across all key areas of adolescent health and well-being, not limiting analysis to certain health areas (such as SRH or nutrition) where there might be more data. If there are no or limited data on certain conditions (such as adolescent mental health, FGM or STIs other than HIV), this should be acknowledged as a finding. Later, at the stage of priority setting, this finding will inform a plan to establish mechanisms to gather missing data.

Specifically, the needs assessment should examine:

- the main health and well-being issues and challenges affecting adolescents;
- the adolescent behaviours most closely linked to these health and well-being challenges;
- adolescent behaviours that could lead to health and well-being problems (for example, risk factors such as tobacco consumption, alcohol and drug use, physical inactivity and poor nutrition);
- levels of harmful practices affecting adolescents (such as child marriage and FGM);
- the sociocultural context of adolescents' lives, including protective and risk factors at various ecological levels (for example, environmental exposures) and in different institutions (for example, schools, health services and employers) that can influence the above issues;
- the influence of gender norms, roles and relations on the health and well-being of both girls and boys during adolescence (105);
- subgroups of adolescents who may be in the greatest need of services and programmes; and
- stakeholders and data sources that can provide more information on gaps and that need to be accessed to complete the needs assessment.

Case study 4.1

Setting priorities for adolescent health in Barbados



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When WHO launched the AA-HA! guidance in 2017, Barbados took immediate steps to become an “early adopter”. It was the first country in the Caribbean to apply this approach to develop a comprehensive national adolescent health strategy that would meet the needs of its youth.

Barbados applied the AA-HA! guidance to its own specific context. Chief Medical Officer Dr. Kenneth George remarked, “We recognized that the solutions to adolescence health cannot only be championed by health care alone and will involve several agencies, including youth and sport, education, welfare, law enforcement and, of course, the invaluable contributions from the nongovernmental organizations and civil society”.

The Barbados Ministry of Health, supported by the Pan American Health Organization (PAHO), engaged the Ministries of General Education, Sport & Youth, Justice, Interior and UN agencies WHO and UNFPA, along with civil society organizations, in a multisectoral effort to determine exactly who needs to do what to improve the health and well-being of the island’s adolescents.

With the guidance of the AA-HA! approach, six priority areas were selected for the adolescent health strategy; positive development; violence, accidents and injury; sexual and reproductive health, including HIV; communicable diseases; noncommunicable disease; and mental health, substance use and self-harm.

“We needed something that would respond to the changing demographics in Barbados, the economic down-turns, globalization, environmental changes and the constant introduction of new communication technologies,” said Dr. George.

The resulting 10-year strategy targets the most at-risk adolescents by proposing the following actions:

- the provision of strategic information and innovation
- creating enabling environments and developing evidence-based policies
- building integrated and comprehensive health systems and services
- enhancing human resource capacity
- identifying family, community and school-based interventions
- forming strategic alliances and collaboration with other sectors
- expanding social communication and media involvement.

What are the data sources for a needs assessment?

Box 4.3 describes key methods and data sources for a needs assessment.

Key stakeholders include adolescents and young adults, parents and families, community members, religious leaders, government representatives (for example, from health, education and social protection

sectors), national human rights institutions, NGOs and civil society representatives, UN technical organizations and bilateral and donor organizations. The needs assessment should establish a clear understanding of the most important health concerns and trends, even when it is not possible to compare and rank the rates of different conditions directly (for example, road injury mortality and morbidity rates compared with HIV prevalence and teenage fertility rates). Case study 4.1 looks at priority setting in Barbados.

Box 4.3. Methods and data sources for a needs assessment

- Desk review of data sources – for example, the health information management system, including data from facility-based registry systems, summary reports from individual patient record systems, community-level record systems and health facility assessments; Global Health Observatory data; and data from Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), the Global School-Based Student Health Survey, the World Mental Health Survey Initiative and the Global Youth Tobacco Survey; national disease surveillance records; national vital statistics; educational records; reports from key ministries serving adolescents; reports from research studies and research findings from projects working with vulnerable groups or in fragile settings;
- desk review of national, regional and global estimates from, for example, Global Health Estimates (439), the Global Burden of Disease study (440, 441) or global status reports (275). Estimates are especially useful in countries where civil registration and vital statistics (CRVS) systems are weak and required data are not readily available; the WHO resource bank on adolescent health and well-being includes a database and resources for statistics across key health areas (442) that can be used to extrapolate data in the absence of reliable national data;
- desk review of research such as national and subnational studies, peer-reviewed articles and other country assessments;
- desk review of policy documents (such as data from project evaluations);
- interviews with key stakeholders from the health sector and other sectors and UN agencies (UNAIDS, UNESCO, UNFPA, UNICEF, WHO, UN Women);
- focus group discussions with adolescents and youth.
- Ideally, data are presented disaggregated by age group (10–14 years and 15–19 years) and sex, as well as by geographic location, to facilitate comparisons.

4.2 Landscape analysis

What is landscape analysis?

Landscape analysis examines the extent to which the problems identified during needs assessment are addressed in national plans, policies and services.

What type of data should be analysed during landscape analysis?

To identify gaps in the national response, the landscape analysis develops an overview of national (i) laws and

policies, (ii) plans and strategies, (iii) stakeholders, (iv) implementation of programmes, (v) financing and (vi) current evidence-based interventions (see Box 4.4 and Case studies 4.2 from Paraguay and 4.3 from Thailand).

Like the needs assessment, the landscape analysis should explicitly elicit gender differences in access to services and reasons for them. (See Box 4.2 for questions for gender analysis as part of the needs assessment and landscape analysis.)

Box 4.4. Checklist for landscape analysis

- Are the problems identified in step 1 (needs assessment) sufficiently addressed in national plans and policies? To what extent does the national health plan integrate adolescents' needs and concerns into its goals and programming?
- Are there specific laws or policies that may impede adolescents' access to health services?
- What are the existing interventions and programmes? Do those programmes respond to social, economic and other determinants of adolescents' health and well-being across well-being domains?
- What are the gaps in the delivery of programmes and services?
- Which stakeholders and organizations are involved in planning, managing, implementing and M&E of these activities at the national and subnational levels?
- What are the scale, scope, quality, coverage and evidence of impact of existing adolescent health and well-being programmes in the country?
- What systems are in place to support capacity development, supportive supervision, coordination and other planning and management functions?
- How are interventions in relevant sectors tailored to reach particular groups of adolescents by age, sex, location, educational level and other sociodemographic variables?
- What is the level of funding for existing programmes and how are the funds allocated? Are currently funded activities aligned with the evidence-based practices recommended in the AA-HA! guidance (see Chapter 3)?
- Are youth involved in the design, implementation and monitoring of the programmes? Do marginalized groups, such as the disabled, street workers, orphans and other vulnerable groups in humanitarian settings, have equal opportunities to participate?
- What are the supply and demand barriers to access to quality services experienced by adolescents, and what financial protection is available?
- What are the gaps (such as recommended interventions or identified needs that are not reflected in national or subnational responses)?
- Who are the stakeholders?
- What data sources can provide more information on identified gaps and so need to be explored in order to complete the landscape analysis?

Case study 4.2

Landscape analysis in Paraguay



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Paraguay has made significant progress in advocating health and education services for adolescents across the country. Despite the strong foundations for implementing school health policies, however, there are still significant structural gaps that hinder the implementation of health programmes for adolescents and youth.

In support of the initiative for Making Every School a Health Promoting School, WHO and UNESCO have developed *Global standards for health promoting schools (443)*. The initiative is meant “to provide a resource for education systems to foster health and well-being through stronger governance” using eight global standards. The standards address government policies and resources, school policies and resources, school governance and leadership, school and

community partnerships, school curriculum, school social-emotional environment, school physical environment and SHS.

In Paraguay, for implementation of the global standards for health-promoting schools, WHO and UNESCO, in partnership with the Ministry of Education, conducted a landscape analysis at the national and local levels involving stakeholders, including public institutions, international agencies, civil society organizations and representatives of the communities where schools are located. The landscape analysis sought to identify strengths and weaknesses of health promotion strategies in schools. Qualitative and quantitative data were collected on each of the eight global standards for health-promoting schools.

Key recommendations from the landscape analysis included the need for clarity of guidelines, strong leadership commitment, increasing and managing resources for comprehensive school health programmes, establishing effective multisectoral and intersectoral means of collaboration and strengthening health promotion in educational settings through the provision of adequate, competent human resources and sustainable interventions. By conducting a landscape analysis, Paraguay positioned itself to set school health priorities specific to both national and local contexts while considering existing systems that could be leveraged and systems that should be introduced, developed or supported for all schools to become health-promoting schools.

Source: WHO Country Office Paraguay.

Case study 4.3

Rapid assessment of adolescent health and well-being in Thailand



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In 2019, as part of the regional assessment of adolescent health, Thailand undertook a rapid assessment of the adolescent health situation in the country and the national response. By applying the systematic approach recommended in AA-HA!, the country team systematically reviewed the health needs, strategy, policies and resources for adolescent health programme implementation and coordination mechanisms.

The assessment helped the country team to identify structural and programmatic gaps. These included access issues (for example, poor support for youth-friendly clinics), inadequate data infrastructure to support M&E of adolescent health programmes and not enough support and resources for adolescents’ groups. Also in need of improvement were programmatic interventions, such as HIV prevention among young populations most at risk and promotion of behaviours that prevent the onset of NCDs in adulthood. For example, the assessment highlighted the need for Thailand to continue strengthening implementation of the National Strategy to Prevent Teenage Pregnancy through a “genuine integration approach” with realistic budget integration. Also, the analysis revealed the need to strengthen data and research infrastructure by increasing the knowledge and research base about adolescents and linking databases of ministries and agencies. This assessment enables Thailand’s ministries and departments to identify clear strategies to implement school health programmes and initiatives, such as sex education, using appropriate channels, messages and target groups.

Source: WHO 2021 (444).

Box 4.5. Methods and data sources for landscape analysis

- Desk review of existing interventions, programmes, legislation, policies and projects that address adolescent health and well-being, as well as the results and outcomes of these initiatives and their alignment with the evidence base on what works. Special attention should be paid to what is being done by the government, NGOs and civil society organizations to address inequities and respond to social, economic and other determinants of adolescents' health problems;
- desk review to map existing data sources (for example, are there regular, institutionalized mechanisms to gather age- and sex-disaggregated data on adolescent health, well-being and risk and protective factors?);
- desk review of research such as national and subnational studies, peer-reviewed articles and other country assessments;
- desk review of programme documents (for example, data from project evaluations);
- field visits and interviews with key stakeholders to explore existing programme challenges and achievements, perceptions of needs and services and the capacity for and interest in expanded work on adolescent health and well-being in the health sector and other sectors;
- focus group discussions with adolescents and youth, including marginalized groups such as the disabled, street workers, orphans and other vulnerable groups in humanitarian settings, to gauge the equity of the response.

What are the data sources for landscape analysis?

Key methods and data sources for landscape analysis are much like those for a needs assessment, but the information gathered focuses on the response to adolescents' needs (Box 4.5).

4.3 Setting priorities

All governments face resource constraints, and so they must make difficult choices to ensure that their resources for adolescent health and well-being are used most effectively. Therefore, a priority-setting exercise is necessary. Priority setting considers the most important adolescent conditions and populations identified in the needs assessment and the evidence-based and feasible interventions and delivery mechanisms to address them, as identified in landscape analysis; prioritization of both key issues and interventions is necessary. Prioritization requires a systematic approach, transparent criteria (40) (Table 4.1) and meaningful participation and contributions by adolescents. All relevant stakeholders should be consulted (see Case study 4.4 from Sudan).



Table 4.1. Guiding criteria to identify national priorities for adolescent health and well-being programmes

Criteria	Explanation
Magnitude and public health importance of the issue that the intervention addresses	Resources should be directed at the main causes of death and illness or injury but, using a life-course approach, should also go beyond them to address risk behaviours and exposures that could affect adolescents' health now and in the future and to strengthen overall well-being (for example, resilience and connectedness).
Equity: Is the intervention likely to address the needs of vulnerable populations and poorly served groups?	All adolescents have health-related needs and can experience difficulties, but not all are equally vulnerable to health and social problems. Special consideration should be given to interventions that are likely to address the needs of the adolescents who are most vulnerable and/or need them most.
Availability of effective intervention(s)	Scarce resources must be used for interventions that have the highest chance of effectiveness for the subpopulations that need them most. All interventions in Chapter 3 are recommended by WHO and are known to be effective, but not all of them will address the issue in the specific country context with the same high impact.
Feasibility of delivering the intervention(s)	Social, economic and cultural constraints, including lack of recognition of adolescents' rights, may make it difficult to deliver certain interventions. Priority setting should be based on a careful and pragmatic analysis of the feasibility of delivering each intervention at scale in the country context. Acceptability of the intervention by the communities and political support for it are important considerations when selecting interventions.
Potential to go to scale	A realistic assessment is required to gauge how much capacity would be needed to grow each intervention with high quality and good coverage. Strong government and community ownership and political will help drive scale-up (see Case study 4.5 from Jamaica). Costing exercises can inform overall resource needs and how plans can be implemented in a phased approach.

National priority setting is needed even when it is not possible to compare and rank the rates of different health conditions directly, and even when evidence of local programme effectiveness is limited. In many cases this prioritization process depends heavily on expert opinion guided by relevant global evidence (see Case study 4.4 from Sudan).

4.4 Additional considerations

Over time, it is important for countries to revisit the three-step process of needs assessment, landscape analysis and priority setting to ensure that they are meeting changing adolescent health and well-being needs. New health trends and innovations in service delivery, economic development, employment, migration, urbanization, conflict, environmental degradation and technological innovation should all be considered. For example, an updated landscape analysis might identify new resources that are not being applied to their maximum potential – such as growth in rural telecommunications infrastructure, which could be exploited for telemedicine or rollout of e-health and mobile health interventions.

In addition, there may be times, such as in a humanitarian crisis, when a country or region urgently needs to set focused priorities for adolescent health and well-being. Box 4.6 describes how an adolescent SRH situation analysis might be conducted in humanitarian and fragile settings.

Case study 4.4

Sudan takes action to improve youth health and well-being



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Sudan's adolescents make up about one fourth of the total population, and yet not much is known about their diverse health needs. Although the country has a national health plan, it has so far not included adolescents, even though they are a significant portion

of the population with poor health and well-being outcomes. Realizing the urgent need to address the problem, the Directorate of Maternal and Child Health of the Technical Ministry of Health (MOH) used the AA-HA! guidance to mobilize stakeholders to work together to improve and implement the National Strategy of Adolescent Health and Well-Being. Using the evidence-based process described in the AA-HA! document, Sudan was able to engage multiple government ministries, UN agencies and key civil society organizations to conduct a needs assessment that highlighted critical health needs of the country's adolescents. Critical to the needs assessment process was the engagement of youth groups on a variety of key health and well-being topics. Engaging youth ensured that their needs are well understood and included in the national strategy.

In view of the gaps in data about specific national indicators and interventions, the list of evidence-based interventions in the AA-HA! guidance helped the MOH and stakeholders select national priority interventions relevant to Sudan. The first national strategy for adolescents, it sought to create a safe and supportive environment that offers protection and opportunities for healthy development and to provide much-needed health information and skills for adolescents. By employing the AA-HA! evidence-based approach, Sudan has positioned itself to better protect its youth and the health and well-being of future generations.

Source: WHO 2019 (445).

Box 4.6. Adolescent SRH situation analysis in humanitarian and fragile settings

In a humanitarian and fragile setting, it is important to conduct a rapid needs assessment and landscape analysis to develop a plan that responds to the priority needs of male and female adolescents. The 2009 *Adolescent sexual and reproductive health toolkit for humanitarian settings*, a joint effort by Save the Children and UNFPA (448), provides tools for initial rapid assessment, situation analysis and comprehensive SRH surveys of adolescents in emergency situations. Specifically, it recommends the following:

- **An initial rapid assessment** should be conducted during the first 72 hours of an emergency and used to collect demographic information and identify life-saving needs that must be addressed urgently.
- **A situation analysis** after an emergency has stabilized will provide information about the baseline status of SRH needs and services and will help with prioritization of interventions when comprehensive SRH services are introduced. Situation analyses may use several methods of data collection, including secondary data,

in-depth interviews, focus group discussions (sex-separated, if culturally required), community mapping and facility assessments.

Comprehensive SRH assessments are not often conducted in emergency situations because they are time-consuming and can place additional burdens on precious human and logistic resources. After stabilization of an acute emergency, however, a comprehensive assessment of SRH knowledge, beliefs and behaviours can provide valuable information that will help a programme to design an SRH programme that responds to the specific gendered needs of local adolescents.

Although these assessments and analyses are valuable in a humanitarian crisis, it is important to remember that the Minimum Initial Service Package for SRH as recommended in the *Inter-agency field manual for reproductive health in humanitarian settings* (295) should be the first SRH intervention to be introduced and should never be delayed.

Source: Singh et al. 2021 (287).

Case study 4.5

Scale-up of SRH programming in Jamaica



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Jamaica has come a long way since the 1970s to attain and maintain low pregnancy rates among adolescents and provide better support for pregnant adolescents. The adolescent fertility rate in Jamaica fell from 157 births per 1000 girls ages 15–19 in 1970 to 33 births per 1000 in 2020 (446). This decline has been underway for nearly four decades. Some of this success can be attributed to innovative solutions and interventions to delay pregnancy and support pregnant adolescent girls and mothers.

One of those initiatives was the Programme for Adolescent Mothers (PAM), launched by the Women's Centre of Jamaica Foundation as a small-scale initiative. The programme provided multiple interventions, primarily encouraging pregnant adolescent girls to return to school after giving birth and building their knowledge, attitudes and skills (for example, self-confidence and assertiveness), as well as providing sexuality education meant to prevent repeat pregnancies. The programme was a first in Jamaica, and, with initial seed funding from international NGOs and in-kind support from the government, the pilot was successfully implemented in two centres in Kingston and Mandeville. The pilot project showed that 73% of girls registered in the programme were enrolled in a secondary school or vocational institution, and more than 90% had chosen some form of contraception.

These promising results led to the programme receiving funding from the government and other partners for an effective national scale-up. By 2018 PAM had been scaled up to 10 centres and eight outreach centres in 14 parishes across Jamaica. PAM was able to scale up both vertically and horizontally due to several factors, including a supportive policy environment, political commitment, clarity of the programme packages and relevance of the programme to its beneficiaries. Having a clear funding strategy and a funding stream that included both government and non-governmental sources contributed, as well, to successful scale-up.

Source: Amo-Adjei et al. 2023 (447).

Chapter 5.

Programming: translating priorities into plans and actions

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Chapter 5.

Programming: translating priorities into plans and actions

Key messages

- The most powerful gains for adolescent well-being result from multisectoral action. Countries should invest in intersectoral programmes for adolescent health and well-being to leverage the multiplier effect of joint action. In parallel, single-sector action will make attention to adolescents' needs normative in all sectors – the Adolescent Well-being in All Policies Approach (3).
- The evidence is clear: the smartest investments are coordinated investments in health and education that reinforce each other. School health programmes are among the most common public health programmes. They are feasible in all settings, deliver significant gains for human capital and are cost-effective. Realizing the potential of every learner and every school requires transition to health-promoting education systems that embrace enhancing learners' health and well-being as a core mission. The WHO and UNESCO Global Standards for Health Promoting Schools provide a framework for countries to adopt this more holistic and system-oriented approach to school health at all levels of the educational system.
- Adolescent-responsive health systems are key to achieving UHC. To guarantee explicit, ongoing, dedicated attention to issues of adolescent health and well-being within the health sector, countries may consider establishing an adolescent health focal point in the ministry of health, with responsibilities for championing adolescent health and well-being within the ministry, coordinating systematic attention to adolescent needs in all health programmes and serving as a liaison for multisectoral action.
- Countries should ensure that adolescents' expectations and perspectives are heard in national programming processes. Adolescent leadership and participation should be institutionalized and actively supported during the design, implementation and M&E of programmes for adolescent health and well-being.
- Adolescents are a very diverse group, with diverse needs. “Leave no one behind” should be a key principle in programming for adolescent health and well-being. A concern for equity, with due attention to age, sex, disability and, in particular, vulnerability, should inform all stages of programming, from setting goals, targets and objectives through planning interventions, services and activities to defining indicators and monitoring progress and achievements.
- To assure sustainability, responsibility for funding programmes for adolescent health and well-being should be shifted towards domestic resources by including a focus on adolescents in national sectoral strategies, investment plans and budgets. Leveraging domestic resources for adolescent well-being will require better advocacy, based on investment cases for adolescent health priorities in the context of sectoral plans and budgets. External funding opportunities such as applications to the Global Financing Facility for Women, Children and Adolescents and the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) provide additional opportunities to increase funding.

Chapter overview

This chapter describes implementation areas and strategies to achieve the overarching goals of improving adolescent health and well-being and equity in health outcomes. The chapter starts by identifying the common elements of programming for adolescent health and well-being that are summarized in the logical framework (section 5.1). It then presents an overview of how to design a programme, taking into consideration possible pathways (section 5.2.1) and various ways of sectors working together (section 5.2.2). Specific aspects of programming for adolescent health and well-being in humanitarian and fragile settings are described in section 5.2.7, and gender-transformative approaches, in section 5.2.8. This chapter then describes, in section 5.3, WHAT needs to be done, by addressing implementation areas and strategies in each of the key sectors. Throughout the chapter, practical examples are provided of how programming has been applied in various countries.

There is some overlap between the implementation areas and strategies described in this chapter and some of the organizational, structural and macro-level interventions described in Chapter 3, due to their similar nature. For the convenience of the reader, when there is such overlap, we list the implementation areas and strategies along with other priorities for programming, even if it has also been mentioned as an intervention area in Chapter 3.

What is new in this chapter?

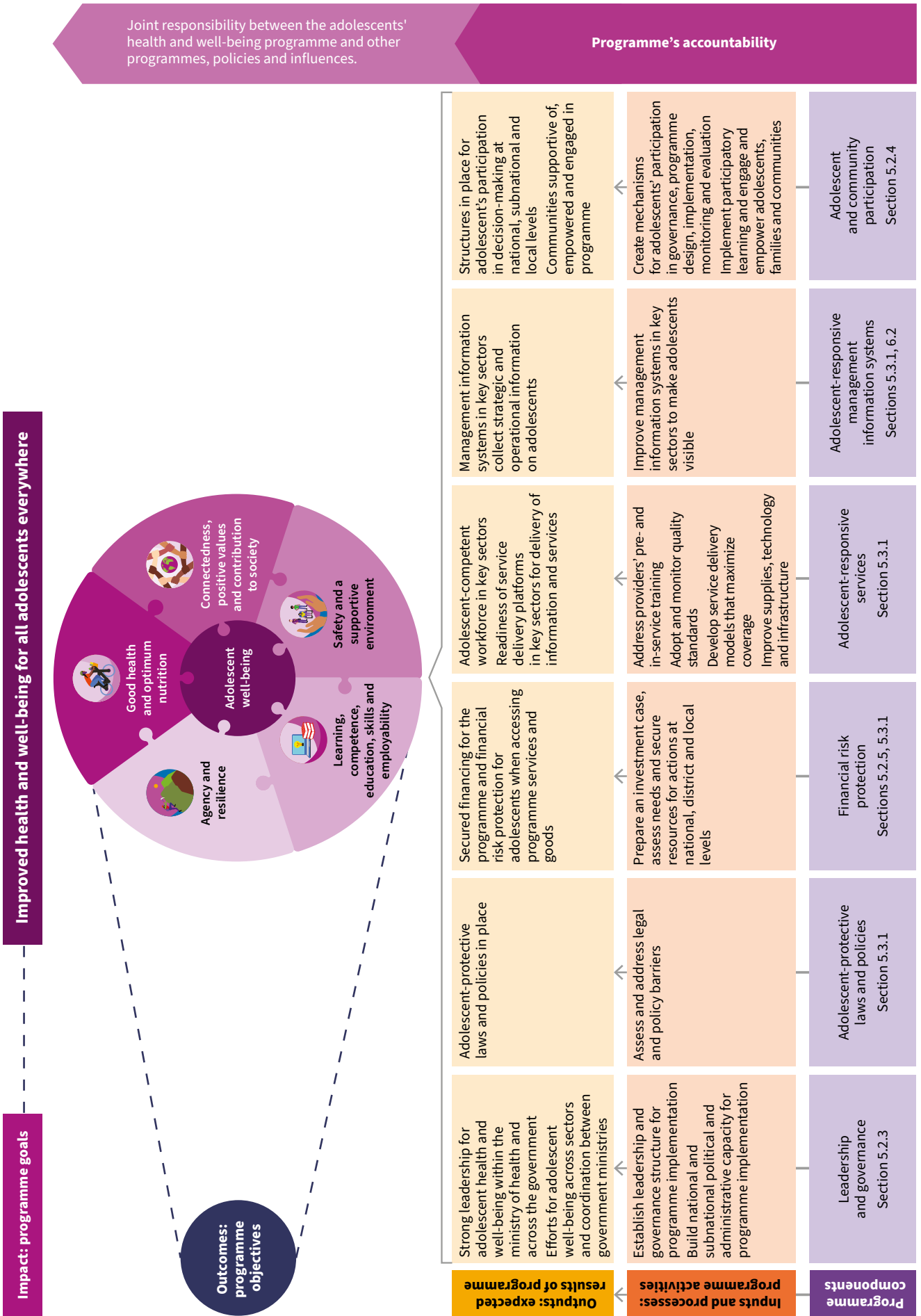
- a revised logical framework for programming, integrating well-being domains
- a better description of the complementarity of different approaches to programming for adolescent health and well-being
- new evidence from the global analysis of school health programmes
- key implementation strategies in health and other sectors updated based on the latest guidance.

5.1 A logical framework for translating priorities into plans and programmes

As described in chapters 2 and 3, the scope of programming for adolescent health and well-being is large. It encompasses mental health, NCDs, SRH, road traffic injuries and violence, among others. It is difficult, therefore, to have a generic blueprint for the specific elements in the design and implementation of programmes for adolescent health and well-being. Differences in country capacity and in priorities and contexts will influence the choice of specific interventions and activities.

Still, a unifying approach is possible. There are common elements to all programming for adolescent health and well-being, as described by the logical framework (Fig. 5.1). The logical framework provides a formalized approach to the planning, programming and evaluation of programmes and serves as a useful checklist of programme elements that need to be considered in planning a systemic response to adolescent health and well-being (449). The logical framework makes explicit the links among programmes' goals, objectives, key interventions, implementation strategies and activities. This framework is applicable not only to programmes led or implemented mainly by the health sector but also to programmes led or implemented mainly by other sectors. With the renewed attention to adolescent well-being as defined by five interconnected domains (31) (see Fig. 1.1), the revised logical framework recognizes the equal importance of the five well-being domains and integrates outcome-level measures for each.

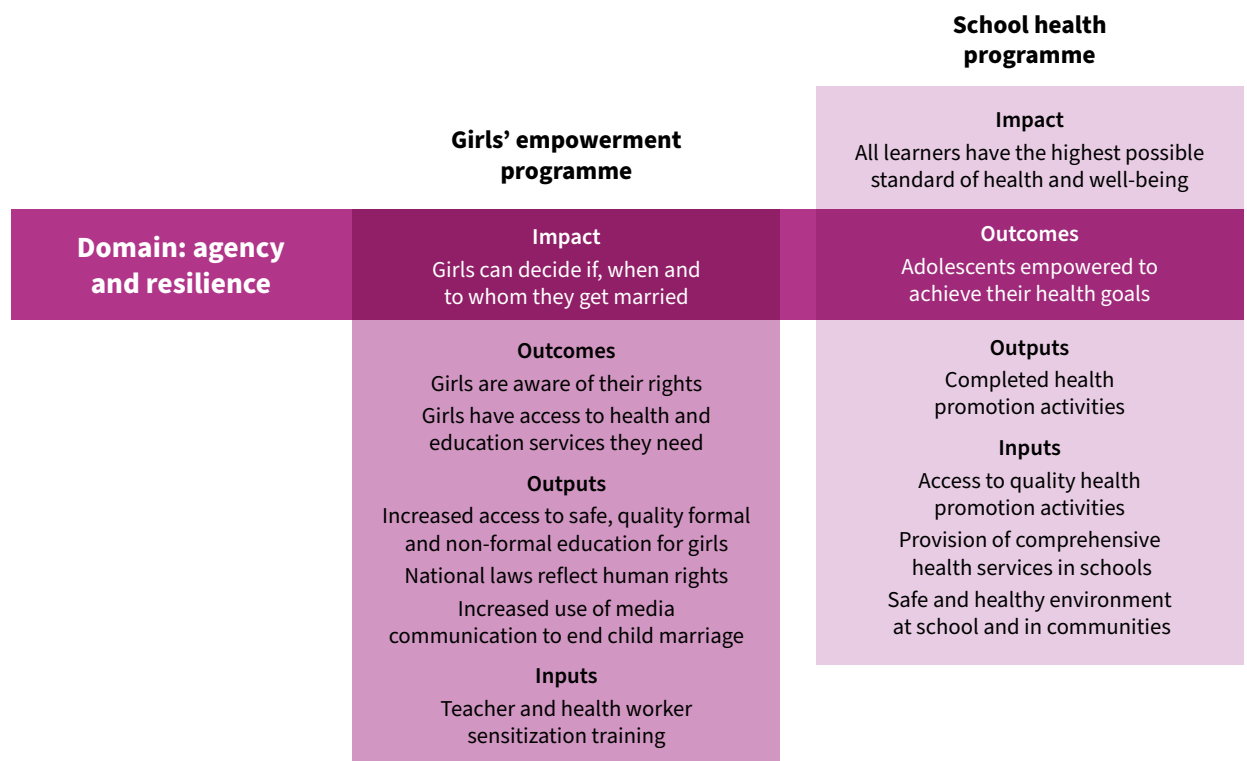
Fig. 5.1. A logical framework for national programming for adolescent health and well-being



Programme outcomes and impacts will always be related to one or another domain of well-being, but an impact in one programme might be an outcome in another, or an output in one programme might be an outcome in another. For example, for a programme that

has a primary intention to empower girls, girls' agency will be a programme impact. However, for a school health programme, girls' agency will be an outcome required to achieve the main goal (Fig. 5.2).

Fig. 5.2. Example of relationship among programme elements depending on the type of the programme



In programming, a holistic view of the impacts across well-being domains is not only important but in many instances essential. Even for programmes that focus primarily on health outcomes, approaches that promote other dimensions of well-being – for example, connectedness, education and employability – should be considered (7). A useful example is nutrition. To address the key drivers of adolescent malnutrition, programme design must consider the interconnectedness of protective and risk factors for adolescent malnutrition across multiple domains of well-being. These include macro-level policies (for example, poverty reduction strategies and social protection measures), education (for example, health and nutrition literacy, shared values and social interaction around food), life skills (for example, making healthy lifestyle choices and the ability to critically assess online content), agency and resilience (for example, empowerment to question gender biases and oppose discriminatory practices) and safe and enabling food environments (for example, regulation of marketing, food security, micronutrient

supplementation and social protection mechanisms to ensure food security) (9).

Another example is programming for sexuality education, which requires looking beyond mortality, morbidity and risks (for example, reducing the risk of pregnancy or STIs) to developing a broader approach that addresses key underlying behavioural and cognitive issues such as young people's self-confidence, self-expression, citizenship, sexuality and aspirations and the ability to think critically and make informed decisions (450). Case study 5.1 from Zambia illustrates a rights-based and gender-focused approach to sexuality education.

Programming for well-being means attention to all domains. In the regional consultations for adolescent well-being, Member States agreed that adolescent well-being should be included as a major implementation area and strategy in national and subnational implementation plans using a whole-of-government and whole-of-society approach (7).

Case study 5.1

Comprehensive Sexuality Education Programme in Zambia



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In 2016, in partnership with UNESCO, the government of Zambia launched a national comprehensive sexuality education (CSE) programme addressing all young people, including those with disabilities and those living with HIV. The goal of the programme was to increase access to age-appropriate CSE for young people ages 10–24 years. Ultimately, the purpose of the programme was to improve the health of adolescents and young people by providing them with better appropriate and timely SRH education. The International Technical

Guidance on Sexuality Education, developed by UNESCO and its partners, guided implementation of the programme (103).

The government of Zambia implemented several strategies, including integrating CSE into school curricula in all government schools from grades 5 through 12, training teachers and providing them with culturally appropriate and gender-sensitive teaching materials. The delivery and sustainability of the programme was ensured by collaboration across key sectors, including relevant government ministries, local government, UN agencies, NGOs and other partners. Ownership of the programme at the local level was built by training and tasking Provincial Standards Officers to monitor the delivery and quality of CSE at the school level.

A careful and systematic approach to implementing CSE that is evidence-based, age-appropriate and sustainable has so far resulted in positive results for schools implementing the programme. In 2015 the programme reached an important milestone – implementation of CSE in all targeted government schools across the country. An evaluation of the programme using the Sexuality Education and Review Tool (451) found positive results, with high scores for many key metrics, including objectives, coverage, programme model, stakeholder analysis and programme content.

By 2016 nearly 77% of the programme coverage target had been met, reaching over 1.35 million learners through 38 521 teachers trained in-service by 243 master trainers.

Source: UN Women 2019 (23).

5.2 Planning multisectoral action

5.2.1 Two pathways for programming for adolescent well-being

Translating national goals into actions and plans can happen in either of two ways. One is to establish an adolescent-specific programme, which entails a coordinated and comprehensive set of planned, sequential health strategies, activities and services designed to achieve well-defined objectives and targets. However, health and social systems' response to adolescents' health and well-being needs is often hampered by vertical project organization led by multiple actors, which complicates management (11, 21). These projects often do not have domestic budgets and supervision. Institutionalizing and consolidating them under a coherent programme with strong central leadership, greater decision space for district leaders, accountability mechanisms, increased stewardship by local leaders instead of external partners, and the ongoing involvement of community and district actors will ensure greater programmatic coherence and relevance to local needs (11).

A national programme can be established within, and led by, one sector, or it can be intersectoral (see section 5.2.2). It usually has national, subnational and local coordinators and secured funding to support planned activities. The advantage of this way of programming is guaranteed attention and funding, enhanced by accountability. For the sustainability of the programme, however, it is important that the funding source is

coordinated and integrated into the overall health sector budget and that the programme does not create separate organizational arrangements that may lead to inefficient overlaps and duplication (8). Ultimately, viable programmes are those that strengthen the core functions of the system rather than create new structures.

The second way of programming for adolescent health and well-being, in the absence of a specific programme, can take place as part of the sector's strategic and operational planning cycles. Arguably, actions within a single sector produce the greatest benefits when that sector is doing its own core business well. For example, for the education sector, keeping adolescent girls in school and providing good education that enables their economic empowerment might have greater and longer health impact than activities to increase health literacy or provide school-based health clinics (452). This way of programming requires that decision-makers involved in strategic and operational planning are sensitive to adolescent-specific needs and solutions. This is often not the case, however, especially where experience in implementing policies and plans for adolescent health and well-being has been limited. In such cases establishing an adolescent-specific programme might be a better way to maintain focused attention to adolescent well-being. Ideally, such a programme should receive support from sectors that see this as part of their core business (452).

To sustain efforts, it is important that the programme is institutionalized (Box 5.1).

Box 5.1. Features of an institutionalized adolescent health and well-being programme

A national programme for adolescent health and well-being is a comprehensive set of planned and sequential strategies, activities and services designed to achieve well-defined objectives and targets. (The terms project, initiative and programme are often used interchangeably.) Successful small-scale projects and initiatives may mature into institutionalized national programmes (447).

In this guidance we focus on institutionalized adolescent health and well-being programmes. Their common features are:

- statements in policy documents that support programme efforts
- a line item in a permanent health or education departmental budget
- a place on the organization chart
- permanent staff assigned to specific programme roles (for example, national, subnational and local coordinators)
- descriptions that specify functions and levels of effort
- facilities and equipment for programme operations
- an institutional memory for important agreements and understandings.

Regardless of the pathway, programming efforts can achieve sustainable results only if efforts are made to strengthen the systems response, for example, by building adolescent-responsive health systems (see section 5.3.1) or health-promoting education systems (see section 5.3.2).

5.2.2 Approaches to multisectoral action

To effectively address the complexity of the health and social determinants of adolescent well-being, multisectoral action is usually required.

About half of the gains made in the health of women, children and adolescents result from investments made outside the health sector (4). These investments particularly include efforts to reduce inequalities, increase education, improve nutrition, make water and sanitation more available, improve access to technology and create healthier environments (452). Often, the health sector has neither a sufficient mandate nor the competence to address wider determinants of adolescent health and well-being.

In these cases, collaboration with other sectors is essential (453). Therefore, interventions beyond the health sector should be considered core to national strategies for adolescents' health and well-being (452).

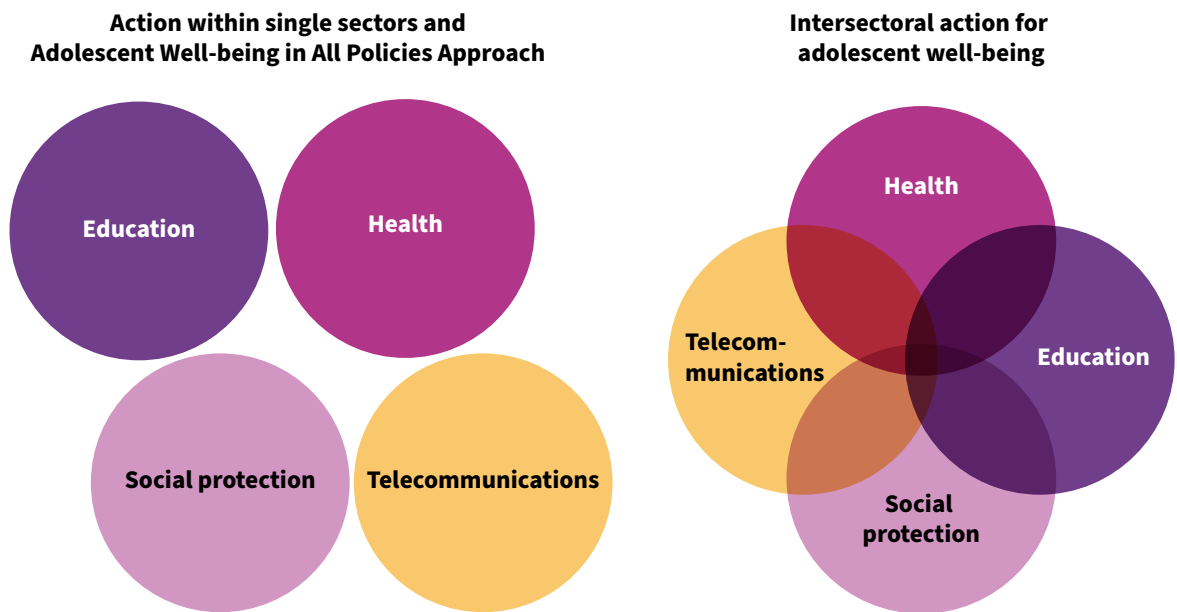
Multisectoral action includes two types (Fig. 5.3). One is actions within multiple single sectors (for example, health, education, water and sanitation, environment or nutrition), all of which advance adolescent health and well-being. This approach is appropriate when different sectors have full or nearly full responsibility for specific health or well-being problems or aspects of these problems. Jobs for youth is an example; the labour sector has responsibility for job creation, while the health sector takes responsibility for health protection in the workplace.

Implementation areas and strategies for individual sectors' contributions to adolescent health and well-being are described in section 5.3. In this approach each sector needs to normalize attention to adolescent-specific needs in all aspects of its work. If implemented with fidelity and through the lens of the Adolescent Well-being in All Policies Approach (3) (Fig. 5.3), this approach in the long term leads to sustainable adolescent-responsive public policies in key sectors.

The second approach is intersectoral action, a joint action across and between sectors (for example, between health and education sectors or between environment and water and sanitation sectors). In some situations, especially if the programme goals cut across domains of well-being, an intersectoral approach can achieve outcomes in a way that is more effective, efficient or sustainable than might be achieved by the health sector alone (453, 454). In intersectoral action a joint focus also facilitates ongoing shared learning (11, 453).



Fig. 5.3. Types of multisectoral action



This approach was formerly called the Adolescent Health in All Policies Approach. With the advent of the well-being framework, the Adolescent Well-being in All Policies Approach is now defined as an approach to public policies in which all sectors systematically take into account the implications of their decisions on adolescent well-being, avoid harmful effects and seek synergies that improve adolescent well-being and health equity. It is an approach that facilitates the formulation of adolescent-responsive public policies throughout key sectors.

Source: Adapted from WHO 2021 (141).

Intersectoral action broadly refers to the alignment of intervention strategies and resources between actors from two or more policy sectors in order to achieve complementary objectives that improve adolescent well-being or its determinants. While intersectoral action is usually concentrated in government, it also can mean actions across other sectors including civil society and the private sector.

In contrast to single-sector actions, intersectoral actions require public policies that involve two or more ministries performing different and complimentary roles to achieve a common purpose. Such collaborations are much more complicated than merely involving other sectors in programme

implementation through information exchange, coordination or cooperation. Therefore, it is important to build the necessary human and institutional foundations for intersectoral action even before establishing a formal intersectoral programme (54). This can be done systematically (Box 5.2).

Box 5.2. Practical steps in leading the planning and management of an intersectoral programme

- Raise awareness of the extent of the problem and that prevention is possible. Because ministries of health, at both national and local levels, generate much of the available data on issues such as youth violence, self-harm, adolescent pregnancy and undernutrition and oversee treatment for these conditions, they are well-positioned to campaign for more attention to these issues.
- Awareness generally is needed at three levels: within the ministry of health and district health management teams, among other sectors and with the public (23).
- Clarify the policy framework that mandates or enables intersectoral action on the issue at stake. Identify policy documents, such as national strategies and plans of action, that stipulate the necessity of joint action across sectors or otherwise are important for ensuring effective planning, coordination and implementation of intersectoral action.
- Invest in consulting with different sectors and in establishing a shared vision among key stakeholders. Identify focal points for the issue in other sectors and organize an informal meeting or meetings with other key sectors. Share information about your current work and goals, identify common interests and establish a mechanism to exchange information regularly.
- Be aware of common barriers to intersectoral action and take anticipatory or remedial actions. Collaboration with other sectors brings specific communication challenges. These can include lack of understanding of the political agendas and administrative imperatives of other sectors and differences between sectors in the discourse of framing priorities and goals. Structural barriers also exist. For example, budget allocations within each sector might be difficult to align with the budget lines needed for intersectoral action.
- Establish a formal partnership with clear governance structure, a mandate from the highest level of the government and strong representation of adolescents and the community. Appoint a national lead with a mandate from the highest level of the government who will be responsible for the overall delivery of the programme and engaging with national and local organizations (see Case study 5.2 from the Philippines). Develop and agree on the terms of reference for the national lead and each agency involved. Organizations and individuals involved in partnerships need to have both the authority and the flexibility to engage in joint decision-making. Clarity about partners and stakeholders is key: who, how many, their roles and responsibilities and the need for consistent participation and commitment.
- Consider setting up an independent advisory group. By reviewing annual reports, this group will provide independent scrutiny of progress and will highlight possible neglected issues for the attention of the sectors involved.
- Invest early in organizational capability. A well-designed programme reaches, and builds the capacity of, a wide variety of health professionals, programme administrators and policy-makers and helps them to develop local plans, service delivery and research. It provides guidance materials and manuals to support local implementation and to facilitate fidelity in implementation. Key areas where guidance materials might be needed include: community and youth engagement; district planning; working across disciplines and government sectors; public/research/practice partnerships; core indicators and measures; and specific health issues. Such a programme collaborates with key national research centres and institutions and leverages their resources for intervention development and implementation research. It also develops the core capacity of other, ongoing adolescent health and development programmes (for example, national mental health programmes and HIV programmes).
- Ensure adequate financing for national, subnational and local activities. Decide on the approach to co-financing (Table 5.1, p. 131). Consider making allocation of funds to local areas contingent on meeting certain requirements, such as appointing local coordinators and developing local plans.
- Create a mechanism for review. Review should be informed by systematic collection of data through the routine information system and should facilitate regular adjustment, as required, by the sectors involved. Provide continuous support to ongoing monitoring, continuous quality improvement and rigorous evaluation of interventions and policies.
- Plan for long-term sustainability from the outset (455) by aligning service delivery, financing, generation of human and physical resources/inputs and stewardship, on one hand, with system-wide objectives, on the other (21), and by considering enablers and barriers to sustaining co-financing (Table 5.1).

5.2.3 Build leadership within the ministry of health and across the government

Good governance is a prerequisite for high-quality health systems (11), and leadership for adolescent health and well-being across the government is an essential foundation for successful programming (456). A growing number of countries, including Chile, Ethiopia, Thailand and the United Kingdom (England), have established strong leadership that has led to successful national government-led programmes for preventing adolescent pregnancy (see also Case study 5.8 from Mauritius). Strong leadership for adolescent health and well-being within the ministries of health mandated collaboration among departments and ensured a focus on adolescent health and well-being in key policies, such as those related to financial risk protection, training and education of providers, quality improvement, health management information system (HMIS) and infrastructure.

To address other domains of well-being and their determinants, strong leadership is required at the highest levels of both national and local government to mandate collaboration between different arms of government, including finance, gender, planning, statistics, social welfare, security, labour, health and education. Working closely with communities, civil society, young people and the private sector is crucial as well.

Case study 5.2

Management of the Health in Schools programme at the local level in the Philippines – making every school a health-promoting school



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About one third of the population of the Philippines is of school age, and health in schools is considered an important component of the agenda of the country's Department of Health. Although the country does not have a direct school health policy based on WHO's definition for HPS, it has an SHN programme that

includes several interventions similar to those of WHO's HPS approach. In July 2018 the Department of Education launched the Health in Schools programme. Its goal is to provide education on healthy lifestyle behaviour and to offer basic primary health, nutrition and dental care for school staff and students and also to ensure a link between providers of child and adolescent health services and local governments.

While the programme is led and implemented by the Department of Education, coordination of the programme depends mostly on local governments. Local governments are responsible for the management and allocation of funds to schools for the implementation of the various programmes. They receive and allocate funds from the central government as well as provide additional funding to support school improvement and other needed interventions not funded by the central budget. Local authorities such as school officials and superintendents support initiatives in SHN programmes and projects, for instance. They also provide other administrative support needed for school-based management of the Health in Schools programme.

School management also contributes to the development of school-level policies and the management of the school environment. Although barriers still exist to school health programmes, the Health in Schools strategy, by including local authorities as key stakeholders, has contributed to the success of some health programmes in schools, such as water, sanitation and hygiene (WASH).

Source: WHO 2021 (18).

“The more that decision-makers at the national level highlight adolescent health, the more that young people will be informed about SRH, family planning and the fight against gender-based violence.

—Participant in the AA-HAI 2.0 public consultation, Burundi

Implementation strategies to step up leadership for adolescent well-being within the ministry of health and across the government

1. Establish a national-level mechanism, or use existing platforms, to oversee and coordinate efforts for adolescent health and well-being across sectors and government ministries. Such a mechanism would facilitate the engagement of relevant agencies and civil society organizations, including adolescents themselves. It would also identify and periodically review priorities for intersectoral collaboration, create incentives to expedite the work, coordinate action across government ministries and promote accountability at all levels.
2. Appoint an adolescent health focal person in the ministry of health with the responsibility to:
 - Work across departments within the ministry of health – for example, financing, workforce, primary care and hospital care – to ensure that all health programmes have an appropriate focus on adolescent health and well-being.
 - Coordinate adolescent-specific programmes within the health sector or across sectors, depending on the mandate.
 - Work with other sectors during their routine strategic and operational planning cycles to ensure Adolescent Health in All Policies (see section 5.2.2).
 - Liaise with other sectors through an intersectoral platform and advocate strong leadership for adolescent health and well-being across the government and collaboration in pursuit of jointly owned health targets.
 - Plan and manage intersectoral action (see Box 5.2).
3. Build national and subnational (for example, district-level) political and administrative capacity and leadership for adolescent health and well-being through:
 - developing decision-makers’ competence to use data for decision-making for adolescent health and well-being
 - applying skills in advocacy, negotiation, budgeting, building consensus, planning and programme management
 - collaborating across sectors
 - coordinating multi-stakeholder action
 - mobilizing resources
 - ensuring accountability.

5.2.4 Ensure meaningful adolescent and youth engagement

Meaningful adolescent and youth engagement (MAYE) must be made integral to the design, implementation and M&E of programmes and to the decision-making that affects adolescents in all spheres (59). The signatories of the Global Consensus Statement on Meaningful Adolescent and Youth Engagement define MAYE as “an inclusive, intentional, mutually-respectful partnership between adolescents, youth, and adults whereby power is shared, respective contributions are valued, and young people’s ideas, perspectives, skills, and strengths are integrated into the design and delivery of programmes, strategies, policies, funding mechanisms, and organizations that affect their lives and their communities, countries, and world” (59).

Policies in key sectors should not be based exclusively on adults’ views of adolescents: too often, adolescents are tokenized, left out of discussions or uncompensated for their time. Health and other ministries or governments have the responsibility not only to respect the adolescent’s right to participation but also to protect and fulfil it. This entails building adolescents’ capacity and providing them with meaningful opportunities for participation in leadership and financing decisions and in all phases of the programming cycle, including assessment, analysis, planning, implementation and M&E (457).

“Governments can create an environment that values young people’s contributions and perspectives by recognizing their skills, knowledge and experiences. This can be achieved by providing training and resources to young people and ensuring that their input is taken seriously and incorporated into programmes and policies.

—Student (male), age 19–25, Uganda

Why is MAYE in programmes important?

Engaging adolescents in decisions affecting their lives brings multiple benefits (307, 458).

- From a **pragmatic perspective**, adolescent participation ensures better decisions and policies (307, 458). It allows decision-makers to tap into adolescents’ unique perspectives, knowledge and experience, which leads to better understanding of their needs and problems and to more suitable solutions. Adolescents’ participation in health care helps create sustainable, acceptable, locally appropriate and more effective solutions, while also encouraging more adolescents to seek and remain engaged in care (459). In addition, programmes can benefit from adolescents and youth playing an important role in tracking progress through their feedback on how policy application is progressing.
- From a **developmental perspective**, meaningful engagement has an essential positive influence on adolescents’ social and emotional development (454). It enhances adolescent–adult relationships, develops adolescents’ leadership skills, motivation and self-esteem, and allows them to develop the competencies and confidence that they need to play an active role in society (460).
- From an **ethical and human rights perspective**, children’s right to participate in decision-making is protected in the United Nations Convention on the Rights of the Child. It is a way to promote health equity. The underlying basis of inequities is the unequal distribution of power, money and resources, and so empowering and involving vulnerable and excluded groups of adolescents through meaningful participation constitutes one of the mechanisms for the redistribution of power (461). Clarifying what “ethical involvement” means from the perspective of young people is important (462).

To understand how governments can more effectively engage adolescents in health and well-being programmes, we asked adolescents and young adults to recommend the top three actions that governments can take. Box 5.3 summarizes the key recommendations, based on the 771 responses, for enhancing meaningful adolescent involvement in health and well-being initiatives.

Box 5.3. How to meaningfully engage adolescents in health and well-being programmes related to them: a synthesis of 771 responses from adolescents and young adults

Involve them in different projects and skills development programmes and give them functions in different offices or space in the public sector.

Organize sit-down sessions to involve young people who have many followers in social media in campaigns promoting healthy lifestyles and well-being.

Conduct comprehensive research on the needs of adolescents and create appropriate and accessible holistic health programmes according to the needs of adolescents from the community.

Make efforts to better involve adolescents in the design, implementation and evaluation of programmes, policies and funding mechanisms that affect their lives.

Provide trainings to civil society organizations, offer incentives for engagement and reach out to those from vulnerable groups, such as those in underprivileged and marginalized communities.

Empower young people to participate in decision-making by providing them with the necessary information, resources and support (innovative and effective communication strategies).

Develop policies and strategies and allocate adequate funding to support meaningful youth engagement; contract with youth-led organizations to deliver social services.

Sensitize adolescents about health programmes and the need for their participation to improve programmes.

Other suggestions: Conduct adolescent growth and development activities, involve adolescents in healthy money-generating occupational activities, include relevant topics in school curricula to bridge programme gaps, educate young parents through community-based initiatives, provide scholarships, promote health education and conduct medical check-ups in schools.

What are the modalities and principles for effective and ethical adolescent and youth engagement?

Adolescent participation can take several different forms including:

- **Informing** adolescents with balanced, objective information.
- **Consulting**, whereby an adult-initiated, adult-led and adult-managed process seeks adolescents' expertise and perspectives in order to inform adult decision-making. (See Case study 5.3 from Cambodia.)
- **Involving**, or working directly with, adolescents in the communities on certain decisions and activities.
- **Collaborating** by partnering with affected adolescents in communities in each aspect of a decision, including the development of options and identification of solutions.
- **Empowering** by ensuring that adolescents in communities have ultimate control over the key decisions that affect their well-being. This translates

into adolescent-led participation, where adolescents are given, or claim, the space and opportunity to initiate activities and advocate for themselves (see Case study 5.4 from Malawi). Empowerment – for example, though changes in social norms, supporting policy change, and fostering young women's and girls' leadership through effective partnerships – is a particularly important strategy for addressing the power imbalance resulting from unequal gender norms (24).

Each of these modes of participation is legitimate and appropriate in different contexts, if it complies with the five basic principles of meaningful engagement (Fig. 5.4).

Adolescents encounter various obstacles to participating in health and well-being programmes. Box 5.4 summarizes the common barriers or challenges identified by the 727 adolescents and young adults who participated in public consultations prior to this second edition of the AA-HA! guidance.

Fig. 5.4. Five principles of MAYE

- 1 **Rights-based:** Young people are informed and educated about their rights and empowered to hold duty bearers accountable for respecting, protecting and fulfilling these rights.
- 2 **Transparent and informative:** Young people are provided with full, evidence-based, accessible, age-appropriate information that acknowledges their diversity of experience and promotes and protects their right to express their views freely. There is clear mutual understanding of how young people's information, skills and knowledge will be shared, with whom, and for what purpose.
- 3 **Voluntary and free from coercion:** Young people must not be coerced into participating in actions or expressing views that are against their beliefs and wishes, and they must always be aware that they can withdraw from any process at any stage.
- 4 **Respectful of young people's views, backgrounds and identities:** Young people are encouraged to launch ideas and activities that are relevant to their lives and that draw on their knowledge, skills and abilities. Engagement will actively seek to include a variety of young people according to the relevant needs or audience. Engagements will be culturally sensitive to young people from all backgrounds and recognize that young people's views are not homogeneous. They need to be appreciated for their diversity and be free from stigma.
- 5 **Safe:** All adults and those in positions of authority working directly or indirectly with young people have a responsibility to take every reasonable precaution to minimize the risk of violence, exploitation, tokenism or any other negative consequence of young people's participation.

Source: Partnership for Maternal Newborn and Child Health 2018 (59).

Box 5.4. What prevents adolescents and young adults from engaging in health and well-being programmes – a synthesis of 727 responses from adolescents and young people

Lack of awareness: Adolescents may not know about the existence of health and well-being programmes, or they may not know how to access them.

Lack of social support: Adolescents may feel unsupported by their peers or family members, which can discourage their participation in health and well-being programmes. Additionally, most programmes do not address adolescents but instead focus on the elderly and young mothers.

Lack of motivation: Adolescents may not be motivated to participate in health and well-being programmes due to competing interests, such as school, work or social activities.

Stigma: Adolescents may feel stigmatized or embarrassed about participating in health and well-being programmes, particularly those related to mental health.

Language barriers: Adolescents who speak a language other than the language in which the programme is delivered may face challenges in accessing and participating in health and well-being programmes.

Time constraints: Adolescents may have limited free time due to school, work or family responsibilities, which can make it difficult to participate in health and well-being programmes.

Cost: Some health and well-being programmes may require a financial commitment, which may be a barrier for low-income families.

Security: Some adolescents cited personal security challenges in their countries.

Accessibility: Adolescents may face geographical or transportation barriers that make it difficult for them to participate in health and well-being programmes. Many programmes do not take place in schools or community facilities where adolescents could easily access them.

Poor communication to young people: Most communication channels used by various programmes are not convenient for youths, and as a result they miss a lot.

What is the current status of youth engagement?

As described in section 1.1, awareness and efforts by many organizations to engage young people in decision-making and policy dialogues on global health issues are increasing (465). Youth leaders are active in many countries, through community associations, school-based activities, youth councils, youth parliaments and other national or subnational youth advisory groups (466). But much more needs to be done; there remains substantial underinvestment of both intellectual and financial resources in youth engagement strategies (465). In many settings the reasons for exclusion of adolescents and youth from the decision-making process are still to be addressed (Box 5.5).

“I am a Very Young Adolescent Advocate aged 13 years. I passionately advocate for sustainable development and meaningful engagement of Very Young Adolescents aged 10–14 years in civic spaces locally, nationally, regionally and globally.

—Student (female), age 13, India

Case study 5.3

Formative nutrition research with adolescents in Cambodia



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Who better to involve in research for adolescents than adolescents themselves? Not only will their unique perspectives and viewpoints inform the findings, but also their involvement in conducting the research can help assure its relevance and insight. This realization has prompted many stakeholders to actively engage adolescents in participatory research methodologies to inform programming.

In Cambodia, where adolescents make up about one fourth of the population, the WFP undertook research to

contribute to the global evidence base on adolescents and to guide future nutrition programmes. The research, which took place in 2016 and 2017, followed a participatory research methodology that included adolescents and their communities. The objectives of the study were to assess adolescents' nutritional needs and priorities, to understand how they prefer to engage with nutrition programmes, to ascertain the current programmatic and policy environment and to make recommendations for context-appropriate, user-centred nutrition interventions for adolescents. Data were collected from 280 participants in three provinces. Data collection used qualitative methodologies that engaged adolescents, including focus group discussions, key informant interviews, workshops and technology surveys.

The research elicited perspectives directly from adolescents on how they view and define their experience as adolescents, their food and nutritional needs, factors affecting their nutrition and how they would like to be engaged by programmes. The active participation of adolescents led to key recommendations for policy and programmatic considerations. Recommendations included investment to increase access to healthy and nutritious foods, to provide healthier food options, to keep adolescents in schools and to improve maternal health awareness as well as recommendations on food preparation and consumption and on improved land and agricultural practices. An important consideration emerging from the research findings was the importance of attention to gender roles within communities and their influence on future programmes and interventions.

Source: WFP 2018 (463).

Box 5.5. The dimensions of adolescents and youth exclusion from the decision-making process

Adolescents are a very heterogeneous group, and some forms of inequity and privilege are entrenched, systemic and even intentional. Vulnerability and exclusion can occur through one or multiple intersecting and overlapping dimensions of inequity, including, but not limited to, age, gender (including gender identity/sexual orientation), ethnicity, disability, care status, migration status, language and economic or social status. It can also be made worse by context (rural, emergency, conflict, poverty, exclusion, lack of digital connectivity, etc.). Peer pressure or discrimination can contribute to adolescents' lack of confidence to express their views. Broader social norms and cultural and

organizational practices also can help or hinder adolescents' participation and civic engagement. Within youth structures, younger adolescents are often marginalized in favour of older youth. Information and participation methods are not always sufficiently adapted to adolescents of different ages and abilities. When initiating consultations or forums for adolescents, many agencies find it easier to reach and involve school-going adolescents (especially those who are doing well in school). This unintentionally excludes more marginalized adolescents who may not regularly attend formal schools.

Source: UNICEF 2020 (307).

Case study 5.4

Youth group in Malawi equips and empowers young people



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HeR Liberty, a youth-led agency established in 2017 in Malawi, has been working on adolescent-focused approaches to improve the health and well-being of adolescents. In partnership with key stakeholders, including the Global Financing Facility, the organization engages meaningfully with youth from local communities to co-create approaches. Young people are given the freedom to develop a plan to improve their health and well-being based on their needs and resources. The organization trains youth leaders and

gives them toolkits so that they can complete their own financial and narrative reports for projects that they undertake. Also, youth leaders are trained how to engage local leaders and government bodies on issues related to adolescents' health and well-being. The approach of HeR Liberty is to empower and support young people through advocacy so that they are better informed about key issues affecting their health and well-being, such as sexual health and reproductive rights.

The organization has successfully used music and short videos to develop advocacy toolkits and roadmaps in partnership with youth networks, UN agencies and other organizations. Using a clear communication and media strategy, the organization employs social, online and conventional media (radio and television) to share messages about sexual and reproductive health and rights (SRHR). By 2019 their advocacy song *Inu ndi ife* had played on eight radio stations and six TV channels. In addition, downloads for the song via the online platform www.malawi-music.com had surpassed 16 000 by December 2022. In one campaign, because the organization worked with youths to co-develop approaches and plans specific to their context, the organization reached 4000 youths in 30 days through eight youth leaders and over 80 youth clubs. HeR Liberty reports that, by December 2022, the organization had reached 8000 young people in 12 districts and worked with 100 youth leaders and peer educators and with 80 clubs (<https://www.herlibertymalawi.com/>). The organization has also organized intergenerational dialogues with over 20 community and traditional leaders in four local districts in Malawi.

Source: WHO 2020 (464).

As part of the accountability system for the Global Consensus Statement on Meaningful Adolescent and Youth Engagement (59), PMNCH surveyed all 249 signatories of the statement to assess the progress made and the challenges identified during the first year of its implementation.

Despite reports of strong progress and the establishment of specific mechanisms for MAYE, challenges remain. Structural barriers rooted in privilege and hierarchy, such as racism, misogyny and ageism, still block adolescents and young people from meaningful engagement in all processes that affect their lives and hamper the advancement of MAYE within the endorsing organizations. In terms of establishing equal partnerships with youth-led initiatives, almost half of those answering questions on this matter referred to the use of informal agreements, rather than a formal memorandum of understanding (MOU), contract or terms of reference.

Many organizations reported that they expect to increase their MAYE commitments in the near future. They would accomplish this by implementing recommendations from MAYE guidance documents, such as financially compensating adolescents and young people for their participation and developing accountability mechanisms.

Asked to identify what blocks young people's access to decision-making bodies, the signatories' most common response was unrealistic requirements for qualifications. Findings from the survey suggest that organizational mandates and internal advocacy were the main enablers of financial support for work done by young people, while restrictive internal financing policies and lack of donor requirements/encouragement were major barriers. This implies that there could be significant opportunities for progress if those determining financial systems and policies worked closely with internal advocates and proponents. The organizations responding to the survey also commented on the support that they would need to advance MAYE. In response, PMNCH and WHO have developed a MAYE Practical Guidance Resource, which includes an assessment tool, recommendations case studies (467).

“Some of the challenges are the differences in power between young people and policy-makers and people in high positions. Even though the importance of young people's engagement is acknowledged, a lot of them refuse to do it. Young people are perceived as inexperienced, not serious and as they make impossible requests.

—Student (female), age 15–19, Serbia

Implementation strategies for MAYE in programming for adolescent health and well-being

1. Ensure that national policy frameworks recognize the importance of the meaningful engagement of adolescents and youth in programming for health and well-being and establish mechanisms to guarantee it (59).
2. Create forums for MAYE and participation as leaders and key stakeholders at the national level (for example, independent youth commissioners and a national youth council) with resources for independent oversight of government actions to promote adolescent well-being (59, 60).
3. Establish formal structures and processes to institutionalize meaningful participation of adolescents and youth in dialogues about relevant areas of public policy, financing and programme implementation and systematic inclusion of young people through civil-society involvement in reproductive, maternal, newborn, child and adolescent health and well-being (60, 307). Examples of the institutionalization of youth participation at the global level are the Civil Society Coordinating Group for the Global Financing Facility in Support of Every Woman Every Child and in the regular Voluntary National Review process of the SDGs and SDG-related reporting.
4. With the participation of adolescent and youth constituencies in country platforms, adopt minimum standards for improved participation, inclusiveness and transparency and accountability (307). Ensure that policies for adolescent representation consider equity and address drivers of exclusion (see Box 5.5) and barriers to participation of subpopulations (for example, those with disabilities or with poor access to the internet). Organizational mechanisms should be set up to pursue greater parity of formal and informal youth representation, tailored capacity building and financial support.
5. Build mechanisms for youth participation at the local level, including taking advantage of technological platforms (for example, mobile phones and social media) to facilitate youth engagement in problem identification, prioritization and problem solving. Provide the necessary resources to support this involvement and to ensure that the mechanisms enable the most vulnerable adolescents to participate (307).
6. Train and mentor a diverse group of youth leaders to build their competencies to play an effective role in governance and accountability processes around their health and well-being. Ensure that youth-friendly and accessible information, resources, and financial and technical support are available to support training and mentoring activities. Enable adolescents to share their experiences, good practices and models of successful adolescent-led interventions.
7. Build awareness and literacy among adolescents about their rights under the Convention on the Rights of the Child, as well as about their legal entitlements (and limitations) under national laws and regulations. Ensure the existence of, and adolescents' ability to use, functioning and accessible mechanisms for remedy and redress when violations occur. Ensure easy access for young people to present cases before regional and international judicial and human rights bodies.
8. Put in place mechanisms and procedures to ensure adolescent participation in health services, including in their own care, in line with Standard 8 of the Global Standards for Quality Health-Care Services for Adolescents (461, 468) (see Box 5.6).
9. Clearly identify the objectives of adolescent participation and institutionalize M&E of youth engagement with specific indicators (60, 469).
10. Develop and implement internal policies and mechanisms that ensure proper recognition and compensation of adolescents and young people for their role in shaping policies, creating demand and providing services (60).

Box 5.6. Standard 8 of the Global Standards for Quality Health-Care Services for Adolescents

Standard 8

Adolescents are involved in the planning, monitoring and evaluation of health services and in decisions regarding their own care, as well as in certain appropriate aspects of service provision.

Source: WHO 2015 (468).

Resource bank for adolescent participation in programming for well-being

<p>Advocating for Change for Adolescents! A Practical Toolkit for Young People to Advocate for Improved Adolescent Health and Well-being December 2020</p> <p>The Partnership for Women WOMEN DELIVER</p> <p>Source: WHO 2018 (470).</p>	<p>GFF-CSO AND YOUTH ENGAGEMENT FRAMEWORK 2020</p> <p>OVERVIEW</p> <p>As part of the GFF Strategy Refresh process, this paper presents the recommendations of the Investors Group CSO Taskforce for an updated GFF CSO and youth engagement framework for 2021–2025, with the objective of further strengthening support to civil society organizations (CSOs) and youth organizations to engage effectively in the GFF partnership. The Taskforce has endorsed a series of concrete actions to improve CSO and youth engagement in the GFF and respond to the specific challenges identified at country and global levels. The updated GFF CSO and youth engagement framework outlines a comprehensive package of interventions to be taken together to strengthen and effectively leverage CSO and youth engagement to deliver on the GFF partnership goals.</p> <p>ACTION REQUESTED</p> <p>The IG is requested to endorse the proposed GFF CSO and youth engagement framework.</p> <p>Source: Global Financing Facility 2020 (471).</p>	<p>ENGAGED AND HEARD! Guidelines on Adolescent Participation and Civic Engagement</p> <p>Source: UNICEF 2020 (307).</p>
<p>UNICEF YOUTH ADVOCACY GUIDE</p> <p>Source: UNICEF 2022 (472).</p>	<p>YOUTH IN ACTION FOR GENDER EQUALITY AGENCY! LEADERSHIP! ACTIVISM!</p> <p>Source: UN Women 2019 (24).</p>	<p>Young people's participation in community-based responses to HIV</p> <p>From passive beneficiaries to active agents of change</p> <p>Source: UNAIDS 2018 (458).</p>

5.2.5 Secure financing for adolescent well-being programmes

As shown in section 1.2, investing in adolescent health and well-being is making a good investment. Continuous advocacy is needed to persuade funding bodies of its importance. To fully meet the needs of adolescents, resources need to be allocated, and purchasing decisions made, both within and outside the health sector. Depending on whether the programme is a single-sector or intersectoral programme, the processes and opportunities to expand resource allocations will differ. Each sector has its own processes and mechanisms for the allocation of resources within the sector; it is beyond the scope of this document to cover all of these. Because of this, for single-sector programmes, we describe as an example key implementation strategies in financing for the health sector only (section 5.3.1). Here, we describe approaches for funding intersectoral programmes.

How to fund intersectoral programmes for adolescent well-being

Despite strong calls for “whole-of-government” approaches, “health in all policies” and “intersectoral action for health”, financing for health and well-being is still dominated by a sectoral approach (54, 452). But single-sector financing is problematic, particularly for the funding of structural interventions that address the social determinants of health and well-being. For example, gender equality has the potential to generate large health gains and synergies across education, economic empowerment, service uptake and improved health – outcomes that “belong” to different sectors.

However, health and other sectors rarely invest substantially in these intersectoral interventions, partially because of different sectors’ specific paradigms that tend to undervalue co-benefits outside the sector’s mandate. Evaluation of the return on investment often excludes consideration of costs and impacts that are outside the sector’s mandate (54, 473). In recent years there has been increasing recognition that governments need to provide the incentives, budgetary commitments and sustainable mechanisms necessary

to support multisectoral collaboration, and there are calls to mobilize financing at the global level. Beyond this, incentives are needed that motivate multisectoral collaboration and action through existing partnerships and new financing mechanisms (54, 452). Across income levels, countries are beginning to explore how best to institutionalize these funding mechanisms (53).

There is no one recipe for financing intersectoral programmes that will fit all situations nor is there a single set of contextual characteristics necessary to support a co-financing approach between sectors. However, a starting point should be the consideration of all the benefits and harms to the adolescent from a programme across all five domains of adolescent well-being rather than considering only benefits and harms within one domain or sub-domain. The implementation strategies listed below are based on emerging models for financing intersectoral action for health (Table 5.1), with the recognition that more research is needed to establish a credible evidence base on the impact of co-financing (54).

Implementation strategies for funding intersectoral programmes

1. Prepare a strategic and compelling plan for intersectoral investments in adolescents, making a strong case based on the triple dividend argument. Engage in negotiations with the ministry of finance over resource allocations.
2. Consider various financial mechanisms to implement a co-financing approach, such as pooled budgets, aligned budgets, joint commissioning, cross-charging and transfer payments. Implement those that are best suited to the context (for example, the existence of enabling legislation, the maturity of partnerships between sectors, grant conditions). Table 5.1 describes the key features of intersectoral co-financing models and gives examples of their application in countries.
3. Before deciding and implementing a co-finance model, anticipate barriers and enablers to uptake, implementation and continuation of the co-financing and plan remedial actions from the outset. Table 5.2 describes key barriers and enablers for co-financing.
4. Invest in programme managers' specific skills that are required in the development stage of co-financing, including negotiation, resource mobilization, effective communication and public financial management.



Table 5.1. Description of financial mechanisms used to implement the co-financing approach

Financial mechanism	Definition	Example (reference number)	Place	Description
Pooled budgets	At least two budget holders make contributions to a single pool for spending on pre-agreed services or interventions	Children's Trust (474)	England	Local cross-sector partnerships between 1997 and 2004 promoting greater integration of professionals providing children's services
Aligned budgets	Budget holders align resources and identify their own contributions towards pre-specified common objectives	The Interagency Programme for the Empowerment of Adolescent Girls (IPEAG) (475)	El Salvador	Programme providing an integrated response to the needs of adolescent girls
		Geracão Biz Programme (PGB) (476)	Mozambique	Multisectoral adolescent SRH programme
In-kind support	Sectors contribute non-financial resources (for example, human resources, infrastructure and/or technology) towards the joint provision of an intervention or programme with a shared objective	School Health & Nutrition (477)	Zambia	School-based deworming, micronutrient supplementation and health education
		Kenya National School-Based Deworming Programme (478)	Kenya	School-based deworming
Structural integration	Full integration of cross-sector responsibilities, finances and resources under single management or a single organization	Integrated Health & Social Services Board (1973–present) (479)	United Kingdom	Mechanism for joint health and social care planning, commissioning and provision
Joint or lead commissioning	Separate budget holders jointly identify a need and agree on a set of objectives, then commission services and track outcomes	Contra Costa County Community Services Department, coordinated funds for early education (480)	United States of America	Full-day, full-year integrated early education and support services

Table 5.1 (continued). Description of financial mechanisms used to implement the co-financing approach

Financial mechanism	Definition	Example (reference number)	Place	Description
Cross-charging	A mechanism whereby a cross-sector financial penalty is incurred for failing to achieve a pre-specified target	ADEL reform (National Reform of Elderly Care) (1992) (481)	Sweden	Local authorities (responsible for social care) are required to pay county councils (who run hospitals) for care of hospital patients once the hospital doctors deem the patient fully treated
Transfer payments	Sectoral budget holders make service revenue or capital contributions to bodies in other sectors to support additional services or interventions in this other sector	New York City Childhood Asthma Initiative (482)	United States of America	A public health programme that aims to reduce the prevalence and severity of asthma in children in New York City through education and outreach, home assessments, school-based programmes and research
		Road Safety Partnership Grant (483)	England	Intersectoral projects improving road safety

Source: Adapted from McGuire et al. 2019 (54).



Table 5.2. Barriers and enablers to uptake, implementation and continuation of co-financing models

Theme	Barriers	Enablers
Conceptual buy-in	Actors' resistance due to perceived risk, ambiguities and threats	Favourable political climate; client, actor and public support
Model design, planning framing and implementation	Unclear terms, differing priorities among partners	Effective planning
		Partners well-positioned to facilitate intersectoral coordination
Organizational resources and capacity	Inadequate or incongruent resources	Matched partnership with respect to resources, capacity, decision-making authority and implementation
	Differences in human resources and ways of working	Adequate expertise and capacity
	Lack of leadership's readiness or buy-in	Strong leadership that prioritizes co-financing, with limited turnover
	Insufficient time to produce impact	Adequate time to foster relationship and achieve impact
	Uncertainties over long-term sustainability beyond pilot or short-term activities	Confidence in long-term sustainability
Relational and organizational culture	Adversarial or apathetic relations and work dynamics	Established positive relations and work dynamics
Evidence, M&E of output data	Practices not sufficiently focused on results	Creation of interagency performance targets
		Demonstrated evidence of success
Finance and accounting practices	Disparity in methods and capacity to adapt to needs	Pre-negotiated shared control of funds

Source: Adapted from McGuire et al. 2019 (54).

How to expand resource allocation for adolescent health and well-being priorities in national health plans

Historically, especially in LMICs, programmes and projects for adolescent health and well-being were largely funded through donor assistance for priority areas such as SRH and HIV. This often led programmes to operate largely autonomously from the rest of the health system, seeking to optimize the achievement of a specific objective (43). This dynamic has implications for how priority interventions are delivered and sustained: Sometimes separate organizational arrangements result in inefficient overlaps and duplications (20, 21). When the funding source for adolescent programmes is not coordinated or integrated with the overall health sector budget, the programmability of activities may be jeopardized. Funding sources, particularly donor assistance, may dry up, change or shift (20, 21). Globally,

a minority of countries' programmes for adolescent health and well-being report receiving regular government budget allocations (484).

While private financing plays a role in all health systems and in all kinds of services, the evidence is clear that, where its role is large, it typically has a harmful impact on progress towards UHC (485). Out-of-pocket payments are a particularly regressive way to fund health services, and adolescents in particular are at risk of forgoing needed care if they have to pay out-of-pocket. Private health insurance schemes can provide certain protections. However, adolescents rarely can pay the premiums for private insurance schemes.

To make progress towards UHC, countries must move towards relying predominantly on public funding for its health system in general (485) and for programmes for adolescent health and well-being in particular. As contexts change, the responsibility for funding these

programmes should shift away from external funding towards domestic resources from the overall health sector budget (21). Governments should include a focus on adolescents in national health strategies and investment plans for UHC (43). Key actions, therefore, include better advocacy for adolescent health and well-being priorities within national health plans.

While domestically raised public funding should be the main financing source for young people's health, external funds can also play an important role in LICs. The Global Financing Facility is an important financing platform for the Global Strategy for Women's, Children's and Adolescents' Health. It is intended to support investment plans in selected countries that aim for smart, scaled and sustainable action (4). The Global Fund encourages countries to focus on adolescents in their applications (486-488); see Case study 5.5 from the United Republic of Tanzania.

Implementation strategies for financing adolescent health and well-being priorities in national health plans

1. Prepare an investment case for a defined and costed national package of interventions for adolescent health and well-being and use it as a guide to purchasing decisions and benefit packages, giving particular attention to preventive services and adolescents' rights to confidentiality (490). Estimate resource needs for implementation of the priority package of interventions and associated programme costs, using tools such as the One Health Tool (491).
2. Ensure that adolescents and their advocates are represented in the process of developing national health financing strategies and defining the essential benefit package, and that their needs are well-articulated and advocated (492). Involve civil society and patient representatives in selecting the benefit package and strategic purchasing decisions so that adolescents' representatives are consulted about the final decisions on "what's in and what's out" (493). This can be done through a formal hearing process, by access to a process for appeals or through another structured participatory process.

Case study 5.5

Global Fund invests in adolescent health programmes in the United Republic of Tanzania



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The Global Fund is a key funding partner investing in health and well-being initiatives specific to adolescents and young people. Globally, they have funded several initiatives on important public health issues affecting young people, including HIV/AIDS. In the United Republic

of Tanzania, the Global Fund invested about US\$ 1.66 billion in HIV programmes between 2002 and 2022. Recognizing that adolescent girls and young women are disproportionately affected by the disease in the country and across sub-Saharan Africa, the Global Fund, in collaboration with the Ministry of Health and local and international partners, has made several investments in programmes to reduce the vulnerability of adolescents to HIV and protect them from infection. These programmes provide girls and young women at risk of HIV with a comprehensive package of HIV preventive services tailored to their needs, including more access to HIV prevention options and knowledge of HIV prevention and other SRH issues and of how they can empower themselves and their peers.

These investments and other actions have shown very positive impacts over the last decade. The United Republic of Tanzania has made tremendous progress in the fight against HIV. Between 2010 and 2021, AIDS-related deaths and HIV incidence have been reduced by 60% and 62%, respectively. In addition, within that same period, the country has increased the numbers of people who know their status, the proportion of those living with HIV who are receiving ART and the proportion of those on ART who have suppressed viral load. The country also has increased the coverage of services for prevention of mother-to-child transmission.

Source: Global Fund, 2022 (489).

3. Participate in, and advocate for adolescents in, the budgeting process at national and subnational levels, starting from the planning stage and throughout budget preparation, the release of funds and the monitoring of expenditures (20).
4. Ensure that adolescents' needs are well articulated and advocated in discussions about strategic purchasing of services in order to achieve the government's strategic objectives related to adolescent health and well-being:
 - Establish agreements with providers that make explicit the expectations for the range, quantity and quality of services for adolescents.
 - Stimulate provider performance in providing adolescent-responsive care, for example, by offering incentives for serving adolescents that are aligned with system-wide incentives, through performance indicators (for example, proportion of adolescents that underwent the annual well-adolescent visit), by provider payment methods such as fee-for-service (for example, for nutritional counselling of adolescents) and by implementing clinical guidelines.
 - Improve the efficiency of the procurement of essential commodities for adolescent health services (for example, menstrual kits).
 - Promote equitable access of adolescents to services, such as through higher payment rates to providers working with underserved adolescent populations.
5. Build the capacity of adolescent health focal points in the ministry of health to make evidence-based arguments for addressing adolescents needs in essential health benefit packages (Table 5.3).
6. Build the agency and capacity of district and community managers to address priorities for adolescent health and well-being when making local adjustments to central budgets.
7. Build the capacity of national and district project managers to leverage external funds for adolescent health and well-being priorities, taking advantage of opportunities offered by the Global Financing Facility (492) and strategic investments by the Global Fund and GAVI, the Vaccine Alliance, among others.



Table 5.3. Adolescent-specific application of criteria for inclusion in essential health benefit package decision-making

Criteria for decision-making	Application of criteria in the context of adolescent health
Burden of disease	The morbidity and mortality associated with diseases, injuries and risk factors affecting adolescents
Balance of benefits and harms	The balance of health benefits and harms reflecting the health impact of an intervention on adolescents
Cost-effectiveness of interventions	The value-for-money of the intervention (usually expressed as a ratio of the costs of the intervention to its benefits)
Equity and priority to the worse-off	A qualitative or quantitative measure of the ability of the intervention to address health system inequities affecting various subpopulations of adolescents, including those with disabilities, the marginalized, displaced, orphaned, poor and those living in hard-to-reach areas
Financial risk protection	The extent to which adolescents can afford the cost of the intervention and are protected from catastrophic health expenditure and health-related financial risk
Budget impact and sustainability	The overall financial implications, especially for additional costs, of implementing the adolescent health and well-being interventions for the available budget
Feasibility	The extent to which adolescent health and well-being interventions can be delivered through the existing health system, taking into account currently available or realistically increased human resources, infrastructure and other resources, and whether it is socio-culturally acceptable to the public
Social and economic impact	The societal consequences resulting from adolescent health and well-being interventions, such as the triple dividend of health and well-being benefits, economic benefits and enhancement of social capital (see section 1.2)
Political acceptability	Political dividends associated with supporting investments in adolescent health (for example, acceptability of a policy or programme to politically influential constituencies such as voters, donors, lobbyists)

Source: Adapted from WHO 2021 (490).

5.2.6 A renewed attention to school health and mental health programmes

Priorities for intersectoral programmes will be established during the process of national prioritization, as described in Chapter 4. It is beyond the scope of this document to attempt an exhaustive list of intersectoral programmes for adolescent health and well-being, since the need for them is context-specific. There is, however, one notable exception – school health. School health is a cost-effective investment and feasible in all contexts and settings. Indeed, health promotion in schools is one of the three most common policy areas for multisectoral and intersectoral action (47). When designed well, school health and nutrition programmes act at the interconnection of protective and risk factors across multiple domains of well-being (Fig. 1.1) (9). This is perhaps why 90% of countries have some form of SHN programme. SHN is one of the most widely implemented approaches to delivering health and social protection.

In the past five years, and also due to the lessons learned from the COVID-19 pandemic, when school closures prompted massive disruptions of critical services to school-age children (494), there has been renewed attention to school health (8, 47, 49–51, 495). The rationale is clear. Globally, over 90% of children of primary school age and over 80% of children of lower secondary school age are enrolled in school (496). On average, children and adolescents spend 7590 hours in the classroom over 8–10 years during primary and lower secondary school (496). This makes schools a unique setting for preventive interventions. Further, school years are an important period to establish behaviours that will contribute to good health for a lifetime (494).

Investing in school health systems is a smart way for countries to improve both the health and the education of today's learners and tomorrow's leaders. Looking after the health and well-being of learners is one of the most transformative and cost-effective ways to improve education outcomes and make education systems more inclusive and equitable (see Box 5.7).

Box 5.7. SHN programmes are cost-effective, feasible and deliver significant development gains

- Schools reach millions of children and adolescents, and SHN programmes are a cost-effective way to improve both health and education outcomes. School feeding programmes deliver an estimated US\$ 9 in returns for every US\$ 1 invested. School programmes that address mental health can potentially provide a return on investment over 80 years of US\$ 21.50 for every US\$ 1 invested (123).
- Whole-school approaches to health and well-being have large effects on school climate, students' depressive symptoms, bullying, violence perpetration and victimization, attitudes towards gender and knowledge of SRH (497).
- Investing in SHN benefits multiple sectors in addition to education and health, such as social protection and even local agriculture if food for school meals is obtained locally. It delivers immediate, lifelong and inter-generational benefits for individuals and societies by contributing to the creation of human capital and sustainable growth.
- Despite this, only US\$ 2 billion is invested each year in addressing the health needs of school-age children and adolescents in LMICs, whereas some US \$210 billion is spent on educating this age group. Along with education expenditure, resources for school-age children and adolescents' health and well-being must increase substantially to maximize returns on investments (47).

Concurrently, strategies must be put in place to reach the out-of-school adolescents, who are likely to face greater health risks. For instance, adolescents with disabilities are much more likely to have never attended school and may be missed if the focus is only on school-based health programmes (100).

While governments in many countries are already investing in school health programmes, more needs to be done to ensure that these programmes are comprehensive and embedded in education systems to make them sustainable and to serve every learner in every school (9). Global data suggest that SHN programmes are not always comprehensive in scope, that essential components of SHN often are not covered, particularly in LICs, and that interventions are not consistently implemented at both primary and secondary school levels (47).

The UNESCO and WHO Global Standards for Health Promoting Schools is one important vehicle through which countries are being supported to build health-promoting education systems (Fig. 5.5). The standards promote a holistic and sustained approach to school health and support the Make Every School a Health Promoting School initiative.

What is a health-promoting education system?

A health-promoting education system is one that continuously strengthens its capacity as a healthy setting for living, learning and working. It is achieved through active engagement among health and education officials, teachers, teachers' unions, students, parents, health care providers and community leaders (498). Health-promoting education systems aim to improve the health and well-being not only of students but, through schools, also the health of school personnel, families and other members of the community (see Case study 5.6). In collaboration with other partners, WHO and UNESCO have jointly developed guidance on health-promoting schools (47), including eight global standards (Fig. 5.5) and indicators (8).

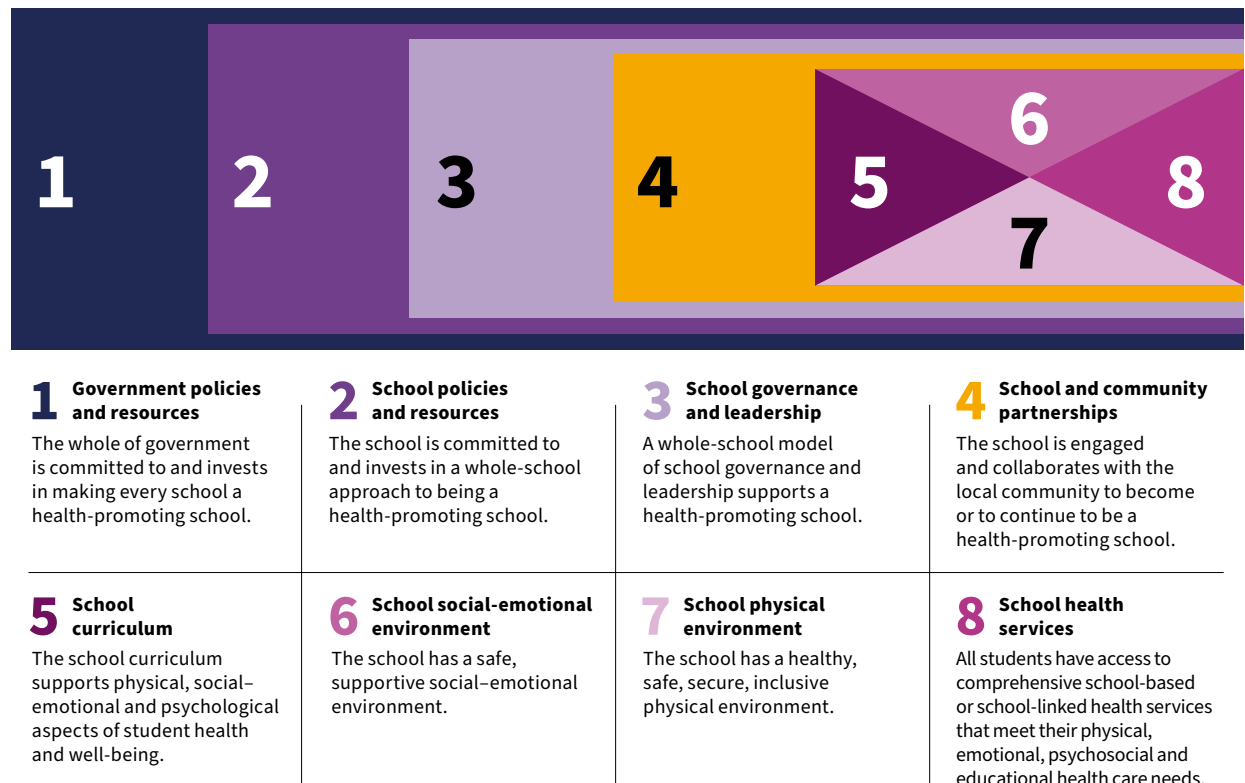
Implementation areas and strategies to improve school health are described in section 5.3.1.

Mental health is another area for intersectoral action. It came into the spotlight during the COVID-19 pandemic (500) (Box 5.8). Practical guidance for mental health programming has become available since the first edition of the AA-HA! Guidance (12, 501).

Schools are well-placed to address mental health in an integrated way, by acting on multiple determinants such as inclusive social environment,

mental health literacy, positive relationships with parents and community and access to school mental health services. The Helping Adolescents Thrive toolkit (12) describes core principles that should guide programming efforts for adolescent mental health, as well as key implementation strategies and approaches that can be implemented in any programming context (see Box 5.9).

Fig. 5.5. Global standards for health-promoting schools and their relationship



Source: Adapted from WHO 2021 (8).

Box 5.8. COVID-19 and adolescent mental health and well-being

- The social and economic effects of COVID-19, including nationwide school closures, posed many mental health challenges for adolescents (501).
- Unmet mental health need soared during the pandemic, with adolescents reporting difficulties accessing services and health care providers reporting some of their lowest attendances ever (144, 502).
- Prior to COVID-19, mental health disorders already accounted for 13% of the global burden of disease among adolescents, with self-harm, depressive disorders and anxiety disorders among the top six contributors of DALYs (503).
- During the pandemic more adolescents reported depression, anxiety and behavioural disorders than in prior years (144, 500).
- Some studies reported that rates of suicide among youth increased during the pandemic (500).
- During the pandemic adolescents with the following characteristics were more likely to report difficulties with mental health and well-being (243):
 - female
 - older (≥ 16 years)
 - disadvantaged
 - with special educational needs and disability.

Box 5.9. Helping Adolescents Thrive toolkit: evidence-based strategies to promote and protect adolescent mental health and reduce self-harm and other risk behaviours

Strategies

Strategy 1
Implementation and enforcement of policies and laws

Strategy 2
Environments to promote and protect adolescent mental health

Strategy 3
Caregiver support

Strategy 4
Adolescent psychosocial interventions

Implementation approaches

Activity 1
Multisectoral collaboration

Activity 2
Monitoring and evaluation

Case study 5.6

Building teacher capacity supports student inclusion in Scotland



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In 2021 Scotland embarked on work to increase teacher capacity so that schools across the country could be more inclusive of LGBTI students. The LGBTI-inclusive education policy complements other policies such as the national anti-bullying and Respect for All initiatives. The focus of the LGBTI-inclusive education policy was in line with a national policy that aims to provide both students and teachers with the requisite training and resources so that they are adequately informed about LGBTI issues at both primary and secondary school levels. Teachers and staff in primary and secondary schools across Scotland received toolkits and other resources to increase their competencies on LGBTI issues. The toolkits and resources also explained how to implement a curriculum that includes considerations specific to the LGBTI community. In addition to these resources, teachers and staff were offered in-person and virtual training sessions and a certificate of completion. According to preliminary data, almost all teachers who participated in the trainings reported increased knowledge on implementation of the LGBTI-inclusive strategy in primary and secondary schools. In addition, some teachers are also reporting increased confidence in their ability to manage LGBTI issues.

Source: McBrien et al. 2022 (499).

5.2.7 Addressing adolescent health and well-being in humanitarian and fragile settings

Addressing adolescent well-being in humanitarian and fragile settings is another area where multisectoral and intersectoral action for adolescent well-being is crucial. While child protection actors play a central role, all sectors need to be involved in preventing and responding holistically to the risks and vulnerabilities that affect girls and boys in crises (504).

“Efforts should be made to reach young people from different contexts, especially those in humanitarian settings and hard-to-reach areas and not forgetting the disabled. With that, a holistic approach can be assured.

—Student (female), age under 14, Rwanda

A recovery programme in a humanitarian and fragile setting should be guided by development principles that seek to generate self-sustaining, nationally owned, resilient processes for early post-crisis recovery (505-507). Therefore, the core implementation strategies outlined in the logical framework (Fig. 5.1) are the same in humanitarian and fragile settings as in other settings. They encompass addressing laws and policies, human resource capacity, adolescent-responsive service delivery and financial risk protection, as well as promoting adolescent participation in leadership and governance arrangements for accountability.

The key principles and standards for accountable and high-quality humanitarian action are described in WHO's statement on the Core Humanitarian Standard on Quality and Accountability, which sets out nine commitments that can improve the quality and effectiveness of assistance that organizations and individuals can provide in humanitarian settings (508). In this section we describe only the adolescent-specific aspects of planning and delivering the humanitarian response, aligned with the evidence-based interventions described in Chapter 3.

All actions described below should be implemented following the principles of child participation, non-discrimination, best interest of the child, the right to survival and to physical, psychological, emotional, social and spiritual development, as well as safety, dignity and rights to information, confidentiality and privacy (504, 508, 509).

Implementation strategies for humanitarian settings

1. Coordinate

- Establish a child and adolescent health working group to integrate child and adolescent health priorities into the humanitarian response plan and to actively engage partners from key sectors to ensure an integrated multisectoral response.
- Advocate on behalf of child and adolescent health and well-being with health and humanitarian authorities.
- Participate in humanitarian response coordination structures to integrate child and adolescent health and well-being into humanitarian action.
- Identify key humanitarian actors, reach out to potential partners and work to establish common systems and avoid duplication.

2. Engage

- Establish systems for adolescent participation in decision-making (especially for girls and those with disabilities and other vulnerabilities) for developing and implementing responses at the community, provincial and national levels (510).
- Ensure that mechanisms for adolescent participation span the humanitarian programme cycle, including needs assessment and analysis, strategic planning, resource mobilization, implementation, monitoring and peer review and evaluation (509).

3. Communicate

- Develop a communication strategy for child and adolescent well-being. Communicate urgent messages without delay to the affected population.
- Implement, update and coordinate internal, multisectoral and multiagency communications and advocacy policies and processes to ensure that all messages support children's and adolescents' needs for protection and well-being. Avoid messages that re-traumatize children and adolescents or create fear, division or violence.

4. **Assess and prioritize**

- Ensure a systematic, objective and ongoing assessment of the context and its impact on child and adolescent health, nutrition and well-being. Assess the safety and security of affected, displaced and host populations of children and young people to identify threats of violence and any forms of coercion, denial of subsistence or denial of basic human rights.
- Assess and address gaps in existing resources and capacity to ensure access of children and young people to critical interventions and services.
- Prioritize child and adolescent health and well-being interventions, confronting the biggest causes of death and morbidity with the most cost-effective tools. Give extra attention to populations at high risk.

5. **Train staff**

- Train staff, including clinical staff (community health workers, nurses, midwives, doctors, paramedics, national and international volunteers). to provide care that respects adolescents' right to information, dignity, best interests, safety, autonomy, self-determination and participation.
- Develop the capacity of child protection workers and all health and humanitarian workers to prevent, detect and respond appropriately to child protection issues.

6. **Provide health services**

- Adapt, improve or establish adolescent-responsive service delivery structures such as flexible and integrated adolescent-friendly health services or temporary/mobile community clinics. Provide comprehensive one-stop SRH services for adolescents, home-based care, education and outreach through non-health facilities and safe spaces.
- Use innovations to enhance the capabilities of existing service delivery platforms:
 - social media to provide quality health information and share information;
 - flexible outreach strategies, including transportation budgets sufficient to reach adolescents in insecure environments and otherwise hard-to-reach areas.

- Provide services to tackle key health concerns in adolescents:
 - preventive care: contraception, condoms, emergency contraception, prevention of sexual and gender-based violence, mental health, sexuality education, life skills, maternal health care including family planning counselling, voluntary counselling and testing for HIV, iron and folic acid supplements;
 - treatment: treatment of traumas and orthopaedic surgery, emergency obstetric and neonatal care services, nutrition, comprehensive abortion care, clinical care for survivors of sexual violence, treatment of STIs, emergency skilled birth attendance, postnatal care including for postpartum depression and antiretroviral treatment;
 - supplies: ensure the availability and provision of menstrual hygiene kits (dignity kits), post-rape kits, STI kits, contraception kits.

7. **Education and recreation**

- Ensure safe spaces for education that are disaster-resilient, safe, dignified and accessible to all children and adolescents.
- Address barriers to school enrolment and issues related to school retention for specific groups at greatest risk, such as girls, young mothers, and children and adolescents with disabilities.
- Provide targeted support for schooling options (for example, safe passage, financial support to families, cash and voucher assistance), vocational training and access to life skills and comprehensive sex education in and out of schools.
- Ensure safe spaces for recreation and play, especially for girls. Remove barriers that might exclude adolescents with disabilities.
- Ensure safe access to and use and maintenance of toilets. Ensure availability of materials and facilities for menstrual hygiene management.

8. **Nutrition**

- Ensure safe, adequate and appropriate nutrition services, especially for pregnant and lactating women and girls.
- Implement integrated response interventions for households at risk of malnutrition.
- Develop and implement child- and adolescent-friendly multisectoral referral mechanisms and standard operating procedures for malnutrition cases.

9. Protect

- Map existing protection services. Identify and address gaps.
- Support the most at-risk children and adolescents.
 - Sexual violence. Recognize that sexual violence is common. Seek to understand local perceptions and reactions. Disseminate sexual violence prevention messages. Educate health and allied staff to look for, recognize and respond sensitively to sexual violence. Report information as specified by national laws and international norms.
 - Armed forces. Assess involvement of children and adolescents in armed forces, community perceptions, and demobilization and reintegration activities. Support schools and other institutions protecting children. Share prevention, reporting and survivor care information.
 - Survivors. Develop age-appropriate survivor assistance that includes medical care, physical rehabilitation, psychosocial support, legal support and economic, educational and social inclusion. Provide non-stigmatizing support for those who need additional attention (for example, those involved in armed forces, pregnant girls, sexually exploited children and adolescents, and girls who are pregnant as a result of rape).
 - Child labour. Prioritize action against the worst forms of child labour, including forced/bonded labour, armed conflict, trafficking, sexual exploitation, illicit work and unsafe work. Involve affected families and other local stakeholders in responses.
 - Unaccompanied and separated children. Assume all children have a caring adult with whom they can be reunited until tracing proves otherwise. Review existing legal systems and procedures for family tracing and reunification. Assess the scope, causes and risks of family separation. Take practical steps to prevent separation (for example, reception registers, identity cards). Re-establish community support networks and structures for orphans and vulnerable children. Ensure that adolescents who have lost their parents or carers have consistent, supportive care. Avoid unintentionally encouraging abandonment (for example, advertising special assistance to unaccompanied and separated children).

- Justice system. Strengthen child-friendly spaces in courts and police stations. Identify children in detention (especially arbitrary detention) and patterns of violations. Promote diversion activities to resolve issues without the trauma of the justice system. Diversion activities are referrals of matters away from the formal criminal justice system, usually to programmes or activities.
- Establish procedures for informed consent/assent.
 - Support participants' ownership of their personal information and control of its use.
 - Prevent possible conflicts of interest between data collectors and respondents.

10. Monitor and evaluate

- Monitor programme quality, outputs, outcomes and, where possible, impact. Monitor changes in the adolescent well-being situation and adjust programme implementation accordingly.
 - Collaborate with children and adolescents and other stakeholders to design, implement and monitor information-gathering mechanisms that are adolescent- and child-friendly, confidential and sensitive to gender, age, disability and culture to gather and process feedback and reports from children, families and communities.
 - Build flexibility into the programme design so as to incorporate M&E feedback in a timely manner and immediately address any safeguarding issues.
 - Share findings and learning from assessments, monitoring, feedback and accountability mechanisms with all stakeholders, including children and families. Ensure that they recognize how their efforts have contributed to programmes.
-

5.2.8 Gender-transformative approaches in programming

Gender is a powerful determinant of adolescent well-being, as sex and gender intersect with other drivers of inequalities. These include gender-based violence, stigma, discrimination and child marriage as well as discrepancies in income and age, all of which exacerbate the vulnerability and susceptibility of adolescent girls and boys to health and social risks (23, 68). Sex and society, nature and nurture, genetics and environment all interact in complex ways to determine adolescent well-being.

Gender inequality, which puts women and girls at a disadvantage, is recognized as an important determinant of health outcomes. Adolescents and young adults facing discrimination based on their sex, gender identity, gender expression or sexual orientation have less access to, and uptake of, health services and resources. For adolescent girls, gender discrimination often begins in the household, where, in some settings, they bear the consequences of the low value that their families place on their education and expectations that they will do the domestic chores. Furthermore, unequal food allocation increases the risk of malnutrition for girls and for any children they may have in future, especially in countries with high rates of early adolescent pregnancy (17, 496). To achieve the goal of gender equality, programmes need to apply the process and strategy of gender mainstreaming (Box 5.10).

Sex and society, nature and nurture, genetics and environment all interact in complex ways to determine adolescent well-being.

Box 5.10. Gender mainstreaming and why it matters

Gender mainstreaming is a process of assessing the gender implications for both adolescent boys and girls of any planned action, including legislation, policies and programmes in all areas and at all levels. The starting point for gender mainstreaming is gender analysis, described in Box 4.4. As a strategy it involves recognizing and taking into account the sometimes-differing concerns and experiences of girls and young women, on one hand, and boys and young men, on the other, in the design, implementation and M&E of adolescent well-being

policies, budgets and programmes. This matters not only because diverse adolescent boys and girls have different needs but also because the different roles and expectations of a society for boys and girls dictate what it means to be male and female. These roles and expectations shape the context and the situation in which programming is conducted. By applying gender mainstreaming, programmes are more effective in promoting equality and not perpetuating inequality.

Source: Adapted from WHO 2021 (68).

Without gender mainstreaming, programmes risk being gender unequal or gender-blind. Adolescent health and well-being programmes and interventions should, at a minimum, be gender-specific and, ideally and when

possible, gender-transformative. Fig. 5.6 presents an overview of these different levels of gender recognition, with illustrative examples related to programming for adolescent health and well-being.

Fig. 5.6. Gender-responsiveness scale

Gender-unequal	<p>Perpetuates gender inequalities, reinforces stereotypes and privileges boys over girls (or vice versa).</p> <p>Examples</p> <ul style="list-style-type: none"> intentionally disseminating vaccination leaflets only to men promoting harmful traditional stereotypes about boys' and girls' roles in communication materials.
Gender-blind	<p>Ignores gender roles, norms and relations and differences in opportunities and resource allocation due to gender.</p> <p>Examples</p> <ul style="list-style-type: none"> informing the youth in the community about HIV prevention only through youth clubs where 80% of visitors are boys setting up an HPV vaccination point only at a marketplace that girls are not allowed to visit.
Gender-sensitive	<p>Shows an awareness of gender roles, norms and relations while not necessarily addressing the inequality generated by them; no remedial action developed.</p> <p>Examples</p> <ul style="list-style-type: none"> director of a national adolescent health programme acknowledges gender issues programme assessment includes gender analysis, but it is not followed up in implementation.
Gender-responsive	Gender-specific
	<p>Deliberately targets a specific group of girls or boys for a specific purpose; does not challenge gender roles and norms.</p> <p>Examples</p> <ul style="list-style-type: none"> organizing an information campaign to prevent injuries from burns with messages addressing the different causes of burns in boys and girls. It addresses girls in households with traditional stoves and boys in sport clubs.
	Gender-transformative
	<p>Addresses the causes of gender inequality; transforms harmful gender roles, norms and relations; promotes gender equality.</p> <p>Examples</p> <ul style="list-style-type: none"> community programme supporting families to value girls' education cash-plus transfer programmes that directly address social norms; this includes norms in relation to domestic and care work within the household and access to income and asset-generation opportunities encouraging boys to question established stereotypes of masculinity (see Box 5.11) enable adolescent girls and boys to participate equally in programme design and implementation.

Source: WHO 2011 (511).

Box 5.11. A modern view on masculinities

Programmes aimed at encouraging kinder, gentler forms of masculinity are increasingly common in LMICs. In Latin America and sub-Saharan Africa, a few of these programmes have involved cash transfers. The Bolsa Familia Companion Programme, run by the NGO Promundo, was among the first to directly tackle masculinities. Its work seeks to make men's beliefs about their responsibilities for childcare, cooking and domestic chores more equitable. In Ethiopia the Act with Her programme, funded by the Bill & Melinda Gates Foundation, is

employing a multifaceted design. In partnership with the Gender and Adolescence: Global Evidence longitudinal research programme, funded by the United Kingdom Department for International Development, the programme is designed to assess the short- and longer-term effects of cash, in combination with classes on progressive masculinities for boys and on life skills for girls, in comparison with an intervention without cash.

Source: Jones et al. 2019 (512).

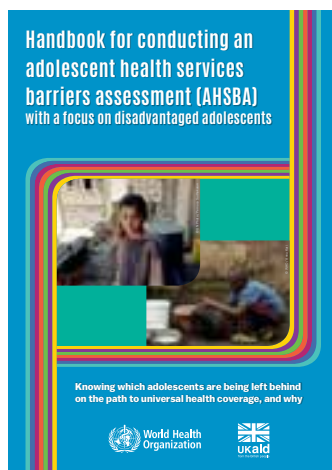
Resource bank for gender mainstreaming into adolescent health and well-being programmes



Source: UN Women 2019 (23).



Source: WHO 2021 (68).



Source: WHO 2019 (513).



Source: WHO 2016 (461).



Demands for social- and gender-transformative approaches are building across areas such as HIV (16, 66), mental health (67) and sexual, reproductive, maternal, newborn, child and adolescent health (23). Several countries have implemented comprehensive best practices programmes focused on increasing agency, economic empowerment and improving access to HIV and SRHR services for adolescent girls and young women (66), with positive outcomes reported (16).

5.3 Implementation areas and strategies in key sectors

As stated earlier, accountability for contributing to adolescent well-being lies with various sectors and branches of the government. Health, education, social protection, labour, criminal justice, telecommunication, urban planning, energy and environment sectors all have important contributions to make to adolescent health and well-being. To contribute effectively, they need to normalize attention to adolescent-specific needs in all aspects of their work. This section describes

implementation areas and strategies for sector-specific contributions to adolescent well-being.

5.3.1 Health

The COVID-19 pandemic has slowed progress towards the SDGs for both UHC and health determinants. The rate of progress is one quarter or less of what is needed to achieve 2030 targets (514). The pandemic has disrupted adolescents' access to mental health, SRH, child protection, immunization and nutrition services, and there have been potentially substantial reversals in preventing child marriage, adolescent pregnancy and FGM (152). But even before the pandemic, adolescents accessed critical services less frequently than any other age group, and, when available, services often have been of poor quality (11). When they do access services, their experience is often far from optimal, especially for adolescents who are sexually active, pregnant, unmarried, have a disability or are from low-income families, who commonly face disrespect and mistreatment. Adolescents are less likely to

report having a usual source of health care than are older individuals in LMICs. Adolescent girls are less likely to use modern contraceptives than are older women. Compared with adolescents in HICs, far fewer adolescents in LMICs report being somewhat or very confident in their ability to receive the care they need from their health system (11).

One important lesson of the COVID-19 pandemic is that strengthening health systems, with a focus on primary health care, provides the foundations for both UHC and health security. Therefore, investing in adolescent-responsive health systems is a way to achieve UHC for the world's 1.2 billion adolescents, but it is also a measure to ensure that health systems will be able to continue providing critical services to adolescents should another public health emergency occur.

Another lesson is that many critical services depend on schools remaining open. When the COVID-19 pandemic forced 190 countries to close schools, 1.6 billion learners lost access to critical services such as psychosocial support, school meals and child protection. It is important, therefore, to invest more in integrating services across health, education and other sectors in ways that are responsive to the needs of communities.

To achieve UHC, health systems need to become adolescent-responsive, meaning that they need to normalize attention to adolescent-specific needs in all aspects of their work (Fig. 5.7). Adolescent-responsive health systems are the strategy to achieve UHC for adolescents (Box 5.12).

Fig. 5.7. What is an adolescent-responsive health system?



Ensure financial risk protection of adolescents

An important function of high-quality health systems is to avoid imposing financial hardship on those who seek care (11, 44). Financial barriers are among the key

barriers that keep adolescents from services. According to a recent WHO policy survey, adolescents in many countries do not have access to services that are free at the point of use (43). (Fig. 5.8 is based on the latest data as of 2019.)

Box 5.12. What does UHC mean for the world’s 1.2 billion adolescents?

For adolescents, UHC means that all can use the promotive, preventive, curative, rehabilitative and palliative health services they need – of sufficient quality to be effective – while also ensuring that the users of these services are not exposed to financial hardship as a result (43). UHC embodies three programmatic objectives (490):

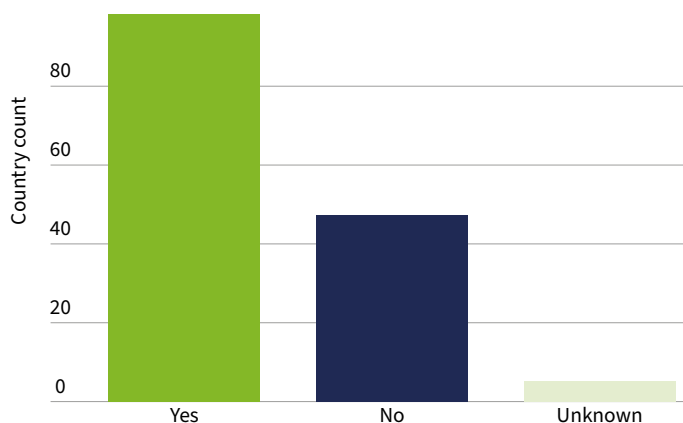
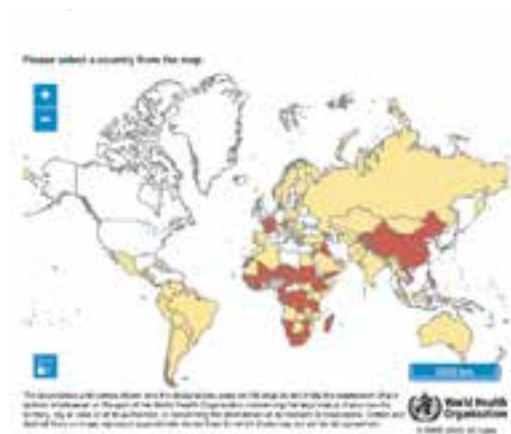
1. Equity in access to health services: every adolescent who needs services should get them, not only those who can pay for them.
2. The quality of health services should respond to adolescents’ specific needs and improve the health of those receiving services.
3. Adolescents should be protected against financial risk. The cost of using services should not put them at risk of financial harm.

Source: Adapted from WHO 2021 (68).

Fig. 5.8. Global status of policy/legislation on free access to health services by adolescents

Policy/legislation on free access to health services for adolescents
10-19 years WHO Region: Global / World Bank Income Group: Global

Policy/legislation on free access to health services for adolescents
10-19 years WHO Region: Global / World Bank Income Group: Global



Source: WHO 2020 (515).

There are many reasons that adolescents are particularly vulnerable to financial barriers to access to health services (43, 516):

- In countries where insurance systems are in place, adolescents and young adults have higher insurance rates than either children or adults above age 24 years, particularly if they are not in school, are older than 18 years (and under 24), are not employed or live in low-income households.
- Adolescents generally have limited access to money, either their own or their family's. As a result, they find it harder to make out-of-pocket payments for health care.
- Adolescents have limited capacity to access services independent of their parents, although they have a greater need for confidentiality than younger children do.
- Prepaid pooled funding arrangements may not cover all services that adolescents need – for instance, contraceptives or HPV vaccines.
- Mechanisms for paying providers are not always aligned with service requirements for adolescents. In fee-for-service schemes, providers might be disinclined to spend sufficient time consulting with an adolescent client, who may need more time than an average adult or child, especially in a first consultation.

Although insurance can reduce financial hardship, little evidence is available on how well it works for adolescents (11). Removal of or exemptions from fees for health system users in Africa resulted in immediate increases in care use. However, in many cases informal, drug and transport payments still caused substantial financial hardship (11).

Case study 5.7

Upholding the rights to education, health and basic nutrition during COVID-19 in South Africa



© WHO / Alex Swanepoel

In the midst of the COVID-19 pandemic, schools in South Africa closed, limiting the delivery of the National School Nutrition Programme (NSNP), which provides a daily meal to all pupils in South Africa who are eligible based

on economic need. The government announced that schools would reopen on 8 June 2020 and the NSNP would be restored, but, when the time came to reopen schools to some pupils, the NSNP meals were not delivered as promised.

The NSNP was introduced expressly to address both the right to basic education under Section 29(1)(a) of the South African Constitution and the right of children to basic nutrition under Section 28(1)(c). Consequently, the authorities had a constitutional duty to provide basic nutrition to pupils. Suspension of the NSNP programme during the pandemic, and the delay in its restoration, was a failure to uphold this duty, and it infringed upon the right of pupils to basic nutrition.

A case was brought to court charging a violation of constitutional and statutory duties and seeking full implementation of the NSNP programme. The court considered the fundamental rights involved, such as the right to education and the right of every child to have basic nutrition.

The court held that the government has a “negative” obligation not to impair a right protected in the Constitution and concluded that the suspension of the NSNP and the delay in restoring it had diminished constitutionally protected rights. The court ruled that all eligible pupils are entitled to a daily meal from the NSNP and ordered restoration of the programme and progress reports on implementation every 15 days.

Source: McBrien et al. 2022 (499).

Implementation strategies to ensure adolescents' protection from financial risk

1. Communicate the basic benefit package clearly to adolescent beneficiaries (and all beneficiaries) so that they understand their entitlements (490). Ensure monitoring of the boundary between the benefits packages and privately financed services to prevent providers from diverting adolescents to private services.
2. Ensure that adolescents and youth are covered by mandatory, prepaid and pooled funding to access the services they need (517).
3. Assess the impact of out-of-pocket payments at the point of use for adolescents accessing key services (516). Use findings to advocate reduction or elimination of adolescents' out-of-pocket payments at the point of use.
4. Design and implement measures specifically to protect adolescents from financial risk (for example, waivers, vouchers and exemptions or reduced co-payments) so that health services and commodities, including contraceptives, are free or more affordable to adolescents at the point of access (518).
5. Identify subgroups of adolescents that are not covered by mandatory, prepaid and pooled funding arrangements, and design mechanisms to maximize their coverage (517). This can take different forms, for example, a specific insurance programme, access to facilities financed by prepaid pooled funds or adequate subsidization for vulnerable adolescents and their families. Consider cash transfer schemes to increase adolescents' access to critical services, and advise welfare and social protection sectors on this issue. See Case study 5.14 from Kenya and Case study 3.4 from Ecuador on cash transfer interventions to achieve public health objectives.
6. Monitor facilities to ensure that payment exemption policies are observed.
7. Provide incentives that are financial, such as pay-for-performance, or non-financial, such as recognition and awards, to motivate health workers to implement quality interventions that are essential for adolescent health, development and well-being (519).

Reinforce protective laws and policies that protect adolescents

Laws and policies should protect, promote and fulfil adolescents' rights to health. Legal and regulatory frameworks should be based on internationally recognized and accepted human rights principles and standards. (See Case study 5.7 from South Africa on how international and national legal instruments were used to uphold the fundamental rights of children to health, education and nutrition during the COVID-19 pandemic.)

However, current national legal frameworks can be quite heterogenous – for example, age limits for consent vary by marital status and by the type of health service. More countries have legal age limits for unmarried adolescents than for married adolescents (107). These age limits make it more difficult for unmarried adolescents to access services, particularly SRH, HIV and mental health services.

As described in Chapter 3, adolescents need protective policies. Parents or legal guardians, health and social workers, teachers and other adults have a role to play in ensuring a safety net for them. However, this should not mean that adolescents are seen as incompetent and incapable of making decisions about their own health and health care. Protection and autonomy may seem to be conflicting principles – because protective measures tend to restrict adolescents' autonomy – but in fact they can be balanced and are mutually reinforcing. Fostering autonomy by empowering adolescents to access health services, for example, is a protective measure, since timely access to services could protect them from potential harm. Therefore, laws and policies should ensure that all the various rights of every adolescent are afforded equal priority (12).

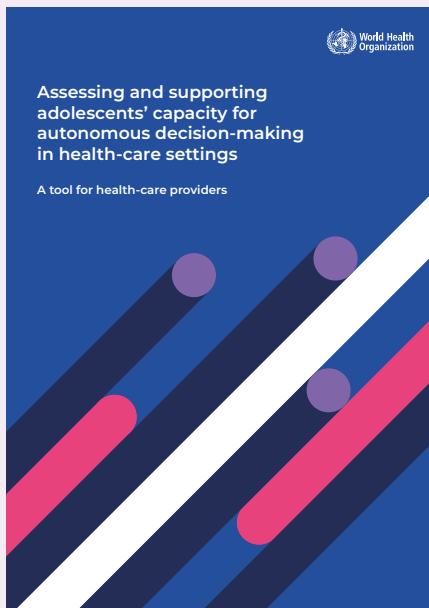
In seeking to balance respect for the emerging autonomy of adolescents and sufficient levels of protection in national policies, consideration needs to be given to several factors: the level of risk involved; the potential for exploitation; an understanding of adolescent development – that is, that competence and understanding do not develop equally and at the same pace across all developmental domains (for example, cognitive, emotional); and individual experience and capacity (15) (see Box 5.13).

Implementation strategies for protective policies

1. Alignment of national legal and regulatory frameworks with internationally recognized and accepted human rights principles and standards:
 - Develop laws and policies to promote SRHR.
 - Develop laws and policies that eliminate harmful practices inflicted on young people without consent, including FGM and early and/or forced marriage.
 - Develop policies and laws that protect and support vulnerable adolescents (for example, adolescents with disabilities, children involved in armed conflict, refugees and migrants, orphans, adolescents in detention and/or with incarcerated caregivers).
 - Assess and update the legal and regulatory frameworks that mediate adolescents' access to services to ensure compliance with internationally accepted human rights principles and standards. Use, for example, the WHO toolbox for examining laws, regulations and policies (521).
2. Equity:
 - Review and amend laws and policies to ensure adolescents' access to the required health and well-being services package, regardless of gender, income, rural living, disability or sexual orientation. Consider also other groups known locally to face discrimination.
 - Ensure gender-responsive programming to mitigate specific access barriers faced by adolescent girls or boys.
 - Enforce policies to redress inequalities and discriminatory practices (both real and perceived) in adolescents' access to services.
3. Privacy and confidentiality (12):
 - Establish procedures for health facilities to ensure that:
 - information about clients is not disclosed to third parties;
 - personal information, including client records, are held securely;
 - there are clear requirements for organization of the physical space of the facility, as well as actions, to ensure visual and auditory privacy during registration and consultations with service providers.
 - Specify in health care guidelines that consultations with adolescent clients accompanied by parents or guardians should routinely include time alone with the adolescent.
 - Review national laws and policies to indicate situations, clearly and unambiguously, when confidentiality may be breached, with whom and for what reasons (for example, disclosure of sexual abuse of a minor, significant suicidal thoughts or self-harm or homicidal intent).
- Establish standard operating procedures for situations in which confidentiality might be breached due to legal requirements.
4. Consent and assent to health treatment or services:
 - Train health care providers to assess and support adolescents' capacity for autonomous decision-making in line with the WHO protocol (108).
 - Determine appropriate age limits for consent or refusal of health treatment or services without parental or guardian involvement. The following are common considerations:
 - In most settings adolescents ages 15 years and above are able to give oral or written informed consent, while for younger adolescents decisions should be made on a case-by-case basis in the best interest of the adolescent.
 - Age limits are informed by developmental stage, evolving capacity and careful evaluation of risks, security and other issues in the local context.
 - Adopt flexible policies that allow specific groups of adolescents to be considered “mature minors” and so eligible for services. For example, locally established procedures should not prevent unaccompanied adolescents or those who do not have parents or carers from accessing services.
 - Remove any requirement for parental or guardian consent when an adolescent is seeking counselling and advice services. The right to counselling and advice is distinct from the right to give medical consent and should not be subject to any age limit.
 - Remove any requirement for mandatory third-party authorization or notification (for example, by parent, guardian or spouse) in the provision of SRH services, including contraceptive information and services. Adopt a legal presumption of competence that an adolescent seeking preventive or time-sensitive SRH goods and services (for example, contraception or safe abortion) has the requisite capacity to access such goods and services.
 - Establish standard operating procedures for obtaining informed consent. Consent forms and other information tools (for example, posters) should be developed in line with internationally agreed guidelines, in consultation with trusted community members and designed specifically for the age groups addressed by the activity.
 - Enforce a policy that in all cases – whether or not the consent of the parent or carer is required – an adolescent is adequately informed (using language appropriate for age, education level and culture). Assent for services should be unforced and unrushed. Assent should be obtained for participation in data-gathering activities.
 - Ensure elimination of harmful practices inflicted on young people without consent, including FGM and early and/or forced marriage.

- Adopt policies to protect the rights of adolescents with disabilities, including insisting that their views be given due weight in accordance with their age on an equal basis with others. Adolescents with disabilities may face particular barriers and require supported decision-making.
- Where abortion is legal, modify legislation to allow access to safe care without parental or spousal consent requirements.

Box 5.13. How to assess and support adolescents' capacity for autonomous decision-making in health care settings



Evaluation of decision-making capacity is not straightforward for health care providers. Many lack training and tools for conducting such evaluations.

The new WHO tool *Assessing and supporting adolescent capacity for autonomous decision-making in health care settings* and its accompanying algorithm provide step-by-step guidance for assessing and supporting adolescents' capacity for autonomous decision-making.

Joint exploration of the situation and options:

Explore with the adolescent the important elements of decision-making and the overall situation, including the adolescent's psychosocial life, risks and resources. The role of the professional is to provide all the necessary information in appropriate language on the framework of care, the medical condition and the options to help the adolescent in making a choice.

Agreed:

Summarize the issues raised in step 1 and ensure common understanding. The provider should be particularly attentive to elements that are likely to alter a decision and address them as appropriate to allow deliberation with the adolescent and any relevant partners in order to reach a consensual decision. The involvement of parents or legal guardians and other relevant people should be discussed with the adolescent.

Decision point:

Decide whether the adolescent has the capacity to make an autonomous decision in a given situation at a given time.

Follow-up:

Outline guidelines for follow-up, whether or not consensus is reached on a decision.

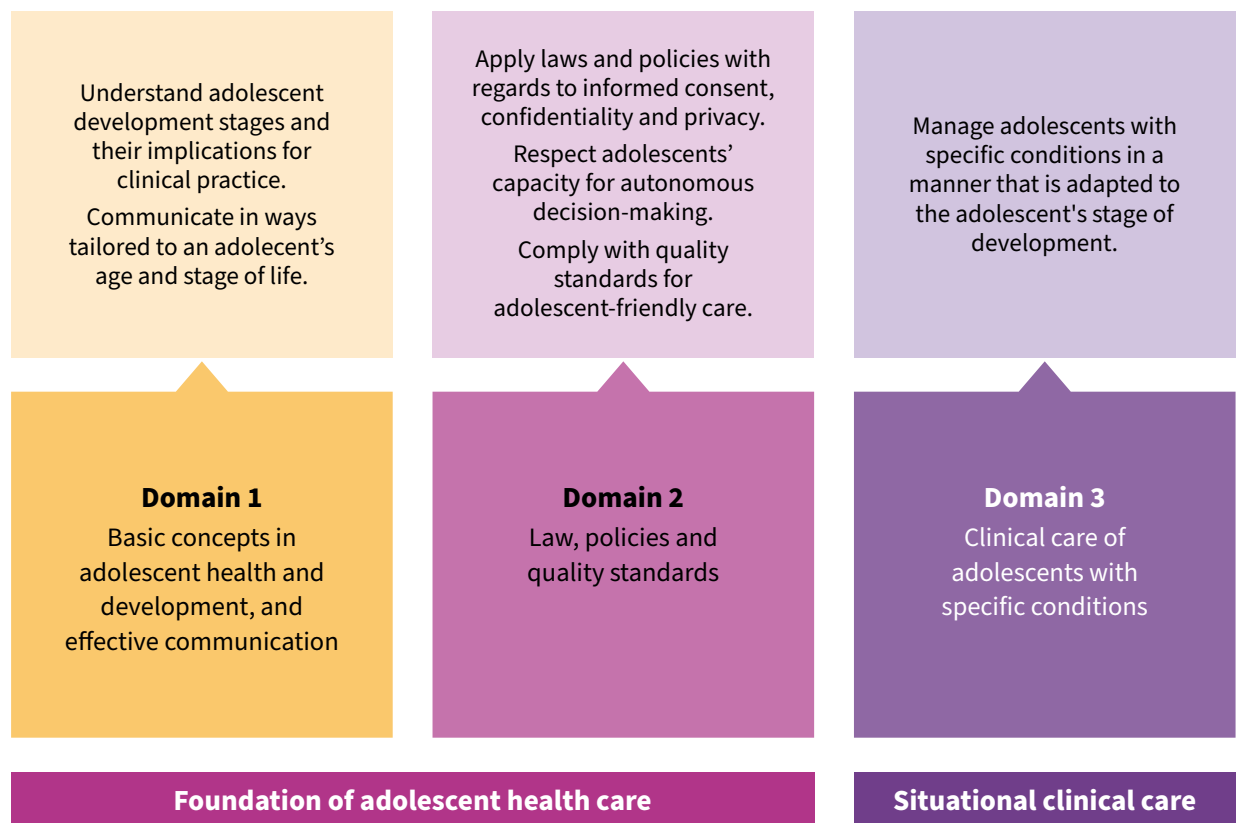
The tool is based on principles of shared decision-making and, thus, considers the perspectives of individuals, families and communities to assess and support adolescents in making decisions about their health. Its aim is to move from a vertical, paternalistic, unilateral view of assessment to a horizontal, integrated process, with the adolescent as a partner at the centre of the process (107, 108).

Build an adolescent-competent workforce at all levels of care

Adolescents are not simply older children or younger adults. Returning to the ecological model described in Chapter 1, individual, interpersonal, community, organizational, environmental and structural factors make adolescent clients unique in the ways that they understand information, in what information and which channels of information influence their behaviours and in how they think about the future and make decisions in the present (127, 303). Therefore, achieving the ambition of UHC for the world's 1.2 billion adolescents requires a health workforce equipped to provide services in a way that is cognizant of adolescent-specific needs and vulnerabilities.

Competency-based education is the most effective approach to ensuring preparedness for practice (522). The Global Competency and Outcomes Framework for Universal Health Coverage identifies six domains of health worker competencies for UHC: people-centredness, decision-making, communication, collaboration, evidence-informed practice and personal conduct (522). These competencies are entirely valid for adolescent health care. Their contextualization for the specifics of adolescent health care is described in WHO's *Core competencies for adolescent health and development for primary care providers* (523). All health workers who are in places that adolescents visit (for example, hospitals, primary care facilities and pharmacies) should develop these competencies (Fig. 5.9).

Fig. 5.9. Domains for core competencies in adolescent health care



Source: WHO 2011 (511).

The need to step up competency-based professional education in adolescent health care is amplified by the trend observed across many countries to raise the upper age limit of paediatrics (524) (see Case study 5.8 from Mauritius). A result of a greater awareness of adolescent health and leadership by professional associations, this trend has exposed gaps in the quality of adolescent health education in national paediatric training, suggesting that this education is largely inadequate (524). A greater focus on adolescent health is required within paediatrics to ensure that the current and future paediatric workforce is appropriately equipped to respond to the changing disease burden across childhood and adolescence.

Core competencies can and should be taught in both pre-service and in-service education (302, 522); a progression across this spectrum of education is necessary to ensure lifelong learning (303, 522). Many countries, however, do not have sustainable forms of continuous professional education (523). Therefore, improving the structure, content and quality of the adolescent health component of pre-service curricula is very important. One of the key

actions towards a workforce competent in adolescent health and well-being is making competency-based education in adolescent health care mandatory in pre-service curricula and postgraduate education of key professions, such as nursing, midwifery, primary care and general practice, community care, mental health and SRH specialists (43, 302).

WHO's *Core competencies in adolescent health and development for primary care providers* was developed to support countries in building an adolescent-competent workforce. It includes a tool to assess the adolescent health and development component in pre-service education and to develop recommendations (523). Many LMICs have used this tool to design training programmes for health care professionals (see Case study 5.9 from Ethiopia and Case study 5.10 from Uganda).

Case study 5.8

Mauritius changes the age of paediatrics



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In 2021, 13.6% of the population in Mauritius were adolescents (10–19 years of age). Previous surveys among adolescents have shown that additional emphasis on their specific health needs and risky behaviours should be prioritized throughout a broader range of actions addressing such barriers as structural poverty; limited access to adolescent-friendly

information, services and education; conservative social norms and discrimination; and insufficient attention to vulnerable and disabled adolescents. Recognizing the essential role and potential of adolescents in society, both for the future of the country and as champions for healthy lifestyles, the Ministry of Health and Wellness (MOHW) is leading the development of the National Strategy for Adolescent Health 2023–2027, with inputs from the Ministry of Education, Tertiary Education, Science and Technology and other ministries, as well as through community engagement.

Providers' capacity is key for the successful implementation of the strategy. Recently, recognizing the special needs of adolescents, the MOHW has decided to increase the age of paediatrics from 12 years old to 16 years old and to invest in adolescent health training for the country's paediatricians and policy-makers. With the support of WHO, a master training for a pool of resource persons in providing adolescent-responsive services was organized in April 2023. The two-week training-of-trainers session identified and trained new champions and defenders of adolescent health in Mauritius. Participants learned how to address the multifaceted needs of the adolescent population across key priorities such as mental health, SRH, noncommunicable disease prevention and substance use, among others. This training is an important investment and step in building leadership and providers' capacity in adolescent health and well-being.

Source: WHO 2023 (525).

Case study 5.9

Ethiopia takes action for long-term solutions for an adolescent-competent workforce



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Ethiopia has a rapidly growing population of young people. Those between 15 and 29 years of age make up around one third of a population of 90 million. The Federal Ministry of Health prioritized adolescent health in its Health Sector Transformation Plan (HSTP 2015/16–2019/20) and is committed to being on track to meet the SDG targets by 2030. The National Adolescent and Youth Health Strategy (2016–2020) highlighted the need for strengthening the pre-service training curriculum for adolescent and youth health practitioners (526). Needs assessment and stakeholder analysis conducted by the Ministry of Health and Regional Health Bureaus, with the support of key development partners, have shown that, although various professionals with short-term orientation trainings are involved in health care service provision for adolescents and youths, access and utilization of health services by adolescents and youths are compromised by a lack of competent providers. Almost all stakeholders identified the lack of competent providers as a major challenge for adolescent and youth health service provision and implementation of the adolescent and youth health strategy. They emphasized that the competency challenges could not be solved by

short-term orientation trainings and appreciated the initiative to train adolescent and youth health and development professionals in pre-service training.

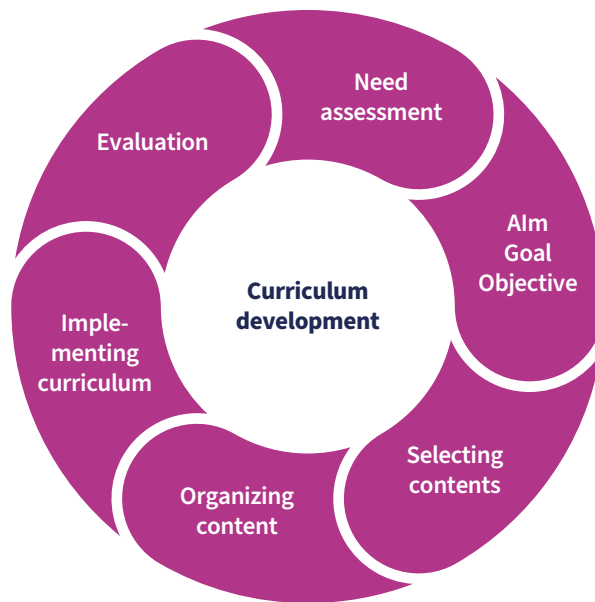
Unique contents of the Adolescent Health and Development Curriculum

In addition to basic health professional competencies for all health professionals, the Adolescent Health and Development Curriculum was designed to develop mastery-level competencies in the following:

- normal adolescent development, assessment of adolescent growth and development and identifying and managing developmental disorders;
- age- and developmentally appropriate effective communication with adolescents;
- assessment of adolescent mental health status and management of mental health problems;
- health promotion, risk factors, prevention of risky behaviours, positive developmental interventions, and assessment and management of disorders (substance use disorders, drug use disorders, nutritional disorders, etc.);
- assessment of normative gender issues in the society and implementation of gender-transformative interventions;
- adolescents' rights to health and effective advocacy to change laws and guidelines that restrict their rights;
- approaches for organization and delivery of quality health care services for adolescents in line with global and national standards;
- engagement and/or participation of adolescents, parents, guardians, community organizations and other sectors in adolescent health and development.

Curriculum development steps and current status

An expert faculty member who taught adolescent reproductive health for about 15 years for Masters of Public Health in Reproductive Health Specialty students initiated development of the curriculum. Then, a team of experts in the school of public health led the overall curriculum development process (Fig. 5.10).

Case study 5.9 (continued)**Fig. 5.10.** Steps followed to develop the Adolescent Health and Development Curriculum, Ethiopia, 2019

A team of experts has led all curriculum development steps accomplished so far, from needs assessment to setting objectives through developing and organizing contents. To facilitate implementation of the curriculum, the team conducted internal and external curriculum reviews and technically approved the curriculum. It was then ready for implementation. The curriculum is now being used to define competencies and contents for in-service trainings. However, its formal implementation has been delayed. The Human Resources Directorate of the Ministry of Health is completing development of corresponding career paths before graduates enter the health system. A team at the Haramaya University School of Public Health is currently adjusting the curriculum to make it more flexible for admitting both undergraduate and postgraduate students and defining adolescent health competencies for continuous professional development through flexible learning mechanisms (modular, online, self-directed, etc.).

Source: Internal report from Lemessa Oljira of the Haramaya University College of Health and Medical Sciences.

Implementation strategies to build an adolescent-competent workforce

1. Create a common understanding among key players about the importance of investing in an adolescent-competent workforce (97). This includes ministries of health, education and youth; the national board of licensing and certification; curriculum development agencies; professional associations; and other civil society organizations.
2. Define core competencies in adolescent health and development in line with WHO *Core competencies for adolescent health and development for primary care providers* (523). Where relevant, include competency in adolescent health and well-being in job descriptions and policies related to human resource capacity.
3. Create and implement competency-based training programmes in pre-service and continuing professional education. To inform the development of such programmes, assess the structure, content and quality of the adolescent health component of existing pre-service curricula at key educational and training institutions (see Case study 5.10 from Uganda). Identify opportunities to strengthen the adolescent health component. The WHO tool to assess the adolescent health and development component in pre-service education (523) may inform this process.
4. Support institutions teaching adolescent health and well-being to assess the quality of teaching and learning and to evaluate the progress of implementation of adolescent health competencies. Apply a quality assessment conceptual framework to support such assessments (302).
5. Establish a mechanism to consult health care providers about their training and education needs in adolescent health care and conduct capacity-building activities at national and district levels that respond to the reported needs. Facilitate providers' access to online free-of-charge courses and use other effective pedagogy, such as peer education, simulation, reflection and blended learning (302).
6. Develop and review information and training materials, practice guidelines and other tools to support decision-making in adolescent health care. Integrate adolescent-specific considerations into clinical protocols and decision support tools in primary and referral care services (527, 528).
7. Strengthen the capacity of community health workers in reaching adolescents, especially those out of school, with health education and services.
8. Set up a system for supportive supervision of adolescent health care and provide collaborative learning opportunities as a key strategy to improve providers' performance.

Improve the quality of services and service delivery platforms that maximize coverage, such as digital health and SHS

Global initiatives are urging countries to prioritize quality of care as a way of reinforcing rights-based approaches to health and achieving UHC (529, 530). However, evidence from high-, middle- and low-income countries shows that adolescents face many barriers to obtaining information and quality health care and that services for adolescents are often fragmented, poorly coordinated and uneven in quality (11, 450, 531-533). The quality of services for adolescents is substandard across both health and social systems. Health systems have deficits in care competence (for example, diagnosis and management), system competence (for example, timeliness, continuity and referral), user experience (for example, respect and usability), service provision for common and serious conditions (for example, cancer, trauma and mental health) and service offerings for adolescents (11).

Recognizing these problems, many countries have moved towards a standards-driven approach to improve quality of care for adolescents (see Case study 5.11 from Ghana). The success and sustainability of such efforts will depend on effective alignment with the national policy for quality of health services (534). It is important that adolescent-specific aspects of quality of care are well articulated and embedded in these policies. The WHO planning guide for quality health services describes the actions required at the national, district and facility levels to enhance the quality of health services, providing guidance on implementing key activities at each of these three levels (534) (see Box 5.14).

The transition from paediatric to adult services is a particularly sensitive moment for adolescents with chronic conditions, as they move from a family-centred and parent-reliant model of care (paediatric care) to adult care, mainly focused on individual patients and requiring more autonomy in disease self-management (537). The need for developmentally appropriate health care approaches in transitional care for mental health, HIV, TB, diabetes, cancer and other chronic conditions is well recognized (537-540). It is also important that adolescent-specific considerations are integrated into clinical decision support algorithms for primary health care workers and specialists (527).

Box 5.14. Why integrate services at the delivery level?

A critical consideration for national programming for adolescent health and well-being is integrating services at the delivery level. For example, integrating treatment of the presenting complaint with a broader assessment, using the HEADSSS checklist (home, education, activities/employment, drugs, suicidality, sex, safety), is an opportunity to provide a context for anticipatory guidance and preventive interventions (127). For example, to extend the reach of deworming interventions to all

adolescent girls, it is recommended to integrate deworming with other programmes for this age group, such as HPV vaccination, iron and folic acid supplementation and SHN programmes (220, 535). To effectively combat TB and HIV, in most settings they must be addressed through maternal, newborn and child health programmes (536). Integration of services is important from the point of view of both maximizing efficiency and improving responsiveness to adolescents' needs.

Case study 5.10

Ensuring that adolescent health is a priority for health professionals: the experience of Uganda



© Society of Adolescent Health/Adolescent Clinic at Makerere University

In Uganda around one fifth of the population of 45.7 million is younger than 19 years of age. Yet, as in many African countries, adolescent medicine has not been a recognized specialty, and health care providers receive little adolescent-specific training. This changed after 2016, when faculty from the Makerere University in Kampala – the largest and oldest university in Uganda – attended a capacity building training on adolescent health for countries in east and southern Africa, hosted by the government of Namibia. The training was part of the WHO strategy to support regions and countries to build institutional capacity for adolescent health leadership and training.

After 2016 training for postgraduate students increased, and since 2018 a stand-alone six-week course on adolescent health has been available for second-year residents doing their Master in Paediatrics and Child Health – a significant increase compared with only six hours previously. The course includes lectures, practical training and outreach activities. Postgraduate students who rotate in paediatrics and child health during their six-week placement in the adolescent health and medicine

rotation are given the opportunity to undertake school outreach and take care of adolescent patients so that they, too, become champions for adolescent health care.

The next step in Uganda was to increase the availability of adolescent health content in pre-service education and training. It was not a simple process. As a first step, a needs assessment and review of the Bachelor of Medicine, Bachelor of Surgery curriculum showed that key departments, including Paediatrics and Child Health, Nursing, Obstetrics and Gynaecology, and Psychiatry allocated minimal time to adolescent health topics. This finding informed the next step, which was the development of a comprehensive outline of topics for a programme for trainers. Finally, the university conducted a training of faculty and other resource persons to enhance their ability to deliver up-to-date content using interactive teaching techniques. Fifteen master trainers were trained. The undergraduate extracurricular course for medical students, which included 20 hours of training on adolescent health, was launched in June 2019. Since then, over 400 students, including undergraduate and masters students in paediatrics, psychiatry, obstetrics and gynaecology, and public health, have received training in adolescent health.

To equip undergraduate and postgraduate students with practical skills, the Friday Adolescent Clinic and partners has organized practical sessions as part of a biannual skills-building event for adolescents. The Friday Adolescent Clinic opened in May 2013 at the Mulago National Referral Hospital, which is the teaching hospital for the Makerere University College of Health Sciences. The clinic serves as a general adolescent clinic, now providing care for more than 8000 adolescents and young adults. Skills building sessions for adolescents offer a platform for them to come together, learn, share, have fun and learn life skills to enable them to pursue and achieve their goals in life. At the same time, these sessions offer the Master in Paediatrics and Child Health trainees the opportunity to practice building skills among the adolescents.

Source: Internal report from Sabrina Bakeera-Kitaka of the Makerere University College of Health Sciences.

Case study 5.11

Ghana implements a digital solution to measure the quality of health care services for adolescents



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Since 2015 countries have used the *Global standards for quality health care services for adolescents* developed by WHO and other stakeholders (541). The aim of the document is to help policy-makers and health service planners improve the quality of health care services so that adolescents find it easier to obtain the health services that they need. In collaboration with stakeholders, WHO proposed eight global standards, focused on adolescent health literacy, community support, an appropriate package of services, provider competencies, facility characteristics, adolescents' participation, equity and non-discrimination, and data and quality improvements. Periodic monitoring of the implementation of standards was a key component of the document but required time-consuming and expensive surveys. In response, WHO has developed a web-based platform to digitally monitor and evaluate national quality standards. Ghana was among the early adopters to pilot-test the web platform. In 2019 WHO introduced the platform to the Adolescent Health and Development Programme of the Ghana Health Service. Six facilities in the Cape Coast Municipal and Abura Asebu Kwanmankese districts in the Central region were selected for the pilot-test.

The Ghana Health Service provided school nurses with mobile phone tablets and an internet connection to facilitate regular access to the web application. Based on guidance from the global AA-HA! document, the first step in implementation of the web-based platform was adaptation of the global standards for quality health care services to the national context. There followed an orientation of stakeholders on the utility of the web platform. Staff in participating facilities, districts and national focal points were given access to their respective dashboards through specific user accounts. Training sessions on adolescent health and development were held for both trainers and providers. Supervisors visited facilities to support and motivate staff as well as to resolve any ongoing issues. Review meetings at district and national levels provided feedback on project implementation.

After three months of project implementation, six facilities had access to the web platform and had collected information on quality of care from more than 3000 adolescents and health care staff. Staff had been extensively trained in adolescent health and development, and they had adapted the user manual for the web platform to suit local context, including translations into local languages.

Evidence and feedback from Ghana show that the implementation of the web platform has already had a positive impact on the facility, district and national management environment and, importantly, has increased awareness of the unique health needs of adolescents among both health care personnel and adolescents themselves. Improved communication, enhanced professional competencies, standardized tools and materials – such as terms of reference and guidance – have resulted from implementation of the project to date. The country subsequently adopted use of the platform, with support from UNFPA as part of the Joint UN Programme for Adolescent Girls. The number of implementing schools was scaled up to 12 in 2020, 28 in 2021 and 33 in 2022 with support from the UK Foreign, Commonwealth and Development Office through WHO. Plans for 2023 include improving data management for planning, decision-making and advocacy, provision of learning materials to improve school health teaching and learning, sensitization of staff and students in focal schools and training for service providers on the use of the platform.

Source: Internal report from the WHO Adolescent and Youth Health Unit.

Implementation strategies to ensure that services for adolescent health and well-being are high quality

1. Develop a shared understanding of adolescent health and the need to improve the quality of health services for adolescents in the context of national quality improvement efforts (534, 542).
2. Develop and implement national quality standards and monitoring systems in line with the WHO and UNAIDS *Global standards for quality health-care services for adolescents* (304). Position standards-driven quality improvement within national adolescent health and well-being programmes (543), where such exist, or within overall national platforms for quality improvement. As part of the implementation of standards, empower adolescents to raise their expectations of health systems (11).
3. Implement e-standards to automate data collection and analysis and use information technology to facilitate adolescents' feedback to facilities.
4. As part of a robust quality improvement programme, establish performance-based incentives (financial and non-financial) to stimulate achievement of performance measures for adolescent health care.
5. Establish local, subnational and national learning platforms for quality improvement (see Case study 5.12 from the Democratic Republic of the Congo).
6. Implement context- and condition-specific models of the transition from paediatric to adult care of adolescents with chronic conditions to ensure therapeutic continuity, maintenance of good clinical outcomes and promotion of adolescent autonomy, empowerment and well-being.

Ever since the Declaration of Alma-Ata of 1978, and later reconfirmed in the Declaration of Astana in 2018, health promotion and disease prevention have been recognized as central to the role of primary health care (545, 546). However, despite longstanding and widespread agreement on the centrality of prevention to the public health agenda, the health sector remains challenged to meaningfully include prevention, continuing to focus more on addressing conspicuous health problems. This has meant that preventive interventions are not translated into viable models for service delivery (547).

This is changing with new attention to well-child and well-adolescent visits, integrated into primary care (547). These visits move beyond screening tests for common conditions towards integrating other well-being dimensions, through broader evaluation of social risks, emotional state, as well as individual and family resources, followed by context-specific recommendations (see Box 5.16) (548).

Implementation strategies to expand service delivery models that maximize coverage

1. Improve primary- and referral-level care capacity to deliver integrated, adolescent-centred services. For example, train providers to conduct a HEADSSS assessment, using pre-visit psychosocial assessment tools (549) to detect any health and development problems that the adolescent has not raised (see Box 5.17).
2. To ensure UHC, invest in well-child, well-adolescent visits for health promotion, prevention, anticipatory guidance and care interventions (see Box 5.16) (548).
3. Implement and strengthen comprehensive SHS (school-based and school-linked) and their linkages with the health care system to facilitate adolescents' access to preventive services and promptly manage conspicuous health problems (14) (see Box 5.15). (See also the menu for SHS interventions in WHO guideline on school health services (14).)
4. Invest in telehealth consultations for adolescents, to address problems of distance and access and exploit other benefits (see Box 5.18), by setting up a teleconsultation service, integrated and aligned with the national vision for telehealth (550).
5. Explore the potential of digital and mass communication platforms, including radio, television, mobile phones and the internet, to provide information through social and digital media, helplines, text messaging for health education and appointment reminders and online prescriptions. See, for example, the WHO app for voluntary medical male circumcision (VMMC), which provides access to up-to-date guidelines and resources on VMMC for HIV prevention. The app makes it quicker and easier to view the guidance on smartphones and tablets, online or off, everywhere and at any time (551). Other examples include the WHO MyopiaED and the WHO mSafeListening handbook, which are toolkits to help policy- and decision-makers and implementers set up national or other large-scale myopia and hearing loss prevention programmes, built on a smartphone technology platform (552, 553). During the COVID-19 pandemic, many countries implemented remote services to provide, for example, comprehensive sexuality education. Such services have value to contribute beyond the context of a pandemic (554).
6. Conduct regular assessments of services delivered through digital technology and mobile phones before they are expanded or before current care models are replaced. These assessments would identify effects on outcomes, care processes, cost and equity, as well as both beneficial and detrimental system-wide effects (for example, reductions in needed in-person care) (11).

7. Invest in “activated adolescent patients”, which is defined as having “the skills and confidence that equip patients to become actively engaged in their health care” (11). Build self-care skills for pregnant adolescents and adolescents with HIV or other chronic physical or mental health conditions, as part of school health and other programmes, while paying attention to coordination with existing services, a supportive local sociopolitical context and an enabling environment (15).
8. Engage community health workers in reaching adolescents, especially those out of school, with health education and services.
9. Establish national and subnational mechanisms for formal engagement of NGOs in service delivery on behalf of the government in order to strengthen community-based platforms for service delivery and to reach underserved populations of adolescents in coordination with other health care providers.

Case study 5.12

Improving adolescent and youth health services in the Democratic Republic of the Congo through collaborative learning



© WHO / Christopher Black

Kinshasa – Nineteen-year-old Armande* recalls her disastrous first visit to a health centre. “It was awful,” says the teen from Kongo Central, in western Democratic Republic of the Congo. “I was younger then and looking for information on HIV, and the nurse there made fun of me in front of everyone because of my age.”

Adolescents face a range of health and societal problems: STIs, including HIV, sexual violence, early and unwanted pregnancy and early marriage.

In the Democratic Republic of the Congo, the government is working to provide access to quality SRH services to adolescents and youth. According to the Strategic Plan for Health and Wellbeing for Adolescents and Youth (2021–2025), one third of the population is between 10 and 24 years of age, but this is a large portion of the

population getting little health care: Only 17% of youth and adolescents used health services in 2021.

To improve service quality, WHO has supported the implementation of an innovative collaborative learning project backed by the Global Fund. Service providers work together to identify, discuss and propose solutions for common problems – all while strengthening capacity and developing positive attitudes, which then improve the health services provided to adolescents.

“Young people and adolescents need services that are tailored to them,” says Fidèle Mbadu Muanda, Director of the National Programme of Adolescent Health. “Collaborative learning is about strengthening capacities and changing attitudes among service providers. We’ve aligned the norms and policies linked to youth-oriented health services according to WHO guidance.”

In addition to providing technical guidance for the project, WHO supported trainings and the design of high-quality materials for providers.

The project was launched during 2018 and 2019, covering six districts in the provinces of Western Kasai (Mbuji-Mayi) and Kinshasa. Jeannette Mudipanu, a nurse in Makala’s Saint Clément Hospital Centre who participated in one of the 32 sessions, says she experienced a profound shift in perspective.

“It’s important to understand the individual,” she said. “From there, we must take the time to listen, patiently and without judgement.”

Youth attendance is now up at Saint Clément: Around 600 adolescents visited the centre between July and December 2020, compared with 280 over the same period in the previous year. Exit interviews show a 100% satisfaction rate with the services received.

Based on initial success and lessons learned in the six pilot districts, the project now aims to scale up the collaborative learning approach to 25 zones in five provinces.

* Not her real name.

Source: Adapted from WHO 2022 (544).

Box 5.15. A focus on SHS

What are SHS?

SHS are health and well-being services provided by professionals to healthy or chronically ill pupils enrolled in education institutions (555). SHS programmes have been operational in many countries for decades (556).

What are the benefits of SHS?

With at least 90% of children attending primary school and over 50% attending secondary school, schools have the most contact with adolescents and children of any institution (557). Schools, therefore, offer a unique platform for delivery of health and well-being services. The widespread attendance

also makes schools a unique opportunity to reach underserved, low-income and high-risk populations, thereby addressing some of the health and well-being inequalities during adolescence.

What services do SHS offer?

Focusing Resources on Effective School Health (FRESH), a UN framework promoting health-related school policies, lists provision of safe water and sanitation, skills-based health education and school-based health and nutrition services as the four pillars of SHS (558). Other health and well-being issues such as oral health and malaria are also included, based on local needs.

Box 5.16. What is a well-adolescent visit and what is its added value?

A well-adolescent visit is a system-supported encounter (for example, guaranteed in the basic benefit package) or system-initiated (that is, scheduled) meeting between an adolescent and health care provider(s) at a pre-established age (for example, 10 and 15 years). The visits allow the health care provider or team to examine the adolescent holistically, assess physical and emotional needs, support growth and development and intervene quickly if any issues arise.

Such visits are well established during pregnancy and for small children, but they are less common for adolescents. While many countries have routine check-ups, usually as part of SHS, only a few use these contacts at the critical junctures in adolescent life to move beyond screening towards a more holistic focus on well-being, including psychosocial

assessment and anticipatory guidance on problems that are likely to come up in the near future (559).

The services provided during the well-adolescent visit include:

- health and development assessments
- psychosocial assessment of the adolescent, their environment and needs, as well as the strengths and needs of the family
- brief interventions and referrals to services in response to identified problems
- anticipatory guidance based on the adolescent's developmental stage.

WHO is now generating evidence on the feasibility and effectiveness of such visits in LMICs.

Source: WHO in press (548).



Box 5.17. The promise of pre-visit multidomain psychosocial assessments

What is a pre-visit psychosocial screening?

A pre-visit psychosocial assessment is a self-assessment, using a questionnaire, completed by the adolescent client before the planned contact with a professional (health, education or social service). The assessment is done to detect and prioritize potentially problematic issues, beyond the presenting complaint, that the adolescent usually would not have otherwise thought to bring up, thus making consultations more holistic. Psychosocial assessment increases the possibility of early detection and timely intervention for health and well-being issues and so improves prognosis. This is especially important because during adolescence there is a high burden of psychosocial issues, risky behaviours and corresponding disease burden later in life.

What are the benefits of conducting multidomain psychosocial assessments before the consultation?

Psychosocial assessments are recommended as a routine practice during each visit. However, often providers do not have sufficient time or validated tools to conduct them. Moving the assessment outside the consultation has several benefits.

Self-administration allows for greater disclosure and facilitates timely interventions for sensitive topics, which during adolescence include emerging SRH challenges. It frees the provider's time during the consultation to focus on detected issues and provide brief interventions on the spot. Alternatively, providers may organize a referral, as appropriate.

What tools exist to facilitate pre-visit psychosocial screening?

An overview of pre-visit multidomain psychosocial screening tools has been published in a recent systematic review (549). The health and well-being domains that were most often included in these tools are denoted using the acronym HEADSSS; they include home, education, activities/employment, drugs, suicidality, sex and safety. The tools have proved to be acceptable to adolescents and able to detect health and well-being issues as well as assessments done by the practitioner. Their ease of deployment and utility mean that they can be accessed widely, opening room for interventions for adolescents in settings where providers' time is limited. Digital versions of the tools – completed by the adolescents with immediate results available to providers – have additional advantages.

Make age- and sex-disaggregated data on adolescents visible in the HMIS

Chapter 6 describes approaches to measurement, monitoring, evaluation and research on adolescent health and well-being across all well-being domains and across all types of programmes. In this section we cover only actions by the health sector.

National health management information systems rarely report data specific to adolescents. Even when these data are captured at the facility level, the reported data are often aggregated with data from other age groups as they move up from facility to district or national level. Age- and sex-disaggregated data on adolescents are rare in countries that most need them, that is, those with large adolescent populations, high adolescent disease burdens and

relatively weak infrastructures. Instead, data are typically compiled in ways that obscure adolescents' particular experiences, for example, using 5–14 year, 15–24 year and 15–49 year age bands (376).

There are other weaknesses beyond inadequate age- and sex-disaggregation. Data on young adolescents (10–14 years) are available mostly from school-based data collection systems that have limited utility where absenteeism is high and retention is low. Programmes should review all national systems for health data collection and find ways to incorporate a focus on adolescents, including on young adolescents and those out of school. Ideally, some data need to be disaggregated by sex and five-year age bands for the entire life period.

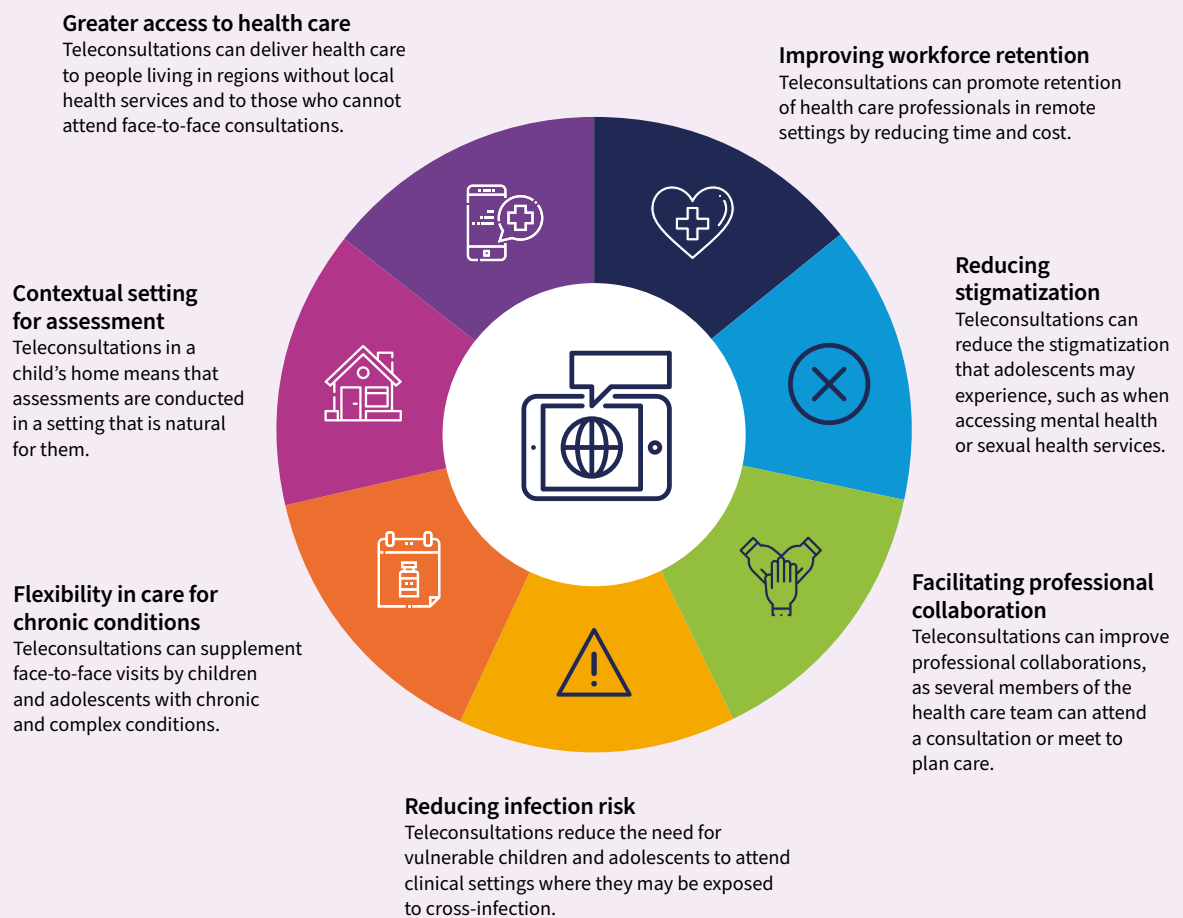
Box 5.18. The promise of teleconsultations

Teleconsultation is the use of information and communication technologies by a professional to provide health and well-being services to a remotely located client. The main benefits of teleconsultation are summarized in Fig. 5.11.

Teleconsultations with adolescents require that practitioners are aware of and accommodate the necessary conditions to ensure adolescents' rights to autonomy, participation, safety,

developmentally appropriate information and confidentiality. Practitioners also need to take into account adolescents' sometimes limited ability to communicate or engage effectively and biological or illness-related concerns such as the potential that the person's condition could deteriorate rapidly. A detailed WHO guideline supports planning and conducting teleconsultations with children and adolescents (550).

Fig. 5.11. Potential advantages and benefits of teleconsultations



Source: WHO 2021 (550).

Implementation strategies for adolescent-responsive health management and information systems

1. Identify and respond to specific weaknesses in national data collection systems, including a review of sources and mechanisms for data collection of impact, outcome, output, process and input indicators (see Chapter 6).
 2. Improve the capacity of national and subnational statistics agencies to report regularly on the health, development and well-being of adolescents. At a minimum, data should be disaggregated by age and sex, and wherever possible other relevant stratifiers should be included, for example, disability, education and rural or urban residence. Ensure that this information is easily accessible to constituents.
 3. Implement participatory monitoring approaches to engage adolescents themselves in designing M&E systems that captures their perspectives (on, for example, service quality and policy implementation) and to ensure that mechanisms are in place to hear the voices of young adolescents (10–14 years).
 4. Ensure that facility data collection and reporting forms allow for an explicit focus on adolescents (including young adolescents), cause-specific utilization of services and quality of care (561).
 5. Ensure that district and national reports address adolescents, including cause-specific utilization of services and quality of care.
 6. Develop national capacity to conduct standardized surveys on key adolescent behaviours and social determinants, and conduct such surveys at regular intervals. Examples include the Global School-Based Student Health Survey (562), the Global Youth Tobacco Survey (563) and the Health Behaviour in School-Aged Children survey (564).
 7. Ensure that data collection systems cover out-of-school adolescents.
 8. Develop national capacity to conduct standardized surveys to monitor inputs, processes and outputs of national school health programmes, for example, the Global School Health Policies and Practices Survey (565). Conduct such surveys at regular intervals.
 9. Increase the availability of disaggregated data and information to expose inequities. Use data to plan remedial actions.
 10. Strengthen the capacity to conduct qualitative research to understand the underlying causes of trends (in health-related behaviours or use of services, for example).
 11. Synthesize and disseminate the evidence base for action.
-

5.3.2 Education

Why are actions by the education sector important for adolescent well-being?

Good health, nutrition and well-being are essential to maximize educational potential. Healthy, well-nourished, happy children and adolescents learn better and are more likely to lead healthy and fulfilling lives. The education sector is well-placed to deliver on this potential (9, 566):

- The global progress in primary and secondary school enrolment since 2000 offers an unparalleled opportunity to reach many more adolescents with essential information and services.
- Students spend an average of 7590 hours in the classroom over eight to 10 years during primary and lower secondary school. This prolonged contact offers opportunities for schools to contribute to better health and well-being in various ways: ensuring healthy school meals and setting standards for foods and beverages in schools, ensuring a health-promotive and inclusive physical and social environment, ensuring that all learners are safe and free from violence and discrimination, helping adolescents develop cognitive and socioemotional skills that contribute to healthy and sustainable eating behaviours.
- Going beyond health promotion, schools can link students to health care services when needed.

The school system represents an exceptionally cost-effective platform for such an investment. (See Box 5.7 on investing in SHN programmes.)

However, health promotion is not yet fully embedded in education systems. This is why WHO, UNESCO, UNICEF and other agencies promote a vision for education in which schools and the larger education community must be transformed to become more responsive to the health needs of learners and to ensure that their rights to health and well-being are met (9, 566). WHO and UNESCO have developed global standards for health-promoting schools that provide a framework to help governments embed healthy development and nutrition in education systems (8).

Implementation strategies to strengthen the education sector's role in adolescent health and well-being

1. Reinforce intersectoral coordination among government and stakeholders.

Establish structures and processes to facilitate and implement communication and coordination within and among all relevant sectors (education, health, social services and agriculture), local and national government departments and development partners. Establish a committee with a clear structure, roles and responsibilities for HPS that represents the major stakeholders.

2. **Develop or update the school health policy.**

Review and update existing policies, strategies and plans for school health and well-being, following a systematic multistakeholder consultative process to identify, define and prioritize health and education needs and set targets, including how HPS can address them.

3. **Strengthen school leadership and governance practices.**

Define and implement an inclusive model of school leadership for HPS and a governance structure with representatives of the students, school management, the community and subnational and national government.

4. **Allocate resources.**

Establish mechanisms for predictable and sustainable financing of school health programmes.

- Identify domestic resources that can be dedicated to supporting long-term and predictable financing of school health programmes.
- Maximize investments by using available resources, including staff, information and infrastructure, and by exploiting synergies between various projects.
- Embed flexibility in the use of national funds for health promotion in the form of grants and other mechanisms that schools can access according to their needs and contexts.

5. **Use evidence-informed practices.**

Generate context-specific evidence to inform the initial design, continuous update and M&E of all HPS activities. Support a culture of evidence generation and sharing by routinely facilitating research and evaluation of HPS activities and establishing communities of practice or information-sharing networks for school communities and stakeholders.

6. **Strengthen partnerships between school and community.**

Maintain an active partnership between school and community (for example, community members, local businesses, health services), with formal, well-documented and regularly reviewed roles, responsibilities and accountability for contributions to collaborative activities.

7. **Invest in school infrastructure.**

Establish national infrastructure requirements for maintenance of school physical and social-emotional environments in line with international guidelines. Support local government, school leaders and communities in maintaining and improving existing infrastructure to meet requirements.

8. **Develop the curriculum and associated resources and ensure its implementation.**

Develop, review and implement the curriculum (including content and pedagogy) and associated resources (for example, assessment tools, sample lesson plans, audio-visuals) to promote health and well-being in all subject areas.

9. **Ensure inclusion of health and well-being in teacher training and professional learning.**

Ensure inclusion of students' health and well-being and principles of HPS in pre-service teacher education, professional learning for in-service teachers and graduate and in-service teacher standards and certification.

10. **Ensure access to comprehensive SHS.**

Deliver comprehensive SHS in line with the WHO guideline (14), based on formal agreement between schools (or local education departments) and health service providers. Ensure competency-based professional education and development of school health personnel (see Case study 5.13 from France).

11. **Involve students.**

Include students on school councils and governance boards and on school health/HPS design teams, along with parents, caregivers and local community members, and create equal opportunities for all students to be ethically and meaningfully involved in the governance, design, implementation and evaluation of school health/HPS programmes.

12. **Involve parents, caregivers and the community.**

Include parents, caregivers and representatives of the local community on the school council or governance board and on HPS design teams. Create opportunities for parents, caregivers and local community members to participate meaningfully in the governance, design, implementation and evaluation of school health/HPS programmes.

13. **Monitor and evaluate.**

Design, develop and share practices and tools for local, subnational and national approaches to collecting, storing and analysing data, generating reports, disseminating findings and adapting school health/HPS programmes accordingly. Invest in capacity development activities on monitoring, evaluation and quality improvement for all those involved in HPS design, planning, implementation and monitoring.

Implementation strategies for each of these 13 implementation areas are described in more detail in the implementation guidance for global standards for health-promoting schools (8).

Case study 5.13**France ensures competency-based training of school health doctors**

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French school health is conceptualized into four complementary components aimed at making school a health-promoting setting: **education** (life skills, disciplinary competencies), **prevention** of risks (for example, addictive behaviours, sedentary lifestyles), **protection** and **service** (consultations, check-ups). All school staff are expected to contribute to this health promotion dynamic, including school doctors.

In France, as in other European Union countries (555), the tasks of school doctors are numerous, but they can be summarized in three main blocks.

- **individual approach** to the health of students: mandatory check-ups at established points (for 6-year-olds to detect learning disorders, at the beginning of secondary school, and for students 16–18 years of age in vocational schools to assess their aptitude to participate in regulated tasks forbidden to minors) and, at any time, interventions for students with special needs or for situations of concern (mainly relating to child protection);
- **population approach** to the health of students: health education, monitoring of the school environment, training staff on child and adolescent health and well-being and collecting data on the health of students;
- **management of health emergencies** in the school community: potentially traumatic events, communicable diseases.

Since 1991 school doctors in France are attached to the Ministry of Education. The laws governing their training were last revised in 2007. School doctors graduate from medical school and then must pass a public service competition. For those who are successful, the School of Public Health (École des hautes études en santé publique) provides mandatory training in coordination with the Ministry of Education. Following an interview exploring the candidate's specialty (usually general practice, paediatrics or public health), their previous career and diploma, an individualized training programme of 8–16 weeks is proposed. Outside the training weeks, the doctors are working autonomously in schools under the supervision of experienced mentors.

A school doctor who is a senior researcher in public health leads the training. The development board, which meet three times a year, ensures the quality of the organization and content of the courses. The board also seeks regular feedback from trainees.

Over the last 15 years, this training has been revised to match the 10 core competencies expected from school doctors (Fig. 5.12) and to improve its relevance in a rapidly changing work environment. The competencies are specific and complementary, with no hierarchical order. They are specific to school doctors and are not taught as such in medical school.

During training, 10 modules nurture these competencies by combining interactive academic teaching face-to-face, distance learning and pragmatic and professional skills developments (Fig. 5.13).

France, like other countries, faces a shortage of medical doctors. This makes the role of SHS, which have a unique position at the intersection of the health and education systems, even more crucial. Importantly, the training of school doctors must prepare them to change their working paradigm from curing to preventing, from clinical settings to the school as a health setting and from an individual to a collective perspective. In the French system, school doctors are key to ensuring that schools adopt a true health promotion perspective and fight health inequalities. This is to the benefit of the health – and, therefore, the successful learning – of all students.

Case study 5.13 (continued)

Fig. 5.12. The 10 core competencies of French school doctors

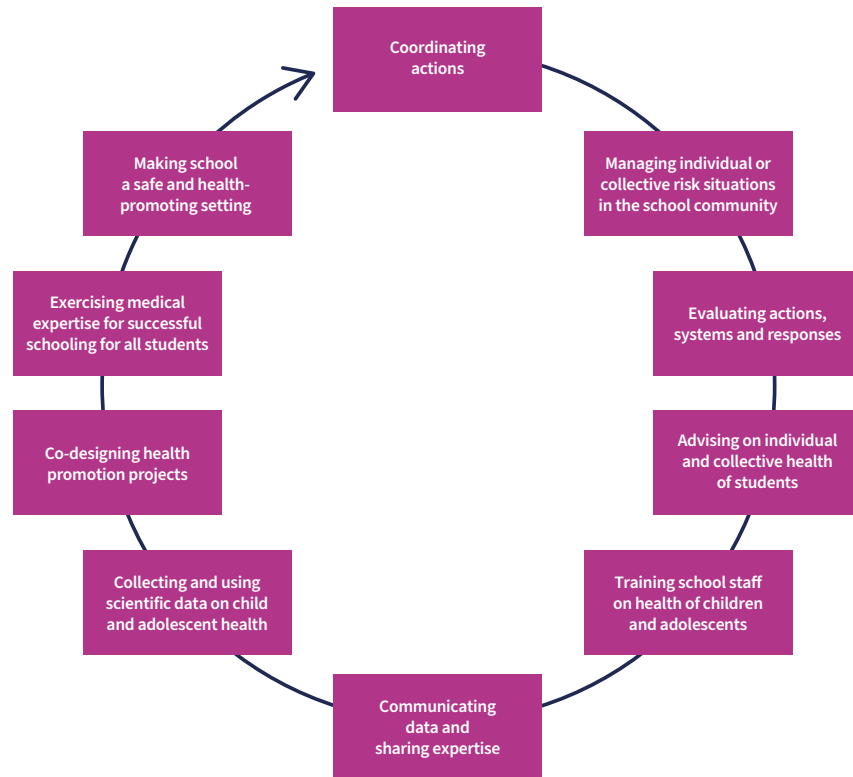
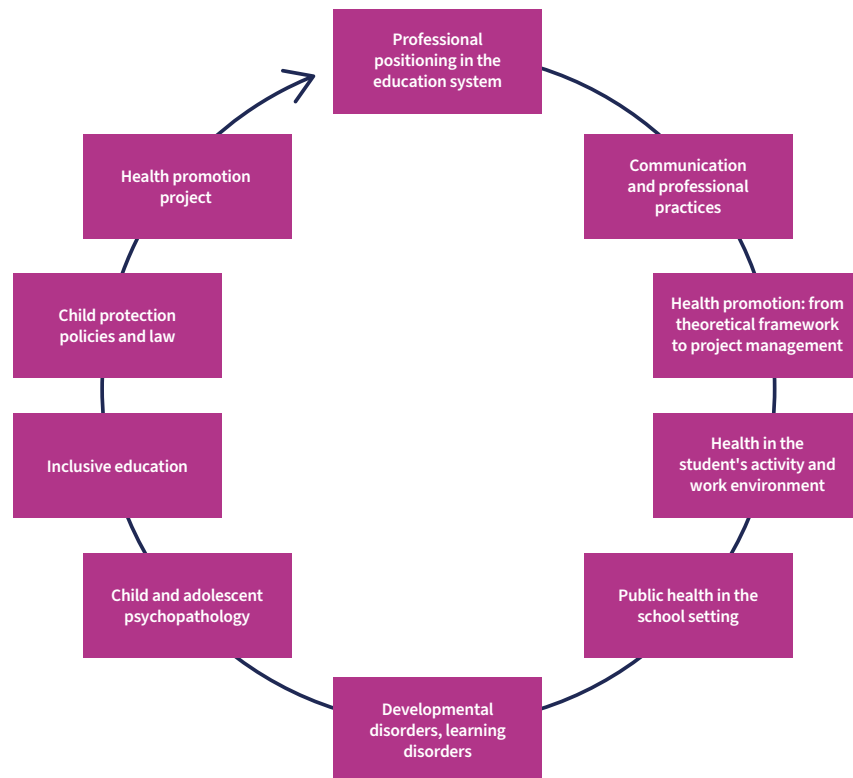


Fig. 5.13. The 10 complementary modules of the training of French school doctors



Source: Internal report from Emmanuelle Godeau of the Department of human and social sciences of École des hautes études en santé publique (EHESP).

5.3.3 Social protection

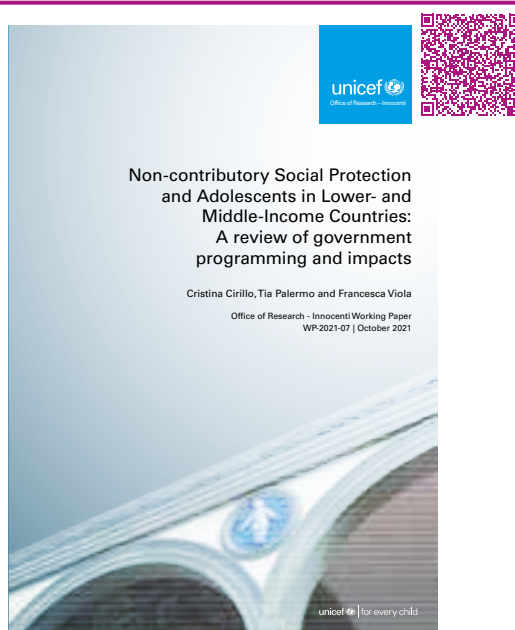
Why are actions by the social protection sector important for adolescent health and well-being?

Government-led social transfers have positive and significant impacts on adolescents' school attendance and enrolment and on food security and nutrition. They also have a protective, negative impact on unpaid labour, as well as a potential to delay sexual debut and reduce the prevalence of multiple sexual partners. Depending on context, they have a short-term protective effect against early marriage, with an increase in the age of marriage, a reduction in migration for marriage and a positive effect on mental health outcomes (17, 22, 30).

Implementation strategies for social protection

1. Scale up general social protection and antipoverty coverage so that more adolescents in poor and vulnerable households are covered.
 2. Expand coverage to include adolescents – for example, by raising age cutoffs on eligibility for child grants. Improve the adolescent-responsiveness of social protection programmes by exploring how payment schedules and modalities might be adapted to improve adolescent outcomes.
 3. Strengthen civil registration programmes to ensure that adolescents have legal identity documents to claim benefits for which they are eligible.
 4. Design programme components to respond to adolescent-specific vulnerabilities, including:
 - increasing transfer amounts to households with adolescents to offset the opportunity costs of attending school;
 - strengthening linkages between social protection and health services to address SRH needs and to prevent STIs and adolescent childbearing, including through provider training (to make services more adolescent-friendly), premium waivers for enrolment in health insurance schemes and improved access to information about available services;
 - strengthening linkages between social protection and health services, including through case management, whereby social workers can identify adolescents' health and well-being needs and connect them to services.
 5. Implement conditional and unconditional cash transfer programmes that create incentives to increase specific health-promoting behaviours (for example, nutrition, school attendance, medical check-ups and vaccinations). Make cash transfer payments sustained, large enough, predictable and on time, and maintain their real value against inflation, so that households can invest in the health and education of adolescents and delay sexual debut, pregnancy and marriage.
 6. Invest in gender-transformative cash-plus approaches, which support programme beneficiaries and their families with cash while also linking them to programming, including health and social information and services. These can include linkages to health services through supply-side strengthening, community health workers' outreach, income generation and vocational training and fee waivers for health insurance schemes. Design cash-plus approaches in a way that focuses directly on adolescents' age- and gender-related needs – such as creating safe spaces for girls, masculinities programming for boys and broader norms interventions addressed to communities and parents. (See Case study 5.14 on the effect of a multisectoral cash-plus intervention for the community and households in Kenya.)
 7. Design demand-side interventions to increase adolescents' use of health services, which may include reimbursing user fees and the costs that adolescents incur for transportation.
 8. Increase the portability of social protection benefits so that health coverage is more responsive to the needs of increasingly mobile populations of older adolescents and young adults, who also may change employers frequently.
 9. Tailor health and nutrition interventions to the developmental needs of adolescents at various ages, for example, ensure that in-kind transfers to improve nutrition take into consideration recommended calorific intake for adolescent boys and girls.
 10. Invest in more research on the following under-researched areas:
 - programme impact and outcomes, disaggregated by age, sex and other characteristics of adolescents, and effects on health services utilization, sickness, mental health, psychosocial well-being, transitions from school to the labour market, community/civic participation, depression, alcohol and drug abuse, unprotected sex, early pregnancy, HIV, early marriage, violence and transactional sex; measure pathways of impact (for example, reductions in stress or time spent in unpaid care, increase in social support);
 - impacts of integrated social protection programming (“cash-plus”), especially of health and social protection;
 - longitudinal studies to understand whether impacts are sustained into early adulthood.
-

Resource bank on social protection for adolescents



Source: UNICEF 2021 (30).



Source: UN Women 2019 (22).

Case study 5.14

The Adolescent Girls Initiative – Kenya



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The Adolescent Girls Initiative – Kenya (AGI-K) investigated the effect of multisectoral cash-plus interventions addressing the community and households, combined with interventions in the education, health and wealth-creation sectors, on

fertility, SRH and education outcomes. The study randomly assigned 2075 girls 11 to 14 years of age to one of four intervention packages:

- community dialogues on unequal gender norms and their consequences (violence prevention)
- violence prevention and cash transfers conditioned on children attending school (education)
- violence prevention, education and health and life skills training (health)
- violence prevention, education, health, financial literacy training and savings activities (wealth).

The interventions were implemented between 2015 and 2017, and participants were followed until 2019. The primary outcomes were fertility (ever had sex, pregnancy or delivery) and HSV-2 infection. Secondary outcomes were violence prevention, education, health knowledge and wealth creation.

The study demonstrated that multisectoral cash-plus interventions for the community and household, combined with interventions in the education, health and wealth-creation sectors, directly benefited individual girls in early adolescence and reinforced protective factors against pregnancy in early adolescence. Such interventions, therefore, potentially have beneficial impacts on the longer-term health and economic outcomes of girls who live in impoverished settings.

Source: UN Women 2019 (22).

5.3.4 Criminal justice system

Why are actions in criminal justice systems important for adolescent health and well-being?

1. More than one million children worldwide are deprived of their liberty by law enforcement officials. Most have committed petty crimes or minor offences such as truancy, begging or alcohol use. Often, children who engage in criminal behaviour have been used or coerced to do so by adults.
2. Even one day in detention and incarceration has a devastating impact on a child's physical, emotional and mental development.
3. Child victims of crime have little knowledge of their rights. And they are often dependent on the adults around them to bring violators to justice.

To operate in the best interest of the child and take into account the child's age and development stage, justice systems can establish processes and procedures that are child-friendly and gender-sensitive and ensure cooperation among justice, child protection and allied systems to respond to violence, abuse and the exploitation of children (25, 567).

Implementation strategies for a child-friendly criminal justice system

1. Put in place programmes for prevention of offenses by children, including early interventions for children below the minimum age of criminal responsibility.
 - Implement intensive family and community-based prevention and early intervention programmes focused on support for families, in particular those in vulnerable situations or where violence occurs. Provide support to children at risk, particularly children who stop attending school, are excluded from school or otherwise do not complete their education.
 - Provide early interventions for children who are below the minimum age of criminal responsibility through child-friendly and multidisciplinary responses to the first signs of behaviour that would, if the child were above the minimum age of criminal responsibility, be considered an offence.
 - Decriminalize minor offences such as school absence, running away, begging and trespassing, which often are the result of poverty, homelessness or family violence. Remove status offences from countries' statutes. Status offences criminalize actions only when taken by a certain class of people, such as adolescents; examples are begging, alcohol consumption, truancy and running away from home, which are outlawed for adolescents or children but not for adults.
2. Establish a minimum age of criminal responsibility that recognizes the evolving nature of maturity and the capacity for abstract reasoning in adolescence. It is recommended to increase the minimum age of criminal responsibility to at least 14 years of age, or, if higher minimum ages are currently established, for instance 15 or 16 years of age, not to reduce them under any circumstances. Abolish systems with exceptions to the minimum age, for example, for serious offence, and set one standardized age below which children cannot be held responsible in criminal law, without exception.
3. If there is no proof of age and it cannot be established whether the child is below or above the minimum age of criminal responsibility, give the child the benefit of the doubt and do not hold the child criminally responsible.
4. Establish comprehensive child justice systems with specialized units within the police, the judiciary system, the court system and the prosecutor's office, as well as specialized services such as probation, counselling or supervision and specialized defenders or other representatives who provide legal or other appropriate assistance to the child.
5. Apply child justice systems to all children above the minimum age of criminal responsibility but below the age of 18 years at the time of commission of the offence. Extend this protection to children who were below the age of 18 at the time of the offence but who turn 18 during the trial or sentencing process.
6. Ensure systematic and continuous multidisciplinary training for all professionals involved in the child judiciary system on a variety of topics, among others, the social and economic causes of crime; the physical, psychological, mental and social development of children and adolescents; the special needs of the most marginalized children such as children in minority or indigenous groups; the culture and trends in the world of young people; the dynamics of group activities; and the availability of diversion measures – that is, referral of matters away from the formal criminal justice system, usually to programmes or activities – and non-custodial sentences. Consideration should also be given to the use of new technologies such as video “court appearances”, while noting the risks of others, such as DNA profiling.
7. Avoid judicial proceedings for children above the minimum age of criminal responsibility by giving preference to diversion. Extend the range of offences for which diversion is possible, including serious offences where appropriate (see Case study 5.15 from Zambia). Make opportunities for diversion available from as early as possible after contact with the system and at various stages throughout the process, and implement it according to the principles outlined by the Committee on the Rights

- of the Child (568).
8. Develop the competencies of police officers and prison staff to identify mental health problems and provide timely, culturally appropriate first-line care to these children (569).
 9. When judicial proceedings are necessary, apply the principles of a fair and just trial and provide ample opportunities to apply social and educational measures and to strictly limit the use of deprivation of liberty, from the moment of arrest, throughout the proceedings and in sentencing. Put in place a probation service or similar agency with well-trained staff to ensure the maximum and effective use of measures such as guidance and supervision orders, probation, community monitoring and day reporting centres, as well as the possibility of early release from detention.
 10. Put in place safeguards against discrimination from the earliest contact with the criminal justice system and throughout the trial, and institute active redress mechanisms if discrimination occurs against any group of children. In particular, gender-sensitive attention should be paid to girls and to children who are discriminated against on the basis of sexual orientation or gender identity. Make accommodations for children with disabilities, which may include physical access to the court and other buildings; support for children with psychosocial disabilities; assistance with communication and the reading of documents; and procedural adjustments for testimony.
 11. Enact legislation and ensure practices that safeguard children's rights from the moment of contact with the system, including at the stopping, warning or arrest stage, while in custody of police or other law enforcement agencies; during transfers to and from police stations, places of detention and courts; and during questioning, searches and the taking of evidentiary samples.
 12. Ensure that child rights to effective participation in judicial proceedings are upheld by providing support to the child by all practitioners to comprehend the charges and possible consequences and options; to direct the legal representative, challenge witnesses, provide an account of events; and to make appropriate decisions about evidence, testimony and the punitive measures to be imposed. Proceedings should be conducted in a language that the child fully understands, or an interpreter trained to work with children should be provided free of charge at all stages of the process. Proceedings should be conducted in an atmosphere of understanding to allow children to fully participate. Developments in child-friendly justice support child-friendly language at all stages, child-friendly layouts of interviewing spaces and courts, support by appropriate adults, removal of intimidating legal attire and the adaptation of proceedings, including accommodation for children with disabilities.
 13. Ensure children's access to legal representation and to other appropriate assistance and support by a parent, legal guardian or other appropriate adult during questioning. Police officers and other investigating authorities should be well-trained to avoid questioning techniques and practices that result in coerced or unreliable confessions or testimonies, and audiovisual techniques (for example, video-recording of interrogations) should be used where possible.
 14. Take measures to ensure that deprivation of liberty is used only as a measure of last resort. In the minority of cases, when deprivation of liberty is deemed necessary, it should be conducted in accordance with the principles and procedural rights stipulated by the Committee of the Rights of the Child (568).
 15. Children with developmental delays or neurodevelopmental disorders or disabilities (for example, autism spectrum disorders, fetal alcohol spectrum disorders or acquired brain injuries) should not be in the child justice system at all, even if they have reached the minimum age of criminal responsibility. If not automatically excluded, such children should be individually assessed.
 16. Systematically collect disaggregated data and ensure regular evaluations of national child justice systems, preferably carried out by independent academic institutions. This should cover, in particular, the effectiveness of the measures taken and matters such as discrimination, reintegration and patterns of offending. Involve children in evaluation and research in line with international guidelines.

Resource bank on criminal justice for adolescents

<p>Source: UN 1989 (571).</p>	<p>Source: UNODC 2009 (572).</p>	<p>Source: UNODC 2009 (573).</p>
<p>Source: UNICEF 2021 (574).</p>	<p>Source: UNICEF 2021 (567).</p>	

Case study 5.15

Zambia's National Diversion Framework



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The National Diversion Framework was developed by the Ministry of Community Development and Social Services, supported by UNICEF, following an initial assessment of diversion and alternative sentencing practices in Zambia. The assessment found that diversion was being carried out across Zambia in an informal, ad hoc manner,

typically by police officers mediating with the accused child and complainant (and their families). It also found that more intensive and rehabilitative “diversion” programmes were being implemented through a number of civil society organizations and NGOs. The vast majority of referrals into these programmes, however, came from the courts and were not strictly diversion, but rather constituted community-based sentencing alternatives. These measures were limited to parts of the country where links had been established to appropriate service providers (notably, Lusaka and Kitwe).

The stakeholders who consulted in the process of developing the framework identified a need for standardization of approaches to diversion and consistency in the implementation of diversionary measures. They generally agreed that a national framework on diversion was needed.

The framework aims to assist all stakeholders, including the law enforcement agencies, social welfare, public prosecutors, magistrates and NGO service providers, to respond to child offences by diversion out of formal court proceedings, in accordance with the UN Convention on the Rights of the Child. The framework sets out the scope, criteria, process and options for the use of diversion in Zambia, such as warnings, restorative measures (mediation, family group/community conferences, restitution) and rehabilitative programmes.

Source: Ministry of Community Development and Social Services 2018 (570).

5.3.5 Labour

Why are actions by the labour sector important for adolescent well-being?

Employment is a strong determinant of health, manifested through income-mediated mechanisms such as the opportunity to live in wealthier (that is, often, safer, cleaner, greener) neighbourhoods, access to quality childcare and schooling, access to more nutritious food and through direct advantages such as better health insurance, safer work, injury insurance and access to workplace wellness programmes.

Insecure employment, for example, informal or casual employment, is typical of employment patterns for many young adults and may contribute to psychological stress and mental illness. For both men and women, there is a strong positive association between the proportion of informal work in the country and DALYs for all diseases. Young adults are at a greater risk of work-related injuries than older workers, and young women are also at increased risk of unwanted sexual advances, physical contact, verbal suggestions or other forms of sexual harassment at their workplace.

Young people's current and future quality of life, including their health and well-being, is determined largely by their transition from education to work. Failure to find stable, safe employment after leaving school can have lasting effects on future occupational patterns and income.

Even when employed, older adolescents and young adults are less likely than older workers to have decent jobs. Largely outside the regulatory oversight of governments, the informal sector includes large numbers of the working poor (defined as employed persons living in extreme poverty). Youth ages 15–24 years are twice as likely to be among the working poor as older adults.

The labour sector has an important role to play in equipping older adolescents and young adults for the labour market via supply-side interventions that give young adults the competencies needed to take advantage of new opportunities in the labour market. At the same time, decent jobs for youth need to be deliberately created via demand-side policies (575).

Implementation strategies for decent jobs for youth

1. Continue youth employment measures put in place during the COVID-19 pandemic (for example, training bonuses) with broader policy support and recovery strategies, including demand-side policies to increase the number of decent work opportunities that are available to young people.

Support these measures by implementing supply-side interventions to give young adults the competencies needed to take advantage of new opportunities in the labour market by:

- promoting education and reducing school drop-out
 - extending access to vocational training, reskilling and up-skilling for youth, as well as career guidance and mentoring
 - supporting job search and youth-adapted job search infrastructure
 - creating jobs through public employment programmes for youth and the provision of subsidies for private-sector work
 - providing youth-specific wage subsidies and other hiring incentives
 - investing in youth entrepreneurship.
2. Implement youth employment policies following good practices, such as:
 - early intervention (addressing the labour market risks faced by young people at the early stage of human capital formation);
 - support to pursue work that young people want rather than compulsion to take jobs they do not want (supporting self-employment and youth entrepreneurship);
 - individualized, tailored support (shaping the support according to the individual needs of the young participants);
 - an integrated approach (providing a combination of measures);
 - human capital development (improving the employability of young people by equipping them with business- and market-relevant knowledge and skills via career counselling, vocational guidance and training);
 - creation of better job opportunities (enhance existing opportunities through multiple approaches, from providing employment services through direct financial support for job creation).
 3. In collaboration with the social protection sector, contribute to the design, implementation and evaluation of youth labour policies that provide retraining and support for job-seeking, as well as schemes for income security to protect young adults from being disproportionately affected by unemployment.
 4. Monitor the impact on youth psychosocial and physical health of labour market transformation driven by new technologies and the growing prevalence of flexible, temporary and irregular work among young workers, long working hours and blurred boundaries between home and work; and mitigate negative health and safety implications of new work practices (575).

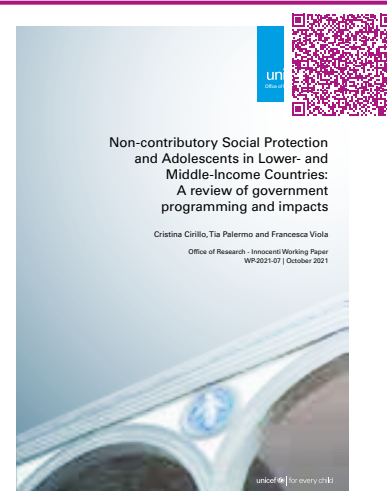
Resource bank on adolescents and labour



Source: ILO 2022 (576).



Source: Rinne et al. 2022 (29).



Source: UNICEF 2021 (30).

5. Set up public–private partnerships to combat child labour in countries and sectors where a large number of children are working (for example, farming) by enhancing coordination with national child-labour committees and supporting the development and extension of community-based monitoring systems.

“We grew up with the internet. I mean, the internet has always been here with us. The grown-ups are like, ‘Wow, the internet appeared’, while it is perfectly normal for us.”

—Boy, age 15 years, Serbia (577)

5.3.6 Telecommunications

Why is telecommunications important for adolescent well-being?

Today, adolescents spend an increasing part of their lives online. Since 2011 the number of 12- to 15-year-olds who own smartphones has increased by more than 50%. With 69% of young people online in 2019, and one in every three children with internet access at home, the internet has become an integral part of adolescents’ lives (120, 580).

The digital environment offers tremendous benefits and opportunities to adolescents, opening new channels for education, creativity and social interaction, including political and civic participation (581). The digital environment facilitates daily interactions in a number of contexts, including formal and informal education, formal and informal health services, recreation, entertainment, maintaining links to culture, socializing, expressing oneself and one’s identity through the creation of digital content, engagement with political issues and as consumers (578).

But the digital world also holds serious risks, including cyberbullying, extortion and risks to privacy. These risks became particularly acute amid the COVID-19 crisis and the surge in screen time it precipitated (120). Children and adolescents might be more vulnerable than adults to content, contact and conduct risk, as well as risks to them as consumers from unsafe products and breaches of digital security, data protection and privacy (582). Those who are more vulnerable offline are also more vulnerable online. Correspondingly, protective offline factors can also reduce exposure to online risks (577, 578).

Governments have a key role in mitigating these risks and responding to the needs of children in the digital environment by putting in place policies and regulation to establish a safer digital environment (578, 579). Since adolescents' capabilities vary by age, maturity and circumstances, actions and policies for adolescents in the digital environment should be age-appropriate, tailored to accommodate developmental differences and reflect the fact that adolescents have different kinds of access to digital technologies based on their socio-cultural and socio-economic backgrounds and the level of engagement of parents, guardian or caregiver (579).

Implementation strategies for adolescents' digital world

1. Develop an inclusive, multistakeholder national child online protection strategy that aims to ensure a safe, inclusive and empowering digital environment. The strategy should be fully integrated with policy frameworks relevant to children's rights and complement national child protection policies by offering a framework for all risks and potential harms for children in the digital environment.
2. Address online risks by implementing the following policy actions:

Child rights

- For more consistent enforcement of protection from online abuse, standardize the definition of a child as anyone under the age of 18 in all legal documents.
- With children's participation, build on and collaborate with independent human rights institutions for children to ensure children's protection online, through application of specialized expertise, investigation and monitoring, promotion, awareness raising, and training and education.
- Consult directly with children on the development, implementation and monitoring of any child online protection framework or action plan.

Legislation

- Review the existing legal framework to see that all necessary legal powers exist to enable and assist law enforcement and other relevant actors to protect persons under the age of 18 from all types of online harms on all online platforms.
- Establish that any illegal act against a child in the real world is also illegal online.
- Ensure that the online data protection and privacy rules for children are adequate.
- Align legal frameworks with existing international standards, laws and conventions related to children's rights and cybersecurity, facilitating international cooperation through the harmonization of laws.

Law enforcement

- Ensure that cases of children who harm others online are dealt with in line with child rights principles strongly favouring approaches other than the application of criminal law.
- Provide appropriate financial and human resources, as well as training and capacity-building, to fully engage and equip the law enforcement community.
- Ensure international cooperation among law enforcement agencies around the world, enabling quicker response to online-facilitated crimes.

Regulation

- Consider the development of a regulatory policy.
- Place an obligation on businesses to undertake due diligence regarding child rights and to safeguard their online users.
- Establish monitoring mechanisms for the investigation and redress of children's rights violations, with a view to improving the accountability of information and communication technology (ICT) companies and other relevant companies.
- Strengthen regulatory agency responsibility for the development of standards relevant to children's rights and ICTs.

M&E

- Establish a multistakeholder platform to steer the development, implementation and monitoring of the national digital agenda for children.
- Develop time-bound goals and a transparent process to evaluate and monitor progress and ensure that the necessary human, technical and financial resources are made available for the effective operation of the national child online protection strategy and related elements.

ICT industry

- Engage the industry in the process of developing child online protection laws and agreed metrics to measure all relevant aspects of child online safety.
- Establish incentives and remove legal barriers to facilitate the development of standards and technologies to combat content risks for children.
- Encourage industry to adopt a “safety and privacy by design” approach to their products, services and platforms, recognizing respect for children’s rights as a core objective.
- Ensure that the industry uses rigorous mechanisms to detect, block, remove and proactively report illegal content and any abuse (classified as criminal activity) of children.
- Ensure that the industry provides suitable and child-friendly reporting mechanisms for their users to report issues and concerns, including help finding further support.
- Collaborate with industry stakeholders to promote awareness of hazards and correct problems with existing products and services.
- Support the industry to provide age-appropriate, family-friendly tools to help their users better protect their families online.

Reporting

- Establish and widely promote mechanisms to easily report illegal content found on the internet.
- Establish a national helpline regarding online risks and harms or a child-friendly hotline/helpline specifically for victims themselves.
- Establish safe and easily accessible child-sensitive counselling, reporting and complaint mechanisms.

Social services and victim support

- Ensure that universal and systematic child protection mechanisms are in place that oblige all those working with children (for example, social workers, health care professionals and educators) to identify, respond to and report any sort of harm to children that occurs online.
- Ensure that social services professionals are trained for both preventative action and response to online harms to children, identifying child abuse and providing adequate specialized and long-term support and assistance for child victims of abuse.
- Develop child abuse prevention strategies and measures based on scientific evidence.

- Provide appropriate human and financial resources to ensure the full recovery and reintegration of victimized children and to prevent re-victimization.
- Ensure that children have access to adequate health care (including care for mental health as well as physical well-being) in the event of victimization, trauma or online abuse.

Data collection and research

- Invest in and align the development and M&E of frameworks and activities.
- Undertake research with the spectrum of national actors and stakeholders to determine their opinions, experiences, concerns and opportunities with regard to child online protection.






Education

- Ensure that educators and school administrators are trained to identify and adequately respond to suspected or confirmed cases of online child abuse.
- Develop a broad digital literacy programme to ensure that children can fully benefit from the online environment, are equipped to identify threats and can fully understand the implications of their behaviour online. Such a programme can be built upon existing educational frameworks. It should be age-appropriate and focused on skills and competencies.
- Develop digital literacy components as part of the national school curriculum that are age-appropriate and applicable to children from an early age.
- Create educational resources outside the school curriculum that emphasize the positive and empowering aspects of the internet for children and promote responsible online behaviour.
- Avoid fear-based messaging.
- Consult children, as well as parents and carers, on the development of online educational programmes, tools and resources.

National awareness and capacity

- Develop national public awareness campaigns tailored to various groups (for example, parents, social media users, industry). These campaigns can address the wide range of issues related to the digital environment.
- Enlist public institutions and mass media in the promotion of national public awareness.
- Harness global campaigns, as well as multistakeholder frameworks and initiatives, to build national campaigns and strengthen national capacities for child online protection.

Resource bank on adolescents and telecommunications

 <p>Source: ITU 2020 (578).</p>	 <p>Source: ITU 2020 (577).</p>	 <p>Source: ITU 2009 (583).</p>
 <p>Source: ITU 2020 (584).</p>	 <p>Source: OECD 2022 (579).</p>	

5.3.7 Roads and transportation

Why are actions by the roads and transportation sector important for adolescent health and well-being?

Over 500 children and adolescents under the age of 18 years are killed on the world's roads each day, and thousands more are injured. Road traffic injury is a leading killer of adolescents, and the vast majority (95%) of child road traffic fatalities are in LMICs. Limited by their physical, cognitive and social development, younger adolescents are more exposed to risk in road traffic than adults due to poorer perception of the proximity, speed and direction of moving vehicles. Older adolescents may be more prone to taking risks, such as speeding when driving (314).

The roads and transportation sector has an important role to play since most road traffic injuries to young people are preventable by child- and adolescent-specific measures directed at speed management, supervision, infrastructure design and improvement, enforcing vehicle safety standards, traffic regulation laws and prompt trauma-response measures after a crash.

Implementation strategies for improved road safety

Speed management

- Implement low-speed zones (30 km/hr limits) around schools and other locations where many children are walking. Apply traffic-calming road designs (for example, road narrowing, speed bumps, signalized crossings). Enforce speed limits with measures such as automatic speed cameras.

Leadership on road safety

- Improve data collection to advocate and inform effective policies and to target interventions. Collect data to identify high-risk areas where children are exposed to high-speed traffic and where safety infrastructure (such as fences, guard rails, sidewalks, bicycle lanes) is lacking.
- Ensure collaboration among, and build coalitions with, concerned institutions and stakeholders and across diverse sectors (for example, education, health, local government, transport and police) to improve protection for children on the roads.
- Engage schools and students in road safety policy decision-making.

- Establish supervision schemes, with the involvement of parents, teachers and caregivers, to protect children on the roads, particularly in poorer communities and in complex and risky road environments. Establish partnerships among communities, schools and the police to manage school crossing patrols and “walking-bus” initiatives (in which several adults accompany a group of children walking to school), particularly when parents are at work and unable to supervise children.

Infrastructure design and improvement

- Prioritize provision of safe infrastructure (for example, sidewalks, safe crossings, traffic calming measures, speed bumps) to protect children going to and from school. Design or reconfigure the built environment in schools and densely populated neighbourhoods to prioritize pedestrians and cyclists as part of policies to promote child health and tackle obesity.

Vehicle safety standards

- Improve vehicle safety for child passengers by applying the UN minimum safety regulations to new vehicles and including safety features such as ISOFIX child restraint anchorage points. Promote consumer awareness and demand for higher standards of safety for all car occupants, including children.

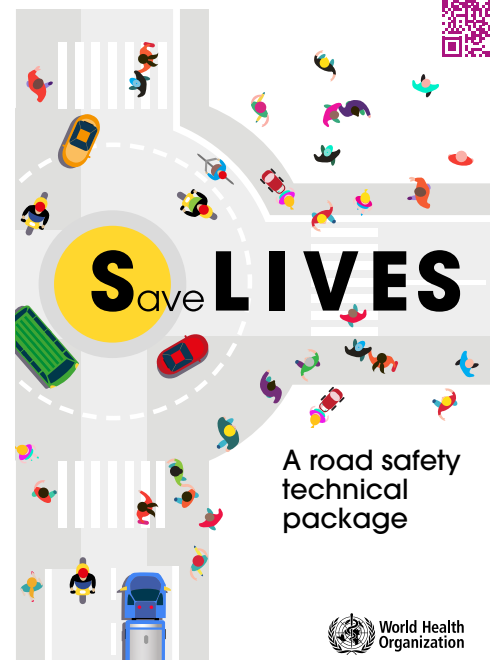
Enforcement of traffic laws

- Strengthen and enforce laws requiring the use of child restraints in cars and trucks and wearing helmets while riding two-wheeled or other open vehicles. Institute laws and regulations to ensure that school buses have seatbelts and that school vehicles are safe, as well as enforcing speeding and drink-driving legislation.
- To promote public support for road safety enforcement, use communication and social marketing strategies focused on the need to protect children.

Survival after a crash

- Improve trauma response to the needs of children, including training teachers and school transport drivers in safe immediate stabilization of injuries. Equip emergency vehicles with child-sized medical equipment and supplies and improve paediatric-specific rehabilitation services for children (314).

Resource bank for adolescents and roads and transportation



Source: WHO 2017 (585).

5.3.8 Housing, urban and industrial parks planning

Why are actions by the housing, urban planning and industrial park planning sectors important for adolescent well-being?




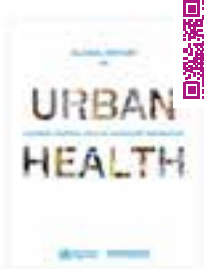






More than ever before, young women and men are flocking to cities. It is expected that by 2030 as many as 60% of all urban dwellers will be under the age of 18. Despite this, young people have little voice in urban decision-making and face major obstacles to education, employment and safety in cities (586, 587).

In LMICs many youth work in industrial parks, especially in agro-food parks (139). Usually on the outskirts of cities, industrial parks are geographical areas zoned for industrial and business use “developed and subdivided into plots according to a comprehensive plan with or without built-up factories, sometimes with common facilities for the use of a group of industries” (588). While they can provide decent employment opportunities for youth (102, 139), they can also put them at risk if safety nets are not in place and age-appropriate services are lacking. This is because many youth workers in industrial parks are migrants living apart from their families, with limited social networks to provide support and guidance (101).

Implementation strategies for adolescent-friendly urban planning

1. Ensure formulation of a national or city urban youth strategy, which encompasses skills development, creation of decent jobs and livelihoods for youth, sports and recreation (589). Employ a participatory process that gathers youth perspectives on urban planning to inform such a strategy (28).
2. Ensure that planning, designing and building industrial parks involves youth and addresses youth-specific needs, such as vocational training opportunities, age-adjusted labour conditions, occupational health and safety and meaningful participation in making decisions that affect them (102, 588).
3. Consider the adolescent-specific and gender-responsive aspects of the planning for health in urban and territorial planning (590-593) and healthy recovery from COVID-19 (594).
4. Ensure basic planning and legislative standards to avoid risk to health. For example:
 - Design, implement and maintain public spaces where children are safe from physical hazards (such as pollution, waste and traffic) and social risks (such as crime, exclusion and bullying). Ensure that these spaces are easily accessible to children irrespective of age, physical abilities, economic status, gender or race.
 - Locate and design recreational and sports facilities that facilitate equitable and safe access by adolescents of all ages and abilities, as well as access by walking and cycling, with provision of bike racks or storage (407).
 - Enforce water and sanitation standards in housing, schools, sport clubs and recreational facilities used by adolescents.
 - Ensure safe storage of chemicals and other hazardous substances.
 - Legislate equal access to urban resources by both men and women and by youth.
 - Secure non-discriminatory and equitable access, use and control of land for all, through the development and utilization of pro-youth and gender-responsive land tools (591).
 - Ensure the long-term affordability of housing for youth through measures such as housing price caps, rent vouchers and social housing (590).
5. Enforce planning codes that limit or prohibit environments that detract from healthy lifestyles or exacerbate inequality. For example:
 - Restrict “hot food takeaways” near schools.
 - Limit isolated developments accessible only by private car.
6. Promote spatial planning that enables healthier lifestyles. For example:
 - To reduce youth violence, prevent urban physical degradation. Design space that enhances openness and promotes social interaction. Organize community surveillance.
 - Provide good-quality, low-cost homes for vulnerable families in places with accessible schools and health care facilities.
6. Promote spatial planning that enables healthier lifestyles. For example:
 - Encourage city compactness and development near transport hubs.
 - Provide citywide access to safer walking to enable “walking school buses”. Improve cycling infrastructure and cycle paths to schools with bike racks or bike storage, as well as public transport that is reliable and safe for boys and girls.
 - Improve access to playgrounds and recreational areas for adolescents and assure that they are safe.
 - Create green spaces around schools to provide shade and improve air quality.
 - Ensure women’s and girls’ safe and autonomous access to quality city services, public spaces and all forms of mobility (591).
7. Ensure urban and territorial processes to capture multiple co-benefits of “building in” health. For example:
 - Improve urban governance through accountable, inclusive, democratic and gender-responsive institutions and systems (593). Strengthen local institutions to enable women’s and girls’ active and meaningful participation in urban planning, management and governance (591).
 - Track policy decisions using urban health equity indicators that capture the social determinants of health (for example, percentage of subsidized enrolment in after-school programmes, percentage of youth participating in cultural programmes) to inform promotion of greater urban health equity for youth (595).
 - Work with multiple partners on systemic, holistic approaches. Examples include: active travel (walking or cycling); “slow city” initiatives, which seek to improve the quality of urban life by slowing its pace, especially in use of spaces and flow through them; age-friendly or child-friendly initiatives; peri-urban, urban and school food systems; as well as regional economic resilience strategies.

Resource bank for adolescents and housing, urban and industrial parks planning

 <p>Source: WHO 2023 (592).</p>	 <p>Source: UN-Habitat (590).</p>	 <p>Source: UN-Habitat 2021 (595).</p>
 <p>Source: WHO 2016 (596).</p>	 <p>Source: UN-Habitat 2014 (597).</p>	 <p>Source: WHO 2020 (594).</p>
 <p>Source: WHO 2023 (598).</p>	 <p>Source: WHO 2022 (599).</p>	 <p>Source: WHO 2020 (593).</p>  <p>Source: WHO 2018 (600).</p>

5.3.9 Energy

Why are actions in the energy sector important for adolescent well-being?

Women and youth face structural disadvantage in the energy sector. Despite these barriers, they continue to develop creative sustainable energy solutions and strive for a more sustainable future. Young women and men are at the forefront of creating innovative approaches and demanding tangible actions from policy-makers and world leaders.

However, in the energy job market, young people face structural education barriers related to a mismatch between what the education system offers and what the market needs. Also, employers often favour experience over creativity and diversity, which puts youth at a disadvantage. Due to the multiple barriers

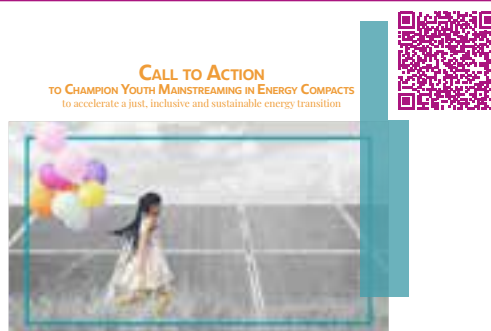
that young women and girls can face due to their age and gender, they are often exposed to double discrimination in the energy sector (601).

Reliance on polluting fuels and technologies is associated with a substantial burden of chores and time loss for children – especially girls. Women and girls are the primary procurers and users of energy in the household, and they bear the largest share of the health and other burdens associated with reliance on polluting and inefficient energy systems. In sub-Saharan Africa household air pollution exposure due to indoor cooking is the single greatest health risk for women and girls. The never-ending job of feeding the stove prevents many girls from attending school and robs them of time for rest and socializing (319).

Implementation strategies in the energy sector for adolescents and young people's health and well-being

1. Champion youth mainstreaming in Energy Compacts (national commitments to SDG7 – sustainable development) to accelerate a just, inclusive and sustainable energy transition (602). This can include:
 - Assess and strengthen national and regional ecosystems to promote and support youth empowerment and leadership in the energy sector, including meaningful adolescent and youth participation in policy- and decision-making.
 - Support youth to develop competencies relevant to the clean energy transition and the job markets of tomorrow in the fields of science, technology, engineering and mathematics (6).
 - Ensure girls' equal access to relevant technical skills and digital literacy to use essential technology and digital tools for the clean energy transition (6).
 - Provide equitable access to productive resources, such as finance, technical knowledge, entrepreneurial training, technical skills development and business development services for youth-led enterprises.
 - Enlarge youth participation in the sustainable energy workforce through the provision of career advancement avenues and the increase in entry-level jobs in the energy sector and through training with a youth-centred approach.
- Provide equal access to affordable financial mechanisms as well as tenders and other business opportunities for women and youth-led enterprises, nonprofit projects and other initiatives – for example, through gender-responsive procurement and budgeting (6).
- Put women and youth at the centre of economic recovery. Integrate incentives into programme funding and green recovery packages to encourage employers to employ, retain and advance more women and youth in the clean energy sector (6).
- Generate knowledge about and monitor and evaluate implemented measures of youth involvement in the energy sector and the energy transition.
- Champion diversity, gender equality, women's empowerment and inclusion in decision-making.
2. Ensure access to clean energy for cooking, heating and lighting in homes (319, 603), schools and health facilities. Raise awareness of the health benefits of switching to clean energy for cooking, heating and lighting. Disseminate information on how to safely install, manage and maintain improved cooking stoves.
3. Support initiatives to implement energy-efficient public transport and cycle and pedestrian routes.

Resource bank for adolescents and energy



The involvement and leadership of youth plays a pivotal role in the achievement of a just and inclusive sustainable energy transition – intrinsic to the goals of SDG 7. However, young people continue to face barriers in accessing quality education and training, inclusive financial mechanisms, and meaningful employment opportunities in the sector, that prevent them from leading, participating in, and benefiting from the sustainable energy transition. Oftentimes, young people are overheard and excluded from decision-making processes in the field of energy, despite their active involvement in their communities and their ambition to take action towards the advancement of the 2030 Agenda.

Source: UNIDO 2021 (602).



Source: WHO 2016 (319).

Clean Household Energy Solutions Toolkit (CHEST)

The Clean Household Energy Solutions Toolkit (CHEST) is a comprehensive resource for governments, service providers, and communities. It provides practical guidance on how to identify, assess, and implement clean household energy solutions that meet the needs of women and children. The toolkit covers a range of topics, including energy efficiency, clean cooking, and clean heating and lighting. It also includes a checklist of key considerations for implementing clean household energy solutions.



Source: WHO 2023 (603).

5.3.10 Environment

Approximately 22% of the overall global disease burden can be attributed to environmental risk factors (606). Therefore, it is vital to address the environmental hazards that negatively affect adolescent health and well-being (604, 605). Essential interventions include: providing safe drinking water at homes, improving sanitation facilities in schools, enhancing hygiene practices, better waste and toxic substance management, elevating urban and domestic air quality, and reducing the detrimental effects of climate change (604, 607). These changes require coordinated actions from the energy, environment, transport, agriculture, industry and health sectors.

Why are actions by the environment sector important for adolescent well-being?

Schools are ill-equipped to provide healthy and inclusive learning environments for all children. Globally, 29% of schools lack basic drinking water services, which affects 546 million schoolchildren; 28% of schools lack basic sanitation services, affecting 539 million schoolchildren; and 42% of schools do not have basic hygiene services, affecting 802 million schoolchildren (608). An estimated 367 million children attend a school with no sanitation facilities at all (607).

Smaller hands, cheaper labour: the crisis of e-waste affects children's health

An estimated 152 million children 5–17 years of age are involved in child labour, including 18 million children (11.9%) in the industrial sector, which includes waste processing. Some 73 million children worldwide engage in hazardous labour, with unknown numbers in the informal waste recycling sector. Children are particularly vulnerable to some of the toxicants found in, or produced by, e-waste and e-waste recycling activities (69).

More than 90% of the world's children breathe toxic air every day.

Air pollution, including household air pollution, is one of the greatest environmental risks to health (609, 610). Every day around 93% of the world's children under the age of 15 years (1.8 billion children) breathe air so polluted that it puts their health and development at serious risk. One billion children under 15 years of age are exposed to high levels of household air pollution, mainly from cooking with polluting technologies and fuels such as wood, charcoal and coal (610). Air pollution affects neurodevelopment, leading to lower cognitive test outcomes and impaired mental and motor development (370).

Children and adolescents are particularly vulnerable to ill health due to exposure to chemicals.

Chemicals such as heavy metals, pesticides, solvents, paints, detergents, kerosene, carbon monoxide and pharmaceuticals cause unintentional poisoning at home and in the workplace. Children are particularly vulnerable to these exposures because of their developing systems and behaviours (128, 605). Exposure to certain chemicals, such as lead, reduces neurodevelopment in children and increases the risk for attention deficit disorders and intellectual impairments (131).


Climate change has increased uncertainty about the future for the world's 1.8 billion young people.

Children and adolescents are more vulnerable to climate and environmental shocks than adults for a number of reasons, including physical and physiological vulnerability. Globally, approximately one billion children under the age of 18 years (nearly half of the world's children) live in countries with a high-risk Climate Risk Index (161).

Young people may be victims of climate change, but they are also valuable contributors to climate action. They are agents of change, entrepreneurs and innovators. Whether in education, science or technology, young people are scaling up their efforts and using their skills to accelerate climate action (27).

Implementation strategies for adolescents' and children's health-promoting environment

1. Assess and mitigate the impact of e-waste on children and adolescents (69): For example:
 - Eliminate child labour and incorporate adult e-waste workers, including youth, into the formal economy with decent working conditions across the value chain of collection, processing, recycling and resale.
 - Ensure the health and safety of young e-waste workers, their families and communities through systems that train and protect workers and monitor exposures and health outcomes, with adolescents' protection a high priority.
 - Advocate responsible recycling with policy-makers, communities, waste workers and their families.
 - Pursue better data and further research about women, children and adolescents involved with e-waste processing.
 - Raise awareness of the health risks of e-waste recycling for women and children.
2. Prepare schools for future pandemics and provide disability-inclusive WASH services in schools (128, 130). For example:
 - build or upgrade education facilities that are child-, disability- and gender-sensitive
 - provide safe and effective learning environments with safe drinking water, sanitation and hygiene services.

3. Improve air quality and minimize children's exposure to polluted air and chemicals (128, 370). For example:
 - Enable and ensure universal use of clean technologies and fuels for household cooking, heating and lighting, including making clean fuels and technologies affordable, available and accessible to low-income families through social transfers.
 - Institute better waste management to reduce the amount of waste that is burned in communities, thus reducing community air pollution.
 - Train health professionals to recognize air pollution as a major risk factor for their young patients, to understand the sources of environmental exposure in their communities, to “prescribe” solutions to air pollution-related problems, such as switching to clean household fuels and devices, and to advocate solutions to policy- and decision-makers across sectors.
 - Control lead paint hazards in homes and ensure safe management of chemicals in the home, schools and community.
 - Reduce or prevent adolescents' exposure to pesticides, toxic household chemicals and chemicals released through poor waste management and improper waste recycling, including e-waste and used lead-acid batteries (128, 131, 611, 612).
 - Investigate the health threats, to adolescents and across the life course, of emerging chemicals, such as endocrine-disrupting chemicals (611, 612).
 4. Encourage and support climate action by and for adolescents and children (613). For example:
 - Develop age-appropriate and engaging multimedia content and interactive features to inform, engage, educate and lead youth climate action (613).
 - Promote social and behavioural change and support sustainable education and youth-led environmental action with outreach campaigns and public engagement and formal and informal education activities that build knowledge and change attitudes, behaviours and norms to address the indirect drivers of biodiversity loss and the degradation of nature (614).
 - Enforce standard-setting and eco-labelling schemes to better inform consumers of the effects of products on biodiversity, and promote adolescents' literacy in eco-labelling (614).
 - Strengthen environmental digital literacy and e-governance capacities of youth to engage in the environmental dimensions of the digital transformation (614).
 - Leverage youth activism and amplify youth voices to win support for positive environmental change, reducing and preventing pollution and promoting sustainable, healthier living (614).
 - Organize with health and education ministries to encourage and support more sustainable living (for example, lifestyle changes that reduce greenhouse gas emissions).
-
- 

Resource bank for adolescents and environment

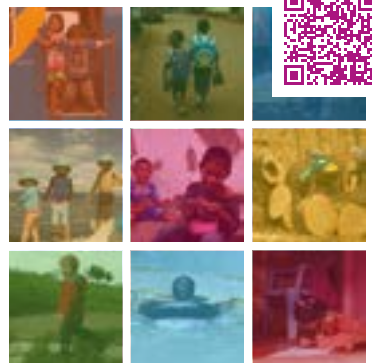


Children and digital dumpsites

E-waste exposure and child health



Source: WHO 2021 (69).



Don't pollute my future!

THE IMPACT OF THE ENVIRONMENT ON CHILDREN'S HEALTH



Source: WHO 2017 (605).

GEO-6 for Youth

Authors: UNEP



Read UNEP GEO-6 for Youth to inform, engage, and empower



Source: UNEP 2021 (613).



AIR POLLUTION AND CHILD HEALTH

Prescribing clean air

SUMMARY



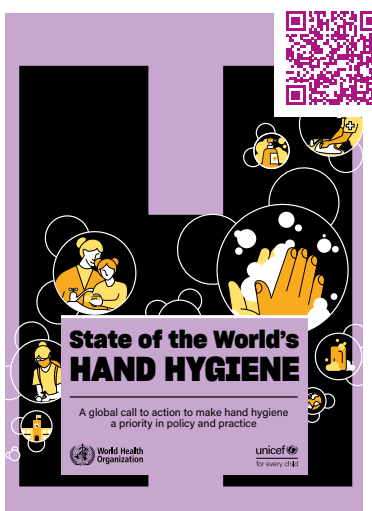
Source: WHO 2018 (370).



Source: UNICEF and WHO 2020 (615).



Source: UNICEF 2022 (130).



Source: WHO 2021 (616).




Source: WHO 2017 (128).

Chapter 6.

Monitoring, evaluation and research

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Chapter 6.

Monitoring, evaluation and research

Key messages

- To focus measurement on the most important adolescent health issues, the Global Action for Measurement of Adolescent health (GAMA) Advisory Group proposes 47 priority indicators. These indicators draw from and complement those included in the monitoring frameworks of the SDGs and the Global Strategy for Women's, Children's and Adolescents' Health. Building on existing systems, countries should – as much as possible – collect and use the data on these indicators to monitor progress towards improving the health of their adolescents.
- An approach to measurement of adolescent well-being is being developed. The approach will be designed for use at global and country levels, encompassing multiple domains beyond health to provide a broad perspective of adolescent well-being.
- The rapid physical, emotional and social changes across the adolescent period pose special challenges for adolescent health and well-being programmes, making it essential to disaggregate data by age (five-year age groups) and sex.
- It is essential for adolescent health and well-being programmes to monitor the full range of indicators from inputs and processes through outputs, outcomes and impacts; these answer different questions and are useful for different purposes. Periodic evaluations of adolescent health and well-being programmes are essential and should build on routinely collected monitoring data.
- Over the last decade, WHO has conducted priority-setting exercises in areas of adolescent health. These exercises can help researchers and research funders to identify and prioritize areas that require particular attention.
- Monitoring, evaluation and research to improve the health and well-being of adolescents should draw on the opinions of adolescents themselves. Increasingly, youth-led participatory methods are being used, including engaging adolescents as active evaluators and in participatory research. Key principles for engaging adolescents in monitoring, evaluation and research include:
 - balancing their participation with the safety of their engagement
 - paying attention to the evolving capacity of adolescents to make informed decisions
 - gender and equity considerations
 - attention to disadvantaged, vulnerable or marginalized adolescents and,
 - if possible, integrating adolescents into evidence-generation activities as advocates, data collectors, analysts and researchers.

6.1 Overview of global frameworks and GAMA

In 2015 all UN Member States adopted the 2030 Agenda for Sustainable Development (617). It sets out 17 goals, which include 169 targets that are being tracked by 232 unique indicators (618). Together, the SDGs aim to transform our world, calling for action to end poverty and inequality, protect the planet and ensure that all people enjoy health, justice and prosperity. Adolescents are repeatedly mentioned as a group crucial to achieving many of the SDGs (619). Yet, they are largely invisible in the global indicator framework, due in part to a lack of age- and sex-disaggregated details to measure progress for 10–19-year-olds (454, 620).

The Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) (Global Strategy) (619) emphasizes that children and adolescents must be at the heart of the SDGs and strives for a world in which every woman, child and adolescent can thrive and realize their full potential. Its objectives and targets, as well as 34 of its 60 indicators, are aligned with the SDGs, while an additional 26 indicators have been drawn from established global initiatives for reproductive, maternal, newborn, child and adolescent health. In total, 43 of the Global Strategy indicators relate to adolescent health (621).

What is new in this chapter?

- the set of priority indicators for measurement of adolescent health proposed by the GAMA Advisory Group
- a measurement approach for adolescent health and well-being under development
- good practices and key principles for the meaningful inclusion of adolescents in monitoring, evaluation and research on adolescent health and well-being programmes.

In addition to the indicator frameworks of the SDGs and the Global Strategy, a recent mapping identified another 14 global and regional initiatives including adolescent health indicators (622). Among these are those of the Lancet Commission on Adolescent Health and Wellbeing (623), Countdown to 2030 (624) and the Measurement of Mental Health Among Adolescents at the Population Level initiative (625).

With the overarching purpose to improve and harmonize national and global measurement of adolescent health, WHO, in collaboration with UN H6+ partner agencies, established the GAMA Advisory Group, consisting of 16 global adolescent health experts (626). The objectives of the advisory group are to (627):

- provide technical guidance to WHO, UN H6+ agencies and other relevant measurement groups to define a core set of adolescent health indicators, for the purpose of harmonizing efforts around adolescent health measurement and reporting; and
- promote harmonized guidance for adolescent health measurement, supporting countries and technical organizations in collecting useful data to track progress in the improvement of adolescent health.

In line with the first objective, a consensus list of priority indicators with metadata was developed with structured inputs from a broad range of stakeholders (5). Fig. 6.1 shows the advisory group's process for selecting these indicators. The list of indicators builds on indicators put forward by other initiatives, including the SDGs and the Global Strategy, and ensures coverage of the most important health issues for adolescents. Several indicators were adopted from other initiatives

and were modified only to specify the age range of 10–19 years. Table 6.1 presents the short names of the priority indicators on the list and indicates how the list complements the SDG and the Global Strategy indicator frameworks.

The development of an approach to measure adolescent well-being, including but going beyond health, is described in Box 6.1.



Table 6.1. Priority indicators (short names) for measurement of adolescent health proposed by the GAMA Advisory Group and how they complement the SDG and Global Strategy indicator frameworks

Domain	Indicator (short name) proposed by the GAMA Advisory Group*	Corresponding SDG indicator	Corresponding Global Strategy indicator
Social, cultural, economic, educational, environmental determinants of health	Adolescent population proportion		
	School completion	4.1.2	
	<i>Foundational learning skills</i>	4.1.1	Key indicator 14 – Transform
	Poverty	1.2.1a, 1.1.1 ^a	
	Food insecurity	2.1.2 ^a	
	Sexual and reproductive health decision-making among older female adolescents	5.6.1 ^a	Thrive ^a
	Adolescents not in education, employment or training	8.6.1 ^a	Transform ^a
Health behaviours and risks	Overweight and obesity		
	Thinness		
	Heavy episodic drinking	3.5.2 ^a	Survive ^{a,b}
	<i>Alcohol use</i>		
	Cannabis use		
	Tobacco use	3.a.1 ^a	Survive ^a
	<i>Electronic cigarette use</i>		
	Fruit and vegetable consumption		
	<i>Sugar-sweetened beverage consumption</i>		
	Physical activity		Thrive ^a
	Bullying	4.a.2 (thematic indicator) ^a	
	First sex by age 15		
	<i>Pre-menarche menstruation awareness</i>		
	Contraceptive use at last sex (modern method)		
	Condom use at last sex		
Demand for contraception satisfied (modern method)	3.7.1 ^a	Thrive ^a	
Skilled birth attendance	3.1.2 ^a	Survive ^a	
Policies, programmes and laws	National adolescent health programme		
	National standards for adolescent health service delivery		
	<i>Health service user fee exemptions for adolescents</i>		
	<i>Legal restrictions for accessing health services</i>		

Table 6.1 (continued). Priority indicators (short names) for measurement of adolescent health proposed by the GAMA Advisory Group and how they complement the SDG and Global Strategy indicator frameworks

Domain	Indicator (short name) proposed by the GAMA Advisory Group	Corresponding SDG indicator	Corresponding Global Strategy indicator
Systems performance and interventions	Health services use		
	Human papilloma virus vaccine coverage <i>Comprehensive school health services</i>	3.b.1 ^a	Survive ^{a,b}
	<i>Schools offering HIV and sexuality education</i>	4.7.2 (thematic indicator)	Thrive ^{a,b}
Subjective well-being	Someone to talk to about problems		
	<i>Positive family relationships</i>		
Health outcomes and conditions	Mortality rate (all-cause)		Key indicator 5 – Survive
	Mortality rate (cause-specific)		Survive ^b
	Adolescent birth rate	3.7.2 ^a	Key Indicator 7 – Thrive ^a
	HIV prevalence		
	Sexually transmitted infection (STI) incidence		
	Anaemia		Thrive ^a
	Suicide attempt		
	Depression/anxiety symptoms <i>Care seeking for depression/anxiety</i>		Survive ^{a,b}
	Injury hospitalization rate (cause-specific)		
	Physical violence experience	16.1.3 ^a	
	Contact sexual violence experience	16.1.3 ^a	
	<i>Sexual violence experience by age 18</i>	16.2.3	Transform

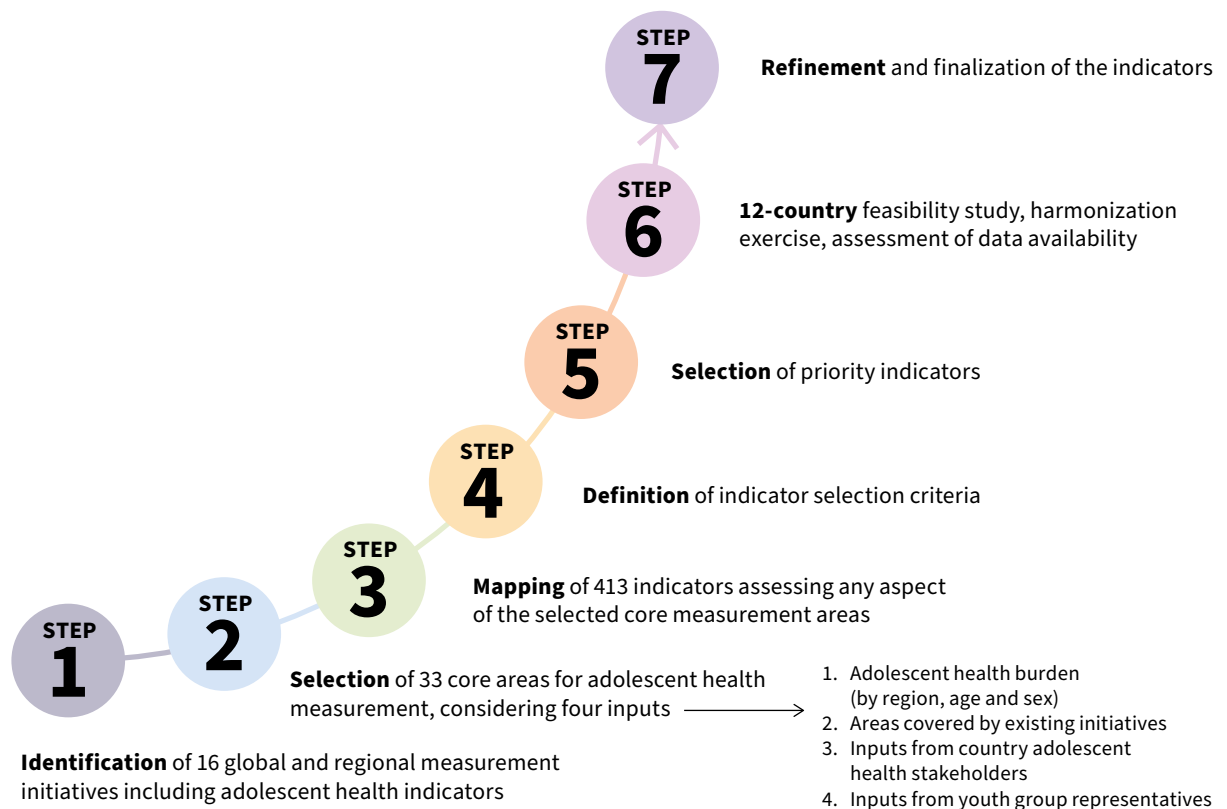
* Indicators in italics are considered “additional indicators” for settings where further detail for a topic would add value and where resources for data collection and reporting are available.

^a Indicator proposed by GAMA has been adjusted to the adolescent age group.

^b The Global Strategy notes that the indicator is under development.

Source: WHO 2021 (627).

Fig. 6.1. Process used by the Global Action for Measurement of Adolescent health (GAMA) Advisory Group to select priority indicators for measurement of adolescent health



Source: WHO 2021 (627).

Box 6.1. Measuring adolescent well-being

In 2020 the UN H6+ Technical Working Group on Adolescent Health and Well-Being developed a definition and conceptual framework for adolescent well-being (31). The proposed definition of adolescent well-being, “Adolescents thrive and are able to achieve their full potential”, is underpinned by five domains: 1) good health and optimal nutrition; 2) connectedness, positive values and contribution to society; 3) safety and a supportive environment; 4) learning, competence, education, skills and employability; and 5) agency and resilience. To move the adolescent well-being agenda forward, WHO, in collaboration with PMNCH

and UN partners and with the support of an expert consultative group, is leading the development of a measurement approach for adolescent well-being. As part of this effort, priority indicators will be identified, building on and adding to the adolescent health indicators prioritized by the GAMA Advisory Group. The measurement approach will be designed for global and country levels, with the primary aim of supporting countries to gather the most important data for improving the well-being of their adolescents.

Source: UNICEF 2020 (307).

6.2 Data collection systems for adolescent health and well-being indicators

Many adolescent health-related indicators are derived from nationally representative household surveys, such as the DHS (628), the MICS (629) (although the latter usually does not include adolescent boys and young men) or school-based health surveys, such as the Global School-Based Student Health Survey (630), the Health Behaviour in School-aged Children survey (631) and the Global Youth Tobacco Survey (563). While surveys such as DHS and MICS do not explicitly focus on adolescents, older adolescent girls are usually included, and sometimes boys ages 15–19 years are included.

Another important source for data on adolescents is CRVS systems. A well-functioning CRVS system registers all births and deaths, issues birth and death certificates and compiles and disseminates vital statistics, including information on cause of death. It may also record marriages and divorces (632).

National health information systems (NHIS) serve multiple users and a wide array of purposes that can be summarized as the “generation of information to enable decision-makers at all levels of the health system to identify problems and needs, make evidence-based decisions on health policy and allocate scarce resources optimally” (633). They include routine health information systems, which regularly collect and report data from health facilities.

Health policy surveys are also relevant to adolescent health and well-being. An example at the school level is the Global School Health Policies and Practices Survey, which enables countries to generate credible school-level data describing school health policies and practices nationwide (565).

Data collection systems need to ensure that monitoring data can be used for management at all levels of the health system, such as the district or subdistrict levels. Systems are also needed to enable use of data for monitoring at regional and national levels.

Table 6.2 provides an overview of common data sources for adolescent health indicators.

Table 6.2. Common data sources for adolescent health-related indicators

Indicator domain	Data sources	Examples
Determinants of health	<ul style="list-style-type: none"> CRVS nationally representative household surveys such as DHS, MICS 	<ul style="list-style-type: none"> adolescents not in education, employment or training
Health behaviours and risks	<ul style="list-style-type: none"> nationally representative household surveys such as DHS, MICS school surveys 	<ul style="list-style-type: none"> overweight and obesity tobacco use
Policies, programmes and laws	<ul style="list-style-type: none"> policy surveys, including school policy surveys key informant interviews self-reported by governments 	<ul style="list-style-type: none"> national adolescent health programme national standards for adolescent health service delivery
Systems performance and interventions	<ul style="list-style-type: none"> national health information system health facility surveys policy surveys, including school policy surveys 	<ul style="list-style-type: none"> HPV vaccine coverage health services use schools offering HIV and sexuality education
Health outcomes and conditions, subjective well-being	<ul style="list-style-type: none"> CRVS national health information management system nationally representative household surveys such as DHS, MICS school surveys 	<ul style="list-style-type: none"> mortality rate (all-cause) HIV prevalence sexual violence experience by age 18 positive family relationships

6.3 Global adolescent health databases

WHO's Maternal, Newborn, Child and Adolescent Health and Ageing Data portal (634), UNICEF's Adolescent Data Portal (635) and UNFPA's Adolescent and Youth Dashboard (636) bring together and display data on global adolescent health and well-being from around the world for some of the most important indicators, drawing from common data sources.

Through these data portals, up-to-date global, regional and country data can be accessed, visualized in a variety of ways (including in country profiles) and downloaded (637). Where no data exist, the data portals highlight these data gaps. The NCD Microdata Repository (638) holds unit record data from the Global School-Based Student Health Survey conducted in over 100 countries around the world.

6.4 Disaggregation of health data to monitor inequality

Health determinants, risk and protective factors and outcomes are rarely distributed equally in populations, and health programmes reach different subpopulations to differing degrees. For example, one of the indicators recommended by the GAMA Advisory Group and the Global Strategy is the prevalence of insufficient physical activity among adolescents. Insufficient physical activity differs substantially between young adolescents and older adolescents, by sex within each of these age groups, by rural or urban residence and by in-school versus out-of-school adolescents (282). Ignoring these differences may mean that the needs of particular subpopulations remain unaddressed.

Few surveys collect data on a representative sample of all adolescents. Global school surveys such as the Global School-Based Student Health Survey, the Health Behaviour in School-Aged Children or the Global Youth Tobacco Survey aim to include a representative sample of school-going adolescents within specified age ranges. The biases introduced by excluding out-of-school adolescents vary by country, just as the

proportion of adolescents who are in school differs considerably. Surveying out-of-school adolescents is more difficult, as there is no single setting where they can be reached easily. But those who are hard to reach, because they are not in school and/or seldom seek health services, may include those at the greatest risk, both in terms of health behaviours and ill health.

Monitoring of equity and adolescents' rights is critically important. The Innov8 technical handbook provides useful guidance (461). WHO guidance on health inequality monitoring is also relevant to monitoring adolescent health and well-being (639).

As part of monitoring inequality, the 2030 SDG agenda (618, 621) as well as the Global Strategy call for disaggregation of data, including by age, sex, disability, socioeconomic status and other dimensions as appropriate. The work of the GAMA Advisory Group has further highlighted the great importance of disaggregation of reported data for adolescents (5), and a 2021 article recommends age disaggregation by 5-year age groups across the life course (640). This recommendation has been adopted by, among others, WHO's Global Tuberculosis Programme (Box 6.2). Despite these global recommendations for standard age disaggregation, different age disaggregation or additional disaggregation by other factors might also be needed based on local context or policies or for specific health programmes or diseases (640).

Health information management systems rarely report data specific to adolescents, although this is changing. Even when these data are captured at the facility level, the reported data are often aggregated with data for other age groups as they move up from facility to district or national level. Age- and sex-disaggregated data on adolescents are rare in countries that most need them, that is, those with large adolescent populations, high adolescent disease burdens and relatively weak infrastructures. Instead, data are typically compiled in ways that may obscure adolescents' particular experiences, for example, using 5–14 year, 15–24 year and 15–49 year age bands (376).

Box 6.2. Age disaggregation in WHO's Global Tuberculosis Programme

WHO's Global Tuberculosis Programme recently strengthened data collection for the annual Global TB Report to better understand the burden of TB and to track progress towards the targets set by the UN General Assembly High-Level Meeting on the Fight Against Tuberculosis for treatment, prevention and specific needs of children and adolescents. Countries are encouraged to report TB notifications

in disaggregated age groups (0–4, 5–9, 10–14 and 15–19) with electronic recording and reporting systems, to report the number of children and young adolescents enrolled in treatment for rifampicin- and multidrug-resistant TB and to report on treatment outcomes and on TB in children and young adolescents living with HIV.

There are other weaknesses beyond age- and sex-disaggregation. Data on young adolescents (10–14 years) are mostly available from school-based data collection systems that have limited utility where absenteeism is high and retention is low. Programmes should review all national systems for health data collection and find ways to incorporate a focus on adolescents, including on young adolescents and those out of school (561), in their efforts to measure the performance of primary care (641) or progress towards UHC. Except for those younger than five years, age groupings of five years for all health data are recommended (640).

6.5 Country-level monitoring and evaluation of programmes for adolescent health and well-being

6.5.1 Monitoring programmes for adolescent health and well-being

Programme monitoring is the systematic collection of data to check on the progress of a programme. It aims to answer the question, “Are we doing what we planned to do?” It is an essential component of programmes, and crucial to guide efforts and investments. It is also a critical tool for advocacy to spur further effort and investment. Fig. 5.1 sets out the logical framework required to implement priority adolescent policies and interventions. Monitoring the successes and challenges of implementation is important not only to demonstrate progress, but also to identifying where correction is needed.

The International Health Partnership (IHP+) Common Monitoring and Evaluation Framework (642, 643) classifies indicators for monitoring health programmes into five categories (see logical framework in Chapter 5): 1) inputs (such as financing, human resources), 2) processes (such as supply chain and mechanisms for sharing information); 3) outputs (such as availability of services and interventions and their quality), 4) outcomes (such as intervention coverage and prevalence of risk behaviours) and 5) impact (such as health impact and system efficiency). The IHP+ Framework is useful for thinking about the processes to monitor and evaluate adolescent health and well-being programmes (Table 6.3).

Most of the proposed global indicators measure either health outcomes or impact (5, 618, 621). Relatively few indicators measure inputs, processes or outputs. In the national context, selected indicators for monitoring inputs, processes and the outputs unique to a country’s context need to be added, to drive improvements in programme effectiveness, efficiency and sustainability.

Table 6.3 gives examples of indicators to monitor a programme to facilitate an adolescent-responsive national health system and a programme on adolescent nutrition.



Table 6.3. Examples of indicators to monitor a programme to facilitate an adolescent-responsive national health system and a programme on adolescent nutrition

Programme (see Chapter 5)	Inputs and processes	Outputs	Outcomes	Impact
Programme to facilitate an adolescent-responsive national health system	<p>National adolescent health programme:</p> <ul style="list-style-type: none"> national adolescent health programme available. <p>Programme funding and resources available:</p> <ul style="list-style-type: none"> by source number of health workers per 10 000 population by categories, geographical distribution, place of employment, etc. <p>Appropriate processes in place to support adolescent health:</p> <ul style="list-style-type: none"> governance structures for the adolescent health programme are defined at national, subnational and local levels mechanisms in place to ensure that the health system is responsive to adolescents. 	<p>Health care providers trained in adolescent health:</p> <ul style="list-style-type: none"> number and percentage of health care providers trained to provide health services to adolescents proportion of target education and training institutions with an adolescent health component in their curriculum in line with WHO core competencies in adolescent health for primary care providers. <p>Adolescent-responsive health services available and accessible:</p> <ul style="list-style-type: none"> number and proportion of health facilities accredited as adolescent-friendly number and proportion of health workers accredited as adolescent-friendly, by category. <p>Teachers trained to provide adolescent health education:</p> <ul style="list-style-type: none"> proportion of target education and training institutions with faculty trained in recommended approaches to adolescent health education and training. 	<p>Health services acceptable to adolescents:</p> <ul style="list-style-type: none"> proportion of adolescents reporting satisfaction with care. <p>Coverage:</p> <ul style="list-style-type: none"> percentage of 15–19-year-old females whose demand for contraception is satisfied with modern methods. 	<p>Improved adolescent health outcomes:</p> <ul style="list-style-type: none"> adolescent mortality rate (by sex and age group) adolescent birth rate (by age group).

Table 6.3 (continued). Examples of indicators to monitor a programme to facilitate an adolescent-responsive national health system and a programme on adolescent nutrition

Programme (see Chapter 5)	Inputs and processes	Outputs	Outcomes	Impact
Programme to improve adolescent school health and nutrition (ASHN)	<p>Policy, legislation and/or regulations:</p> <ul style="list-style-type: none"> • guidance on operationalizing ASHN policy and programme at subnational level • training curricula for teachers and/or ASHN providers available, including comprehensive sexuality education • monitoring and supervision tools and mechanisms available. <p>Funding available (national and subnational levels):</p> <ul style="list-style-type: none"> • by source • operational modalities agreed and established • MOUs signed with relevant local entities to enable referral system • human resources to implement ASHN services identified and recruited (teachers/health workers/school nurses). 	<p>Procurement and distribution (to subnational level) of commodities and materials:</p> <ul style="list-style-type: none"> • number of vaccines, supplements, meals, counselling materials delivered. <p>ASHN package delivered (coverage of the intervention):</p> <ul style="list-style-type: none"> • number of schools implementing the ASHN package • numbers of male and female students who received interventions from the ASHN package. <p>Improved health and nutrition knowledge and access to services among adolescents:</p> <ul style="list-style-type: none"> • improved knowledge of health and nutrition topics covered by the ASHN package • improved access to health and nutrition services by adolescents. 	<p>Improved educational outcomes:</p> <ul style="list-style-type: none"> • improved attendance • improved academic performance. <p>Improved health, nutrition and learning outcomes among adolescents:</p> <ul style="list-style-type: none"> • years of education completed • delayed sexual debut • increase in contraceptive use • improved energy and nutrient intake • improved nutritional status. 	<p>Short-term impact:</p> <ul style="list-style-type: none"> • improved health, nutrition and education outcomes among adolescents • fewer adolescent pregnancies • less malnutrition among adolescents, particularly girls • less childhood stunting. <p>Long-term impact:</p> <ul style="list-style-type: none"> • greater employment and earning opportunities • economic growth.

The indicators suggested in Table 6.3 are neither prescriptive nor exhaustive. Rather, they are examples to demonstrate the importance of different types of indicators for day-to-day programme M&E. The choice of indicators depends on the specific strategic priorities of the programme. Choice is limited by practical considerations and available data sources. To complement the generic indicators recommended by the GAMA Advisory Group, countries will need to select indicators that are tailored specifically to indicate clearly whether the programme is doing what was planned.

These indicators also provide information to support day-to-day programme management and decision-making. To run a programme effectively, monitoring needs to be undertaken at every stage of the programme, including planning. Each step in the logical framework (described in Chapter 5) needs to be considered separately, and each important activity should be monitored. In the short term, the most useful data will come from indicators that monitor progress in the first half of the results chain from inputs and process to outputs, since these should change relatively rapidly. However, outcomes and impact indicators should also be monitored from the start to ensure that a baseline is established to track progress over time.

Adolescent health and well-being programmes have specific features different from those of programmes for other age groups, and systems must be designed to monitor these features. Even among adolescents the health needs of young adolescents are very different from those of older adolescents. The developmental changes during adolescence are rapid and, unlike in younger children, they differ substantially between the two sexes. As a result, detailed age and sex disaggregation of monitoring data is more important than for any other age group.

6.5.2 Evaluation of programmes for adolescent health and well-being

While monitoring is the systematic collection of data to check on the progress of a programme or the implementation of an intervention, evaluation assesses the degree to which a programme fulfils its goals and objectives. It answers questions such as, “Is the programme run in an effective and efficient way?” Evaluations contribute to the overall evidence base for the effectiveness of interventions and can be used to improve or redirect implementation and for subsequent programme planning. They can be conducted either by internal programme staff or by external evaluators. Monitoring data are a major resource for any programme evaluation.

Programme evaluations should follow the Development Assistance Committee criteria (644), which include measurements of the following:

- relevance – consistency with the overall programme goal and its desired impact
- effectiveness – reasons for achievement (or not) of the programmes’ main objectives
- efficiency – cost of resources (whether high or low) to achieve results
- impact – the difference that the programme made to beneficiaries and
- sustainability – the likelihood that programme benefits will continue in the absence of external support.

This document does not cover the basics of programme evaluation in general; this can be found elsewhere (642, 643). The aim here is to highlight issues for evaluating adolescent health and well-being programmes.

Countries should conduct periodic evaluations of the degree to which their adolescent health and well-being programme is meeting its goals and targets. An example of an evaluation of an adolescent physical activity programme in the United Kingdom is presented in Case study 6.1 (645).

For a programme evaluation to be meaningful and useful, it must be both rigorous and objective. It should go beyond a superficial checklist that reveals

little about the quality or coverage of a programme. For example, an evaluation of a national programme on CSE should go beyond simply documenting that sexuality education is in the national curriculum. The evaluation should review whether each aspect of the CSE curriculum is in line with the topics and approaches proposed in the UNESCO International Technical Guidance on Sexuality Education (103), particularly topics that may be sensitive or controversial. The evaluation should assess the quality and coverage of training of teachers to deliver the programme. It should also assess the coverage and quality of implementation. Ideally, such an evaluation would involve external CSE experts with the technical capacity to evaluate the programme rigorously so as to reduce the potential for bias, as representatives of the education sector may have a conflict of interest.

Planning for evaluations should be an integral part of programme planning and should be included in the initial programme plan so that adequate budget is allocated. Evaluation planning also helps to clarify the specific goals and targets of the programme, making it easier to anticipate and avoid challenges that would otherwise eventually be detected by the evaluators.

The main function of an M&E system is to produce an information basis for management decisions. The information from evaluations should feed directly and promptly into programme planning and priority setting. Periodic programme reviews are a way to make sure that the findings of evaluations are used rather than gathering dust on bookshelves. These reviews should include an assessment that takes into account the findings from both internal and external programme evaluations. Programme reviews should also take account of monitoring data and stakeholder opinions, which should include the opinions of adolescents themselves and of youth-led and youth-serving organizations. Assessment findings should feed into participatory review processes where programme priorities, approaches and targets are re-evaluated and changed where necessary.

6.5.3 Support to countries for monitoring adolescent health programmes

Many countries have empirical data on some but not all of the adolescent health indicators recommended by the GAMA Advisory Group. WHO, the Health Data Collaborative and other entities are working with countries to improve the availability, quality and use of data for local decision-making and tracking of progress toward the health-related SDGs (646). For meaningful M&E of programming for adolescent health and well-being, countries also need to ensure that they disaggregate data by age group and sex, as well as other factors as feasible.

6.6 Advancing research for adolescent health and well-being

Research aims to systematically investigate and study important questions in order to increase knowledge through the discovery of new facts. As preceding chapters have shown, much is known about the burden of disease and injuries in adolescence and the risk factors for future adult burden, effective health interventions, and prioritizing and implementing interventions in adolescent health and well-being programmes. Still, further research on adolescent health and well-being is essential to achieve the ambitious health-related SDGs. Key areas include developing evidence on *which* interventions should be implemented and *under what conditions* (the *what and the how* of programming for adolescent health and well-being). Emerging threats and opportunities, such as harmful use of digital media, climate change and pandemic risk, also need investments in research.

Research focused on child and adolescent development has been conducted primarily in the HICs of North America and Western Europe (647, 648), neglecting developmental issues that are unique to the majority, who live in LMICs. This leaves a gap in basic research addressing normative development during adolescence in a range of cultural, social and environmental contexts. Interdisciplinary approaches

and collaborations between academic researchers and those working in applied settings offer much potential to fill such knowledge gaps.

To strengthen programmes and policy, further investment is needed to unpack the challenges and opportunities of multisectoral programmes for adolescents. Conceptual and measurement advances are needed to further study adolescent voice and agency, connectedness, civic and social participation and engagement. In addition, while household surveys often capture the situation of adolescents 15 years and older, 10- to 14-year-olds are not adequately covered. Last, but not least, inclusion should be a priority for data collection and research. A recent review of evidence gap maps noted that fewer than one in every five studies analysed gender as a variable of interest. Only 3% of studies addressed disability (649).

Unfortunately, relative to the research capacity for maternal, newborn and child health, adolescent research capacity is weak, especially in LMICs where it is needed most (454). Investment to strengthen research capacity will need to involve multiple disciplines. Such research is likely to pay a substantial return on investment. Box 6.3 describes a new initiative by the Global Financing Facility to strengthen implementation research in adolescent health.

Case study 6.1

Process evaluation of PLAN-A intervention (Peer-Led physical Activity iNtervention for Adolescent girls) in the United Kingdom



© WHO

In the United Kingdom, the PLAN programme (Peer-Led physical Activity iNtervention for Adolescent girls) addressed girls ages 12 and 13 years. Its goal was to increase girls' knowledge about physical activity, identify and develop interpersonal skills and empower participating girls and their peers to develop new norms and positive messaging about physical activity. After implementation of a cluster-randomized feasibility trial in 2015–16, a process evaluation was undertaken to determine if the programme could be delivered at scale as planned and to identify refinements needed for a successful intervention and acceptability to key stakeholders. The evaluation used a mixed-methods approach to collect qualitative and quantitative data from various groups, including peer supporters and other pupils, parents, teachers and trainers. The process evaluation found that the proposed structure and plan of the peer support training appeared to be achieving programme objectives. The evaluation was helpful in informing the context of programming and identifying areas of success, including duration, timing, content and delivery parameters. Also, the evaluation suggested refinements, such as increasing participatory learning, reducing technical jargon and providing more help to overcome challenges to giving peer support.

Source: Sebire et al. 2019 (645).

Box 6.3. New initiative to stimulate implementation research in adolescent health

The Global Financing Facility's Adolescent Health Learning, Actions and Benchmarking (ADLAB) is a new virtual network for learning and action focused on adolescent health and well-being. It is steered by representatives of global initiatives (for example, GAMA), UN agencies and regional and youth interest groups.

ADLAB will support a research network of local academic and technical partners to support implementation research on the scale-up of adolescent health interventions through national systems and to answer priority questions coming from countries supported by the Global Financing Facility in partnership with adolescents themselves.

ADLAB has the following objectives:

- strengthen evidence and learning on what works
- facilitate use of evidence and learning
- redefine how to measure and learn about adolescent health and well-being in a more comprehensive, holistic way.

The idea is to translate gaps in knowledge and service provision into evaluation and research questions, conduct research and facilitate use of research findings to inform norms and standards, guidelines and other tools to improve decision-making (650).

Undeniably, the number of important research questions is large; investments will need to be prioritized. Over the last 10 years, WHO has conducted priority-setting exercises in adolescent health and well-being to help countries direct their research investments (651-655). These exercises use versions of the Child Health and Nutrition Research Institute (CHNRI) methodology (656), in which experts propose

potential research questions and then score them based on clarity, answerability, importance, potential for implementation and relevance for equity. Exercises showed that priorities have shifted away from basic questions on the prevalence of specific health conditions towards questions on scaling up existing interventions and testing the effectiveness of new ones.



6.7 Involving adolescents in monitoring, evaluation and research

As much as possible, the monitoring, evaluation and research of programmes to improve the health of adolescents should include adolescents themselves. Not only must adolescents' views be heard, but there is also increasing potential for adolescents and young people to participate actively as evaluators. Increasingly, youth-led participatory action research is undertaken, particularly in community settings. Adolescents engaged in such research identify issues that they want to address, conduct research to understand the issues and possible solutions, and advocate changes based on research evidence. Using such collaborative models can help to increase the

power of marginalized adolescent groups to effect change. Youth-led participatory action research has four phases: 1) issue selection, 2) research design and methods, 3) data analysis and interpretation and 4) reporting back and taking action for change. Involving young researchers can strengthen the validity of research by applying their unique expertise and insider experience to develop research questions and instruments and interpret findings. Also, adolescents may find the evidence more credible if their peers have participated in generating it.

Unfortunately, adolescents are sometimes excluded from research because of confusion about whether they should be regarded as children or adults (657). Adolescents' rapidly evolving capacity to make informed decisions is important for their consent and assent in

Case study 6.2

Adolescent participation in strengthening measurement and interventions for NCDs



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Data to support local interventions for adolescents on NCDs is often lacking. Where they exist, data and corresponding interventions often rely on external sources that are not specific to the context. Both the AA-HA! guidance and the Global standards for health promoting schools (8) propose guidance and frameworks on improving adolescent health programmes and measurement as well as M&E. Using these frameworks, WHO is implementing a study entitled “Empowering adolescents to lead change using health data” in four cities in different world regions. In collaboration with WHO country and regional offices and local partners, the project aims at strengthening adolescent health measurement and interventions by employing a participatory research methodology that engages adolescents in data collection and design of interventions. Schools in the intervention group will

implement health promotion strategies to address the most critical health risk behaviours and protective factors, considering the eight global standards including government policies and resources; school policies and resources; school governance and leadership; school and community partnerships; school curriculum; school social-emotional environment; school physical environment; and SHS (8).

The ongoing participatory research uses existing WHO survey tools, the Global School-Based Student Health Survey and the Global School Health Policies and Practices Survey to collect information on health behaviours from approximately 3000 students ages 13–17 in each city and on policies and practices in the selected schools. In a sub-study in each city, the Global School-Based Student Health Survey physical activity questions are being validated against wrist-worn accelerometers. Additionally, “Photovoice”, a data collection method that uses photos or drawings from participants to collect data, is being used as a complementary qualitative method for students to express what they perceive as health facilitators and barriers. Adolescents, parents/caregivers of adolescents, teachers, local community leaders and local health and education stakeholders are using these locally collected data to design interventions that change policies and influence students' behaviour.

A participatory approach to data collection and development of evidence, interventions and recommendations suggests that the interventions will be apt, feasible and sustainable, as they will be designed and implemented based on local perspectives, expertise and available resources. Also, given the involvement of adolescents and other community stakeholders in design and implementation, a general sense of ownership should contribute to access and the reach of the interventions.

Source: Guthold (in press) (658).

data collection; as their capacities evolve, adolescents may be more capable of consenting for themselves (see Case study 6.2). At the same time, the capacity of a 19-year-old will be very different from that of a 10-year-old. Furthermore, adolescents of the same age will not all have the same capacity. For ethical balance, researchers need to achieve the twin goals of including adolescents in research and protecting them from research risk (657). Data collection methods and study instruments may need to vary across the adolescent period, and special data collection approaches may be required to overcome shyness or to ensure understanding, especially among young adolescents.

Different data collection instruments may be needed for young versus older adolescents or for adolescents with disabilities. Extra consultation is often required with adolescents, their parents, families and communities prior to data collection. For example, a survey may require asking unmarried adolescents under the legal age of majority (that is, usually, under 18 years) sensitive questions about their sexual behaviour or use of illegal drugs. Also, informed consent from parents or legal guardians, in addition to assent from adolescents themselves, is required for underage adolescents. Legal and ethical provision of protection from risks (such as consequences of disclosure to parents or teachers) and ensuring access to services also need to be considered. Box 6.4 summarizes the principles of adolescent involvement.

Box 6.4. Principles for involving adolescents in monitoring, evaluation and research

- Adolescents of all ages should not be excluded from research or data collection unless there is a risk to their safety or there is no benefit from their inclusion.
- The evolving capacity of adolescents to make informed decisions should be central to considerations about their involvement as subjects of research and who should provide informed consent for adolescent participation.
- Inclusion of adolescents in research and protection from research risk can both be achieved. To do so, research and data collection require nuanced understanding of adolescent development and the social contexts of adolescents.
- Gender and equity should always be considered. This means including appropriate data disaggregated by age group (10–14 and 15–19) and sex, as well as ensuring that research is gender- and age-sensitive.
- Disadvantaged, vulnerable or marginalized adolescents should be included in research and data collection by prioritizing sex-disaggregated sampling of marginalized adolescents and by including them through inclusive community-based participatory approaches.
- To the fullest extent possible, adolescents can be involved as local advocates, data collectors, analysts and researchers in evidence-generation activities.



Conclusion

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The first edition of the AA-HA! guidance has sparked an unprecedented surge in the number of countries that have expanded adolescent health programmes to include a comprehensive range of priorities, such as injuries and violence, communicable and noncommunicable diseases, nutrition and physical activity, and mental health and substance use.

However, much more needs to be done for the world's 1.2 billion adolescents. Many countries are lagging in prioritizing tailored national policies and programmes with adequate investments to meet adolescents' needs. While having an informed national vision on adolescent health and well-being is very important, realizing it in practice by matching it with financial and human resource investments is even more so.

The second edition of the AA-HA! guidance aims to be instrumental in further informing ongoing efforts, leading to a new generation of programmes that pay due attention to all domains of well-being through

multisectoral action. The systematic approach described in the AA-HA! guidance, as well as key implementation strategies and practical examples from countries, is intended to support such efforts.

This second edition of the AA-HA! guidance is being published in the year when the largest-ever gathering for adolescent well-being, the Global Forum for Adolescents, is taking place. This is a unique opportunity to celebrate success and inspire adolescents and for the global community to advocate society's support for a successful transition from adolescence to adulthood. At the same time, it is important to ensure continued momentum, beyond the Global Forum for Adolescents '23, to sustain commitments to resource mobilization and joint efforts by all stakeholders to increase political and financial investments in adolescent health and well-being. The United Nations partners involved in the production of this guidance document stand ready to support sustained attention to adolescent health and well-being in national and global policies and to provide technical assistance as countries act to accelerate action for the health and well-being of adolescents.



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