



IFMSA

International Federation of
Medical Students' Associations

IFMSA Policy Document Adolescent Health

Proposed by Team of Officials

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Policy Statement

Introduction:

Adolescence is a critical stage in the life course. It is a unique physical and emotional developmental period in an individual's life, shaping social behaviors and healthy attitudes. The World Health Organization (WHO) reports an estimated 1.2 million adolescent deaths annually by largely preventable causes. Adolescent health and well-being depend on many social, financial and legal factors that are not yet fully addressed to ensure health equity for all young people.

IFMSA position:

The International Federation of Medical Students' Associations (IFMSA) recognizes the unique health challenges faced by adolescents and urges stakeholders to prioritize the adolescent agenda multi-sectorally to ensure the health and well-being of all young people. Barriers to healthcare, significantly heightened to left-behind populations, should be removed by providing comprehensive healthcare services, enacting supportive laws and policies, increasing funding, implementing specialized training for medical students on adolescent health, and integrating health education, including comprehensive sexuality education (CSE) in education systems. The IFMSA emphasizes the importance of self-care and digital health for adolescents, empowering them to manage their health, make informed decisions and protect their bodily autonomy. We also urge to make adolescents a part of systemic changes that regard their health and well-being through their meaningful inclusion in decision-making.

Call to Action:

Therefore, the IFMSA calls for:

Government to:

- Make adolescent health and rights-related topics a political, financial, and curricular priority in international health and development discussions, along with addressing the underlying factors highlighted in 5 domains of adolescent well-being and agree upon a set of priority indicators for measurement of adolescent health.
- Take inspiration from the initiative Accelerated Action for the Health of Adolescents (AA-HA!) from WHO and other partners to better target the challenges of adolescents across countries.
- Ensure the availability of adolescent-friendly health services– one that is equitable, accessible, acceptable, effective, and appropriate – by developing national quality standards for adolescent-friendly health services, as well as adapting and implementing a range of complementary actions at national, district and local levels as recommended by WHO.
- Improve transportation infrastructure, particularly in rural areas, which not only improves access to healthcare but also provides access to other important determinants of health.
- Coordinate multi-sectoral response across a variety of health service delivery platforms and enact legislation that ensures adolescents have access to health services.
- Reduce or eliminate payments for adolescents at all platforms for service delivery by prioritizing adolescents in its universal health coverage investment plan and package.
- Shift investment from a vertical approach to a scaled-up type of investment that addresses multiple factors and layers of vulnerabilities caused by intersectionalities, as well as assess the impact of out-of-pocket payments on adolescents and the cost-effectiveness of removal or reduction of user fees.
- Put children at the center of digital policy and digital health intervention by utilizing a youth-centered digital health interventions framework endorsed by the WHO.
- Teach digital literacy systematically and sustainably through developing a competence framework, curriculum guidelines, and practical tools, as well as breaking barriers that affect such programs' effectiveness, feasibility, acceptability, and cost-effectiveness.

Educational sector to:

- Reallocate resources to prioritize school health initiatives, bolster national health and education strategies, guarantee sufficient infrastructure, and amplify nationwide endeavors to establish a comprehensive framework for promoting health in schools, guided by the Global Standards and Indicators for Health Promoting Schools.
- Strengthen collaboration across different sectors to effectively implement the Health Promoting Schools Initiative in all educational institutions, ensuring that its advantages are accessible to every child and teenager, including those with disabilities, children of migrants, and pregnant adolescents.
- Formulating inclusive policies at national, sub-national, and school levels to prevent and tackle violence in educational environments, including GBV and bullying.
- Invest in teacher training– including teachers with disabilities and teachers as CSE providers– and prioritize comprehensive adolescent health education to both in- and out-of-school adolescents.
- Ensuring universal access to education for every child, regardless of their background or circumstances and adapting school health services as recommended by WHO.

Healthcare providers to:

- Promote the accessibility and proficiency of healthcare providers in providing adolescent health services to families, educational institutions, and local communities.
- Advocate for and/or provide youth-friendly services, clear pathways and guidance for the transition of care from pediatric care to adult care facilities, meaningful youth engagement, evidence-based health education and school safety through community and legislative involvement.
- Provide adolescents with safe, high quality and confidential health care to increase their comfort about disclosing sensitive health information and ensure adolescents are provided with age-appropriate information to make informed decisions and be involved in the decision-making.

International organizations and NGOs to:

- Create educational spaces (e.g., conferences, campaigns) to raise awareness about adolescent health among all stakeholders.
- Organize programs that promote health programs among all adolescents, make them more accessible through online settings or involving community healthcare workers and monitor programs' effectiveness.
- Advocate for increasing funding and implementing laws and policies for adolescent health.
- Identify areas of adolescent health that are understudied to understand research needs and collect data on adolescent health needs, gaps and program impact, disaggregating it among diverse social groups.

Medical universities to:

- Seek integration with schools and other spaces frequented by adolescents to understand demands and potential support networks
- Promote teaching, research and extension committed to the health demands of the adolescent population and bringing possible gaps.
- Seek to ensure the training of trained professionals to work at different levels of care, promoting comprehensive care for adolescent users of health services.

Medical students and NMOs to:

- Collaborate with other health student organizations to conduct capacity building for health students to close the gap in the existing curriculum.
- Encourage the creation of projects to train adolescents and integrate the student body.
- Co-develop and co-organize sustainable projects related to adolescent health with adolescents, parents, schools and local communities, such as health fairs, community events, clinics targeting adolescents, and school health programs.
- Galvanize online media to disseminate accurate health information to adolescents, provide hotlines, and raise the community the importance of investing in adolescents' health.

Position Paper

Background information:

Terminology

According to the United Nations:

Child - people below the age of 18.

Adolescents are a group aged 10-19.

Youth - a group aged 15-24 (with possible changes on the national and regional level, e.g., the OECD Youth Action Plan defines youth as people aged 15-29 and African Youth Charter - people aged 15-35).

Young people - a group aged 10-24 (with possible changes on the national and regional level, e.g., the European Union defines young people as aged 15-29).

[1-3]

There are 1.3 billion adolescents in the world today, accounting for 16% of the world's population. Adolescence is a transition period between childhood and adulthood and not only marks an important period for biological milestones such as brain development and the onset of puberty, it is also when important perspectives on societal construct and when the foundation for later health and developments is laid. Adolescents' vulnerabilities and needs are distinct from those of children and adults [4].

Adolescents face various health issues, including physical, mental, and sexual health challenges. The main burden on disability-adjusted life years (DALYs) for adolescents is posed by mental health, while the main causes of mortality are communicable diseases and maternal and nutritional conditions, with the growing mortality due to injuries and self-harm [5,6].

One of the major health issues for adolescents is mental health, with concerns such as depression, anxiety, and suicide increasing [6]. A study by the Lancet Commission on adolescent health and well-being found that from 1990 to 2016, there was a significant increase in adolescent mental health disorders, with mental health now accounting for 14% of the global burden of disease among adolescents [7].

Sexual and reproductive health is another critical area of adolescent health epidemiology. Adolescent pregnancy rates, sexually transmitted infections (STIs), and HIV are among the leading causes of morbidity and mortality [8]. Adolescent pregnancy rates have been decreasing globally, but disparities still exist, with girls in low- and middle-income countries disproportionately affected, and the progress of decline is unsettlingly slow - 3% annually [9].

According to a population-based study from 140 countries, non-communicable disease risk factors (physical inactivity, sedentary behavior, insufficient fruits and vegetable consumption, carbonated soft drink consumption, fast food consumption, tobacco use, alcohol consumption and overweight/obesity) tripled its prevalence between 2003-2007 and 2013-2017 in all regions [10].

Adolescents face many barriers to accessing health services that can be categorized into social and structural factors. Social factors include limited knowledge about health services, previous negative experiences, the stigma associated with seeking help, cultural and linguistic barriers, as well as the influence of social norms and taboos [11]. Structural barriers involve organizational and systemic issues such as financial costs, logistical barriers (e.g., proximity to health facilities and reliable transportation),

and limited availability of professional help. In terms of mental health, adolescents face barriers such as stigma, embarrassment, and difficulties in recognizing and dealing with their problems [12]. To address these barriers, interventions should focus on increasing the availability and accessibility of health services for adolescents, reducing stigma, and improving health-seeking behavior. This includes strategies such as creating adolescent-friendly, culturally sensitive and confidential services, promoting awareness of mental health issues and support services, and addressing intersecting barriers faced by adolescents from left-behind populations [13,14].

The protection of Adolescent health is now recognized in the UN Global Strategy for Women, Children and Adolescents Health (2016-2030), which aims to improve health and well-being within the concept of the Sustainable Development Goals (SDGs) recognized Adolescence Health as central to the overall success of 2030 Agenda [15]. In May 2017, WHO published a major report on Global Accelerated Action for the Health of Adolescents (AA-HA!) to support country implementation, providing guidance to governments on how they plan to address the health needs of adolescents in their countries. Additionally, the Global Action for Measurement of Adolescent Health (GAMA) Advisory Group works on defining a core set of adolescent health indicators and harmonizing efforts around adolescent health measurement and reporting [6]. To address adolescent mental health, UNICEF, in collaboration with the WHO and other key institutional and academic partners, is leading the development of a suite of tools for the Measurement of Mental Health Among Adolescents at the Population Level (MMAAP) [16]. The United Nations Children's Fund (UNICEF) has launched the Adolescent Data Portal to monitor the many dimensions of adolescent well-being, including health and nutrition, education and learning, protection, and transition to work [17].

Discussion:

Adolescent health epidemiology

Non-communicable diseases:

Adolescents are particularly vulnerable to non-communicable diseases (NCDs), a group of chronic diseases that are not passed from person to person. These diseases, which include diabetes, heart disease, cancer, and chronic lung diseases, can cause long-term health problems and death. NCDs also include Mental Health disorders, which are elaborated on in a separate section due to their vast spectrum.

Adolescents are at risk of developing NCDs for a number of reasons.

First, many adolescents develop unhealthy lifestyles, including unhealthy diets high in fat, sugar and excess salt, being physically inactive and using tobacco or alcohol. According to WHO, Over 340 million children and adolescents aged 5-19 were overweight or obese in 2016. Childhood and adolescent obesity is associated with a significant risk of cardiovascular disease, asthma, certain cancers, physical morbidity, and premature mortality. [18]

Second, adolescents are more likely to be exposed to environmental hazards that can lead to NCDs. This includes air pollution, which has been linked to lung cancer and other respiratory diseases, and water pollution, which has been linked to kidney and liver diseases. WHO's Children and Digital Dumpsites: E-waste Exposure and Child Health notes that globally, more than 18 million children and adolescents between 5 – 17 years of age are engaged in industries of which waste processing is a subsector.

Third, some adolescents may have genetic factors that increase their risk of developing NCDs, such as diabetes or heart disease. According to a CDC [19] study, one in ten adolescents has elevated blood pressure, and one in 25 has hypertension.

Finally, adolescents may be exposed to particular cultural or economic factors that make them more vulnerable to developing NCDs. Malnutrition, including undernutrition (wasting, stunting, underweight) and inadequate intake of vitamins or minerals, overweight, obesity result in diet-related noncommunicable diseases. Iron deficiency anemia was the second leading cause of healthy years of life lost due to disability by adolescents aged 10–19 in 2019 [98]. Recent years have seen a major rise in the incidence of youth prediabetes and type 2 diabetes. [20,21]

NCDs can have serious consequences for adolescents, including physical, social, and psychological problems. Adolescents with NCDs may experience pain, fatigue, and reduced mobility, which can affect their physical and social development. They may also feel isolated or depressed and may have difficulty concentrating due to their illness. To prevent the onset of new diseases in the future, the 2016 Lancet Commission on Adolescent Health and Well-Being recommended investing in dominant NCD-related health behaviors among adolescents. [22]

Mental health

According to Akseer et al., “Mental health disorders are the most common NCDs found in adolescents” [23]. The mental health disorders affecting adolescents more notably include depression, anxiety and behavioral disorders. Additionally, according to WHO, that 14% of adolescents are unaware of mental health disorders experienced by them, leading to a lack of diagnosis and delayed management. A study by the Lancet Commission on adolescent health and well-being found that from 1990 to 2016, there was a significant increase in adolescent mental health disorders, with mental health now accounting for 14% of the global burden of disease among adolescents [7].

The effects of mental health disorders on individuals are isolation from others, prejudice, decreased ability to learn at school, and early substance use, which may also lead to suicide. Anxiety and depression disorders account for approximately 40% of mental disorders in adolescents. Behavior disorders come second (20.1%), and attention deficit hyperactivity disorder comes third (19.5%). [24]

Substance use among adolescents, primarily alcohol, tobacco and cannabis, has proven to be both a disorder and a confounding factor for various other illnesses. In 2018, at least one in ten adolescents between the ages of 13 and 15 used tobacco, according to the WHO, though this number is much higher in some regions. In 2016, 13.6% of adolescents between the ages of 15 and 19 reported using alcohol frequently. Additionally, a number of studies indicate that the COVID-19 pandemic contributed significantly to the poor mental health of adolescents worldwide, with an increased incidence of anxiety and depression.

Sexual and Reproductive Health and Rights

In low- and middle-income countries (LMICs) adolescents aged 15–19 years had an estimated 21 million pregnancies each year, resulting in an estimated 12 million births as of 2019. Of this, approximately 50% were unintended and [81][82]

In 2021, the global adolescent birth rate was 42 per 1000 adolescent girls, and individual country rates range from one to more than 200 births per 1000 girls annually.

The most common reason for the death of women aged 15 to 19 worldwide is complications resulting from pregnancy and childbirth. [25]. Various factors leading to adolescent pregnancies include child marriage, lack of accessibility or awareness of contraceptives and the societal pressure to marry and bear children. According to UNICEF, there was an estimated global number of 650 million child brides as of 2021 [26].

As per a facility-based quantitative cross-sectional study conducted by Beyene et al. over four months at Assosa General Hospital, educational attainment, age, marital status, work status, household earnings, and the use of various contraception methods were significant determinants of teenage pregnancy, and open-ended communications with parents, health checkups at school, and allowing young women to work acted as protective factors for preventing adolescent pregnancy [27].

Girls [28,29] with teen pregnancy are at increased risk of preeclampsia, preterm premature rupture of the membrane (PPROM), increased incidence of pregnancy-induced hypertension, anemia, sexually transmitted diseases, operative vaginal deliveries (forceps/vacuum), postpartum depression, and maternal deaths. Apart from the medical perspective, pregnant adolescent girls also suffer from guilt, financial constraints, inability to continue education, and disgrace from society.[30]

Unfavorable neonatal results, for example, low birth weight (LBW), rashness, stillbirths, early neonatal downfall, little for gestational age, Apgar score at five minutes of <7, and different intrinsic abnormalities, are common among pregnant adolescents [31–33].

Biologic factors account for some of the increased risk of STIs among adolescents. Cervical ectopy, or the presence of columnar cells on the outer surface of the cervix, makes teenage girls more susceptible to sexually transmitted infections (STIs). Although circumcision rates are lower than they have been in the past, there is some evidence that circumcision may reduce STI risk in teenage boys. Lack of immunity from previous infections, an increased risk of physically traumatic sex, and concurrent STIs are additional biological factors that may raise the risk of sexually transmitted infections (STIs) among adolescents[34].

Between the ages of 15 and 24, both sexes are experiencing an increase in the prevalence of chlamydia, gonorrhea, and both primary and secondary syphilis, as per CDC [35].

As per WHO Statistics, in 2021, roughly 1.7 million adolescents suffered from HIV, and almost all of the cases were in the WHO African region [36].

Injuries

Injuries (including traffic accidents and drowning), interpersonal violence, self-harm, and maternal illness are the leading causes of death among adolescents and young adults. According to WHO statistics, 115,000 young people aged 10-19 died in road traffic accidents in 2019. Most of the fatalities were vulnerable road users such as pedestrians, cyclists and motorcyclists. It is estimated that more than 30,000 young people drowned in 2019, more than three-quarters of them boys.

Violence also has a major impact on the reproductive health of pregnant adolescents. Between 20 to 25% of teenagers who are pregnant stated that they have been mistreated physically or sexually while being pregnant. [37]

Communicable diseases

One of the most common reasons for adolescent death is pneumonia, which is seen in Africa's lower- and middle-income countries.[38] Infections are the main reason adolescents miss out on going to

school, with respiratory infections being over half of the cases. [39] Pulmonary and intestinal infections are part of the top 10 causes of disability-adjusted life years (DALYs) [40].

As both the prevalence of *Mycobacterium tuberculosis* (M.tb) infection and the incidence of tuberculosis disease significantly rise during adolescence, this is a time of increased tuberculosis susceptibility [41,42].

Although there is a significant risk of malaria infection in adolescents, little research has been done on the disease burden and consequences of infection in this age group [43].

As noted by WHO, early childhood vaccination is the main contributing factor to the reduction of death due to communicable diseases in adolescents. Early adolescence proves as the optimal time for vaccination against infections such as HPV. It is estimated that if 90% of girls globally get the HPV vaccine, more than 40 million lives could be saved over the next century [96].

The impact of COVID-19 on the adolescent population is a controversial topic. While some studies found that adolescents had lower susceptibility to COVID-19 [44], others found that the prevalence of COVID-19 for adolescents and youth was significantly greater than for older adults [44].

Barriers to accessing health that adolescents face

Socio-Cultural Barriers

Many adolescents see their potential hindered by social norms, cultural attitudes, institutional and structural barriers and violations of their fundamental rights by virtue of their age, according to the High Commissioner for Human Rights. Also, due to social standards in countries all over the world, young people frequently experience stigma and discrimination even when they seek sexual and reproductive health treatments [45]. Adolescents' use of health services can be highly affected by the social values and attitudes (perceived or real) of their peers, parents and other adult gatekeepers, including physicians [46]. Many healthcare professionals discourage adolescents from utilizing health services due to their lack of confidentiality, judgemental attitudes, contempt, or lack of consideration for their patient's needs [47]. A number of complex obstacles now prevent young people from having healthy sexual and reproductive health. Adolescent sexual and reproductive health (ASRH) is given little political attention, and restrictive rules and regulations are frequently in existence. Many societies hold a deeply ingrained sense of disapproval of adolescent sexual activity; this is frequently demonstrated through the stigmatization of sexual health concerns, in particular STIs/HIV. This creates an environment that is inhibitive for discussion of ASRH. There are many judgmental views toward sexual behavior, particularly toward single people and sexually active girls and women. Age disparities between partners, accepted traditions of early marriage and childbirth and social pressure to forbid the use of contraceptives may also occur in some areas. Conflict, migration, urbanization, and lack of schooling can further complicate poor ASRH [47]. People who live in rural and remote areas, as well as populations with particular needs, such as young people, people with disabilities, people with HIV, and people who identify as lesbian, gay, bisexual, transgender, queer, or intersex (LGBTQI), are more likely to have trouble accessing SRH services [48]. As a result, efforts worldwide to ensure SRH rights to accurate and high-quality information and services are weakened [49].

Gender inequality around young people's, especially girls', sexuality controls young people's behaviors

and stigmatizes them for being sexually active. Furthermore, young people's capacity for decision-making or opinion expression may not be acknowledged because of their age. All of these make it challenging for young people to get sexual and reproductive health treatments [50]. Gender norms, roles, and relationships restrict that access (such as the inability to independently decide when to seek care or societal expectations that prioritize caregiving for others or providing for the family rather than seeking personal treatment) [14]. Child marriage and teenage pregnancy is another example of a gender inequality issue as it disproportionately affects girls more than boys – pushing one of every nine girls to marry before their 18th birthday [51] and causing 21 million girls aged 15-19 to be pregnant [52]. The evidence supports that child marriage and adolescent pregnancy significantly increase the risk of stunting and other detrimental health outcomes for both adolescent mothers and children [53]. The effort to keep girls in schools is critical to breaking the intergenerational transmission of child marriage and teenage pregnancy [54]. Research has shown that adolescent girls are six percent less likely to be married for every additional year [55] they stay in education [56]. Education is so critical that school closures and dropouts (e.g., due to the COVID-19 pandemic) increase teenage pregnancies and child marriage. Quantitatively, eight months of school disclosure cause teenage pregnancy to double [55] [57] [58]. UNICEF predicts that the pandemic will even cause 10 million more girls at risk of becoming child brides [58]. Hence, policies and programs to keep girls in school and get them back to school are now more important than ever. Education gives these adolescent girls, especially those who become pregnant and get married, a fighting chance by giving them more knowledge and skills, leading to decent work and economic autonomy [54] [55].

Financial Barriers

Tanahashi's dimensions of health service coverage set out two types of adolescents' financial barriers to care. Direct out-of-pocket expenditures (e.g., co-payment, medicines) as well as indirect, which consist of opportunity costs (e.g., missed schooling, lost work, child care) and transport costs [14]. A scoping review revealed that the common barriers to care for adolescents include concerns about costs, particularly cost of care and ownership of insurance [11]. This barrier is compounded by the fact that increasing trend of youth financial dependency on their parents due to the reduction in the availability of full-time work, greater participation in school and tertiary education and changes to government income support [59]. Adaptive and well-resourced health systems are required to provide adolescents with good health outcomes in both conflict-affected and non-conflict contexts [60]. Despite medical insurance in certain nations, most teenagers and adults cited the lack of drugs, the high expense of treatment, and the difficulty in getting laboratory testing as the three primary obstacles teenagers encounter when going to a hospital. To pay for pharmaceuticals, some families borrow money or turn to non-governmental organizations (NGOs) or humanitarian groups, while others forego therapy altogether or turn to alternative cures, especially when their pharmaceuticals are expensive. Some believe that investing in girls' health is less important because poor families would rather spend money on their sons because, in accordance with gender social norms and opportunities for education and employment, it is they who are likely to provide for the family's financial future. However, adolescents usually indicated that families, regardless of gender, chose health spending depending on the severity of the child's sickness [61]. Compared to adolescents in high-income countries, adolescents in low- and middle-income countries are less likely to be insured. Adolescents are deterred from seeking health care by direct payments. This may be observed in nations of various developmental stages. Adolescents' choice of services is also influenced by direct payments. The organizations in charge of distributing the funds from pooled health funds make decisions regarding the services provided to teenagers. If funding is not prioritized for adolescents in a competition for resources, if there is little knowledge of or access to information about

adolescents' health needs, or if there is not a strong commitment to offering services relating to potentially sensitive topics like pre-marital sex, substance abuse, or mental health, financing may not take place [62]. The majority of adolescents are too young to vote, and there is frequently little organized advocacy on their behalf. This implies that awareness-raising is frequently necessary to gain support for enhancing or extending services for teenagers. Even while adolescents have the right to receive services paid for with pooled funds, these services might not be suitable or acceptable to them on a social level. Teenagers will use services less frequently if they believe that health professionals will not respect their privacy or are judgemental. There are several approaches to guarantee teenage coverage and various sorts of health funding arrangements for universal health coverage. Creating policies and procedures that address the unique needs of teenagers is a challenge [62].

Legal Barriers

The need for parental consent, as mandated by laws, or the influence of societal norms and customs, can also contribute to adolescents delaying or refraining from seeking services[14]. Even in cases where national laws permit certain healthcare interventions, a healthcare provider's personal attitudes and beliefs regarding the suitability of an action based on factors such as sex, gender, age, marital status, or the requirement of partner or parental consent can impact their response to an adolescent [14]. When a patient is an adolescent, the ideas of informed consent and confidentiality are complicated[14]. This is especially true when the adolescents' wants and desires collide with the parents' or guardians' beliefs and preferences. [63]

Healthcare providers have different problems while providing treatment for teenagers, such as permission, confidentiality, and legal concerns [64]. The legal obligations of healthcare providers to teenagers and their families vary from nation to nation. For millions of adolescents around the world, the onset of puberty brings not only changes to their bodies but also exposure to additional human rights abuses. Millions of girls are coerced into unwanted sex or marriage, putting them at risk of sexually transmitted infections (STIs), including HIV, unwanted pregnancies, unsafe abortions, and dangerous childbirth [65].

Youth-friendly services

The WHO sets out five dimensions of quality health services to adolescents, defining what "adolescents-friendly health services" means. A systematic review conducted by WHO demonstrated that making health services adolescent-friendly has been shown to increase service utilization by adolescents, particularly in LMICs [66]. In line with the following discussion, it is recommended that stakeholders adopt and implement a guidebook endorsed by WHO, "Making health services adolescent friendly," which aims to develop national quality standards for adolescent-friendly health services [66]. The document outlines complementary actions that should be adopted nationally and locally [66].

1. Availability and accessibility (physical and financial) of the comprehensive package of health services for adolescents

Evidence from South Africa, an LMIC, showed that 96% of healthcare facilities were accessible by road, with ¾ of healthcare facilities within a 1 km radius of the nearest school [67]. This study also found that there are three public health facilities per 10,000 young people living in South Africa [67]. The data depict a relatively good availability and accessibility of healthcare facilities; however, it is important to note that not every facility offers adolescent-friendly health services and transport to healthcare that is predominantly used by adolescents (bus and train) was

extremely limited [12]. Looking at the broader context, transportation difficulties are notably hard for those living in rural areas, as reported in 3 studies, and young people also reported a lack of access to professional help in 7 studies [12].

The physical accessibility also differs by the type of health services provided. A study from Nigeria revealed that post-abortion care and prevention & management of STIs were considered less accessible by adolescents compared to safe motherhood services and sexuality education [68], unfolding a lack of standardized adolescent health packages. Despite the good overall physical accessibility (58.4%), it emerged from the subsequent interviews that most of the health promotion and prevention were conducted at schools and churches instead of healthcare facilities. With regard to family planning and safe motherhood services, the interviews found that these are provided as general services and not specifically tailored for adolescents [68]. A review of adolescent health services from other LMICs also recommends integrating adolescents' health services (e.g., mental health) through existing primary healthcare services in rural areas [69].

This highlights the need for health facilities to provide a comprehensive package of health services for adolescents at the primary healthcare level and through referral links and outreach, which can be ensured through the development and implementation of standard operating procedures[70]. Improving service delivery also necessitates coordinated multi-sectoral response across various service delivery platforms, and legislation that ensures adolescents have access to services should also be a priority[70]. Bearing in mind that 90% of adolescents reside in LMICs in which access to health and social services, employment opportunities, and livelihood are limited, the government also needs to improve transportation infrastructure, particularly in rural areas, which doesn't only improve access to healthcare, but also provide access to other important determinants of health which are employment, education, food supply chain and other opportunities [70].

A cross-sectional quantitative study from Nepal learned that adolescents were two times more likely to access healthcare if it was free[71]. Studies in other countries also corroborate the fact that the cost of care poses a significant barrier to care for adolescents [72][73]. Moreover, issues with prioritizing services for fee exemption (cost reduction) and scale-up insurance programs to protect adolescents are still prevalent. For instance, a study from Rwanda found that only 51.6% of healthcare services affirmed delivering services at a low cost [74]. From a resource allocation standpoint, a scoping review of adolescent mental health services in LMICs pointed up that the paucity of funding allocated to the services, staff, and medication is a major financial challenge among others, such as the unsustainable and vertical nature of funds sourced and program conducted from and by donor[75]. Furthermore, UNFPA recognized that adequate and sustainable financing of health care is vital in achieving UHC; however, the current body of evidence is insufficient in assessing the impact of health financing on young people [76]. In most countries, less than 1 out of 5 adolescents are covered by any health insurance, which accentuates the fact that adolescents are indeed a missing population in universal health coverage (UHC) [77].

Several UN agencies (e.g., WHO and UNICEF) recommend countries to develop innovative strategies to address the aforementioned financial barriers by reducing or eliminating payments

for adolescents at all platforms for service delivery by prioritizing adolescents in their' UHC investment plan and package. Moreover, countries need to shift investment from the vertical approach- according to the WHO, the vertical approach refers to a disease-specific or program-specific approach that focuses on addressing a particular health issue in isolation through targeted interventions provided interventions through delivery systems that typically have separate administrations and budgets, as well as varying degrees of structural, financial, and operational integration with the larger health system –to scaling up out program that addresses multiple risk factors and layers of vulnerabilities caused by intersectionalities. Lastly, to assess the impact of out-of-pocket payments on adolescents and the cost-effectiveness of removal or reduction of user fees [76][77][78].

2. Perceived limited services or lack of knowledge on how to access the services.

A recent systematic review underscored knowledge about healthcare services as a significant barrier to accessing care as it was consistently reported in 1 every 2 studies [12]. Around 15 studies argued that young people were unaware of where, when, and whom to seek help[12]. There are many reasons that hinder this help-seeking behavior. For instance, the perception—particularly among boys— that help-seeking is a sign of weakness and wanting to cope on their own [79] [80]. Fifteen studies also identified adolescents' skepticism over the efficacy of expert assistance, particularly among those who have no experience accessing care [12]. Even in those who access healthcare, research indicated that adolescents are reluctant to keep appointments and follow suggested treatment regimens [81]. Stigma and discrimination perpetuated by family, community and religious leaders further limit adolescent's ability to request or access the services [77] [74].

To increase the likelihood of young people accessing care, a large body of evidence strengthens the importance of making adolescents feel respected, heard, and unjudged when they access care. It's also evident and frequently reported that having healthcare professionals from diverse genders, ethnicities/races, and ages of professionals makes adolescents, particularly those who are marginalized and vulnerable, more likely to seek help[12]. The systematic review also found that scaling up existing evidence-based interventions, especially those that increase young people's knowledge on how to access healthcare and reduce public stigma in school, community, and healthcare settings, is a possible intervention to address the aforementioned problems [12]. The finding also recommends healthcare professionals galvanize digital tools to promote young people's sense of agency and motivate them to seek therapy [12].

3. Confidentiality and privacy

Approximately 50% of sexually active adolescents said that they would stop using prescription contraceptives, and 1 in 10 adolescents would stop accessing STI clinics upon mandatory parental notification [82]. Like adults, adolescents value and demand privacy in all facets of the healthcare they receive [83]. A study by Britto et al. emphasizes that "Informational privacy (or confidentiality) is most salient, but psychological, social, and physical privacy also affect adolescents' experience of and willingness to participate in care" [83]. For instance, with respect to informational privacy, while older adolescents were more concerned about information being disclosed to parents, early adolescents were worried about information being disclosed to others and preferred that providers disclose their health information to caregivers [83]. These differences were also found in other aspects of privacies [83]. Issues pertaining to confidentiality

were reported as barriers to access care in 19 studies, notably on mental health and SRHR issues [12][84][85]. When looking at confidentiality and privacy issues among adolescents, we need to take into consideration the age, gender, and sensitive health problems prevalent in this population.

The American College of Obstetricians and Gynecologists (ACOG) stresses the importance of confidential care to encourage access and kickstart discussion about sensitive health topics and risky behaviors [84]. As different regulations apply between and within countries, it is recommended that healthcare providers be familiar with confidentiality and privacy issues from the law, clinical practice and ethics perspectives [85]. Healthcare professionals should actively update knowledge and national guidelines with recent evidence and educate staff and patients about the confidentiality of services, particularly those who provide care for adolescents with SRHR and mental health issues [84][85]. Early on, providers who spend time with teens one-on-one help make this practice a regular aspect of care and give teens opportunities to express concerns openly and frequently[82]. The Canadian Paediatric Society also provides several actionable strategies to improve confidential care in outpatient, emergency department, and inpatient care [86]. The government should also ensure that healthcare professionals receive medical training and continuous medical education in regard to the country's law and clinical practice regarding confidentiality in this population [82].

4. Opening times and difficulties in scheduling appointments

Several studies reported adolescents' demand for more flexible and dedicated opening hours for adolescents' health services and efforts to reduce waiting hours and make booking appointments easier [87–90]. Studies demonstrated that adolescents are more likely to adhere to treatment if adolescent-specific clinic opening hours were available [87]. Health services open at the same time as school hours, leading to difficulties in scheduling appointments and lesser accessibility of services [91]. This demonstrates the necessity for more youth-friendly operating hours – one that is flexible and dedicated to adolescents. Innovations –such as outreach programs focusing on adolescents with less access and self-testing, offering group counseling, and telemedicine – could potentially address the aforementioned gaps, but it warrant further investigation[91].

5. Meaningful adolescent and youth engagement

The world's 1.8 billion young people (aged 10-25) have a right to engage in matters that affect their lives [92]. Meaningful adolescent engagement is defined by the Global Consensus Statement on Meaningful Adolescent and Youth Engagement as “an inclusive, intentional and mutually respectful partnership between adolescents 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 programs, strategies, policies and funding mechanisms that affect their lives, communities and countries, and the wider world” [92].

The transition from pediatric to adult care

For young people with chronic illness, the transition from pediatric care to adult care settings is a major life event and an important step in ensuring best practices and continuing quality of care [93]. Older adolescent patients in pediatric clinics have one of three possible outcomes: they will either be transferred to adult services, kept in the pediatric clinic permanently, or released from medical

supervision—either voluntarily or by negligence [93]. Currently, there is no single agreed-upon definition nor goal for a “successful transition”. However, there are commonalities between the goal of transitioning from pediatric to adult care is to promote the optimal health and well-being of adolescents and young adults, empowering them to successfully navigate the adult healthcare system and lead healthy and fulfilling lives as they transition into adulthood. Some key aspects, such as continuity of care, disease management and self-care, health education and empowerment, social and emotional support, and development of age-appropriate services, are mentioned throughout the literature [94][95][96].

There is a growing body of evidence that provide insights to smoothen this transition across various chronic illnesses such as congenital heart disease[97], HIV infection [98], rheumatic disease [99][100], adolescents with special care needs [101], mental health disorders [102], and intellectual disabilities[103]. All of this evidence highlights the fact that the transition is a challenging yet crucial process, thus needing a multidisciplinary approach, with collaboration between pediatricians, adult healthcare providers, and other stakeholders. Several mentioned gaps include a lack of high-quality evidence of transitional care models, paucity of data or mechanisms to assess outcomes, no consistent definition of “successful” transition, inefficient and siloed systems, and inadequacy of resources. Some stakeholders have tried to address this gap by proposing a framework [104], innovative interventions [104,105], definitions [105], guiding principles [105,106], protocol[106], and providing online learning resources [106].

Healthy behaviors

Many behaviors that can start in adolescence are associated with an increase in the burden of morbidity and mortality in the world, such as smoking, substance abuse, physical inactivity and unsafe sexual practices [107]. This is because this phase of life is related to higher levels of stress, and responses to it are not always adaptive, which can result in risky behavior and various physical and psychological symptoms, especially in the absence of a safe and educational environment at home and at school [108]. Programs related to mental health in schools can contribute to the control of depressive and anxious symptoms in adolescents, but although these effects are recognized, their duration is influenced by the continuity of actions [109]. This is also described as valid for actions related to sexual and reproductive health, nutrition, obesity, smoking and suicide prevention [110]. In this perspective, health education strategies are essential to promote healthier lifestyle habits and are associated with lower frequency and intensity of risk behaviors such as excessive alcohol and tobacco use, in addition to better search for health information [111].

In the context of self-care, Mindfulness is an emotion regulation strategy that involves intentionally paying attention to the present moment and can be taught and adopted by adolescents, and is related to the improvement of mood and quality of life, can contribute to the improvement of attention, sleep and chronic pain, the reduction of depressive, anxious and withdrawal symptoms, in addition to the prevention and management of overeating, binge eating, and restrictive eating disorders [112]. Additionally, health literacy is directly linked to self-care as it empowers people to access health information and resources to understand their bodies, make safer and informed choices regarding health and seek and use the healthcare system to maintain their well-being [113]. Health literacy means the ability to understand and comprehend health knowledge, communicate, and use it to live a life of better quality and choice [114].

Personal, environmental and systemic macro factors impact the eating pattern and behavior in adolescence so that, in general, this group snack, skip meals, go on a diet (mainly women), eat out and eat fast food more frequently, which leads to a lack of micronutrients and minerals at the expense of excess fats, cholesterol, sodium and sugar [112,115]. The use of alcohol in adolescence is associated with reduced cognitive functioning and exposure to various risks, such as sexually transmitted infections, traffic accidents and experiences of violence, in addition to sometimes being followed by the consumption of other substances, such as cigarettes [112,115,116] [117].

The development of sexuality in adolescence also permeates several issues, and it is important that the sexual health of this population involves exercising sexual rights, education, and counseling on sexuality with qualified health services that value confidentiality [118]. Health education on contraceptive methods should cover the prevention of sexually transmitted infections and unplanned pregnancies and can help reduce these risks [118] [119]. It is important to reinforce that education on safer sex practice needs to be extended to all types of sex (e.g., oral, vaginal and anal sex), as sometimes some are practiced without understanding them as situations of exposure to infections [120].

Education and Health

Comprehensive Sexuality Information

Comprehensive sex education (CSE) plays a key role in promoting the health and well-being of children and adolescents. However, there is evidence that many young people are dissatisfied with the quality of sex education in their schools, particularly young people with disabilities and those who identify as Lesbian, Gay, Bisexual, Transgender or Intersex. [121]

CSE is essential to promoting the health and well-being of children and adolescents, and successful implementation requires strategies such as stakeholder engagement, teacher capacity building and program monitoring. Countries that have successfully implemented it show that designing CSE in a locally appropriate but holistic way is critical to its success and achieving it through several complementary actions and interventions, such as closing curriculum gaps. [121]

Research indicates that CSE contributes to HIV and pregnancy prevention and positively impacts sexual and reproductive health, gender equality, critical thinking and self-efficacy, in opposition to abstinence-only programs. [122][123][124] It also shows that addressing gender norms and power within the CSE is also important, as they promote gender equality and reduce gender-based violence. [125] According to the Lancet Commission on Adolescent Health and Wellbeing (2016), studies have shown that CSE has benefits as well on knowledge and attitudes; some show that CSE increases the use of condoms and other contraceptives, decreasing the risks and frequency of unprotected sex and many studies show that it also has an impact on decreasing unwanted teen pregnancy [126,127] [128].

According to the International Technical Guidance on Sexuality Education, many countries have shifted towards age-appropriate content and compulsory education. While many topics, including HIV&AIDS and puberty, are addressed in all countries, critical issues such as gender, pregnancy, relationships, violence, family planning, sexual diversity and access to sexual and reproductive health services are often under-addressed or excluded from curricula. Even when these issues are addressed, they may not be taught effectively in the classroom. [123][129]

Even if sexual education is mandatory, sometimes it is not comprehensive; for example, in Portugal, there is mandatory sexual education in schools, but some studies show that there is a “too heavy focus on health-related issues, difficulties in cross-curricular teaching, low levels of community participation and poor-quality evaluation [130] and Singapore has made sex education compulsory since 2000 in, but its curriculum includes only abstinence programs, what has been shown to be ineffective. [121,131]

The preparation and empowerment of teachers to deliver quality CSE is critical, as poorly qualified teachers may impart inaccurate information or perpetuate values and attitudes that silence discussions about gender, sexuality and rights. [121]

It is critical that we promote monitoring of the implementation of sexuality education, monitoring of SRH and well-being of young people and also study the needs of this population and that engage with various stakeholders such as parents, the community, politicians and religious leaders. They need to understand CSE since countries that have taken this stakeholder approach by designing sexual education programs with locally appropriate but still compliant international comprehensive content guidelines are showing promising results. [132] [133]

Health Education

It has been shown that health awareness significantly influences young people's health behavior. Adolescents with higher health literacy levels tend to engage less in risky health behaviors and more in positive health behaviors, including preventing diseases and injuries. [134] [135] [136–138][139]

Adolescent risky behaviors and experiences, particularly those related to earlier sexual initiation, violence, and substance abuse, are consistently associated with low test scores and lower levels of education, which can translate into social determinants of health since that correlates with a higher risk of poverty. [140–143]

According to the WHO and CDC, schools can have a key role in health education, reducing adolescent health risks through effective health education and providing it as early as possible can help young people achieve well-being and academic success and influence many health outcomes such as reduction of drug use and smoking. [134] According to literature and organizations such as UNICEF, it is fundamental to ensure adolescent girls' right to education, particularly in the areas of health and well-being, gender equity and quality education, since it promotes healthier outcomes, for instance, lower risk of malnutrition. [144][145]

The health education curriculum should include learning objectives that directly relate to students' acquisition of knowledge, attitudes and skills, a planned progression and continuity that reinforces the adoption and maintenance of specific health-enhancing behaviors, content and materials that correspond with the sequence of learning events and help students and teachers meet the objectives and assessment strategies to determine if students have achieved the desired learning. [146]

WHO identifies adolescents' health literacy and participation in planning, monitoring and evaluation of health services as key factors to improve the quality of care and, in 1989, the United Nations Convention on the Rights of the Child promoted the right of the child to be listened to. [147] Nonetheless, evidence on participatory methods involving the pediatric population is considered a research gap. [148].

It is also important to take into account that not all adolescents have the same opportunities regarding access to educational settings. A resource to reach out to marginalized young people is non-formal education since it can be more flexible, empowering and transformative. Non-formal education guided by an evidence-based, gender-transformative and human rights-based approach can be an asset to reach the most marginalized youth in out-of-school settings so that no one is left behind. [144,149]

One method that has proven to be a suitable instrument in participatory research, especially in marginalized communities, is the World Cafe method since it is a simple, flexible and effective methodology to engage in large group dialogue where groups collaborate to investigate causes and issues and to work toward solutions. [150][151]

Adolescent health and medical education/training

Adolescence is a period in which several insecurities are common, and many experience this stage of life without support networks. The WHO stresses the importance that health professionals worldwide are trained to assist adolescents, preferably in an interdisciplinary manner [152]. An article that is part of a collection proposed by the Partnership for Maternal, Newborn, and Child Health mentions that ensuring care for adolescents is important to form accomplished and productive people and also represents an indirect impact on future generations and the economy [153]. However, most countries do not have specific training programs in adolescent health, and this challenge is even more apparent in settings with limited resources. [154] [107] According to a survey conducted by IFMSA in 2022 with 345 respondents, 74.20% of them indicated that adolescent health is never, rarely, or only sometimes present. Additionally, adolescent health topics are more rarely used when assessing the competency of medical students - 48.70% said adolescents are not present in their clinical skill exams or OSCEs. Some of the extremely poorly covered topics in adolescent health include obesity among adolescents, use of alcohol, HIV and AIDS, eating disorders and soft skills like "patience and empathy," "confidentiality and privacy," and "informed consent."

There are free tools that can help guide health professionals who work with adolescents. The World Health Organization guide "Adolescent job aid: a practical reference tool for primary-level health professionals" highlights communication, bonding, and health promotion strategies and presents algorithms for managing common adolescent complaints so that they can be used in different contexts and resource realities [155]. The "Adolescent Health Orientation Program for Health Professionals: Facilitator's Guide" presents modules with topics such as implications of adolescent health for public health, sexual and reproductive health, health services and adolescent development, which can be applied to training in adolescent medicine [156]. The European Training in Adolescent Health and Effective Care also provides teaching modules on various topics related to adolescent health, such as sexual and reproductive health, adolescent development and chronic diseases that can be adapted depending on local resources. [157].

However, these initiatives are scarce compared to those aimed at other audiences, such as children and adults. [107]. And, despite the quality of the curricula available, there is a relative lack of prominence and criticism for essential themes, such as mental health, substance use and abuse, chronic diseases and sexual minorities in training programs and interventions in low- and middle-income countries. income described by a scoping review [107]. These elements reinforce the need for medical training that is attentive to the needs of the population, also including what is not highlighted and which is still

fundamental for this reason; in this sense, practical experiences with the community, listening, observation and reflection, are significant for learning this skill [158].

The underrepresentation of adolescents in research is a recognized issue in the field [159]. Even within this age group itself, a scoping review and meta-analysis found the paucity of sample diversity as 7 out of 10 studies examined Global North adolescents while the majority of adolescents reside in Global South [160]. Insufficient knowledge regarding effective approaches to involve adolescents in research has been identified as a hindrance to the meaningful engagement of young individuals in health research [161]. Another scoping review revealed instances where young patients were actively involved as co-researchers in various stages of research projects, although their involvement was not consistently observed across all stages [162].

Research conducted by Banati and Bacalso (2021) critically reflects on the current state of evidence, advocates for a more deliberate and equitable approach in adolescent research, and emphasizes the need for stronger connections between research, policy, and practice, particularly in low- and middle-income countries (LMICs). The result found that the majority of evidence focuses on the domain of adolescent protection, safety, and security [163]. However, the studies primarily concentrate on outcomes related to well-being, social and emotional health [163]. It also highlights the notable gender inequities as it is only examined in 1 out of 5 of the analyzed literature [163]. In addition, the inclusion of disability-related research was limited to only 3% [163]. Geographically, most impact evaluations were conducted in sub-Saharan Africa, while regions such as Latin America, the Middle East, and North America were underrepresented [163]. Topics such as housing, participation, and information communication technologies received relatively scant attention. Furthermore, rigorous research in conflict or humanitarian settings was noticeably absent [163]. Research gaps on a particular topic are also explored, for example, SRHR [164] and mental health [165].

Adolescent health in the digital world

Adolescents in the current era are often known as “digital natives” as they grow up and transition in times of rapid digitalization [166]. According to UNICEF's State of the World's Children 2017: Children in a Digital World report, seven out of 10 adolescents aged 15-24 are now online and 30% of internet users are under the age of 18 [167]. However, it is important to note the existing digital gap as 346 million young people – particularly African adolescents – are offline [168]. UNICEF finds access to the Internet beneficial for training and job opportunities and a way to break cycles of poverty [166] [168]. In spite of the benefits it brings, it is worth considering that digital transformation is a two-edged sword – it can both enhance and undermine adolescents' health and well-being and amplify the prevailing economic and gender gap [168,169]. Some argued the fallacy of the term “digital native” as young people do not naturally have the abilities to utilize technology in a safe and efficient manner, and skills picked up informally will likely be insufficient to address the fact that 92% of all URLs related to child sexual abuse found worldwide and 33% adolescents reported being cyberbullied with 20% of them missing school as a consequence of it [168]. Along with other growing forms of online violence, screen addiction, and the inability of law enforcement to keep up, adolescents worldwide face intensified risk.

The Children in a Digital World publication by UNICEF highlights the importance for countries to conduct a landscape, policy, and regulatory framework analysis and needs assessment to identify gaps and generate solutions to address them [168,170]. WHO also endorsed a youth-centered digital health interventions framework that countries can use to put children at the center of digital policy and digital

health intervention[170]. To put harm online to bed, WeProtect Global Alliance also provides actionable interventions that countries can implement by enacting and implementing a comprehensive multisectoral and multilevel national action [171]. UNICEF scoping paper and situational analysis to explore the definition and framework for digital literacy for children, provide a case to teach digital literacy in a systematic and sustainable manner through the development of competence framework, curriculum guideline, and practical tools. Moreover, the paper also highlights the importance of breaking barriers that might affect the effectiveness, feasibility, acceptability, and cost-effectiveness of such programs [172]. UNICEF found that initiating a partnership with the private sector and leveraging the competitive advantages they have to advance ethical standards and practices that protect and benefit children online, focusing on lower the cost of internet access and preventing offenders from committing violence against children, is a policy option worth exploring [168].

Adolescent health during COVID

The COVID-19 pandemic has had a profound impact on the lives of adolescents and youth, resulting in deep negative consequences on their education, employment, and physical and mental health and according to UNICEF, “urgent action is necessary to mitigate the severe and long-lasting impacts from the pandemic and secure the future of young adults.”

The pandemic has caused significant disruption in youth education, as many countries have closed schools and other educational institutions. This has negatively impacted left-behind youth, who often lack access to the internet and remote learning tools if provided with education access. [173][174]

Evidence from previous crises shows that girls are particularly vulnerable in the face of prolonged school closures, being less likely to return to school, while literature shows that keeping young girls in schools and providing them with education is recognized as a key to tackling forced marriages. [175] Other impacts on young girls might include an increase in risk of gender-based violence, coupled with restricted access to sexual and reproductive care, justice and social support systems, which may increase adolescent pregnancy and/or female genital mutilation.

It is crucial to address long-term responses to the pandemic, such as encouraging young women who gave birth during the pandemic to return to schools and making available preventive measures such as pre-exposure prophylaxis (PreP), post-exposure prophylaxis (PEP), condoms, and protection from any form of abuse and access to vaccines that were postponed, such as the HPV ones. [176] [177]

Positive examples

Below are several positive examples of adolescent health interventions from five countries across the five regions mentioned in the Global Accelerated Action for the Health of Adolescents (AA-HA!) report by the WHO to address the health needs of adolescents and promote their overall well-being [178]:

Rwanda.

Rwanda’s comprehensive school health policy is a set of integrated policies with aims to promote students’ physical, social, psychological and educational development. The policy uses a whole-school approach and recommends policy action in eight key areas. This policy is implemented by 9 ministries through several interventions to improve school curriculum, infrastructure, and access to school-based health services that are financed by budget lines in all sectors. Rwanda also created a set of school health indicators to monitor progress and measure impact [178].

Brazil

Brazil has a community-wide strategy targeting high-risk youth to bring down the prevalence of alcohol-related violence. The strategy includes vocational training, work placement, vacation club, and life-skills training to reduce drug use. In addition, the strategy also enacted other innovative and effective policies, laws, and programs such as integrated operation projects, early bar closure, and installing security cameras in high-risk areas. This initiative has been shown to decrease homicides and robberies by 57% and 16% in 4 years [178].

West Bank and Gaza Strip

In response to the prevalence of acute psychological problems amongst youth in their country, UNICEF and the Palestinian Youth Association for Leadership and Rights Activation co-develop a mentoring and counseling program. This program recruited university students to provide support, mentoring, and recreational activities to adolescents in violence-affected areas. The program also provides adolescents with space to plan and execute their own projects. After the conclusion of the program, both adolescents and university students co-produced a newspaper and weekly TV programs [178].

The Republic of Moldova

The Republic of Moldova has created a youth-friendly health center since 2001. The country's best practice is to standardize and ensure the quality of healthcare workers to provide adolescent-friendly health services through the medical curriculum (pre-service) and continuing medical education (in-service). The initiative also provides numerous lessons on how to transition from donor funds as well as collaborate with medical schools. In just 2 years, adolescent health and development issues have been incorporated into residency trainings of family doctors, pediatricians, obstetricians and gynecologists [178].

India

India introduced a national menstrual hygiene management program focusing on adolescent girls who lived in rural areas. This initiative aims to increase awareness, increase access, and ensure safe & environment-friendly disposal of sanitary napkins. There are 2 main strategies used by the program. First, the program mobilized community health workers to conduct monthly meetings and outreach activities to increase awareness of young girls. To ensure availability and accessibility, India ensures the efficiency and responsiveness of the sanitary napkins supply chain. Furthermore, it makes use of monthly meetings to distribute the product directly to adolescent girls [178].

IFMSA contribution

IFMSA has made significant efforts advocating for adolescent health on an international level and capacitating its members on adolescent health in the past three years. In 2021, two small working groups were developed related to adolescent health. One was focused on developing capacity materials for members, including webinars on adolescent health; the other one on medical education and adolescent health after identifying the significant gap in adolescent health medical curricula around the world. In 2022, IFMSA launched their survey project targeting all medical students - the survey covered many important topics like the presence of adolescent health in clinical teaching and assessment, the confidence and knowledge of medical students in adolescent health compared to child health and adult health, the coverage of health problems like NCDs, sexual and reproductive health, mental health, and soft skills like privacy and the legal aspects of caring for adolescents. The survey was analyzed

according to many variables, including regional variations, confidence level change according to university year, and lack of coverage in different topics. The results will eventually be published and shared with IFMSA and the wider public.

At the 76th Session of the World Health Assembly, IFMSA also organized a side event named Missing Pieces in Adolescent Health with the aim to identify the importance of adolescent health, obstacles in achieving equitable health outcomes for all adolescents, and the solutions to solve them, all with reference to the Global Strategy for Women's, Children's, and Adolescents' Health. In addition, IFMSA also made a statement pertaining to adolescent health on agenda item 12, conducted an open space discussion on adolescent health in medical education, and published 2 policy briefs.

IFMSA, as part of the signatories to the global consensus, is fully committed and calls upon other stakeholders to set a systematic engagement strategy in every stage of the policy process, programs, and initiatives that is right-based, transparent and informative, voluntary and free from coercion, respectful, and safe. Ten actionable strategies were prescribed to ensure adolescents know, claim, and realize their right to participation. For instance, support young people's leadership, create and identify opportunities, support sustained engagement and ongoing relationships, build skills and knowledge of young people and the adults working with them and many more [92].

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