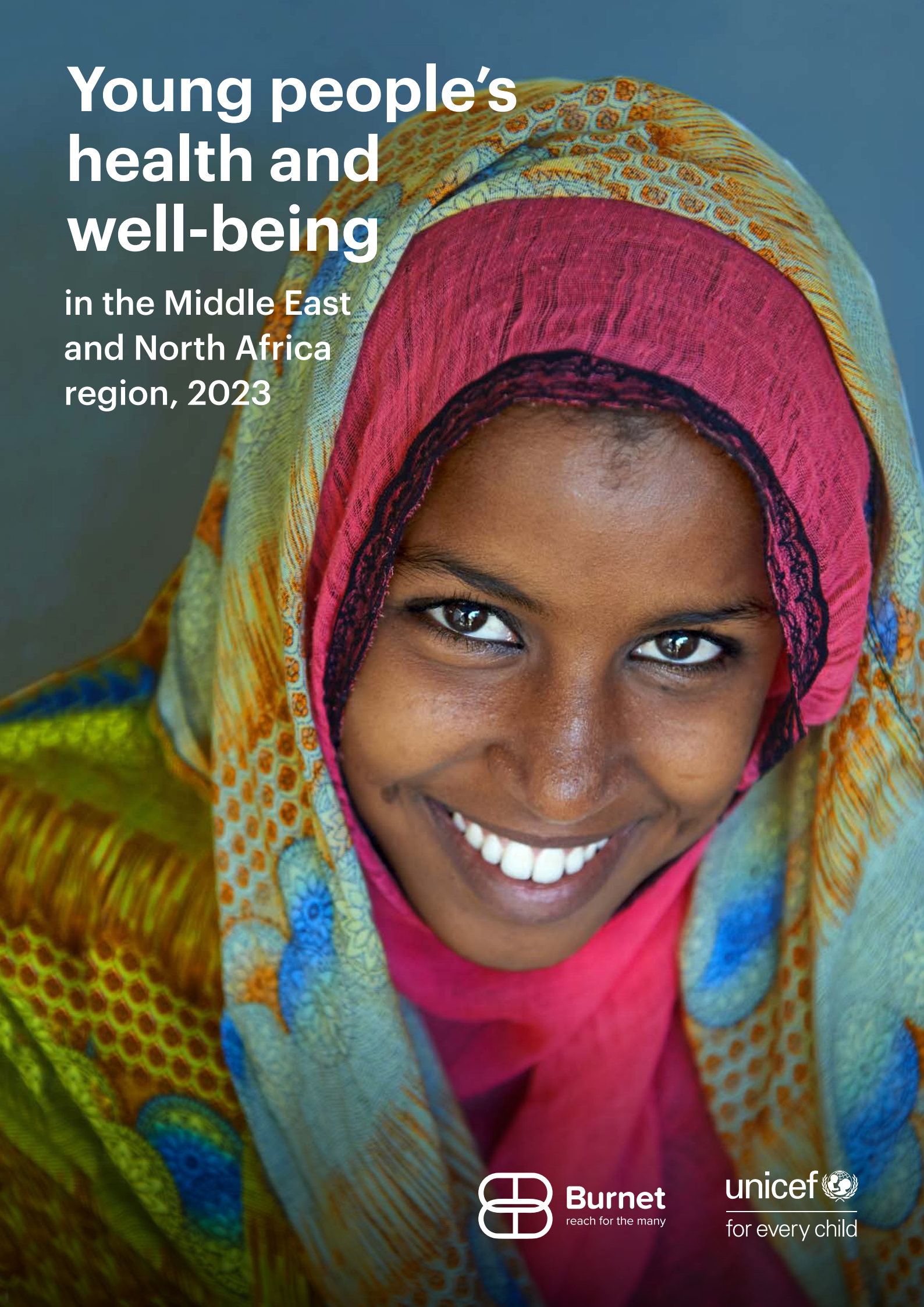
Young people's health and well-being

in the Middle East and North Africa region, 2023



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Young people's health and well-being

in the Middle East and North Africa region, 2023

Initial secondary analysis of quantitative data for selected indicators of health and wellbeing among 10-24 year-olds in 20 countries

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Abbreviations and acronyms

CCRI	Climate Change Risk Index
COVID-19	Coronavirus disease 2019
DALY	Disability-adjusted life year (years of healthy life lost due to illness, injury or premature mortality)
DHS	Demographic and Health Survey
FGM	Female genital mutilation/cutting
GAMA	Global Action for Measurement of Adolescent health
GBD	Global Burden of Disease
GII	Gender Inequality Index
GSHS	Global School-based Student Health Survey
HDI	Human Development Index
HIV/AIDS	Human immunodeficiency virus/Acquired immunodeficiency syndrome
HPV	Human papillomavirus
ICT	Information and communication technology
IHME	Institute for Health Metrics and Evaluation
ILO	International Labour Organization
IPV	Intimate partner violence
MENA	Middle East and North Africa
MENARO	Middle East and North Africa Regional Office
MICS	Multiple Indicator Cluster Survey
NEET	Not in education, employment or training
NCDs	Non-communicable diseases
NCD-RisC	NCD Risk Factor Collaboration
SDGs	Sustainable Development Goals
SOWC	State of the World's Children
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UN DESA	United Nations Department and Social Affairs
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	United Nations Higher Commissioner for Refugees
UNICEF	United Nations Children's Fund
UN PD	Population Division of UN DESA
UNRWA	United Nations Relief and Works Agency for Palestinian Refugees in the Near East
WHO	World Health Organization

Executive summary

The Middle East and North Africa (MENA) is home to almost 140 million young people aged 10-24 years, a quarter of this region's population. This young population represents a powerful opportunity to influence health and well-being into adulthood and for the next generation, and to advance equitable and sustainable development for communities and societies.

Much of the disease burden, and 90,000 deaths, among young people in the region are preventable. There is also a high prevalence of risk factors for poor health both in adolescence and into adulthood that are amenable to intervention – representing a crucial opportunity for both individual and population-level gains in health and other socioeconomic outcomes. Young people also face multiple threats to their well-being, including exposure to violence, conflict and harmful practices, and missed opportunities to engage in education, employment and civil society that limit the capacity of young people to reach their potential.

One in two deaths of young people in the region (45,000 deaths) are due to injury (transport, other unintended injury and violence). Injuries also cause substantial morbidity, accounting for a quarter of the total disease burden (measured in Disability-Adjusted Life Years (DALYs) among 10-24 year-olds. **Non-communicable diseases**, including cardiovascular disease, cancers, headache, musculoskeletal disorders and skin diseases, account for 41 per cent of the total disease burden of young people, and led to over 27,000 deaths in 2019. Almost a quarter of the total disease burden is due to **mental disorders and intentional self-harm**, with over 4,000 deaths of young people in the region due to suicide.

Communicable diseases account for less than 10 per cent of the disease burden among young people in the region. However, in some countries, Djibouti, Sudan and Yemen, **communicable diseases, maternal disorders and nutritional deficiencies** are leading contributors to poor health – accounting for 20 per cent of the total disease burden. Sudan and Yemen accounted for over half of the 11,000 deaths due to these causes in 2019.

Young people also experience high rates of risk factors for poor health in adulthood (including tobacco smoking, physical inactivity, overweight and obesity) and limited opportunities to complete quality education, transition to meaningful employment, and participate in decisions that impact their lives.

Boys in the region experience a higher burden of poor health and around twice the mortality rate compared with girls, largely driven by injury. While transport and other unintentional injuries are a leading cause of mortality and morbidity, boys also experience substantially higher rates of violence, including peer victimization, homicide and interpersonal violence, and mortality as a result of conflict and collective violence. While the prevalence of suicidal behaviour is similar between boys and girls, two thirds of all suicide deaths are among boys. Boys in the region also experience higher rates of use of tobacco, alcohol and other drugs compared with girls, and in 11 countries, a third or more of adolescent boys are overweight or obese.

Girls also experience a high burden of poor health due to injury, and transport injuries are the leading cause of death of girls in half of MENA countries. Non-communicable diseases are the leading cause of poor health for girls, accounting for around half the disease burden (compared to 36 per cent for boys). Girls also experience a higher burden of mental disorder compared with boys, due to increased depression and anxiety. While boys have higher suicide mortality, girls in the region experience a similar prevalence of suicidal behaviour: between 10 and 23 per cent of female students report attempting suicide in the previous 12 months. Girls also face substantial threats to their health, well-being and full participation: around a third of girls are married by age 18 years in Iraq, Yemen and Sudan; female genital mutilation remains prevalent in some settings; and the rate of girls not in education, employment or training is more than double that of boys. Poor reproductive health, including high unmet need for contraception, adolescent childbearing and maternal disorders are also important contributors to morbidity and mortality in many settings, and contributed to almost 1,700 maternal deaths among 10–24-year-old girls in 2019. However, data for many indicators of sexual and reproductive health are lacking in the region.

This analysis has also identified some **important data gaps** in the region. For many countries, there are very few national-level estimates of sexual and reproductive health knowledge, behaviours and risks that are age-disaggregated and/or provided for unmarried adolescents. Similarly, national-level data describing the prevalence of intimate partner and sexual violence, mental health outcomes, menstrual health, education completion, access to information and technology, and experiences of discrimination are also very limited. Additionally, internationally agreed indicators of some areas of health and well-being (psychosocial well-being, youth participation, safety and health care access) are very limited. There is also a need for further sub-national analyses and qualitative research to identify and describe inequities (including for refugee and displaced young people), and to understand the context and drivers of poor health outcomes and risks in the region.

- Define a **minimum set of indicators** for young people's health and well-being that can be integrated into routine reporting systems at a national level to highlight young people's health needs and track progress. These should include priority health needs (injury, mental health, sexual and reproductive health, non-communicable diseases and their risk factors, and communicable disease) as well as key determinants of young people's health and well-being (education, employment, protection and participation).
- Invest in **primary data collection to address data gaps**, including expanding population, household and school-based surveys to include health outcomes, risks and determinants that are a high priority for this age group (injury, mental health, sexual and reproductive health, substance use), and inclusion of married and unmarried adolescents.
- Invest in further research (including qualitative research) to **understand the drivers of poor health**, identify the needs and priorities of young people, and describe inequities between and within countries (including sub-national data analysis).

POLICY IMPLICATIONS

- **Develop (or strengthen) national policies and programmes** that address the health needs highlighted in this review, including injury, mental health, sexual and reproductive health, communicable disease, non-communicable diseases and their risk factors (particularly tobacco smoking, dietary risks, physical inactivity, overweight and obesity).
- **Improve protection** for young people, with a focus on violence, child marriage, and female genital mutilation/cutting, including through policy, legislation and programmatic efforts to address harmful social and gender norms.
- **Increase opportunities for meaningful participation** of young people in education, training and meaningful work, as well as greater participation in decision-making and public engagement – particularly around issues of heightened significance for young people such as climate crisis and environmental sustainability.
- **Establish (or improve) national systems and mechanisms** that tackle the growing threat that the climate crisis poses to young people.

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Introduction

Background

Adolescence is a critical developmental stage during which the foundations for health across the life-course and for the next generation are consolidated.[1] Health during the second decade of life, as well as the physical, cognitive, social, and emotional skills and capabilities acquired during adolescence, profoundly influences health and well-being into adulthood, with broad impacts on socioeconomic development of families, communities and societies.[2]

Despite this importance, adolescents experience a considerable burden of preventable morbidity and mortality, and their distinct health needs are often largely invisible in policy and programming. This is in part due to limited availability of age-disaggregated data describing health outcomes and risks for this age group that could help inform appropriate responses and track progress.

There have been important efforts to draw attention to the health status and needs of young people in the Middle East and North Africa (MENA) region, including through the UNICEF adolescent data portal, UNICEF adolescent health dashboards, and recent analyses of health needs.[3; 4] However, there is a need to systematically map and describe existing national-level data across a broad set of health and well-being indicators for countries in this region to identify priority needs that could support advocacy and more responsive policy and programming, and identify data gaps that could inform a research agenda.

Box 1 **Age definitions of adolescents and young people**

The focus of this review is on young people aged 10–24 years. As defined by the World Health Organization (WHO), this age range includes younger adolescents (aged 10–14 years), older adolescents (aged 15–19 years), and young adults (aged 20–24 years).[5; 6] Persons aged between ages 10 and 19 years will be referred to collectively as 'adolescents.' Consistent with the United Nations definition, the term 'youth' will also be used to refer to young people aged 15–24 years.[7]

Aims and objectives

The **aim** of this review is to describe the health and well-being of young people aged 10–24 years in the MENA region. This review broadly aligns with the goals and domains of UNICEF's Strategic Plan 2022–2025 and aims to identify and analyse nationally comparable quantitative data in 20 countries (see Box 2) against an agreed set of indicators to present a profile of young people's health.

Specific **objectives** of this review are to:

- Develop a conceptual framework that defines key domains of health and well-being for 10–24-year-olds.
- Map available comparable data and indicators for health and well-being across the MENA region.
- Populate available indicators to describe health and well-being of 10–24-year-olds, and identify key data gaps to inform a future research agenda.

Box 2 **Countries with comparable quantitative data in the Middle East and North Africa region**

Algeria
Bahrain
Djibouti
Egypt
Iran (Islamic Republic of)
Iraq
Jordan
Kuwait
Lebanon
Libya
Morocco
Oman
Qatar
Saudi Arabia
State of Palestine
Sudan
Syrian Arab Republic
Tunisia
United Arab Emirates
Yemen

Approach

Scope and overarching principles

The following principles have guided the approach for this review:

1. This review is an important initial step to determine the availability of existing nationally representative quantitative data, and to make better use of available data to identify needs and priorities of young people.

2. This review was not intended to be an exhaustive in-depth analysis of adolescent and young people's health and wellbeing in this region. It was limited to analysis of quantitative, national-level, comparable data to identify important issues in this region that are likely to be of direct relevance to young people.

3. This review aims to define a set of indicators for young people's health and well-being, harmonized with existing indicator frameworks to maximize data availability.

4. Primary data was prioritized, where available, but was limited for some indicators in some countries in the region. Where primary data were not available, modelled estimates were used and clearly identified.

5. For the purpose of this review, age disaggregated data is presented where possible (e.g., age groups 10–14, 15–19 and 20–24 years), but in some cases, indicator estimates were only available for younger adolescents, older adolescents, or youth. Data are disaggregated according to sex where available.

Limitations

As an initial review limited to secondary analysis of nationally representative, quantitative data this work has some important limitations. First, while the review aims to report health and well-being, there are currently very limited internationally agreed indicators of adolescent well-being. The indicators included in this review reflect broad domains relating to important determinants of health and well-being (education, employment, protection, participation and environment) that are aligned with UNICEF's Strategic Plan 2022–2025 and other global frameworks of adolescent health. Second, data for some indicators were very limited for this region, particularly those related to sexual and reproductive health. Third, this work was limited to nationally representative estimates. While many indicators were able to be disaggregated by age and sex, further analysis of inequities within countries (by geographical location, urban/rural, wealth, ethnicity, religion, migration status, displacement, disability or other characteristics) was not possible. Similarly, further analysis to examine the relationships between indicators, or to understand the drivers of outcomes or differences between countries and sexes was beyond the scope of this initial review. Fourth, data were limited to a single estimate, with analysis of time-trends not conducted as part of this initial work. Many estimates also pre-date the COVID-19 pandemic. Finally, we did not include an in-depth review of policies or programmes, or review of interventions to address the health outcomes identified. Where possible and where data is available, global estimates have been included for comparison of some indicators.

As part of the next phase of this initial quantitative analysis, efforts will be undertaken to update the relevant indicators with 2023 Global Burden of Disease (GBD) and other data and provide comparisons globally and between geographical regions.

Conceptual framework

Figure 1 details the conceptual framework used to guide the indicator selection for this review. The domains were purposefully aligned with the five long-term goal areas listed in the UNICEF Strategic Plan 2022–2025,[8] which are in turn, aligned with the goals and targets of the Sustainable Development Goals (SDGs). For this review, each domain is comprised of subdomains that were identified through a review of available national-level, comparable data and existing literature on young people's health in the MENA region, and existing adolescent health and well-being conceptual and indicator frameworks. We referenced the adolescent well-being conceptual framework by Ross, Hinton, Melles Brewer, et al.[9] the 2016 Lancet Commission on adolescent health and well-being,[10] the proposed indicators for global adolescent health measurement by the Global Action for Measurement of Adolescent health (GAMA) Advisory Group of the World Health Organization (WHO),[11] but were also guided by the works of Azzopardi, Kennedy and Patton;[12] Guglielmi, Neumeister and Jones;[13] and Newby, Marsh and Moller.[14]

The conceptual framework and proposed indicators were also informed by a brief, targeted review of qualitative peer-reviewed studies from the MENA region from the last five years, and regional documents published by United Nations agencies to ensure that we had captured the priority adolescent health and well-being needs in the region. It was also reviewed by an expert Youth Advisory Group comprising 16 young people from 10 countries, and technical experts from UNICEF and other international organizations.

Domain 1 captures the demographic, socioeconomic and political context within which young people live. The next three domains are: Domain 2: Health and nutrition, Domain 3: Education, learning and transition to work, and Domain 4: Protection. Domain 5 captures indicators related to participation, while Domain 6 measures indicators related to a safe and sustainable environment, including water, sanitation and hygiene, and climate risk. Though the domains are defined as distinct in Figure 1, they are all interlinked.

Figure 1. Conceptual framework for adolescent health and wellbeing in the MENA region

Domain 1: Demographic, socioeconomic and political context

Adolescent population | GINI | HDI | Health expenditure

Domain 2: Health and nutrition

Health outcomes

- Mortality due to all causes
- Injuries
- Communicable diseases
- Non-communicable diseases
- Mental health
- Sexual and reproductive health
- HIV
- Nutrition

Health risks and behaviours

- Tobacco use
- Alcohol use
- Drug use
- Physical inactivity
- Thinness
- Overweight
- Condom use at last higher risk sex
- Sex before age 15
- HIV knowledge

Health service coverage

- UHC service coverage
- Primary healthcare facilities per 10,000 population
- Physicians per 10,000 population
- Skilled birth attendance
- Demand for family planning satisfied with modern methods
- Existence of national HPV vaccination programme

Domain 3: Education, learning, and transition to work

Completion rates | Math and reading proficiency (lower secondary) | Youth literacy | Out-of-school rate ICT skills | NEET | Engagement in household chores

Domain 4: Protection

Violent discipline | Bullying and physical attacks | IPV | NPSV | Mortality due to conflict | Child labour | Child marriage | FGM | Relationship with parents | Refugees under 18 | IDPs under 18

Domain 5: Participation

Participation in decision-making | Voting age | Discrimination

Domain 6: Safe and sustainable environment

Clean drinking water at home | Sanitation facilities at home | Hygiene facilities at home Urbanization | CCRI

Indicators to measure health and well-being

Indicator selection for each domain was guided by adolescent health and well-being indicators already being measured globally and in the MENA region in line with the SDGs, and harmonized with adolescent health and well-being indicators listed by the WHO Global Action for the Measurement of Adolescent health (GAMA) Advisory Group, as well as those available on the UNICEF adolescent data portal and UNICEF adolescent health dashboard (which focuses on NCDs). Preliminary data mapping was conducted to assess the availability of national-level, comparable data from UNICEF, UNFPA, WHO and other relevant United Nations agencies' datasets, such as those of the United Nations Educational, Scientific and Cultural Organization (UNESCO), International Labour Organization (ILO), Joint United Nations Programme on HIV/AIDS (UNAIDS), UN Department of Economic and Social Affairs (UN DESA), as well as quantitative data gathered through nationally representative surveys, such as the Demographic and Health Surveys (DHS), the Multiple Indicator Cluster Survey (MICS).

The criteria used to define and select indicators are provided in Box 3.

Box 3 **Criteria to define and select indicators**

Criteria used to define indicators:

- Harmonized with existing global and regional indicator frameworks
- Conceptually clear, well defined and measurable
- Align with the conceptual framework
- Policy relevant in the MENA region
- Age and sex-disaggregated data available for countries in the MENA region

A regional expert advisory group and regional youth advisory group also reviewed and provided feedback on the proposal for analysis, including the conceptual framework and initial list of proposed indicators.

The final list of indicators and data sources included in this review are provided in Table 1.

Table 1. Indicators of health and well-being

Domain 1: Demographic, socioeconomic and political context			
Indicator	**Definition**	**Data source(s) and years**	**Notes**
Adolescent population, number (thousands) and share (%)	Number of adolescents (thousands) and proportion (%) of total population that are adolescents (aged 10–24 years)	UN Department of Economics and Social Affairs (UN PD) 2022	Modelled estimates
Human development	Human development index: average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living	UNDP Data Center – Human Development Reports 2021	Available for all countries

Domain 1: Demographic, socioeconomic and political context			
Indicator	**Definition**	**Data source(s) and years**	**Notes**
Gender inequality	Gender inequality index (GII)	UNDP Human Development Reports – Gender Inequality Index (GII) 2021	Available for 18 countries
Poverty	Proportion (%) of the population living below the national poverty line	World Bank 2007–2018	Available for 12 countries
Income inequality	Gini coefficient, a measure of inequality of income distribution	World Income Inequality Database 2008-2018	Available for 18 countries
Social protection	Proportion (%) of children covered by social protection	ILO Social Security Inquiry Database (via ILO Stat)	Available for 8 countries
Childhood deprivation	Proportion (%) of children suffering at least one severe deprivation	MICS and DHS 2012–2018	Available for 5 countries
Education expenditure	Government expenditure on education expressed as a percentage (%) of GDP	UNESCO 2009–2021	Available for 19 countries
Health expenditure	Government expenditure on health expressed as a percentage (%) of GDP	World Bank 2011–2018	Available for 18 countries
Physicians	Number of physicians per 10,000 population	WHO 2015–2020	Available for 20 countries
Primary health care facilities	Number of primary healthcare facilities per 10,000 population	WHO 2019–2020	Available for 19 countries
Universal health coverage (UHC)	Coverage (%) of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)	WHO 2020	Available for all countries
National policy on adolescent or youth health	Existence of a national policy, plan, or strategy for adolescent or youth health	UNICEF Adolescent health dashboards (country dashboards)	Available for 13 countries
National youth policy or strategy	Existence of a national youth policy or strategy	Youthpolicy.org 2014	Available for 16 countries

Domain 2: Health and nutrition			
Indicator	**Definition**	**Data source(s) and years**	**Notes**
Mortality, all causes	Total number of deaths and mortality rate (deaths per 1,000 young people aged 10–24 years) due to all causes	Institute for Health Metrics and Evaluation (IHME) Global Burden of Disease (GBD) 2019	Modelled estimates
Disability adjusted life years (DALYs), all causes	Total number and DALY rate due to all causes among young people aged 10–24 years (DALYs per 100,000)	IHME GBD 2019	Modelled estimates
Mortality due to injuries and violence, and by major cause (transport, other unintentional, violence)	Total number of deaths and mortality rate due to injuries (all cause and by major cause) (deaths per 100,000) among young people aged 10–24 years	IHME GBD 2019	Modelled estimates
Disability adjusted life years (DALYs) due to injuries, and by major cause	Total number and DALY rate due to injuries (all cause and by major cause) among young people aged 10–24 years (DALYs per 100,000)	IHME GBD 2019	Modelled estimates
Disability adjusted life years (DALYs) to mental disorder (all causes) and by major cause (depression, anxiety, bipolar, ADHD, autism, developmental disorders, conduct disorder, eating disorders, schizophrenia)	Total number and DALY rate due to mental disorder (all cause and by major cause) among young people aged 10–24 years (DALYs per 100,000)	IHME GBD 2019	Modelled estimates
Prevalence of common mental disorders	Prevalence (%) of common mental disorders among young people aged 10–24 years	IHME GBD 2019	Modelled estimates
Depression	Proportion of adolescents aged 13–15 years who reported that during the past 12 months they felt so sad or hopeless almost every day for two weeks or more in a row, that they stopped doing their usual activities (%)	Global School-based Health Survey (GSHS) 2007-–017	No data available
Worry	Proportion of adolescents aged 13–15 years who report being so worried about something that they could not sleep at night most of the time or always in the past 12 months (%)	GSHS 2007–2017	Limited data (available for 3 countries only)

Domain 2: Health and nutrition			
Indicator	**Definition**	**Data source(s) and years**	**Notes**
Suicidal ideation and attempt	Proportion of students who ever seriously considered attempting suicide and percentage who attempted suicide during the past 12 months (%)	GSHS 2007–2017	Available for 10 countries and 3 UNRWA populations
Disability adjusted life years (DALYs) due to intentional self-harm	Total number and DALY rate due to intentional self-harm among young people aged 10–24 years (DALYs per 100,000)	IHME GBD 2019	Modelled estimates
Mortality rate due to suicide	Mortality rate due to intentional self-harm (deaths per 100,000) among young people aged 10–24 years	IHME GBD 2019	Modelled estimates
Condom use at last higher risk sex	Proportion of adolescents aged 15–19 years with more than one partner in the last 12 months who report condom use in their last intercourse (%)	No data	No data
Sex before age 15	Proportion of women aged 20–24 years who had sex for the first time by age 15 (%)	No data	No data
Demand for family planning satisfied with modern methods	Proportion (%) of women (aged 15–19) who have their need for family planning satisfied with modern methods	IHME GBD 2019	Modelled estimates
Adolescent birth rate	Total and number of births per 1,000 females aged 10–14 and 15–19 years	UN Department of Economics and Social Affairs Population Division (UN PD) 2022	Modelled estimates
Adolescent childbearing	Proportion (%) of 20–24-year-old women who gave birth by age 18 (%)	MICS and DHS 2006–2019	Available for 11 countries
Skilled birth attendance	Proportion (%) of births from mothers aged <20 years attended by skilled health personnel (typically a doctor, nurse or midwife)	MICS and DHS 2003–2019	Available for 10 countries
Maternal mortality	Maternal deaths per 100,000 live births among 10–24-year-olds, and total number of maternal deaths	IHME GBD 2019	Modelled estimates
Mortality due to communicable diseases, and by major cause (HIV/AIDS, malaria, meningitis, typhoid, hepatitis, diarrhoeal disease, tuberculosis, respiratory tract infections)	Total number of deaths and mortality rate due communicable diseases (all cause and by major cause) (deaths per 100,000) among young people aged 10–24 years	IHME GBD 2019	Modelled estimates

Domain 2: Health and nutrition			
Indicator	**Definition**	**Data source(s) and years**	**Notes**
Disability adjusted life years (DALY) due to communicable diseases, and by major cause	Total number and DALY rate due to injuries (all cause and by major cause) among young people aged 10–24 years (DALYs per 100,000)	IHME GBD 2019	Modelled estimates
New HIV infections	Percentage (%) of new HIV infections among young people (15 - 24 years)	UNAIDS 2023	Data for total 15-24 years
HIV knowledge	Proportion of young people aged 15–24 years with comprehensive knowledge of HIV (%)	MICS and DHS 2004–2020	Limited data, some countries for girls only
Total COVID-19 cases and deaths	Cumulative cases and deaths due to COVID-19 total population	WHO 2022	Total population, age disaggregated data not available
Mortality due non-communicable disease, and by major cause (musculoskeletal, skin, cardiovascular, respiratory, neoplasm, diabetes and kidney, sense organ, digestive)	Total number deaths and mortality rate due non-communicable diseases (all cause and by major cause) (deaths per 100,000) among young people aged 10–24 years	IHME GBD 2019	Modelled estimates
Disability adjusted life years (DALYs) due to non-communicable disease, and by major cause	Total number and DALY rate due to injuries (all cause and by major cause) among young people aged 10–24 years (DALYs per 100,000)	IHME GBD 2019	Modelled estimates
Insufficient physical activity	Proportion (%) of school going adolescents aged 11–17 years not meeting WHO recommendations on physical activity for health (i.e., doing less than 60 minutes of moderate- to vigorous-intensity physical activity daily)	GSHS and UNICEF data 2010–2019	Available for 17 countries
Tobacco use	Proportion (%) of adolescents aged 13–15 years who used any tobacco in the past month	Global Youth Tobacco Survey, GSHS 2007–2017	Available for 20 countries
Alcohol use	Proportion of 15–19-year-olds who report and episode of binge drinking (>48g females, >60g males) in the last 12 months (%)	WHO Global Status Report on Alcohol and Health 2018	Available for 19 countries
Marijuana use	Proportion (%) of students aged 13–15 years who report having ever used marijuana	GSHS 2007–2017	Available for 6 countries
Overweight	Proportion of adolescents aged 10–19 years with BMI > 1 SD of the median according to the WHO growth reference for school-age children and adolescents	NCD Risk Factor Collaboration (Lancet 2017)[15]	Available for 19 countries

Domain 2: Health and nutrition			
Indicator	**Definition**	**Data source(s) and years**	**Notes**
Obesity	Proportion (%) of adolescents aged 10–19 years with BMI > 2 SD of the median according to the WHO growth reference for school-age children and adolescents	NCD Risk Factor Collaboration (Lancet 2017)[16]	Available for 19 countries
Thinness	Proportion (%) of adolescents aged 10–19 years with BMI < −2 SD of the median according to the WHO growth reference for school-age children and adolescents	NCD Risk Factor Collaboration (Lancet 2017)[17]	Available for 19 countries
Carbonated soft drinks	Proportion (%) of students aged 13–15 years who usually drink carbonated soft drinks one or more times per day in the previous 30 days	GSHS 2007-2017	Available for 14 countries
Disability adjusted life years (DALYs) due to nutritional deficiencies, all causes and by major cause (iron, iodine, protein-energy, vitamin A)	Total number and DALY rate due to nutritional deficiencies, all cause and by major cause, among young people aged 10–24 years (DALYs per 100,000)	IHME GBD 2019	Modelled estimates
Prevalence of iron deficiency	Prevalence (%) of dietary iron deficiency among young people aged 10–24 years	IHME GBD 2019	Modelled estimates

Domain 3: Education, learning, and transition to work			
Indicator	**Definition**	**Data sources(s) and year**	**Notes**
Completion rate (lower and upper secondary)	Completion rate (%) by education level a) lower secondary and b) upper secondary	MICS and DHS 2013–2020	Available for 8 countries
Enrolment in tertiary education	Gross enrolment ratio for tertiary education, by sex	UNESCO 2020	Available for 15 countries
Participation in formal and non-formal education and training	Participation rate (%) of youth aged 15-24 years in formal and non-formal education and training, by sex	UNESSCO UIS	Available for 8 countries
Math proficiency (lower secondary)	Proportion (%) of adolescents at the end of lower secondary education achieving or exceeding the minimum proficiency level in mathematics	UNESCO 2011–2019	Available for 15 countries
Reading proficiency (lower secondary)	Proportion (%) of adolescents at the end of lower secondary education achieving or exceeding the minimum proficiency level in reading	UNESCO 2011–2019	Available for 8 countries
Secondary level skills	Proportion (%) of youth aged 15–24 years without secondary education level	World Skills Clock 2021	Available for 19 countries
Youth literacy rate	Proportion (%) of youth aged 15–24 years who can both read and write with understanding a short simple statement on his/her everyday life	UNESCO 2018–2020	Available for 10 countries
ICT skills	Proportion (%) of youth aged 15-24 years with information and communications technology (ICT) skills	MICS 2018–2019	Available for 4 countries
Digital skills	Proportion (%) of youth aged 15-24 years without digital skills	World Skills Clock 2021	Available for 19 countries
Out-of-school rate (lower and upper secondary)	Proportion (%) of school-aged children out-of-school by education level a) lower secondary and b) upper secondary	UNICEF 2012–2021	Available for 18 countries
Not in education, employment, or training (NEET)	Percentage (%) of those aged 15–19 years not in education, employment, or training	ILO 2020	Modelled estimates
Unemployment	Unemployment rate (%) among 15–24-year-olds	ILO 2022	Modelled estimates

Domain 4: Protection			
Indicator	**Definition**	**Data sources(s) and year**	**Notes**
Parent supervision	Proportion (%) of students aged 13–15 years whose parents or guardians really knew what they were doing with their free time, most of the time or always, during the past 30 days	GSHS 2007–2017	Available for 13 countries and 4 UNRWA populations
Parent understanding	Proportion (%) of students aged 13–15 years who reported that their parents or guardians, most of the time or always, understood their problems and worries during the last 30 days	GSHS 2007–2017	Available for 13 countries and 4 UNRWA populations
Violent discipline	Proportion (%) of adolescents aged 10–14 years who experienced any violent discipline (physical punishment and/or psychological aggression) in the past month	MICS and DHS 2006–2020	Available for 10 countries
Bullying	Proportion (%) of students aged 13–15 years who were bullied at least once in the past month	GSHS 2007–2017	Available for 16 countries and 4 UNRWA populations
Physical fight	Proportion (%) of students aged 13–15 years who report being in a physical fight in the past 12 months	GSHS 2007–2017	Available for 16 countries and 4 UNRWA populations
Intimate partner violence (IPV)	Proportion of ever-married girls aged 15–19 and 20-24 years who experienced physical and/ or sexual violence committed by a husband or partner in the past 12 months (%)	DHS 2014–2018	Available for 2 countries
Sexual violence before age 18	Proportion (%) of young people aged 18–29 years who experienced sexual violence before age 18 years	UNICEF 2019	Available for 1 country
Ever experience sexual violence	Proportion of 15–24-year-olds who have ever experienced sexual violence (%)	DHS 2014-2018	Available for 2 countries
Prevalence of sexual violence	Proportion (%) of sexual violence among 10–19-year-olds	IHME GBD 2019	Modelled estimates
Child marriage (by age 18 years)	Proportion (%) of women and men aged 20–24 years who were first married or in union before age 18	MICS and DHS 2006–2020	Available for 15 countries
Female genital mutilation (FGM)	Proportion (%) of girls and women aged 15–49 years who have undergone female genital mutilation	MICS and DHS 2012–2018	Available for 5 countries
Mortality rate due to interpersonal violence	Total deaths and mortality rate (per 100,000 young people aged 10–24 years) due to interpersonal violence	IHME GBD 2019	Modelled estimates
Mortality rate due to collective violence (conflict and terror)	Total deaths and mortality rate (per 100,000 young people aged 10–24 years) due to conflict and terrorism	IHME GBD 2019	Modelled estimates

Domain 4: Protection			
Indicator	**Definition**	**Data sources(s) and year**	**Notes**
Refugees, under the age of 18 years	Total number of refugees and asylum seekers under the age of 18 years	UNICEF MENARO 2022	Available for 20 countries
Internally displaced persons, under the age of 18 years	Number of internally displaced persons under the age of 18 years	UNICEF MENARO 2022	Available for 20 countries
Child labour	Proportion (%) of children and adolescents aged 5–17 years engaged in child labour (economic activities or household chores)	MICS 2000–2020	Available for 7 countries
Economic activity young adolescents	Proportion (%) of 15–17-year-olds who did at least 43 hours of economic activity in the previous week	MICS 2000–2020	Available for 4 countries

Domain 5: Participation			
Indicator	**Definition**	**Data sources(s) and years**	**Notes**
Participation in decision-making	Participation in decision-making (final say) regarding: a) own health care, b) visits with family and friends,	No data	No data
Internet access at home	Proportion of adolescents of lower-secondary and upper secondary age who have internet access at home (%)	UNICEF 2010–2019	Available for 8 countries
Mobile phone ownership	Proportion of 15–24 year-olds who own a mobile phone (%)	MICS 2018–2020	Available for 4 countries (girls only)
Internet use	Proportion of 15–24 year-olds who used the internet in the previous 3 months (%)	MICS 2018–2020	Available for 4 countries (girls only)
Voting age	Legal voting age	ACE Project	Available for all countries
Young parliamentarians	Proportion of parliamentarians aged under 30 years (%)	Inter-Parliamentary Union 2016	Available for all countries
Discrimination	Proportion of women aged 15–49 years who in the past 12 months have felt discriminated against or harassed based on a number of grounds*	No data	No data
Existence of a national youth organization or association	Number of countries with a national youth organization or association	Youth Policy org 2014	Available for 16 countries

* These grounds include race, colour, sex, sexual orientation, language, religion, political or other opinion, national or social origin, property, birth or other status (International Covenant on Civil and Political Rights, Universal Declaration of Human Rights)

Domain 6: A safe, sustainable environment			
Indicator	**Definition**	**Data sources(s) and year**	**Notes**
Urbanization	Proportion of the total population living in urban areas (%)	UNDP Data Center – Human Development Reports (via UN DESA World Urbanization Prospects 2018)	Available for all countries
Basic drinking water service at home	Proportion (%) of the population using an improved drinking water source at home, where collection time is not more than 30 minutes for a round trip including queuing	WHO/UNICEF 2017–2020	Available for all countries
Basic sanitation facilities at home	Proportion (%) of the population using an improved sanitation facility that is not shared with other households	WHO/UNICEF 2017–2020	Available for all countries
Basic hygiene facilities at home	Proportion (%) of population using basic hygiene services (i.e., a handwashing facility with soap and water available at home)	WHO/UNICEF 2017–2020	Available for 8 countries
Menstrual materials and water, sanitation and hygiene	Proportion of 15-24 year-olds who menstruated in the last 12 months, who were using an appropriate material for menstrual hygiene and had a private place at home to wash and change (%)	MICS 2018-2020	Available for 3 countries
Menstrual health	Percentage of adolescent girls aged 15–19 years who did not participate in school, work or social activities during their last menstrual period (%)	MICS 2018-2020	Available for 3 countries
Climate risk	Children's Climate Risk Index (CCRI)	UNICEF 2021	Available for all countries

A number of potentially relevant issues were not able to be included in the review due to the lack of existing defined indicators and/or lack of age and sex disaggregated data. These include individual-level indicators of poverty specific to this age group, educational quality, health service access and quality of care, and youth participation. Additionally, this review was limited to national-level estimates disaggregated by age and sex only. Further analysis of sub-national data to identify the distinct health and well-being needs of refugees, young people living with disabilities, ethnic minorities, those with diverse sexual orientation and/or gender identity) was beyond the scope of this review, however, some of these issues will be explored through focused case studies or targeted review of other published literature, in consultation with UNICEF.

Data sources

Main data sources for each indicator are included in Table 1. Where possible, preference was given to data available from global and regional databases (encompassing population and household surveys, and administrative data) including those of UNICEF, UNESCO, UN DESA, UNFPA, UNHCR, UNRWA, UNPD, UNSD, World Bank, UNAIDS, WHO, ILO and International Telecommunication Union (ITU).

Where age-disaggregated data were not available through existing databases, data were sought from relevant national-level surveys such as DHS, MICS and GSHS. These were prioritized over administrative data as they are more likely to be complete, produce representative estimates, and have less bias, and are more widely accessible. Where primary data were of limited coverage, comparability or quality, modelled data were used. These particularly related to measures of health outcomes (DALYs and mortality) and some indicators of health risks. These were sources from the 2019 Global Burden of Disease Study from IHME.

Data selection

A single estimate for the most recent year was selected for each indicator, including age and sex disaggregation where applicable or available. Recent estimates (current or within the last 5 years) were prioritized, but due to limited data availability for some indicators in the region, older estimates (within the last 5–15 years) were also reported.

Data for each indicator was prioritized based on the following criteria:

Good quality (meets all the following)

- Nationally representative (household or population survey)
- Consistent with the indicator definition
- Comparable/high coverage across countries in the sub-region
- Age and sex disaggregated (where applicable)
- Recent estimate (current or within the last 5 years)

Moderate quality

Nationally-representative, but with one or more of the following:

- Minor inconsistencies with the indicator definition (different age range, minor differences in measure used)
- Sex disaggregated but not age disaggregated (where applicable)
- Older estimate (within the last 5–15 years)

Limited quality

- School-based survey (considered of lower quality due to the likely biased sample (i.e., under-representative of girls impacted by gender inequality who are less likely to be engaged in education; attendance rates)
- Significant inconsistencies with the indicator definition (different age range, not disaggregated, significant differences in measure/definition used)

Modelled estimates

Modelled data from the IHME GBD 2019 study was used where primary data are not available or of limited coverage and quality.

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1 Demographic, socioeconomic and political context

Key findings

- Around 140 million young people aged 10–24 years live in the MENA region, accounting for around one quarter of the region's total population.
- 40% of young people live in countries in the region where the Human Development Index is low or medium, and many live in settings of high gender and economic inequality and poverty.
- In the region, there is great diversity in education and health expenditure and systems, but no country has achieved universal health coverage.
- Nine countries in the region have a national adolescent health programme.

1.1 Population

In the Middle East and North Africa

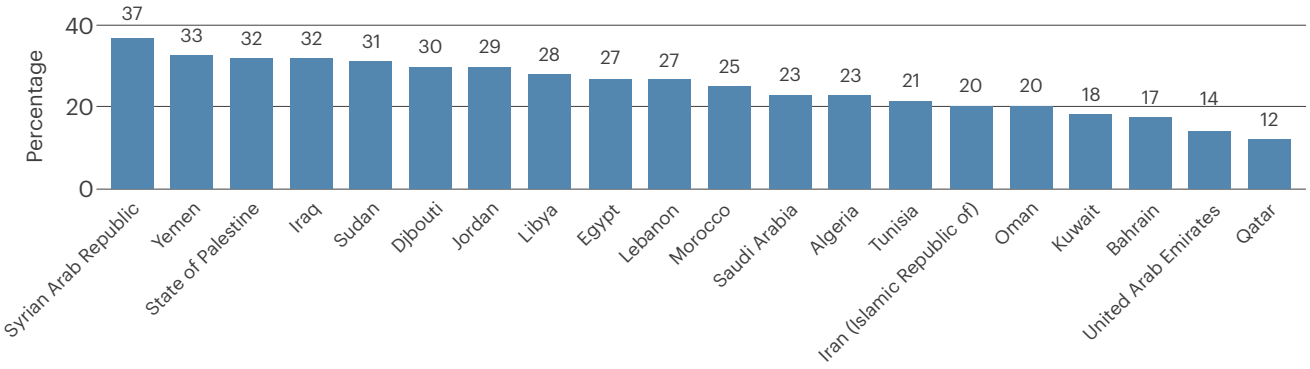
1 in 4 people

are aged between

10–24 years

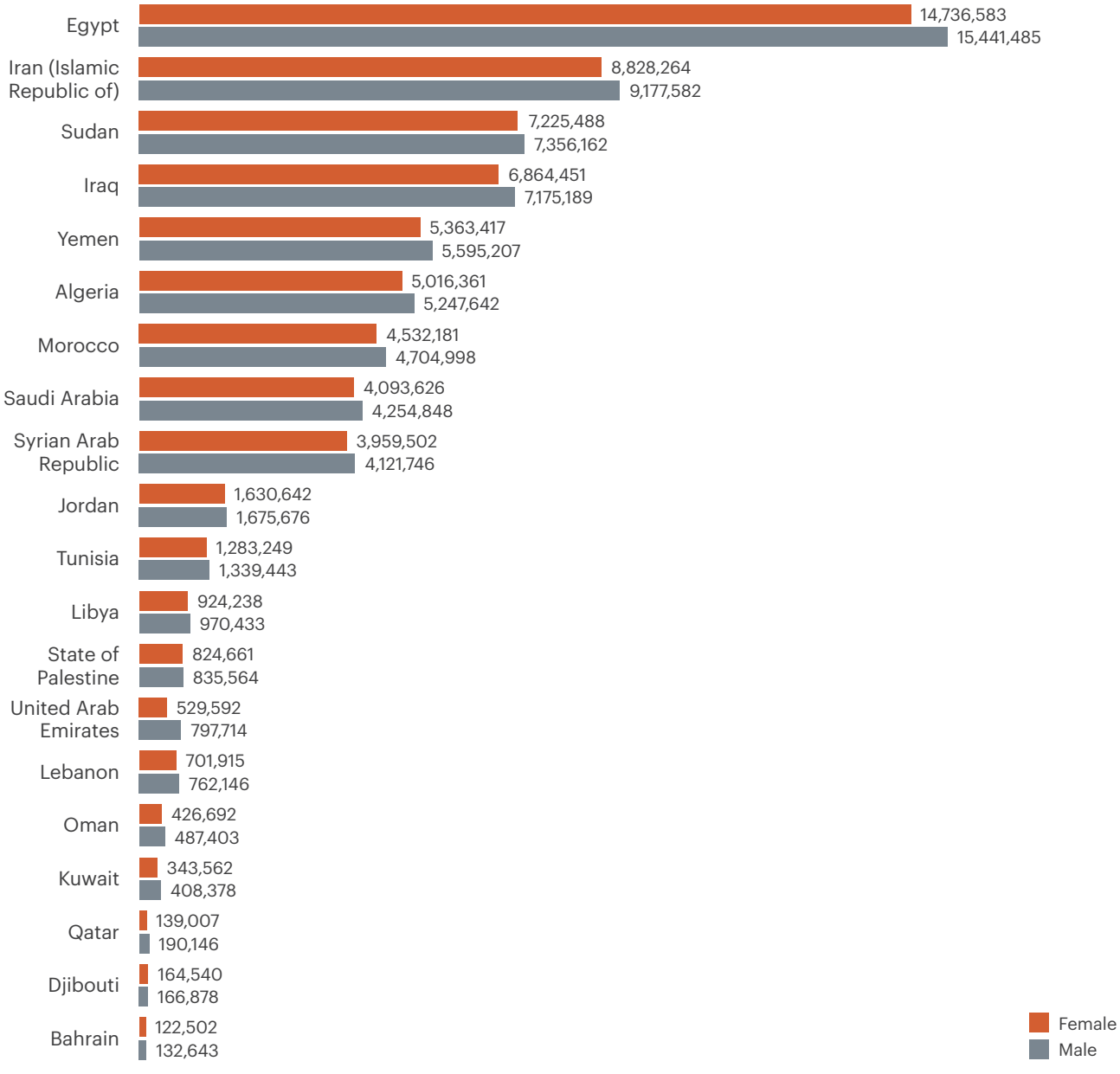
There are around 140 million young people aged 10–24 years living in MENA countries, representing 26 per cent of the regional population (Figure 2). However, in countries affected by conflict, and countries characterized by high but declining fertility rates and recent gains in child survival, young people make up around one third of the total population. Regionally, 51 per cent of the population is boys and young men: 70.8 million, compared with 49 per cent girls and young women: 67.7 million (Figure 3). Four (Egypt, Iran, Sudan and Iraq) of the region's 20 countries account for more than half of the region's young people.

Figure 2. Proportion (%) of population aged 10–24 years



Source: UN PD 2022

Figure 3. Total population aged 10–24 years, by sex and country

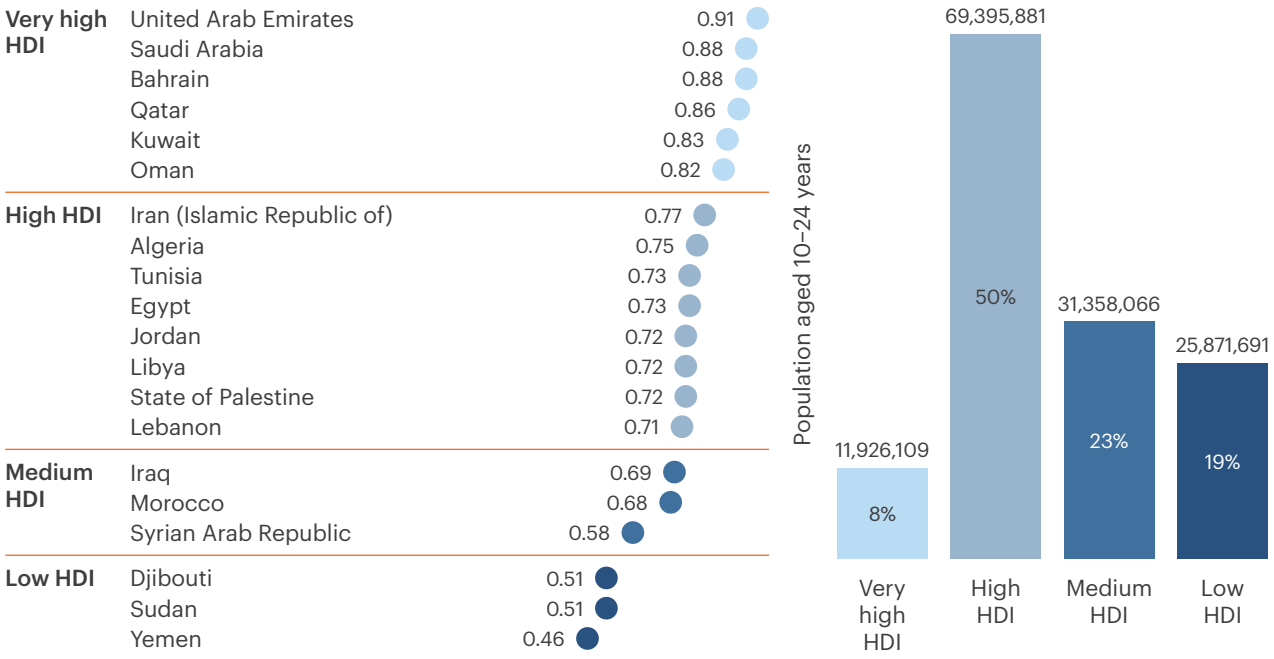


Source: UN PD 2022

1.2 Human development

The MENA region is characterized by diversity in socioeconomic and development contexts. The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, knowledge and standard of living. While the majority of countries (14 out of 20) have a high or very high HDI (Figure 4), approximately 40 per cent of the region's young people live in countries with medium or low human development, with 25 million living in countries with low HDI.

Figure 4. Human Development Index and total population aged 10-24 years by HDI category



Source: UNDP 2021

1.3 Gender inequality

The Gender Inequality Index (GII) reflects gender-based disadvantage with respect to reproductive health, empowerment and the labour market. It ranges from 0, where there is equality in these outcomes between men and women, to 1 where there is very high inequality between men and women. Ten countries in the region have GII >0.40, indicating higher levels of inequality (Table 2), with the greatest gendered disadvantage in Yemen (GII 0.82).

Table 2. Indicators of gender equality, social protection and poverty

Country	Gender inequality index	Percentage of the population living below the national poverty line (%)	Gini index	Percentage of children suffering at least one severe deprivation (%)	Proportion of children covered by social protection (%)
Algeria	0.5	5.5	27.6	16.3	
Bahrain	0.2		59.6		3.8
Djibouti		21.1	41.6		3.5
Egypt	0.4	32.5	31.5	12.1	14.0
Iran (Islamic Republic of)	0.5		40.8		16.4
Iraq	0.6	18.9	40.9	23.4	
Jordan	0.5	15.7	40.1		8.8
Kuwait	0.3				0.4
Lebanon	0.4	27.4	31.8		32.7
Libya	0.3		30.2		
Morocco	0.4	4.8	39.6		13.4
Oman	0.3				0.2
Qatar	0.2		40.4		0.5
Saudi Arabia	0.2		42.2		6.0
State of Palestine		29.0	44.9		12.1
Sudan	0.6	46.5	34.2		8.1
Syrian Arab Republic	0.5	35.2	34.2		
Tunisia	0.3	15.2	32.8	9.1	28.6
United Arab Emirates	0.0		32.5		0.2
Yemen	0.8	48.6	36.7	56.1	0.0

Sources: UNDP, World Bank, UNICEF 2012-2020

1.4 Poverty and income inequality

Data specific to adolescents with respect to poverty are extremely limited. Available national-level estimates indicate that a substantial proportion of the total population in the region live below the national poverty line, with the highest in Sudan and Yemen where almost 50 per cent are living in poverty. The Gini index measures the extent to which the distribution of income among individuals or households within an economy is equal. A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality. Eight countries in the region (Saudi Arabia, Bahrain, Qatar, Iran, Jordan, Palestine, Iraq and Djibouti) have a Gini index in excess of 40, indicating higher levels of income inequality.

UNICEF estimates of the percentage of children aged 0–17 years who are suffering at least one severe deprivation (with respect to water, sanitation, nutrition, education or health) are available for only five countries in the region, and of these, between 10 and 50 per cent of children and adolescents are living in severe poverty. The majority of children in the region are not covered by social protection.

1.5 Health and education system indicators

There is also great diversity in health and education systems across the region. Government expenditure on education (as a percentage of GDP) ranges from 1.7 to 7.3 per cent and is higher than expenditure on health in 12 of the 18 countries with available data (Table 3). No countries in the region have achieved universal health coverage (UHC) measured using the UHC index,[1] with significant challenges in Djibouti, Jordan, Libya, Oman, Sudan and Yemen where progress towards SDG targets for this indicator has been slow or stagnated.[2] Nine countries have a national adolescent health programme, and six a national youth policy – of which only Iraq, Lebanon and Yemen have both (Table 4).

Table 3. Selected education and health systems indicators

Country	Government expenditure on education (% GDP)	Government expenditure on health (% GDP)	Physicians per 10,000 population	Primary health care facilitles per 10,000	UHC index
Algeria	7.0	4.1	11.7		75.0
Bahrain	2.2	2.4	22.6	0.2	77.0
Djibouti	3.6	1.2	2.1	0.6	47.0
Egypt	2.5		8.2	0.6	68.0
Iran (Islamic Republic of)	3.6	4.0	15.4	3.5	72.0
Iraq	4.7	2.0	9.3	7.1	61.0
Jordan	3.2	3.8	27.0	7.0	76.0
Kuwait	6.6	4.4	25.3	0.2	76.0
Lebanon	1.7	4.2	31.2	0.5	73.0
Libya		3.8	22.9	2.1	64.0
Morocco	6.8	2.1	7.1	0.8	70.0
Oman	5.4	3.6	20.8	0.5	69.0
Qatar	3.2	1.9	27.3	3.2	68.0
Saudi Arabia	7.8	4.0	27.6	0.7	74.0
State of Palestine	5.3		22.6	1.6	64.0
Sudan	2.0	1.0	2.8	1.5	44.0
Syrian Arab Republic	5.1	1.6	14.0	0.9	60.0
Tunisia	7.3	4.2	13.1	1.9	70.0
United Arab Emirates	3.9	2.2	26.7	3.8	76.0
Yemen	5.5	0.5	1.7	1.4	42.0

Sources: UNESCO, World Bank, WHO 2009-2021

Table 4. Existence of a national adolescent health programme and/or national youth policy

Country	National adolescent health programme	National youth policy
Algeria	No	No
Bahrain	No data / unclear	No data / unclear
Djibouti	No	No data / unclear
Egypt	Yes	No data / unclear
Iran (Islamic Republic of)	No data / unclear	No
Iraq	Yes	Yes
Jordan	No	Yes
Kuwait	No data / unclear	Yes
Lebanon	Yes	Yes
Libya	No data / unclear	No
Morocco	No	Yes
Oman	Yes	No
Qatar	No data / unclear	No
Saudi Arabia	Yes	No
State of Palestine	No data / unclear	No
Sudan	Yes	No
Syrian Arab Republic	Yes	No data / unclear
Tunisia	No data / unclear	No
United Arab Emirates	Yes	No
Yemen	Yes	Yes

Yes
No
No data / unclear

Source: Youthpolicy.org 2014, WHO 2018-2019

2 Health and nutrition

Key findings

- Non-communicable diseases are the leading cause of poor health among girls, accounting for 49% of the total burden of poor health among 10–24-year-olds, followed by mental disorders (22%) and injury (14%).
- Injuries are the leading cause of poor health among boys, accounting for 37% of the total burden, followed by non-communicable diseases (36%) and mental disorders (16%).
- In three countries, Djibouti, Sudan and Yemen, communicable diseases, nutritional deficiencies and maternal disorders together account for 20% of the disease burden among young people.
- Boys have twice the mortality rate of girls, driven largely by increased mortality due to injuries.
- Transport injuries are the leading cause of death in the region, and the leading cause of death of boys in all countries except Iraq, Sudan and Yemen, where unintentional injuries or conflict are the leading cause.
- Transport injuries are also the leading cause of death of girls in half of countries. Maternal disorders are the leading cause of death in Djibouti and Sudan, unintentional injuries and conflict in Iraq and Yemen, and non-communicable diseases are the leading cause of death in Egypt, Jordan, Kuwait, Lebanon, State of Palestine and Syria.
- The burden of poor health and mortality increases with increasing age due to injury-related disability and mortality during later adolescence and early adulthood.

2.1 Major causes of poor health among 10–24-year-olds

Regional overview of disability-adjusted life years among adolescents

Box 4 **Disability-adjusted life years**

For many health outcomes included in this review, **disability-adjusted life years (DALYs)** are reported to quantify disease burden.

DALYs are a measure of the overall disease burden in a population. They quantify the total health loss due to fatal and non-fatal diseases or health conditions. DALYs are the sum of the total numbers of years of life lost due to premature mortality and the total number of healthy years lost due to disability (illness or injury). One DALY equals one year of healthy life lost.

The DALYs reported in this review are provided by the Global Burden of Disease (GBD) Study. In 2019 the GBD estimated DALYs due to 369 causes for 204 countries, disaggregated by age and sex.

In 2019 there were an estimated 15,151,712 disability-adjusted life years (DALYs) among 10–24-year-olds in the MENA region, a rate of 10,936 DALYs per 100,000 people aged 10–24 years. The global rate in 2019 was 12,313 DALYs per 100,000 young people.

Non-communicable diseases (NCDs), mental disorders and injuries are the leading causes of poor health. Figure 5 shows the total burden of disease for girls and boys, measured using DALYs.

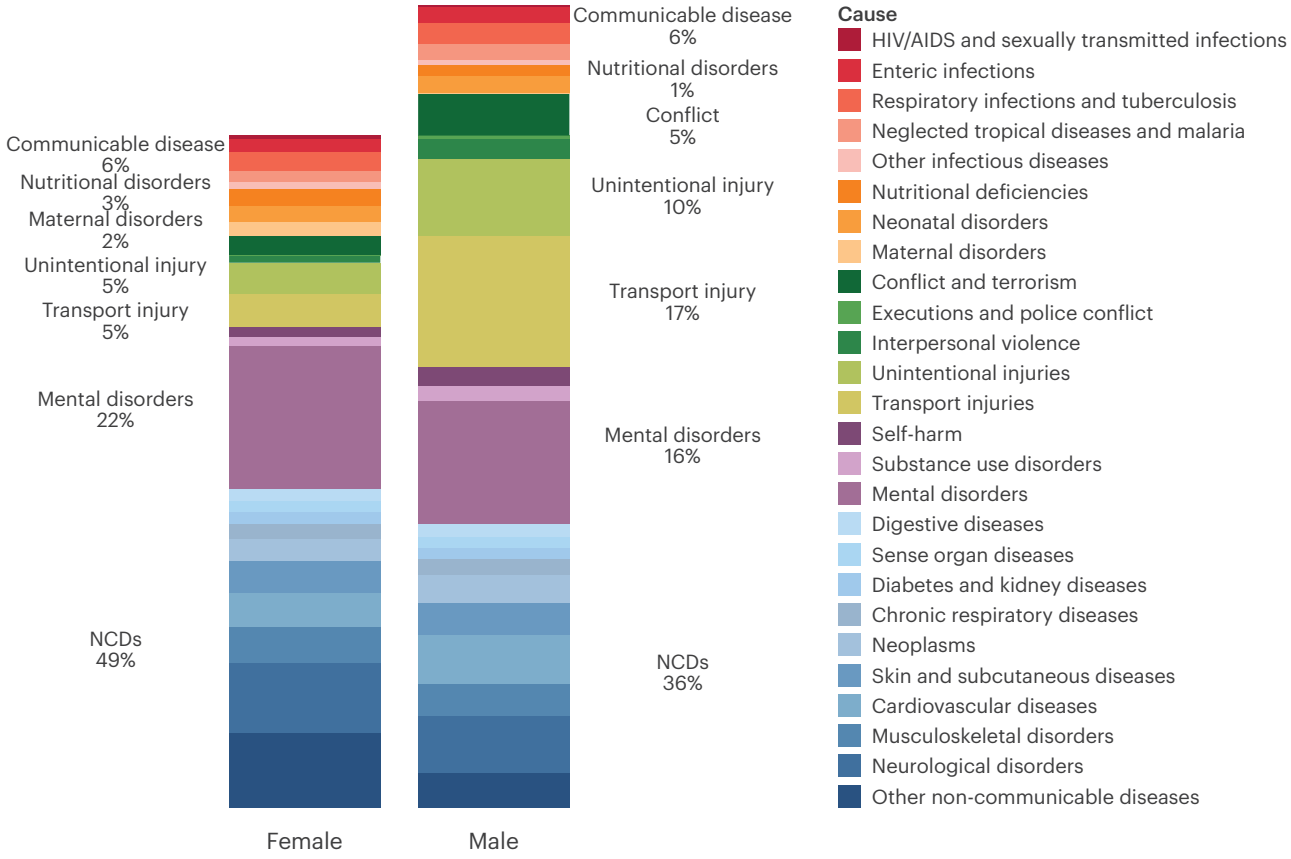
Boys and young men have a higher total burden of disease compared with girls and young women: the total DALY rate (all causes) for boys is 11,641 per 100,000 aged 10–24 years, and for girls 10,198 per 100,000. This difference is largely due to an excess burden of poor health due to injuries among boys in the region. Injuries include transport-related injuries, other unintentional injuries (drowning, fire and heat, mechanical forces, falls), interpersonal violence, conflict and self-harm. For boys, injuries account for 37 per cent of the total disease burden, of which transport, other unintentional injuries and conflict are the major causes.

The leading causes of poor health among **girls** aged 10–24 years are **non-communicable diseases and mental disorders**

The leading cause of poor health among **boys** aged 10–24 years is **injuries** followed by non-communicable diseases and mental disorders

Mental disorders cause 16 per cent of the burden for boys and are the second leading cause of poor health for girls, accounting for 22 per cent of DALYs. In both girls and boys, non-communicable diseases are a significant cause of poor health, accounting for almost half of all DALYs in girls, of which neurological (headache), musculoskeletal, cardiovascular and skin disorders, and cancer are the main causes.

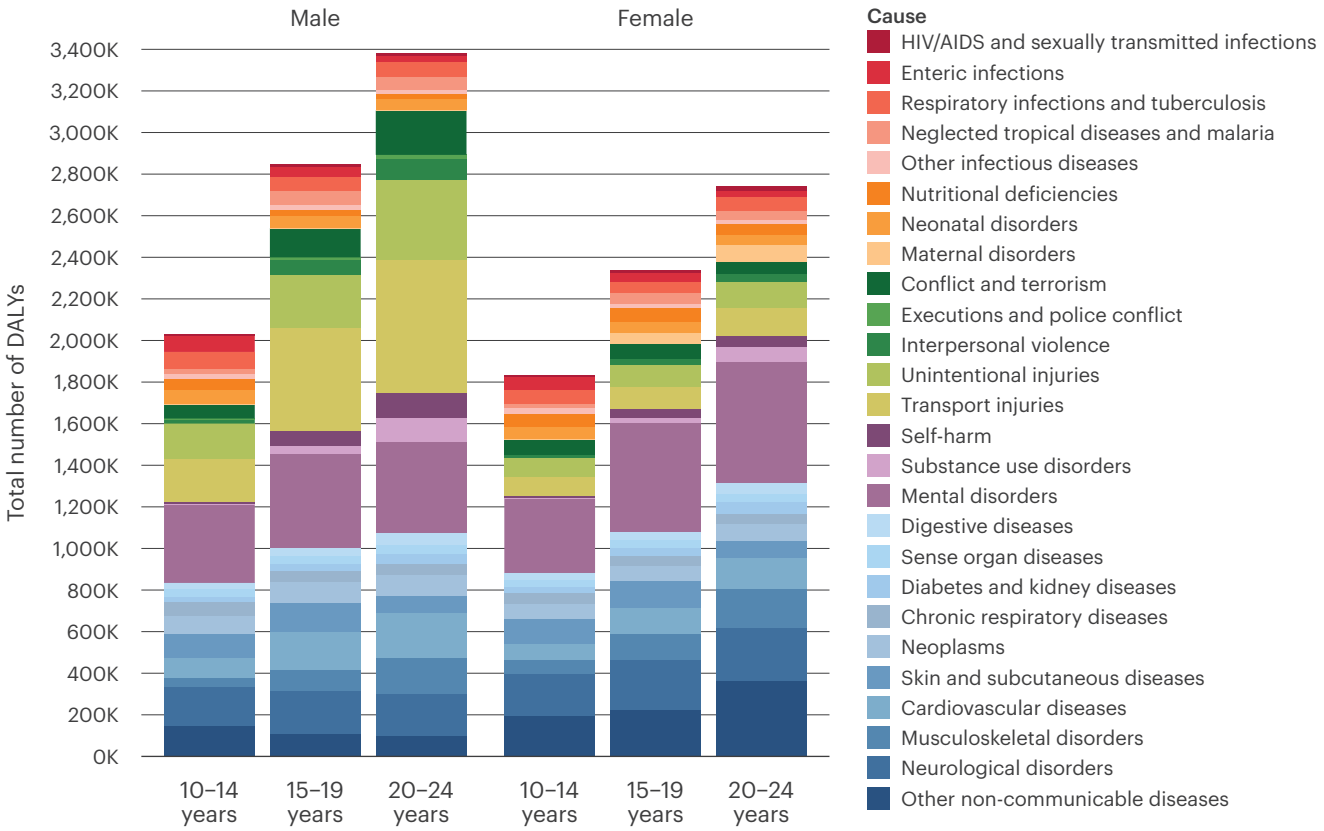
Figure 5. Total disease burden (DALYs) among 10–24-year-olds, by sex



Source: GBD 2019

The burden of poor health increases with age (Figure 6). For boys in the region this is due to a sharp increase in injuries, most notably transport injury, from mid-adolescence. In girls there is a steady increase in disease burden due to non-communicable diseases, mental disorders and maternal disorders in later adolescence and early adulthood.

Figure 6. Total disease burden (DALYs), by sex and age group



Source: GBD 2019

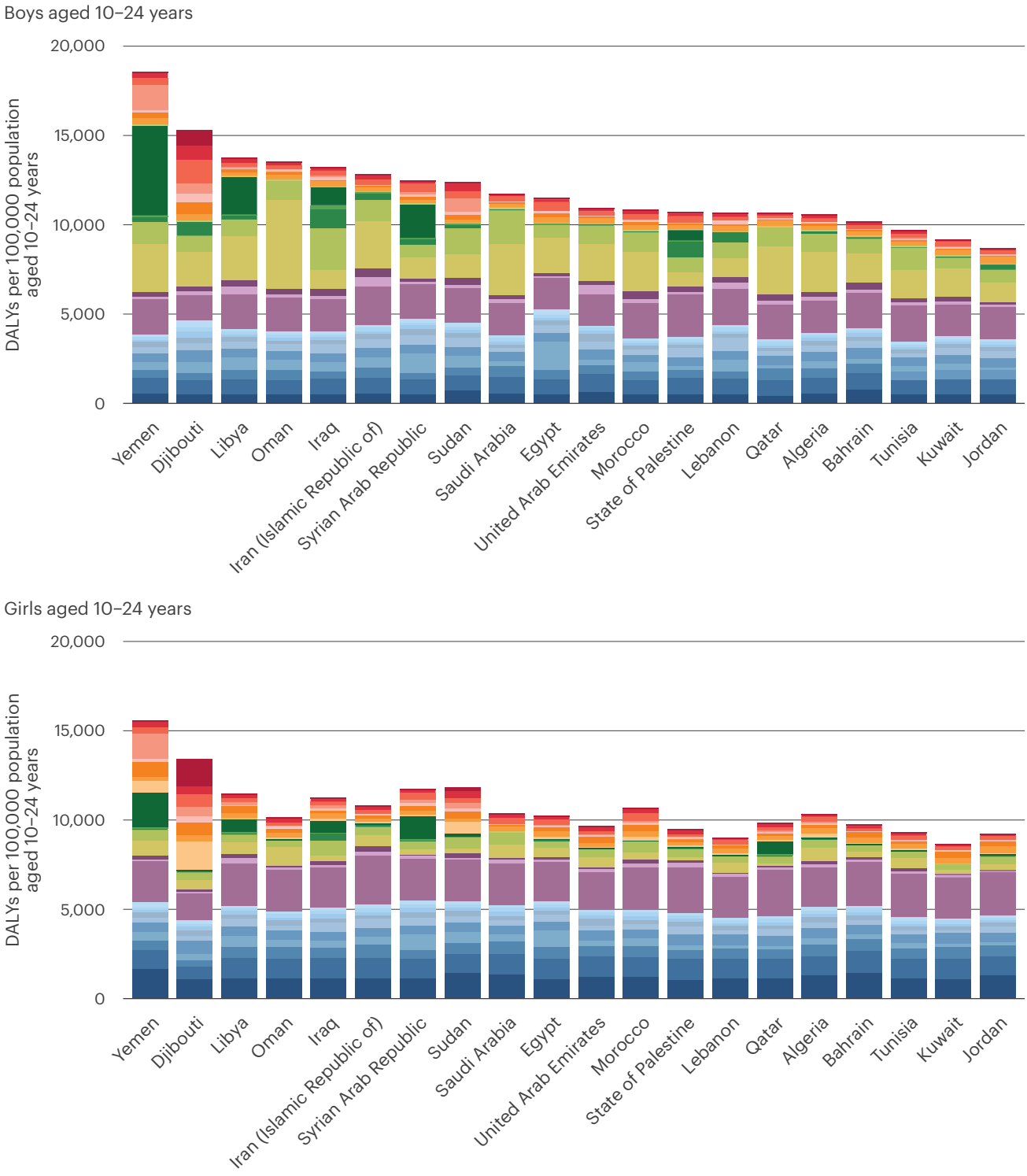
Country-level estimates

The highest DALY rate among young people is found in Yemen, largely due to conflict and communicable diseases, and in Djibouti, where maternal disorders and communicable diseases account for a significant burden of poor health (Figure 7).

In all countries the total disease burden (measured in DALY rates) is higher among boys compared with girls. This is driven largely by excess injury (transport, other unintentional injury, and interpersonal violence), except in Jordan, where poor health due to injury is the lowest in the region.

Non-communicable diseases are the leading cause of poor health for girls aged 10–24 years, accounting for around half of the disease burden in most countries. Exceptions are Djibouti and Yemen, where communicable diseases and maternal disorders (and violence in Yemen) are major causes of poor health. Mental disorders are the second leading cause of poor health of girls in most countries, followed by transport and other unintentional injuries. For boys, non-communicable diseases and mental disorders remain leading causes of poor health in most countries. However, injuries and violence account for a much greater proportion of poor health and are the leading causes of DALYs in conflict-affected countries (Iraq, Libya, State of Palestine, Syria and Yemen). Injuries, largely transport injuries, are the leading cause of poor health of boys in Bahrain,Oman, Qatar, Saudi Arabia and United Arab Emirates.

Figure 7. DALY rate (per 100,000 population 10–24 years), by country and sex



Cause

- HIV/AIDS and sexually transmitted infections
- Enteric infections
- Respiratory infections and tuberculosis
- Neglected tropical diseases and malaria
- Other infectious diseases
- Nutritional deficiencies
- Neonatal disorders
- Maternal disorders
- Conflict and terrorism
- Executions and police conflict
- Interpersonal violence
- Unintentional injuries
- Transport injuries
- Self-harm
- Substance use disorders
- Mental disorders
- Digestive diseases
- Sense organ diseases
- Diabetes and kidney diseases
- Chronic respiratory diseases
- Neoplasms
- Skin and subcutaneous diseases
- Cardiovascular diseases
- Musculoskeletal disorders
- Neurological disorders
- Other non-communicable diseases

Source: GBD 2019

2.2 Mortality among 10–24-year-olds

Regional overview of mortality among adolescents

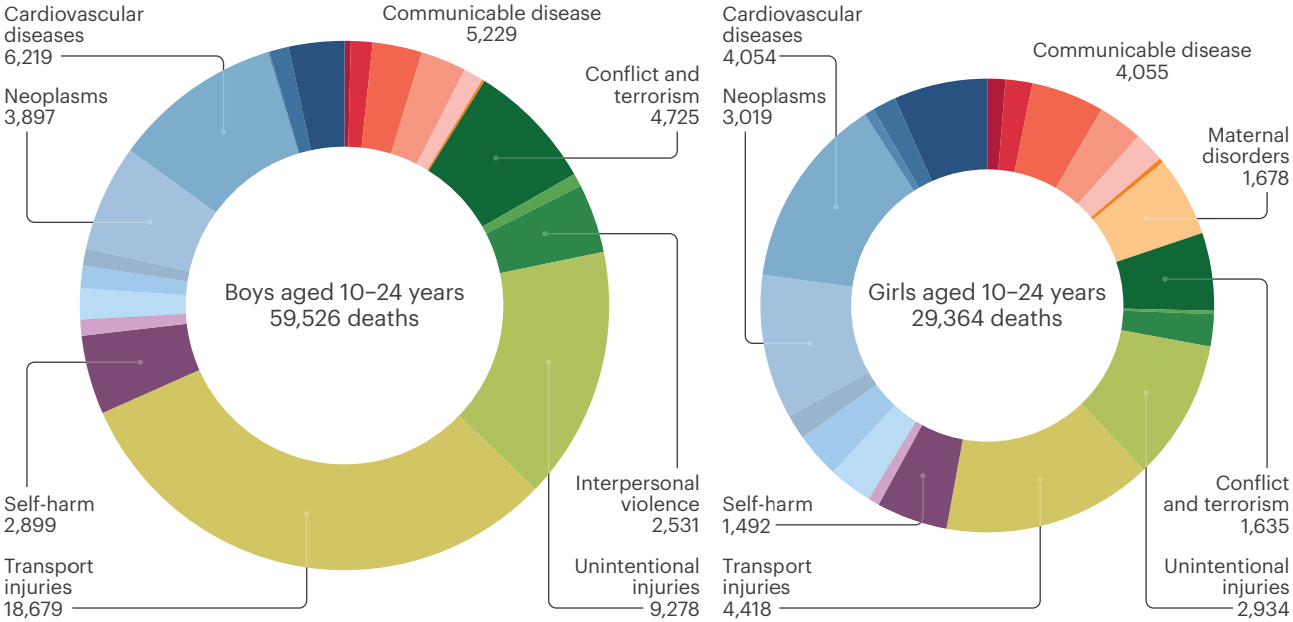
There were an estimated **90,000 deaths** of 10–24-year-olds in 2019, more than two thirds (67 per cent) were among boys (Figure 8). The regional mortality rate was 64 deaths per 100,000 young people aged 10–24 years, compared with a global rate of 80 deaths per 100,000.

Injuries were the leading cause of death for boys, accounting for 64 per cent of all deaths in the 10–24-year age group, with transport injuries and other unintentional injuries causing almost 30,000 deaths annually among boys and young men. Transport injuries were also the leading cause of death for girls aged 10–24 years. However, for girls, non-communicable diseases, including cancer and cardiovascular disease, accounted for a much larger proportion of deaths compared with boys. There were an estimated 1,678 deaths due to complications of pregnancy and childbirth in this age group, and around 9,000 deaths due to communicable diseases among both boys and girls.

Boys aged 10–24 years have around double the mortality rate
of girls, due to excess injury-related deaths

Transport injuries are also the leading cause of death of girls,
in addition to non-communicable diseases, communicable diseases and maternal disorders

Figure 8. Total annual estimated deaths of 10–24-year-olds, by sex



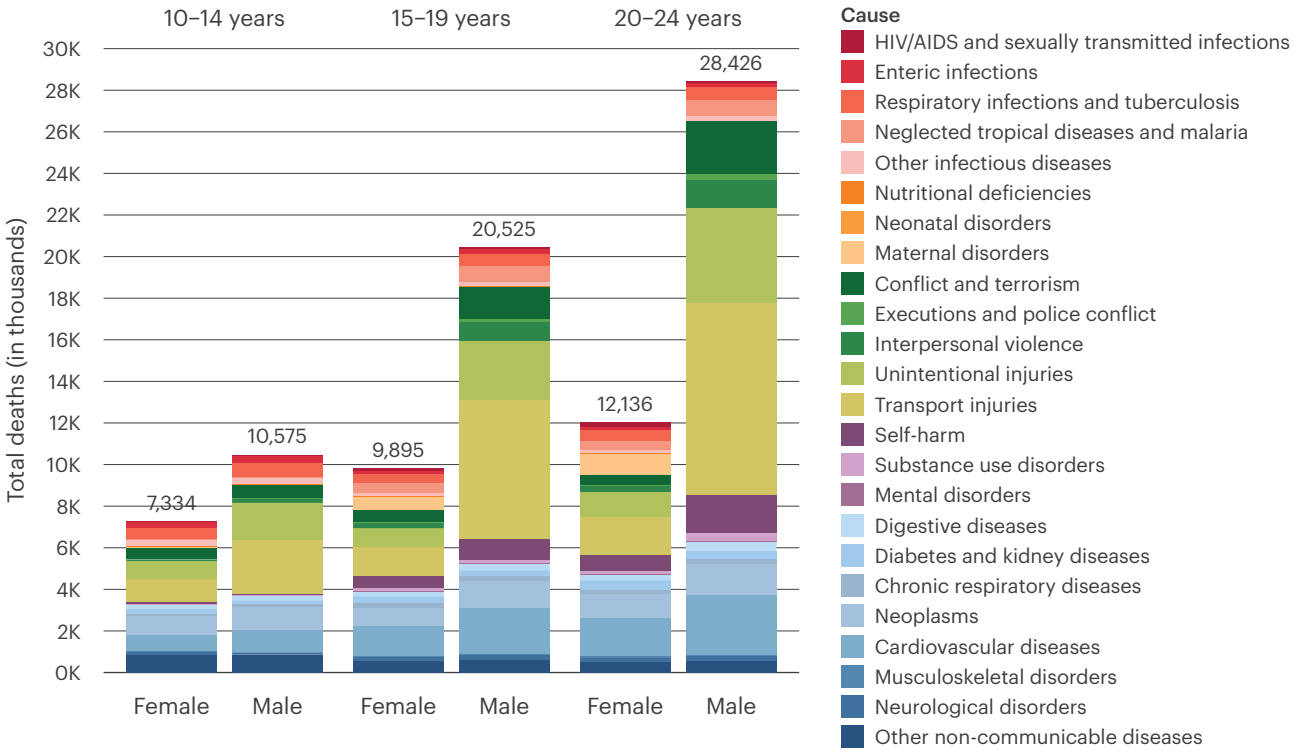
Cause

- HIV/AIDS and sexually transmitted infections
- Enteric infections
- Respiratory infections and tuberculosis
- Neglected tropical diseases and malaria
- Other infectious diseases
- Nutritional deficiencies
- Maternal disorders
- Conflict and terrorism
- Executions and police conflict
- Interpersonal violence
- Unintentional injuries
- Transport injuries
- Self-harm
- Substance use disorders
- Mental disorders
- Digestive diseases
- Diabetes and kidney diseases
- Chronic respiratory diseases
- Neoplasms
- Cardiovascular diseases
- Musculoskeletal disorders
- Neurological disorders
- Other non-communicable diseases

Source: GBD 2019

For girls and boys, mortality increases with increasing age (Figure 9). While boys have higher mortality compared with girls across all age groups, this disparity becomes most marked during later adolescence and early adulthood due to a significant increase in mortality due to unintentional injuries and violence. For girls, the increased number of deaths in later adolescence are largely due to cardiovascular disease, transport injuries, suicide and maternal disorders. During early adolescence (ages 10–14 years), communicable diseases account for around 15 per cent of all deaths, compared with 8 per cent for 20–24-year-olds, of which respiratory tract infections (including tuberculosis) are the leading cause.

Figure 9. Total annual deaths, by age group



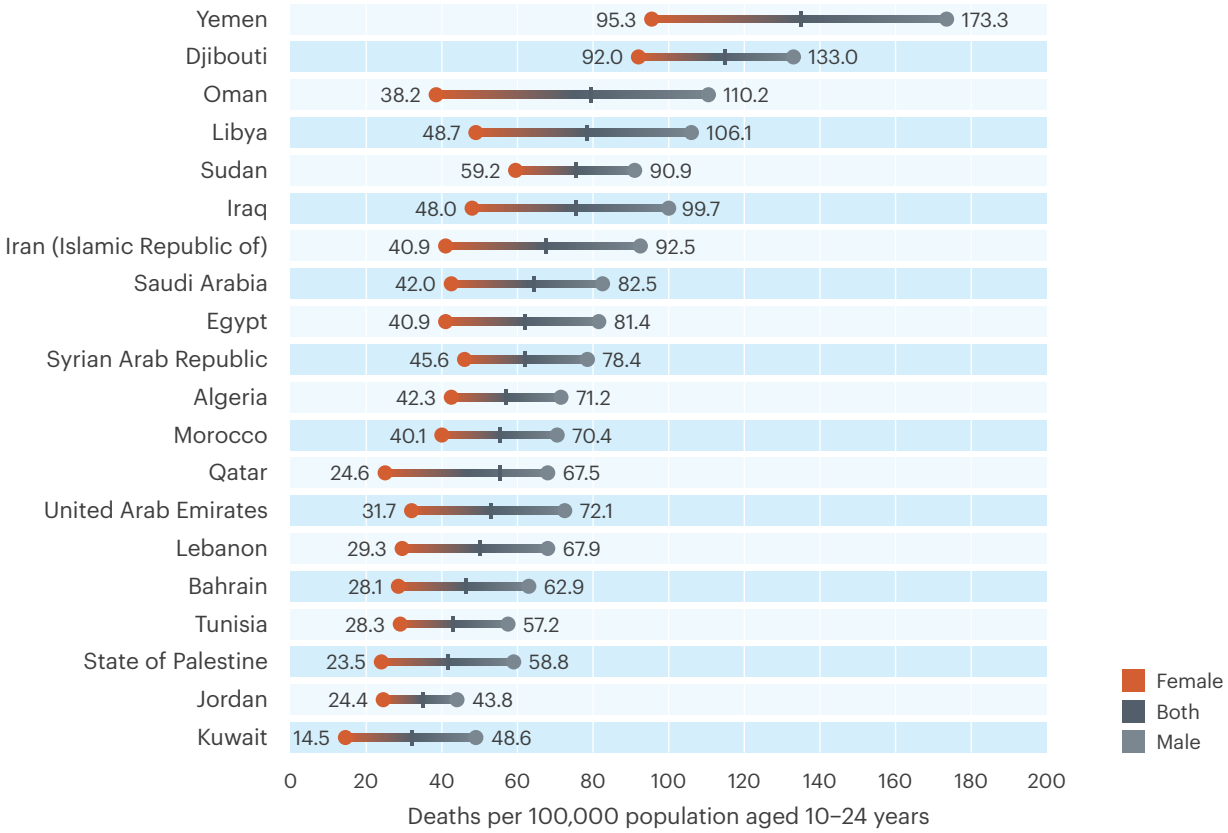
Source: GBD 2019

Country-level estimates of mortality

The highest mortality rates among boys and girls are found in Yemen and Djibouti (Figure 10). In Yemen, this is due to excess mortality related to conflict, communicable diseases and maternal disorders. In Djibouti, HIV-mortality, communicable diseases and maternal disorders account for the increased mortality rate compared with other countries in the region (Figure 11).

In all countries, boys experience higher mortality rates than girls, largely due to excess mortality as a result of unintentional injuries (transport and other unintentional injury) and violence. Boys have around double the rate of mortality compared with girls in most countries, more than 2.5 times higher in Oman, Qatar and State of Palestine, and more than three times higher in Kuwait. In these countries, transport injuries are the major contributor to this disparity, as well as conflict-related mortality in the State of Palestine.

Figure 10. All-cause mortality rate (deaths per 100,000 population aged 10–24 years), by country and sex

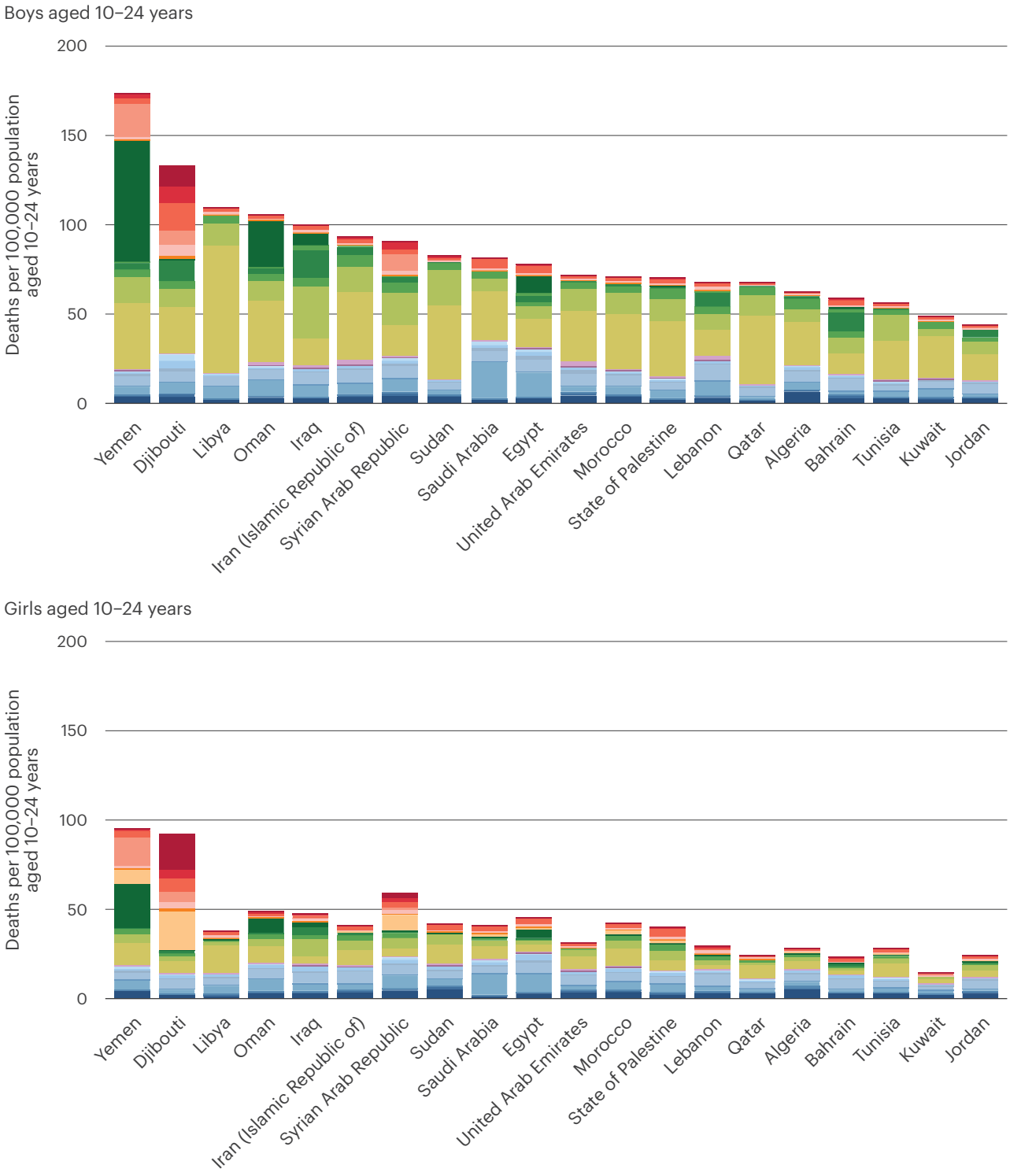


Source: GBD 2019

Transport injuries are the leading cause of death of boys aged 10–24 years in all countries except Iraq and Sudan, where other unintentional injuries are the leading cause, and Yemen, where conflict and terrorism-related injuries are the major causes (Table 5). Transport injuries account for between 16 and 64 per cent of all deaths of boys, with the highest proportion of deaths due to transport injury in Oman. **Transport injuries are also among the top five leading causes of death for girls in all countries.** Conflict and terrorism account for a substantial proportion of deaths of this age group in Iraq, Libya, Syria and Yemen. Interpersonal violence (physical or sexual violence) is also among the leading causes of death in Djibouti, Iraq, Jordan, Lebanon and State of Palestine, particularly for boys.

For girls and boys in the region, non-communicable diseases, including cancer and cardiovascular disease, are also leading cause of death, and the leading cause for girls in Egypt, Jordan, Kuwait, Lebanon, State of Palestine and Syria. Suicide is among the top causes of death for boys in 13 of the 20 countries, and a major cause of death for girls in six countries. In Algeria, Djibouti, Sudan and Yemen, maternal deaths are among the top causes of death of girls aged 10–24 years, and the leading cause of death of girls in Djibouti (23 per cent of all deaths) and Sudan (16 per cent of all deaths). Communicable diseases are not among the main causes of death of this age group in most countries in the region. Notable exceptions include Djibouti, where HIV/AIDS, lower respiratory tract infections (including tuberculosis) and malaria are leading causes of death for girls and boys. Malaria is also among the leading causes of death in Yemen and accounts for 10 per cent of deaths of boys in this age group in Sudan. Lower respiratory tract infections are among the top five causes of death for girls in six other countries, although mortality rates due to these causes are substantially lower than mortality in countries with high communicable disease burdens (Yemen, Djibouti and Sudan).

Figure 11. Mortality rate (deaths per 100,000 aged 10–24 years), by country, sex and cause



Source: GBD 2019

Table 5. Top five leading of causes of death (and % of all deaths due to cause) among 10–24-year-olds, by country and sex

	Female 10–24 years	Male 10–24 years
Algeria	Transport injuries (23%)	Transport injuries (44%)
	Cancers (11%)	Other unintentional injuries (16%)
	Cardiovascular disease (11%)	Cancers (8%)
	Other unintentional injuries (10%)	Cardiovascular disease (7%)
	Maternal disorders (7%)	Self-harm (6%)
Bahrain	Transport injury (16%)	Transport injuries (37%)
	Cancers (14%)	Other unintentional injuries (12%)
	Cardiovascular disease (9%)	Cancers (10%)
	Self-harm (7%)	Self-harm (8%)
	Other unintentional injuries (6%)	Cardiovascular disease (6%)
Djibouti	Maternal disorders (23%)	Transport injuries (20%)
	HIV/AIDS (22%)	Respiratory tract infections and tuberculosis (12%)
	Respiratory tract infections and tuberculosis (8%)	HIV/AIDS (9%)
	Transport injuries (7%)	Interpersonal violence (9%)
	Malaria and other neglected tropical diseases (6%)	Other unintentional injuries (7%)
Egypt	Cardiovascular disease (28%)	Transport injuries (33%)
	Transport injuries (17%)	Cardiovascular disease (25%)
	Cancers (10%)	Other unintentional injuries (9%)
	Other unintentional injuries (8%)	Cancers (7%)
	Respiratory tract infections and tuberculosis (7%)	Respiratory tract infections and tuberculosis (6%)
Iran (Islamic Republic of)	Transport injuries (21%)	Transport injuries (40%)
	Cancers (15%)	Other unintentional injuries (15%)
	Other unintentional injuries (11%)	Cancers (8%)
	Cardiovascular disease (10%)	Self-harm (7%)
	Self-harm (8%)	Cardiovascular disease (7%)
Iraq	Other unintentional injuries (19%)	Other unintentional injuries (29%)
	Cancers (13%)	Transport injuries (16%)
	Interpersonal violence (10%)	Interpersonal violence (15%)
	Transport injuries (9%)	Conflict and terrorism (7%)
	Cardiovascular disease (9%)	Cardiovascular disease (7%)
Jordan	Cancers (19%)	Transport injuries (32%)
	Transport injuries (14%)	Other unintentional injuries (17%)
	Other unintentional injuries (13%)	Cancers (12%)
	Interpersonal violence (6%)	Interpersonal violence (11%)
	Cardiovascular disease (5%)	Self-harm (5%)

Table 5. Top five leading of causes of death (and % of all deaths due to cause) among 10–24-year-olds, by country and sex *(continued)*

	Female 10–24 years	Male 10–24 years
Kuwait	Cancers (17%)	Transport injuries (47%)
	Transport injuries (15%)	Cardiovascular disease (10%)
	Cardiovascular disease (11%)	Other unintentional injury (10%)
	Other unintentional injury (8%)	Cancers (8%)
	Respiratory tract infections and tuberculosis (7%)	Self-harm (6%)
Lebanon	Cancers (22%)	Transport injuries (21%)
	Cardiovascular disease (11%)	Other unintentional injuries (13%)
	Unintentional injuries (10%)	Cancers (13%)
	Self-harm (7%)	Interpersonal violence (13%)
	Transport injuries (7%)	Cardiovascular disease (13%)
Libya	Transport injuries (19%)	Transport injuries (33%)
	Conflict and terrorism (18%)	Conflict and terrorism (25%)
	Cardiovascular disease (15%)	Other unintentional injuries (10%)
	Cancers (11%)	Cardiovascular disease (8%)
	Unintentional injuries (7%)	Cancers (5%)
Morocco	Transport injuries (14%)	Transport injuries (44%)
	Other unintentional injuries (13%)	Other unintentional injuries (17%)
	Cardiovascular disease (13%)	Self-harm (8%)
	Respiratory tract infections and tuberculosis (11%)	Cardiovascular disease (7%)
	Cancers (10%)	Cancers (5%)
Oman	Transport injuries (40%)	Transport injuries (64%)
	Cardiovascular disease (13%)	Other unintentional injuries (11%)
	Cancers (10%)	Cardiovascular disease (6%)
	Other unintentional injuries (6%)	Cancers (5%)
	Respiratory tract infections and tuberculosis (4%)	Self-harm (4%)
Qatar	Transport injuries (31%)	Transport injuries (56%)
	Cancers (15%)	Other unintentional injuries (16%)
	Cardiovascular disease (8%)	Self-harm (7%)
	Other unintentional injury (6%)	Cancers (6%)
	Self-harm (5%)	Cardiovascular disease (4%)
Saudi Arabia	Transport injuries (26%)	Transport injuries (49%)
	Unintentional injuries (14%)	Unintentional injuries (24%)
	Cancers (10%)	Self-harm (4%)
	Cardiovascular disease (10%)	Cancers (4%)
	Respiratory tract infections and tuberculosis (7%)	Cardiovascular disease (4%)

Table 5. Top five leading of causes of death (and % of all deaths due to cause) among 10–24-year-olds, by country and sex *(continued)*

	Female 10–24 years	Male 10–24 years
State of Palestine	Cancers (22%)	Transport injuries (20%)
	Cardiovascular disease (8%)	Interpersonal violence (19%)
	Other unintentional injuries (7%)	Other unintentional injuries (15%)
	Transport injuries (7%)	Cancers (11%)
	Interpersonal violence (7%)	Self-harm (6%)
Sudan	Maternal disorders (16%)	Other unintentional injuries (20%)
	Cardiovascular disease (13%)	Transport injuries (19%)
	Other unintentional injuries (10%)	Malaria and other neglected tropical diseases (10%)
	Cancers (8%)	Cardiovascular disease (9%)
	Transport injuries (7%)	Cancers (7%)
Syrian Arab Republic	Cardiovascular disease (23%)	Transport injuries (20%)
	Cancers (12%)	Cardiovascular disease (18%)
	Conflict and terrorism (12%)	Conflict and terrorism (12%)
	Transport injuries (8%)	Other unintentional injuries (10%)
	Respiratory tract infections and tuberculosis (7%)	Cancers (9%)
Tunisia	Transport injuries (26%)	Transport injuries (38%)
	Cancers (11%)	Other unintentional injuries (25%)
	Other unintentional injuries (10%)	Cardiovascular disease (7%)
	Cardiovascular disease (10%)	Self-harm (6%)
	Self-harm (6%)	Cancers (5%)
United Arab Emirates	Transport injuries (24%)	Transport injuries (39%)
	Cancers (15%)	Other unintentional injuries (17%)
	Other unintentional injuries (11%)	Cancers (9%)
	Cardiovascular disease (9%)	Cardiovascular disease (5%)
	Self-harm (3%)	Self-harm (%)
Yemen	Conflict and terrorism (26%)	Conflict and terrorism (40%)
	Malaria and other neglected tropical diseases (17%)	Transport injuries (21%)
	Transport injuries (12%)	Malaria and other neglected tropical diseases (11%)
	Maternal disorders (8%)	Other unintentional injuries (9%)
	Cardiovascular disease (6%)	Cardiovascular disease (3%)

Source: GBD 2019

2.3 Unintentional injuries and violence

Key findings

- There were an estimated 45,427 deaths and 3,753,140 DALYs among 10–24-year-olds in the region 2019 due to injury and violence.
- 80% of injury-related deaths are among boys, with both DALY and mortality rates substantially higher among boys compared with girls in all countries.
- Transport injuries are the leading cause of death and disability due to injury in most countries, with the exception of conflict-affected settings where other unintentional injuries, violence and conflict-related injury are leading causes.

Unintentional injuries and violence are the overall leading cause of death of adolescents and young people in the region. In 2019, there were an estimated 45,427 deaths of 10–24-year-olds due to injury, including unintentional injuries (transport, fire and heat, falls, mechanical forces, drowning), interpersonal violence, conflict and terrorism, and police conflict[i] (Figure 12). Almost 80 per cent (35,690) occurred among boys and young men. Transport deaths are the leading cause of injury-related mortality for both girls and boys, accounting for 51 per cent of all injury deaths of young people in the region.

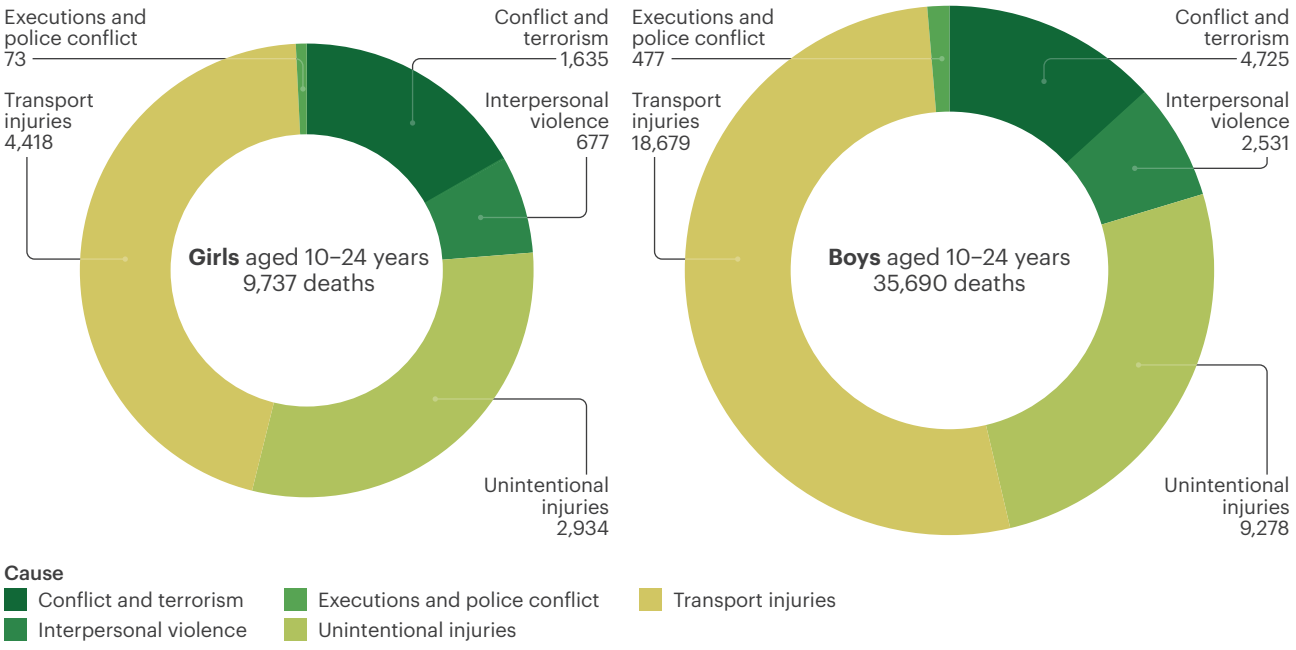
Injuries are the leading cause of death for **boys** with **3.7 times more injury-related deaths** compared with girls in 2019

Injuries and violence cause 3,753,140 DALYs among this age group, a rate of 2,709 DALYs per 100,000.

There were 3.7 times more deaths due to injury and violence among boys compared with girls in the region. Across all age groups, boys have higher injury-related mortality than girls, most markedly among 20–24-year-olds for whom injury deaths among young men were 4.7 times higher than for young women (Figure 13). Boys experience excess mortality across all major injury causes, but most notably for transport injuries which markedly increase among boys from mid to late adolescence. DALY rates are also substantially higher among boys: injuries and violence cause 3,968 DALYs per 100,000 boys aged 10–24 years, compared with 1,391 per 100,000 girls.

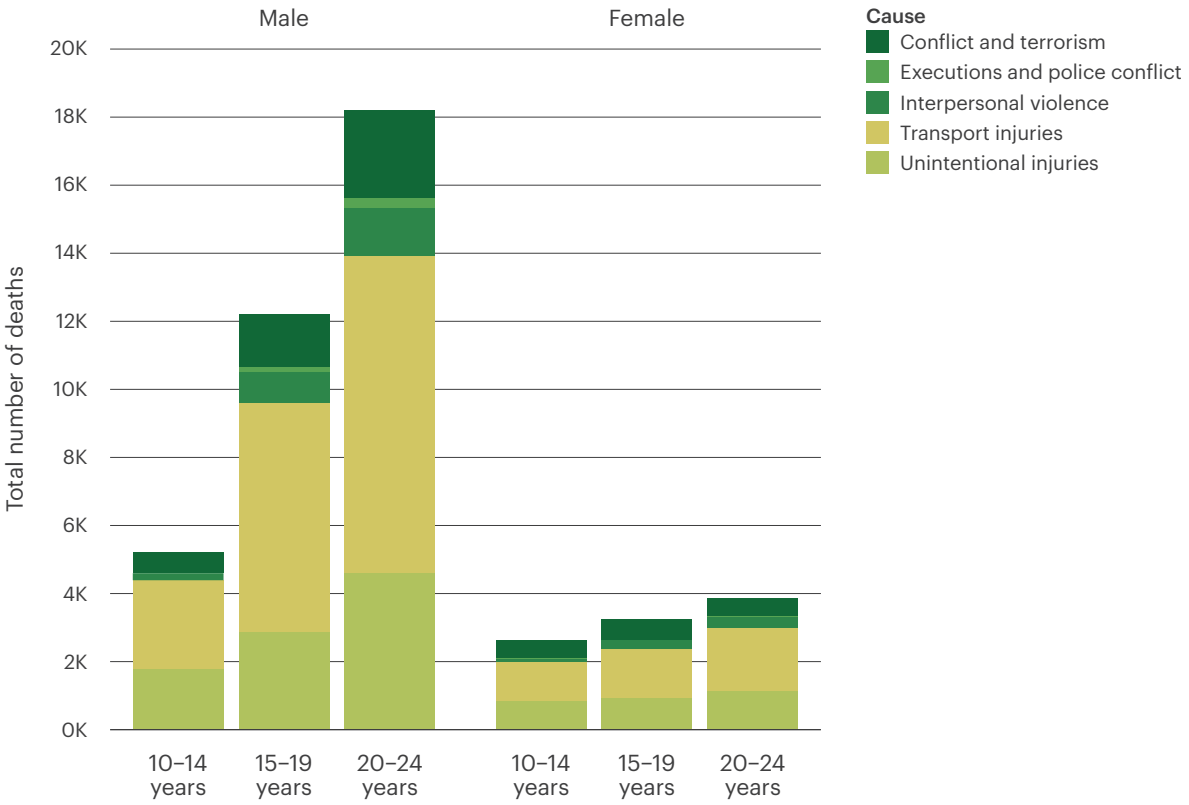
i Note that for this review, self-harm and suicide estimates are excluded from injury and are included separately in mental health and wellbeing.

Figure 12. Total deaths due to injury, by sex



Source: GBD 2019

Figure 13. Total deaths due to injury, by age group and sex



Source: GBD 2019

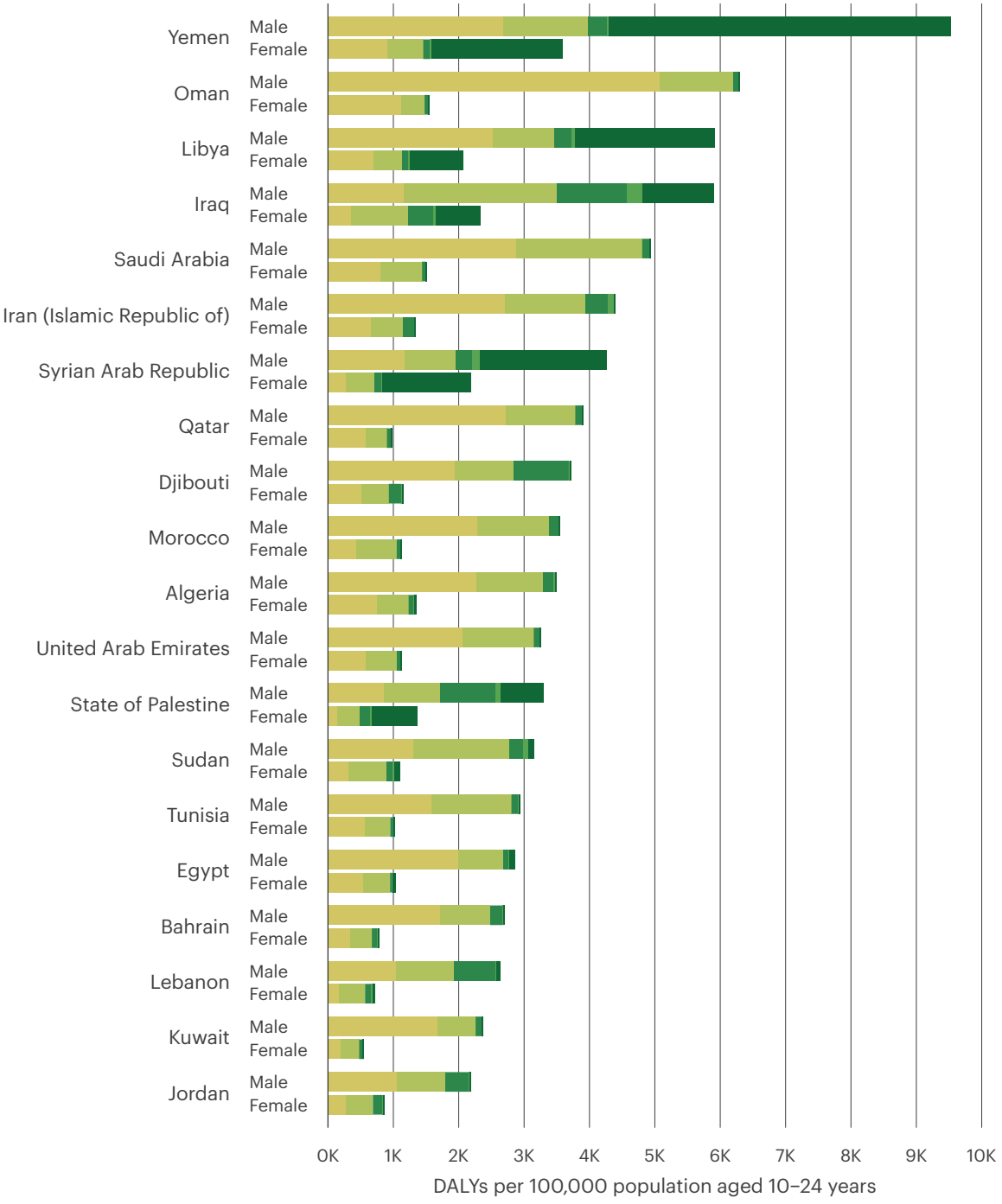
DALY and mortality rates due to injury are higher among boys compared with girls in all 20 countries in the region (Figures 14 and 15). The highest burden of injury in terms of DALYs, mortality rate and total number of deaths is in Yemen, driven by conflict-related injury (Table 6). High mortality and DALY rates are also reported in other conflict-affected countries, including Libya, Iraq, Syria and State of Palestine. Iraq, State of Palestine and Lebanon also experience a higher burden of injury and death due to interpersonal violence among boys compared with other countries in the region.

The highest burden of injury mortality is in **Yemen due to conflict-related injury**

Transport injury is the leading cause of injury-related deaths in non-conflict settings, most markedly in **Oman**

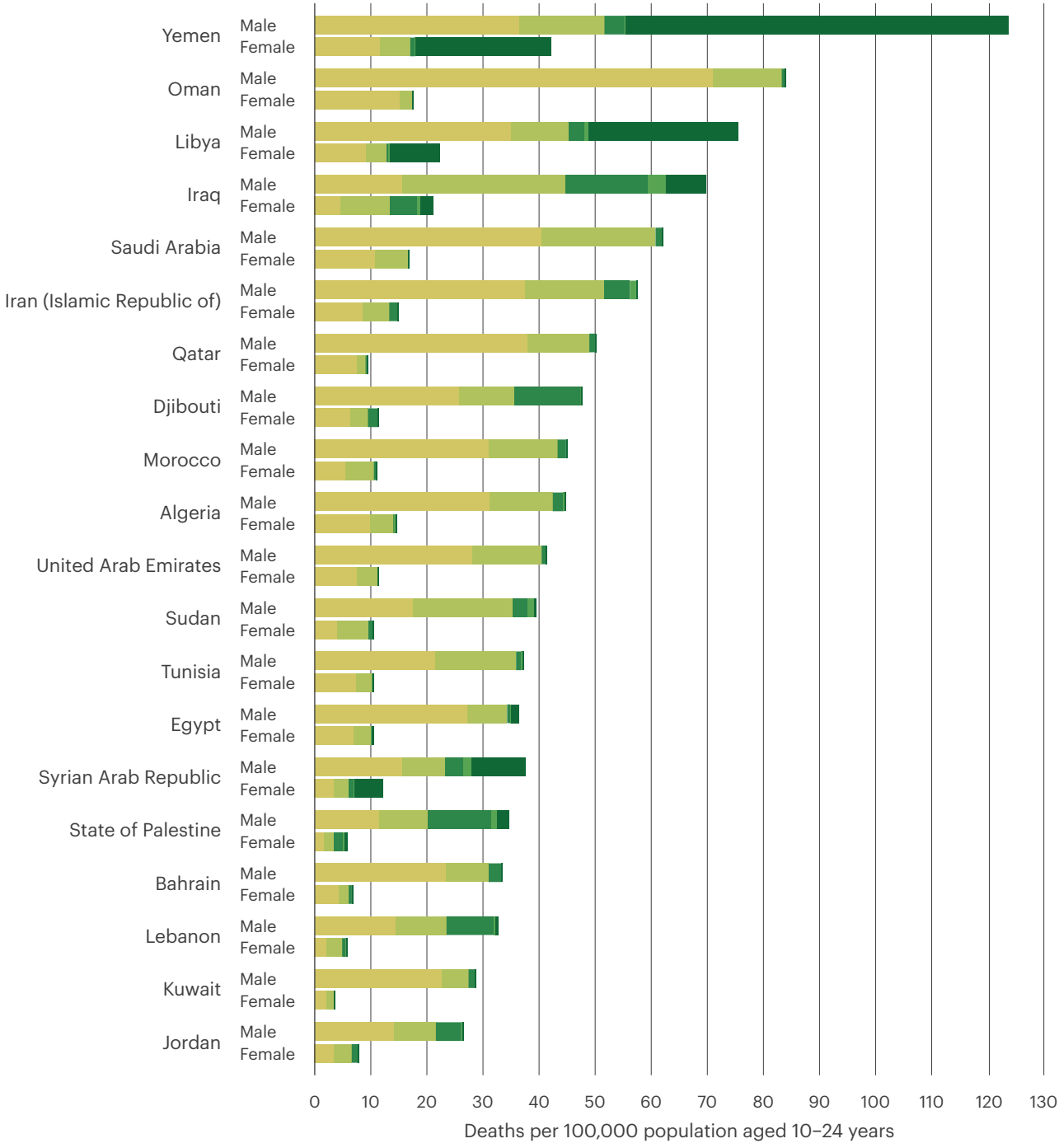
In non-conflict settings, Oman, Saudi Arabia, Iran and Qatar experience a high burden of injury-related morbidity and mortality largely due to excess transport-related injury, with Oman having the highest mortality rate due to transport injury among boys and girls in the region.

Figure 14. DALYs due to injuries and violence (per 100,000 population aged 10–24 years), by country and sex



Source: GBD 2019

Figure 15. Mortality rate due to injury and violence (deaths per 100,000 per population aged 10–24 years), by country and sex



Source: GBD 2019

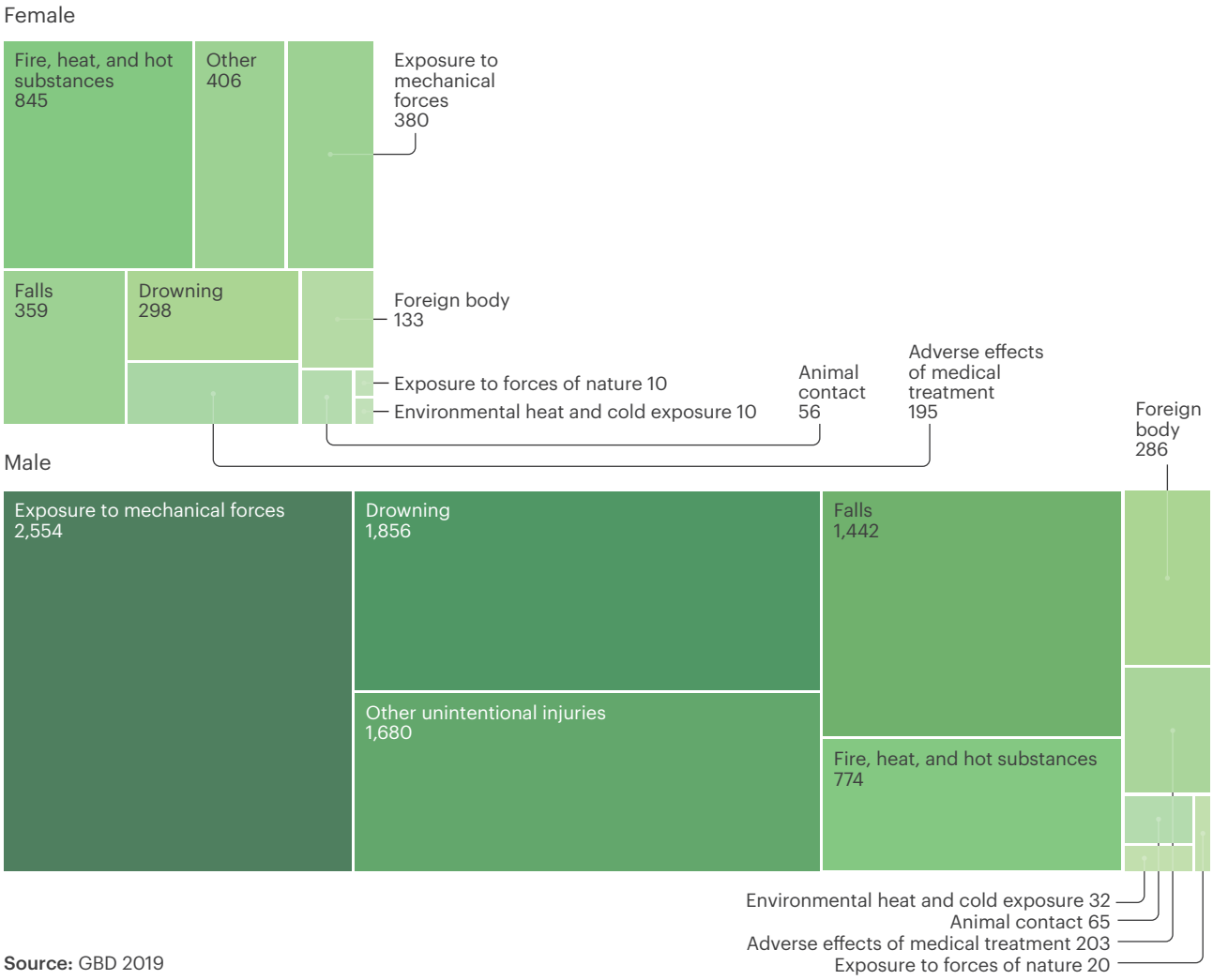
Table 6. Mortality rate and total number of deaths due to injury and violence among 10–24-year-olds

	Mortality rate (deaths per 100,000)	Total number of deaths
Yemen	87	8,512
Oman	59	529
Libya	53	857
Iraq	50	6,078
Saudi Arabia	44	3,466
Qatar	42	196
Iran (Islamic Republic of)	42	6,465
Djibouti	35	104
Algeria	33	2,912
Morocco	33	2,634
Sudan	30	3,431
United Arab Emirates	29	286
Tunisia	27	601
Syrian Arab Republic	26	1,208
Egypt	26	6,786
Bahrain	24	51
Lebanon	23	222
State of Palestine	23	332
Jordan	19	627
Kuwait	18	132

Source: GBD 2019

In addition to transport injuries, other unintentional injuries cause a substantial burden of morbidity and mortality among 10–24-year-olds, particularly for boys. Of these, exposure to mechanical forces (unintentional firearm injury, or household or workplace injuries) are the leading cause for boys (Figure 16).

Figure 16. Total deaths due to unintentional injury among 10–24-year-olds, by cause and sex



Source: GBD 2019

2.4 Mental health

Key findings

- 1 in 6 (22.5 million) young people are estimated to be living with a mental disorder.
- Mental disorders and intentional self-harm account for around 20% of the total burden of poor health.
- The prevalence and burden of poor mental health increases with age due to an increasing burden of depression and anxiety.
- Girls experience a higher burden of poor mental health than boys due to higher depression and anxiety.
- Between 10% and 20% adolescents aged 13–15 years have attempted suicide in the past year.
- There were an estimated 4,390 deaths due to suicide in 2019.
- While the prevalence of suicidal ideation or attempt is similar among girls and boys, boys account for 66% of all suicide deaths.

Young people in the MENA region experience a substantial burden of poor mental health. Nationally representative and comparable primary data describing the prevalence of mental health conditions for this age group are limited, However, modelled estimates from the GBD estimate that 1 in 6 young people in the MENA region aged 10–24 years (22.5 million) were living with a mental disorder in 2019.

In the MENA region
1 in 6 young people
are living with a mental disorder,
22.5 million people
aged 10–24 years

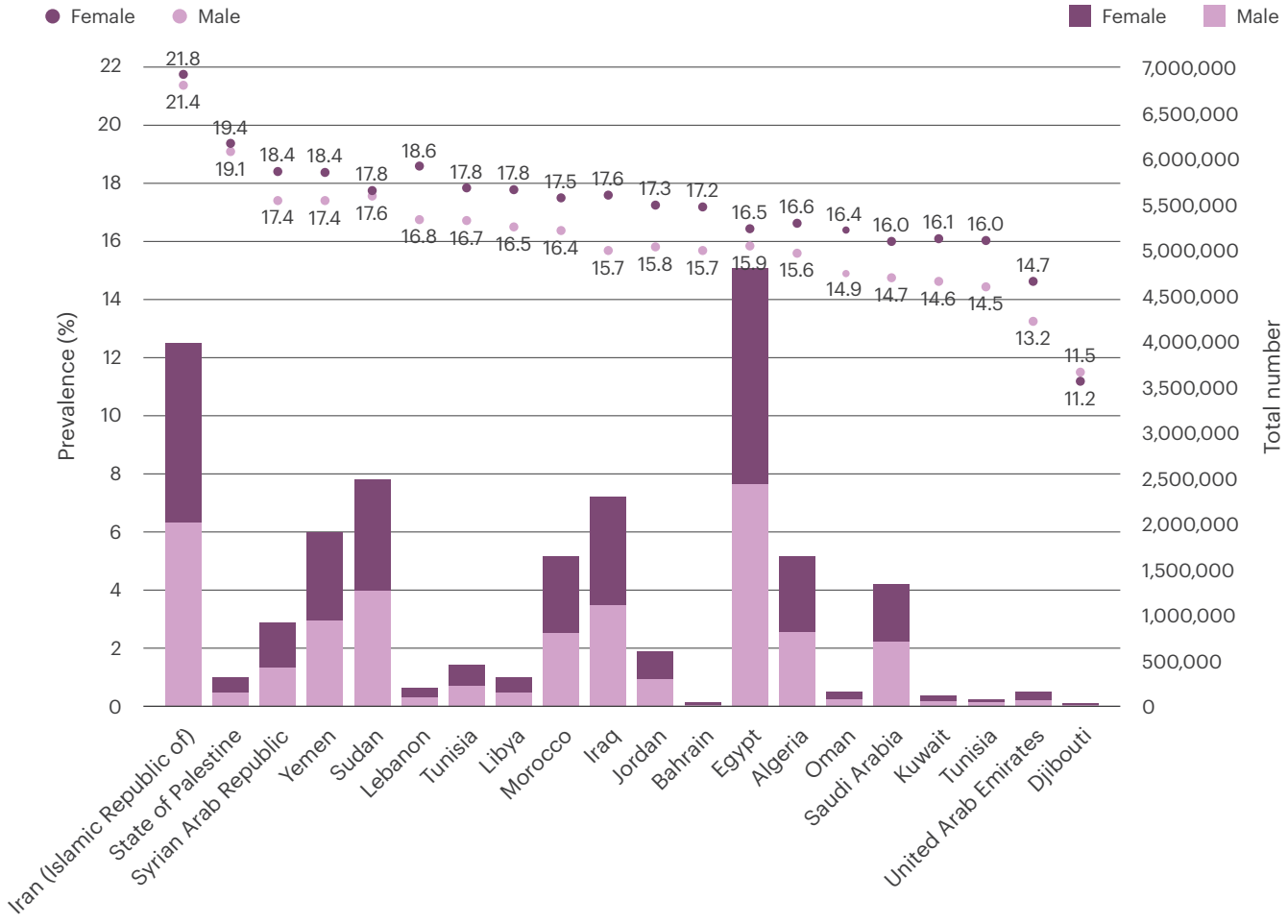
The highest prevalence is estimated in Iran and State of Palestine (Figure 17). The total prevalence of mental disorders (all causes) is similar among boys and girls, although slightly higher among girls in most countries.

The prevalence of mental disorders increases with age (Figure 18). Anxiety and depressive disorders are the most common mental disorders among 15–24-year-olds, while anxiety, conduct disorder and developmental disorders predominate in early adolescence. The prevalence of anxiety and depression is higher among girls than boys across all age groups, while boys have higher rates of conduct disorder and developmental disorders.

There are limited primary data available describing national-level estimates of mental disorders among children and adolescents. The Global School-based Student Health Survey (GSHS) in Jordan, Lebanon and Oman reported that 18.4 per cent, 13.7 per cent and 18.3 per cent of students aged

13–15 years, respectively, were unable to sleep at night due to worry most of the time or always in the previous 12 months (an indicator of anxiety). Rates were almost double among girls compared with boys.

Figure 17. Prevalence (%) and total number of mental disorders among 10–24-year-olds, by country and sex



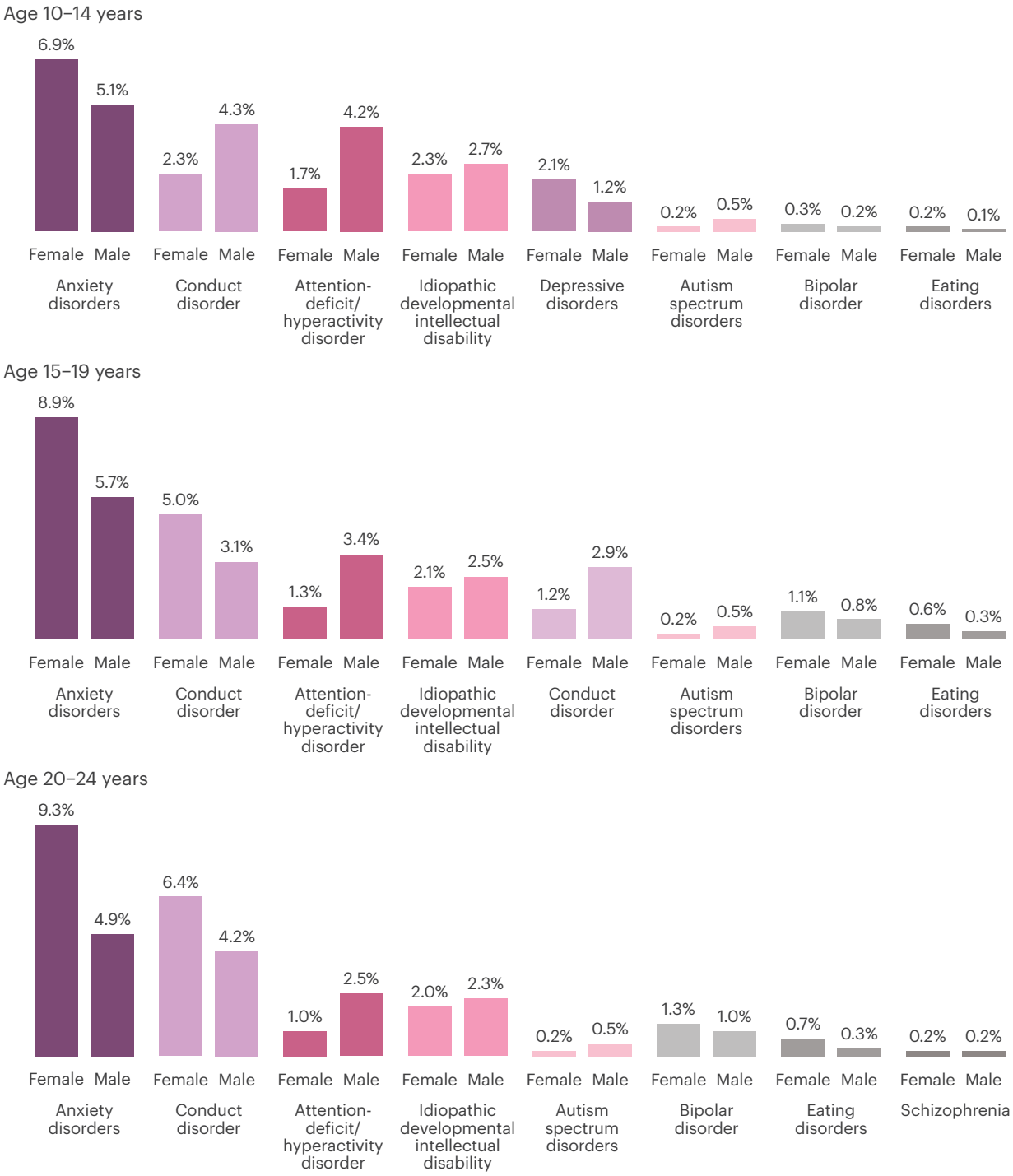
Source: GBD 2019

The impact of mental disorders and intentional self-harm on health can be estimated using DALYs. In the MENA region, **mental disorders and self-harm are estimated to account for around 20 per cent of the total disease burden among young people aged 10–24 years**, a total of 3,033,334 DALYs and a rate of 2,189 DALYs per 100,000 young people. GBD estimates for the region demonstrate a significant increase in the rate of DALYs due to mental disorders and self-harm from early adolescence as the burden of depressive disorders and self-harm increases (Figure 19).

Girls in the region experience a higher burden of poor mental health overall compared with boys due to excess depression and anxiety. Boys have a higher burden of poor health due to conduct disorder that emerges from later childhood into early adolescence. Country-level modelled estimates also demonstrate a higher burden of poor mental health among girls aged 10–24 years compared with boys, largely due to an excess burden of depressive disorders and anxiety, across all countries (Figure 20).[ii] The highest burden of poor mental health among young people is found in Iran and State of Palestine.

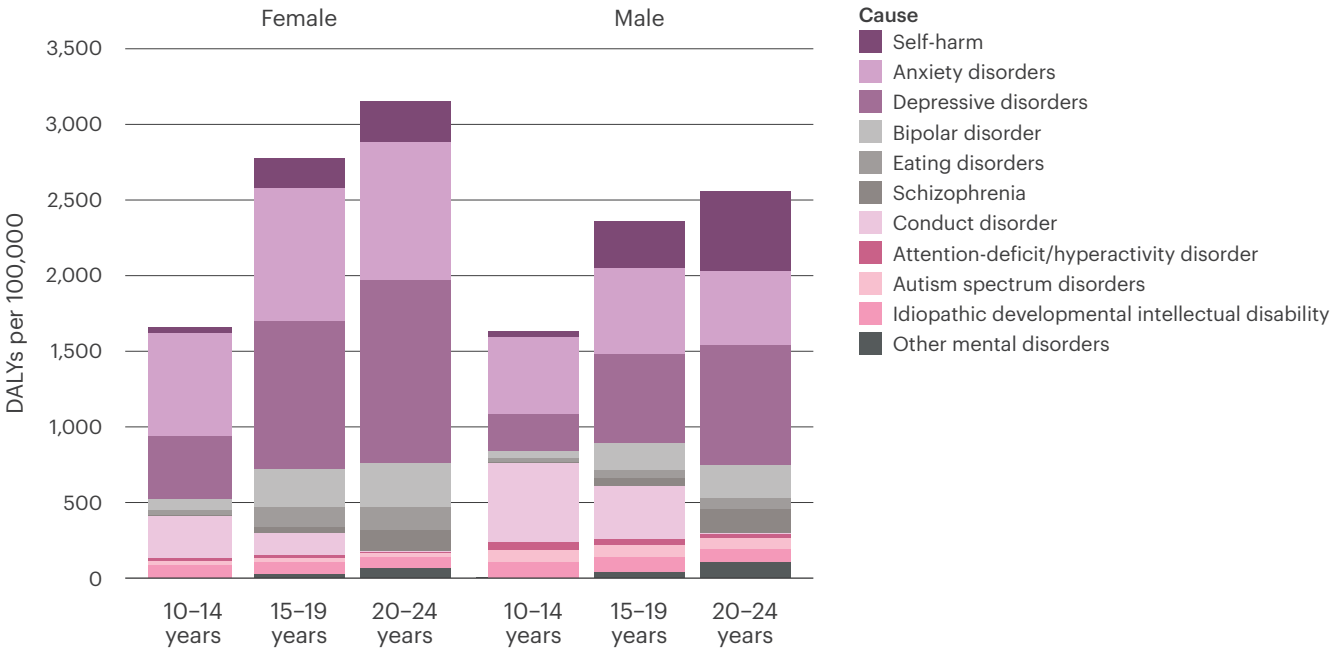
ii Note that the GBD study includes Djibouti in the Eastern Sub-Saharan Africa region, so these modelled estimates are likely to reflect the different regional assumptions used.

Figure 18. Prevalence (%) of selected mental disorders, by age group and sex



Source: GBD 2019

Figure 19. Burden of mental disorders and self-harm (DALYs per 100,000 population), by sex and age group



Source: GBD 2019

Suicide is closely related to poor mental health. Available data from GSHS conducted between 2007–2016 for 10 countries reveal that between 14.1 per cent and 23.3 per cent of 13–15-year-old students had seriously considered suicide in the 12 months preceding the survey, and between 9.8 per cent and 22.5 per cent had attempted suicide in the past 12 months (Figure 21). Rates of suicidal ideation and attempt were similar between girls and boys, with the highest rates reported among students in the State of Palestine. Some of the highest rates of suicidal ideation and attempt in the region were reported among adolescent refugees registered with United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA).[iii]

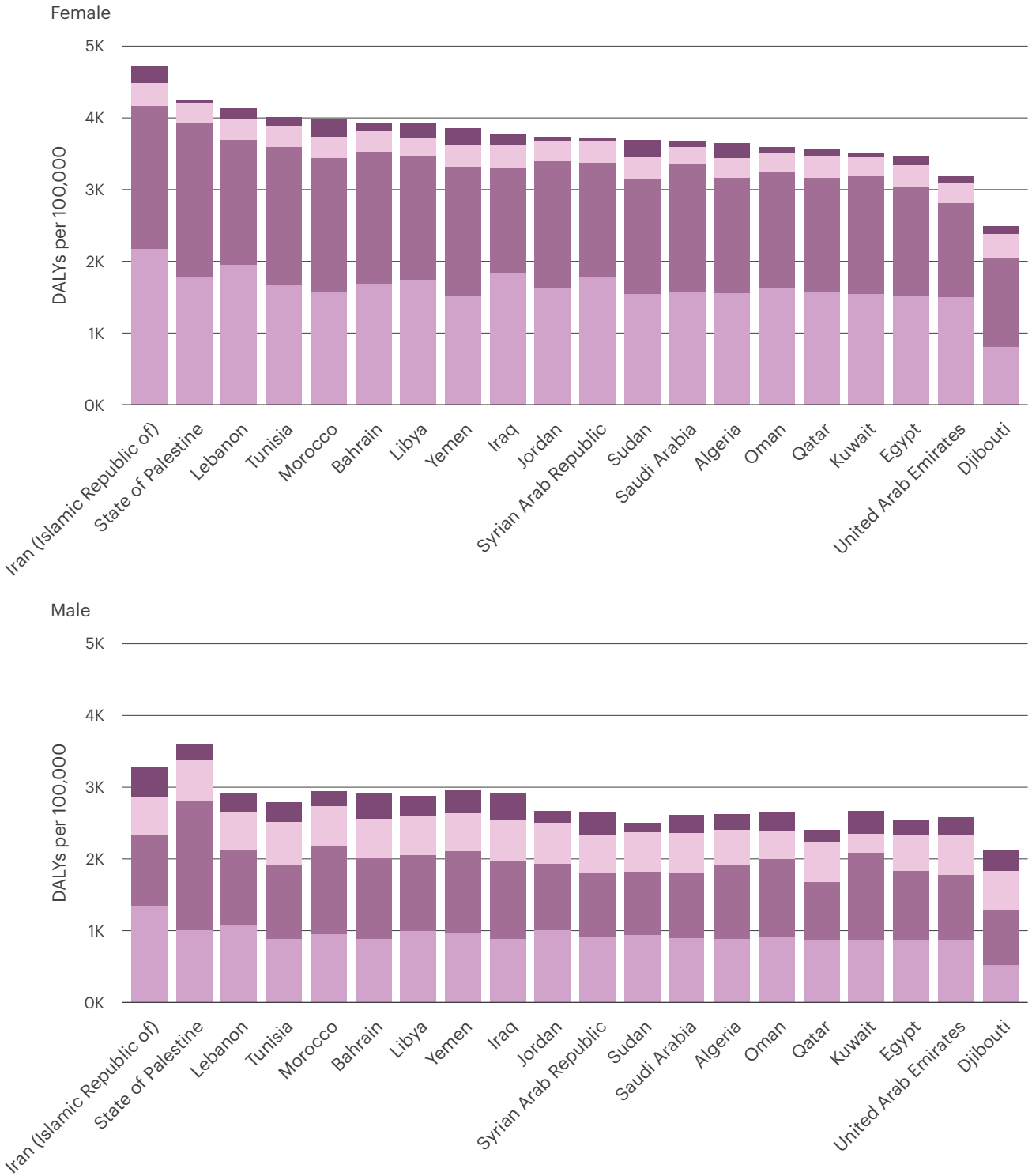
There were an estimated
4,390 deaths due to suicide
among 10–24-year-olds in 2019

National-level age-disaggregated data describing suicide mortality for adolescents in the region are extremely limited. Adjusting for missing data (e.g., deaths not reported) or misclassification of cause of death, the GBD estimated the there were 4,390 deaths due to suicide among 10–24-year-olds in 2019 (Figure 22). The highest suicide mortality rate and total number of deaths were estimated in Iran (Figure 23). In all countries, boys have a substantially higher mortality rate than girls – most markedly in Oman, where the rate of suicide among boys is almost five times higher than for girls.

Risk factors for poor mental health and self-harm are highly prevalent among young people in the MENA region. These factors include high rates of victimization and/or exposure to violence from caregivers, intimate partners, peers and collective violence, which are explored in more detail in the section on protection (section 4. Protection).

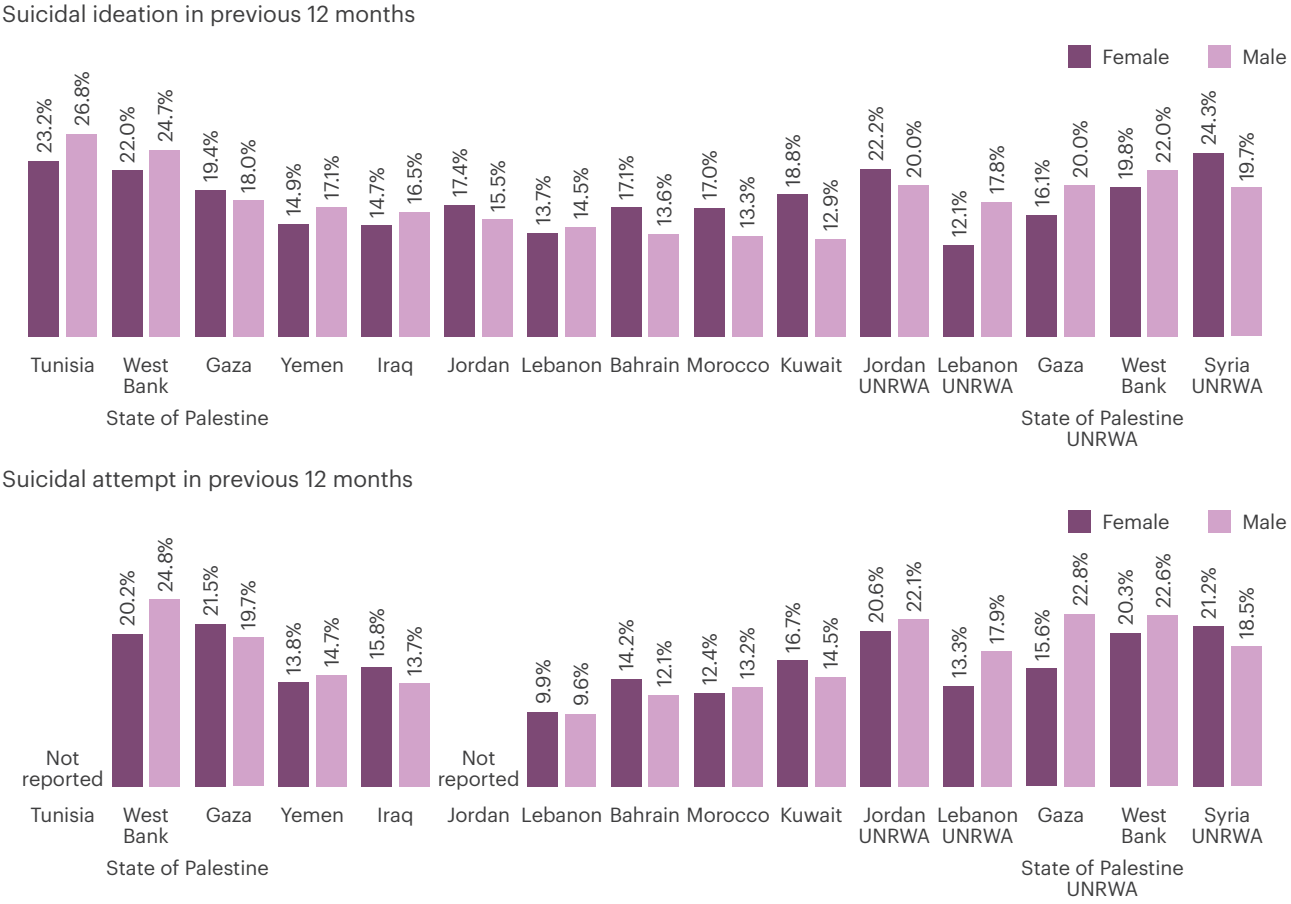
iii The UNRWA surveys were completed separately in UNRWA camps and associated schools.

Figure 20. DALY rate of selected mental disorders and self-harm (per 100,000 population aged 10–24 years), by country and sex



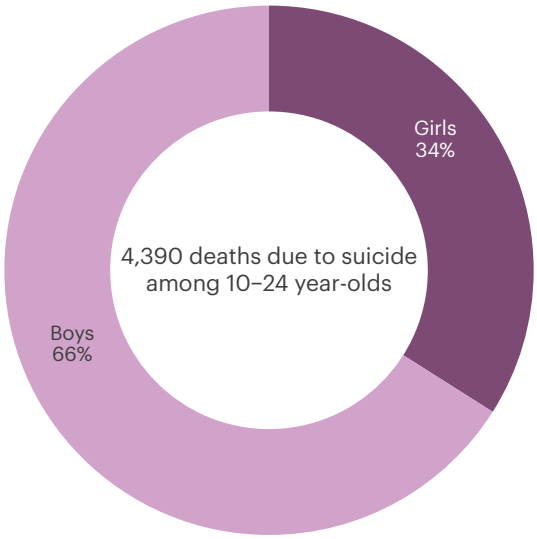
Source: GBD 2019

Figure 21. Prevalence (%) of suicidal behaviour among 13–15-year-old students, by country and sex



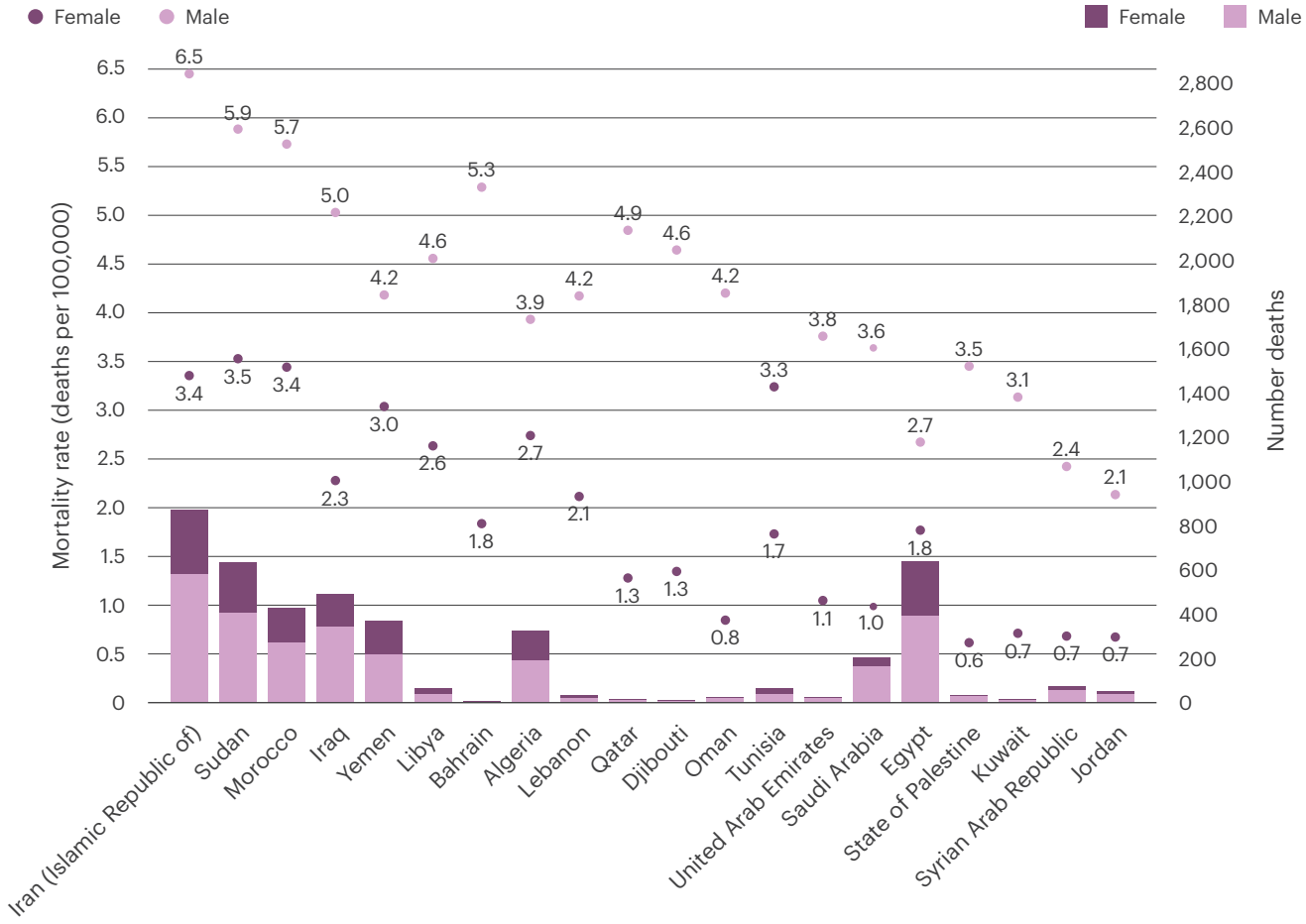
Source: GSHS 2007–2017

Figure 22. Total number of deaths among 10–24-year-olds due to suicide



Source: GBD 2019

Figure 23. Suicide mortality rate and total number (deaths per 100,000 population aged 10–24 years), by country and sex



Source: GBD 2019

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2.5 Sexual and reproductive health

Key findings

- There are very limited data describing sexual and reproductive health needs of young people in the region, with only some data available for indicators or reproductive health among girls.
- It is estimated that 1 in 3 young women aged 15–24 years have a need for family planning but are not using a modern method of contraception.
- There are approximately 900,000 births to adolescent girls aged 10–19 years each year.
- The highest adolescent fertility rates are in Sudan, Iraq, Yemen, Egypt and State of Palestine, where fertility rates are higher than the global average.
- More than 90% of adolescent births are attended by skilled personnel in the majority of countries with data. However, the prevalence of skilled birth attendance is much lower in Sudan (77%), Morocco (66%) and Yemen (37%).
- Three countries (Sudan, Yemen and Morocco) have among the highest maternal mortality in the region. Sudan and Yemen accounted for 60 per cent of the 1,700 maternal deaths among 10–24-year-olds in 2019.

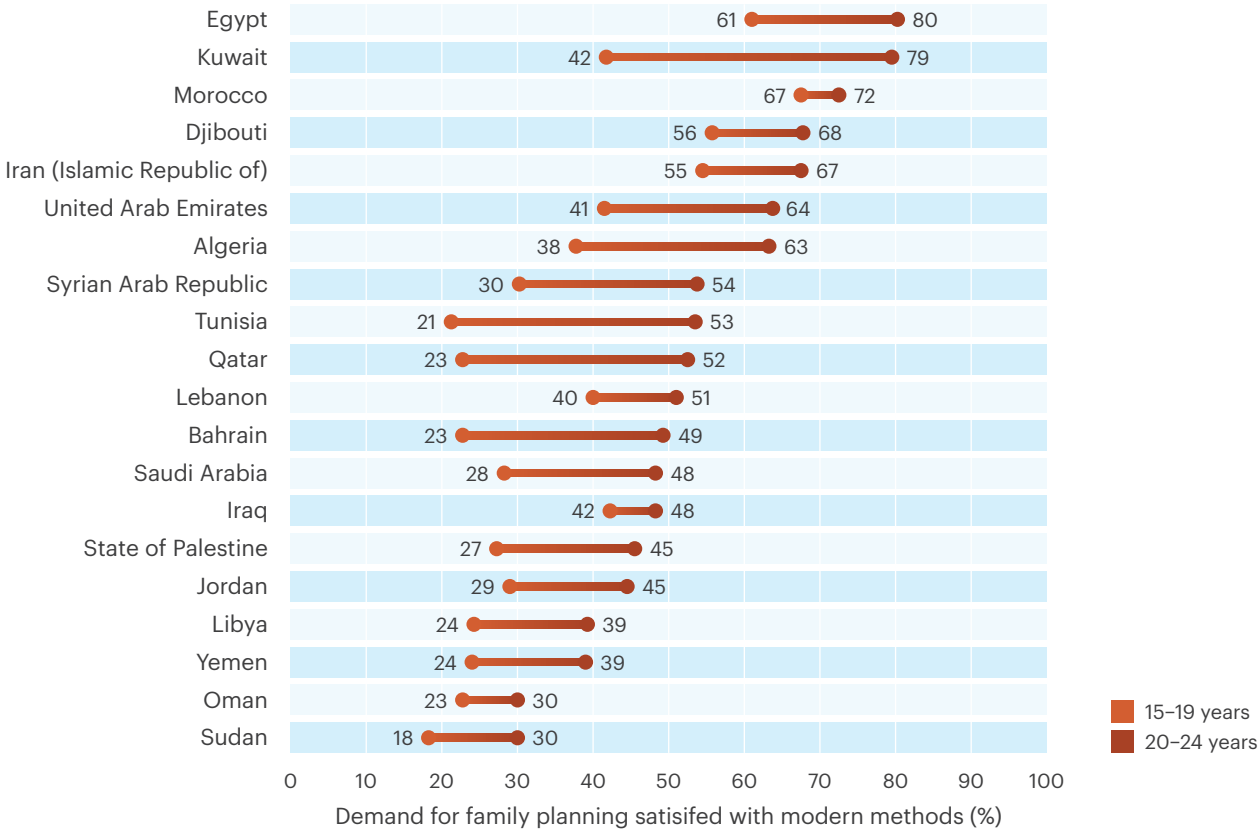
There are very limited data describing sexual and reproductive health needs of adolescents and young people in the MENA region, particularly for unmarried young people. Sexual and reproductive health remains a highly sensitive and taboo topic, with a paucity of national-level estimates for many indicators relevant to young people. For this age group, there are no nationally representative age-disaggregated data describing sexual health risks and behaviours, such as data in relation to sexual activity, age of onset of sexual activity, premarital sex, higher-risk sexual behaviour, or condom use.

Data describing sexual and reproductive health needs of young people are very limited, and available only for some indicators of reproductive and maternal health for girls

Household surveys, including DHS and MICS, provide some estimates of contraceptive use among married women, although this is very limited for the region. In the absence of primary data, modelled estimates of demand for family planning satisfied with modern methods[iv] indicate that, **in the majority of countries, fewer than two thirds of women aged 15–24 years have their demand for family planning satisfied** (Figure 24). The lowest rates are reported in Sudan and Oman, where more than 70 per cent of women in need of family planning are not using a modern method. Rates are substantially lower among adolescent girls aged 15–19 years compared with women aged 20–24 years in almost all countries, most notably in Tunisia, where demand satisfied is 2.5 lower among adolescents compared with young women.

In most MENA countries, more than
1 in 3 women aged 15–24 years
who have a need for family planning
are not using a modern method of contraception

Figure 24. Demand for family planning satisfied with modern methods (%) among all women aged 15–24 years, modelled estimates



Source: GBD 2019

iv Includes women aged 15–24 who are married, in union, or unmarried and sexually active who want to delay or limit childbearing.

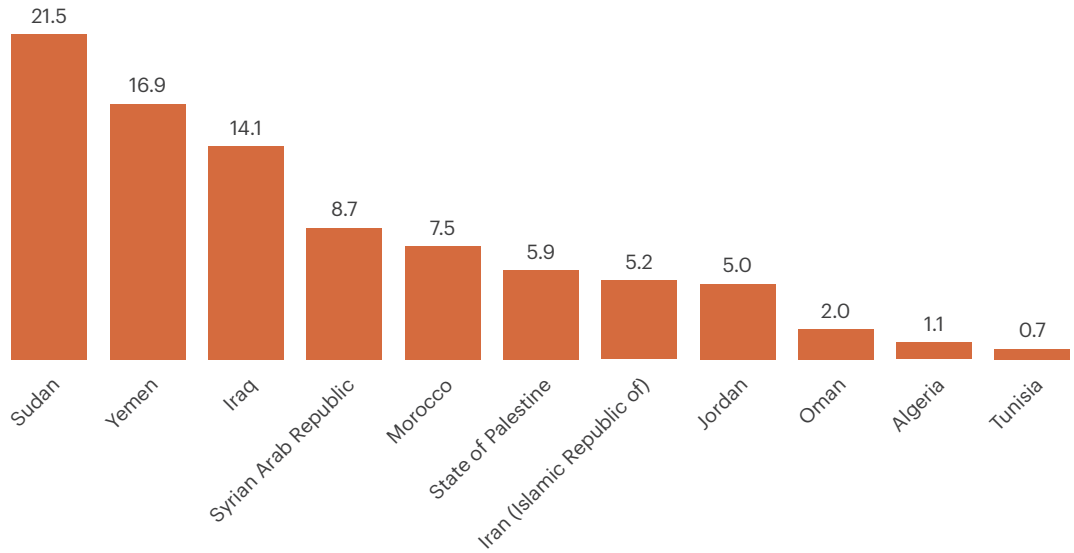
Rates of adolescent childbearing and fertility vary markedly across the region. Estimates for the proportion of 20–24-year-olds who commenced childbearing by the age of 18 years are available for 11 countries (Figure 25). In Sudan, Yemen and Iraq, between 1 in 7 and 1 in 5 young women was pregnant or had given birth by age 18. These countries also reported the highest fertility rates among 15–19-year-olds in the region (Figure 26). Egypt and State of Palestine also have adolescent fertility rates higher than the global average of 42 births per 1,000 girls.

There are almost **900,000 births to adolescent girls** aged 10–19 years each year

The majority are in just six countries: Egypt, Sudan, Iraq, Yemen, Iran and Syria

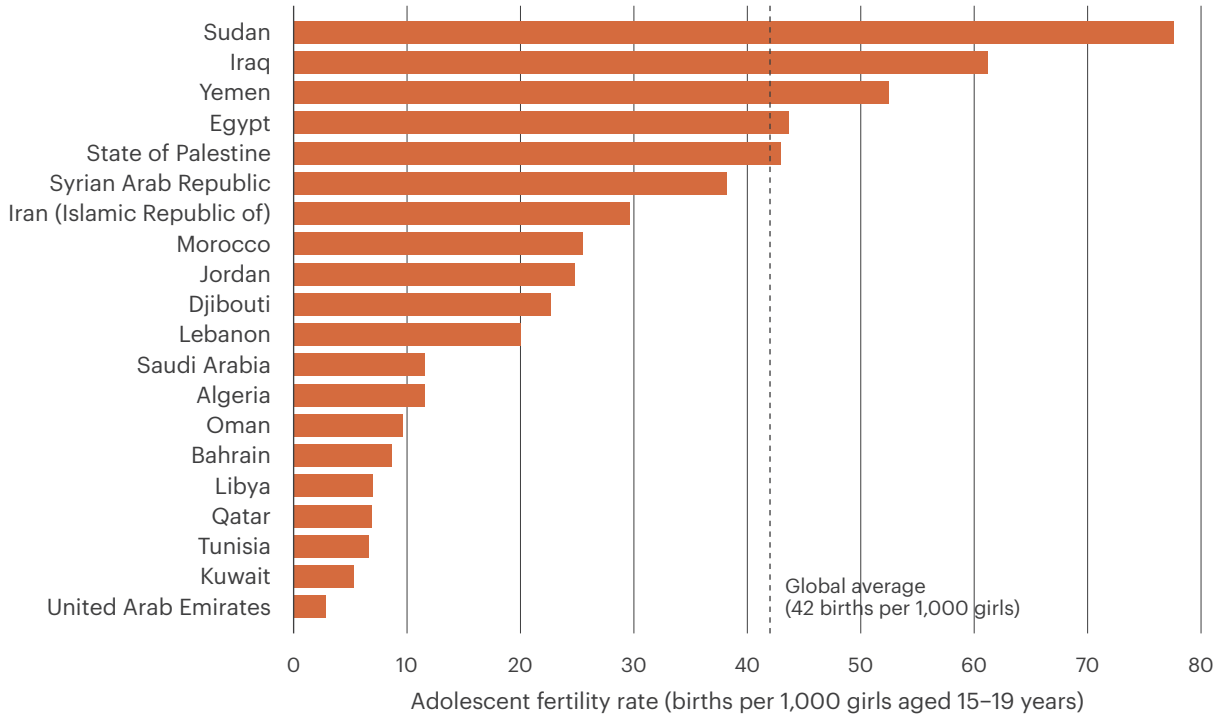
There are an estimated annual 3.5 million births to girls and young women aged 10–24 years in the region (Figure 27). Almost one quarter (869,341 births) were to girls aged 15–19 years, and just over 25,000 births among very young adolescents aged 10–14 years. Just six countries (Egypt, Sudan, Iraq, Yemen, Iran and Syria) accounted for over 85 per cent of all births to girls aged 10–19 years (Table 7).

Figure 25. Percentage (%) of women aged 20–24 years who commenced childbearing by age 18



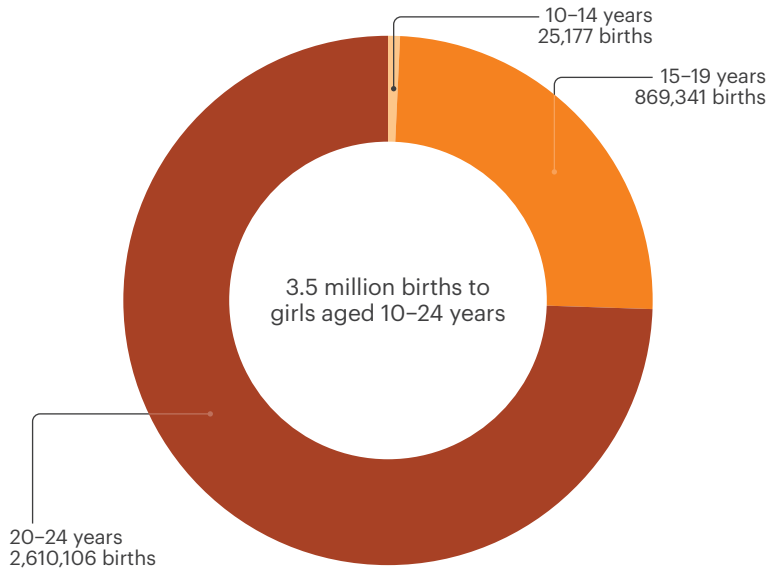
Source: MICS and DHS 2006–2019

Figure 26. Adolescent fertility rate (births per 1,000 girls aged 15–19 years)



Source: UN PD modelled estimates 2022

Figure 27. Total annual births by age group



Source: UN PD modelled estimates 2022

Estimates for the proportion of adolescent births attended by skilled personnel were available for 10 countries (Figure 28). In most countries, the majority (>90 per cent) of adolescent mothers were attended by a skilled professional during childbirth, however, rates were significantly lower in Sudan (77 per cent), Morocco (66 per cent) and Yemen, where only about one third of births (37 per cent) were attended by skilled personnel.

Table 7. Age-specific fertility rate and total annual births by age group

	Age-specific fertiilty rate (births per 1,000 girls)			Total births by age group		
	10–14	15–19	20–24	10–14	15–19	20–24
Algeria	0.2	2.8	45.1	17	474	6,332
Bahrain	0.1	6.6	56.8	56	2,776	22,383
Djibouti	0.1	38.1	115.8	1,369	52,105	138,276
Egypt	1.0	77.6	176.2	9,656	181,348	371,434
Iran (Islamic Republic of)	3.5	42.9	177.9	105	11,721	42,929
Iraq	0.3	11.6	85.9	225	15,537	105,925
Jordan	0.1	6.9	69.3	7	317	1,879
Kuwait	0.1	9.7	82.9	41	1,266	10,222
Lebanon	0.2	25.5	91.0	841	37,992	129,952
Libya	0.5	7.0	59.0	47	2,189	16,596
Morocco	0.1	20.0	83.6	63	4,645	16,898
Oman	0.2	5.3	77.8	17	586	7,026
Qatar	0.1	24.9	110.4	189	13,401	53,389
Saudi Arabia	0.3	61.2	164.0	4,312	136,979	334,628
State of Palestine	1.7	29.7	71.2	2,435	84,777	192,622
Sudan	0.7	43.6	175.1	2,407	209,470	777,053
Syrian Arab Republic	0.4	22.7	70.9	76	1,282	3,745
Tunisia	1.4	8.7	81.8	5	356	2,770
United Arab Emirates	0.1	11.6	87.2	331	18,464	121,078
Yemen	1.5	52.5	161.4	2,978	93,654	254,968

Source: UN PD modelled estimates 2022

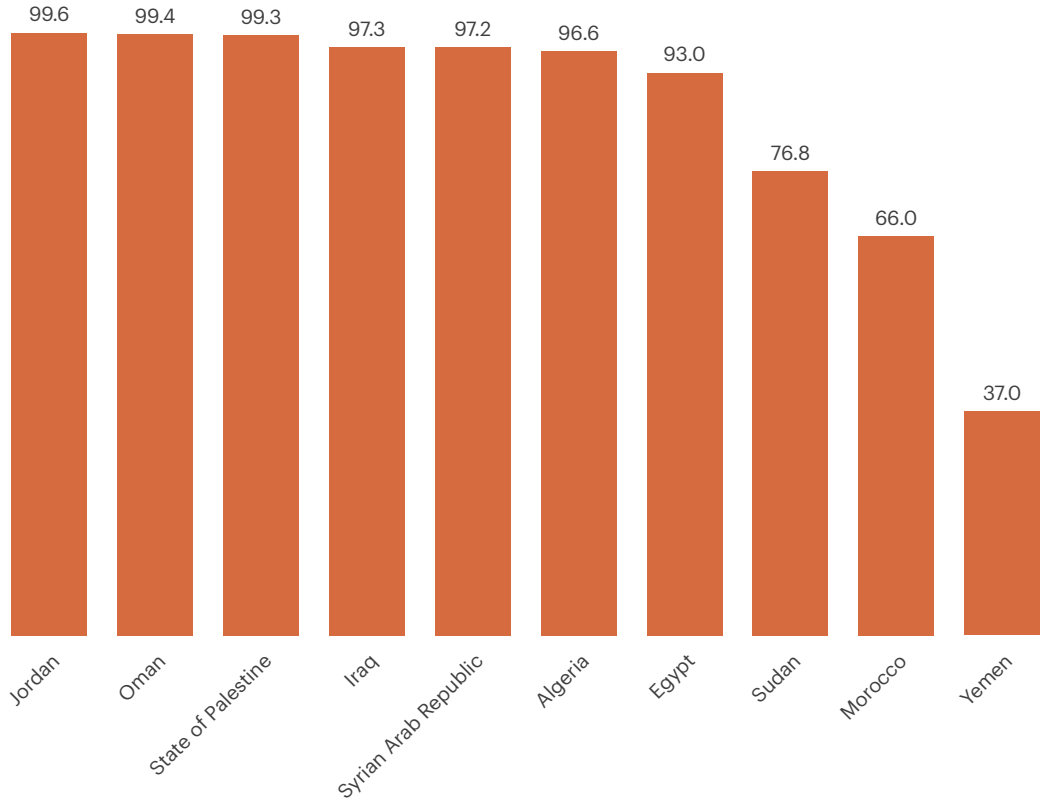
Just two countries, **Sudan and Yemen**, account for **60% of the 1,700 maternal deaths** among girls aged 10–24 years in 2019

These three countries also reported among the highest maternal mortality ratios for 10–24-year-olds in the region, in addition to Djibouti and Algeria (Figure 29). It was estimated that almost 1,700 maternal deaths occurred among 10–24-year-olds in the region in 2019. Of these, 664 (40 per cent) occurred among adolescents aged 10–19 years (Figure 30). Just two countries, Sudan and Yemen, accounted for 60 per cent of all maternal deaths of adolescent girls and young women. Note that maternal mortality estimates for this age group have a high degree of uncertainty and so should be interpreted with caution.

Sudan and Yemen also have high fertility among girls less than 20 years of age, among the lowest coverage of skilled birth attendance, and the lowest satisfied demand for family planning among 15–24-year-olds.

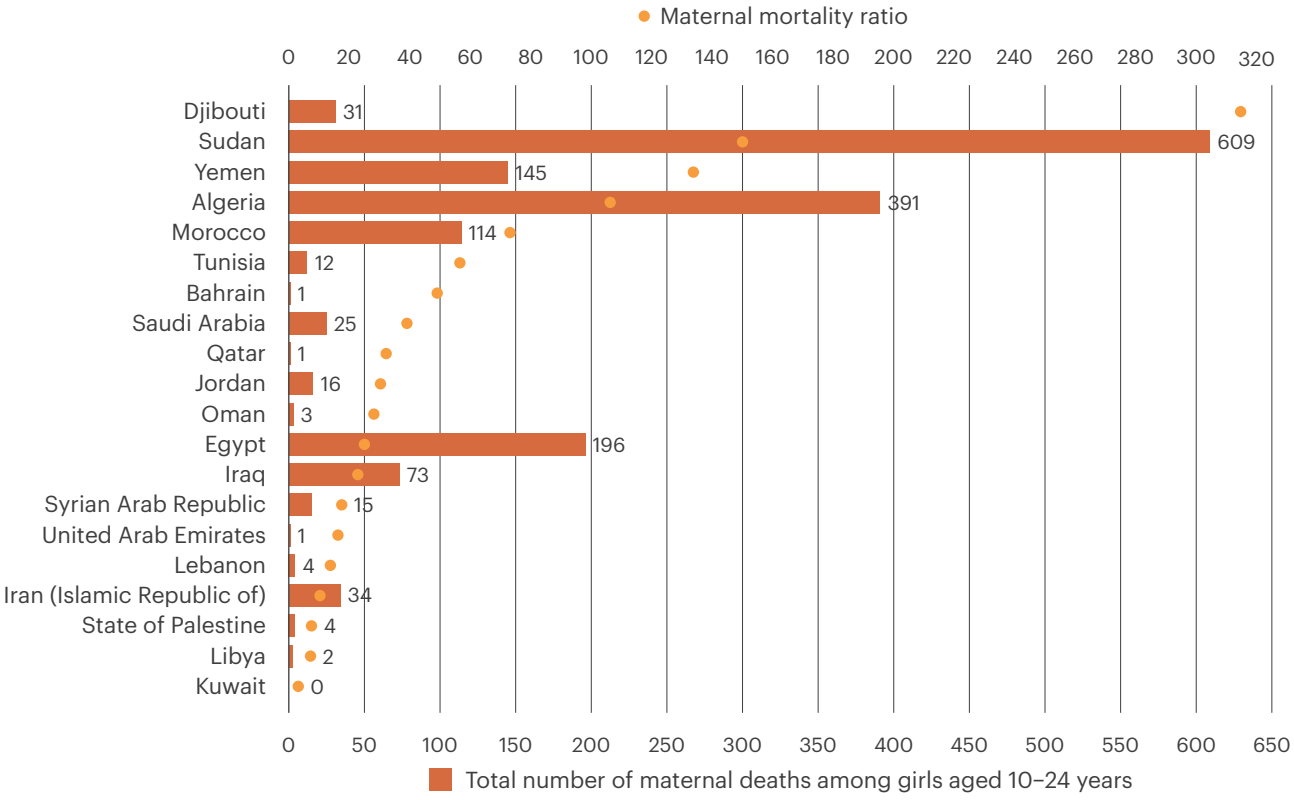
Important determinants of sexual and reproductive health, including child marriage and intimate partner and sexual violence, are discussed in section 4. Protection.

Figure 28. Proportion (%) of births to girls aged <20 years attended by skilled personnel



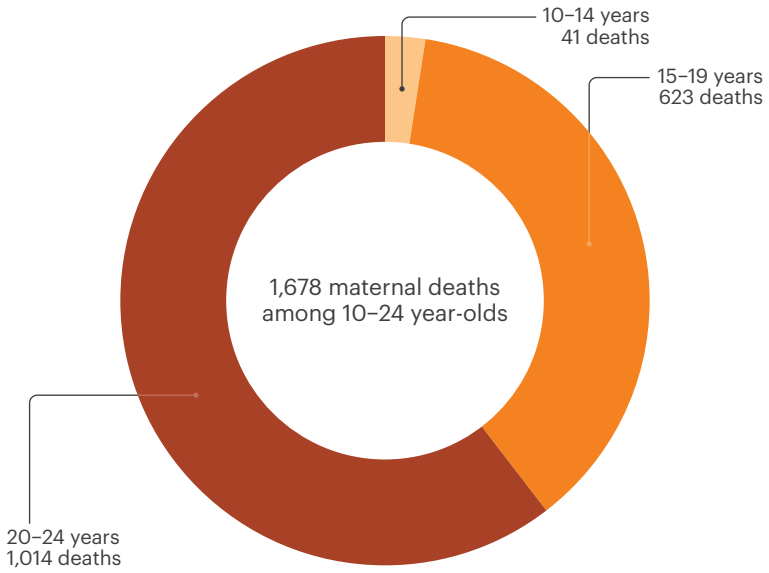
Source: MICS and DHS 2006–2019

Figure 29. Maternal mortality ratio (deaths per 100,000 live births among girls aged 10–24 years) and estimated total number of maternal deaths



Source: GBD 2019

Figure 30. Estimated number of maternal deaths in 2019, by age group



Source: GBD 2019

2.6 Communicable diseases

Key findings

- Around 6% of the total burden of poor health among young people in the region is due to communicable diseases.
- Lower respiratory tract infections and malaria account for half of all deaths due to communicable disease.
- The overall burden and mortality due to communicable diseases is low among young people in most countries.
- The highest rates of communicable disease DALYs and mortality are found in Djibouti, Yemen and Sudan. In Djibouti, mortality due to communicable disease is 7.5 times higher than most other countries (due to HIV, malaria, tuberculosis, meningitis and diarrhoeal disease).
- Data for HIV are limited, but HIV incidence among adolescents in the general population is very low in most countries. Available data from the region indicate that HIV prevalence is higher among young key populations, including young sex workers, young people who inject drugs and young men who have sex with men.

Around 6 per cent of the total disease burden (1,168,536 DALYs in total, 843 DALYs per 100,000) during adolescence in the MENA region is due to communicable diseases, with communicable diseases accounting for an estimated 9 per cent of deaths among boys, and 14 per cent among girls aged 10–24 years (a total of 9,282 deaths estimated in 2019).

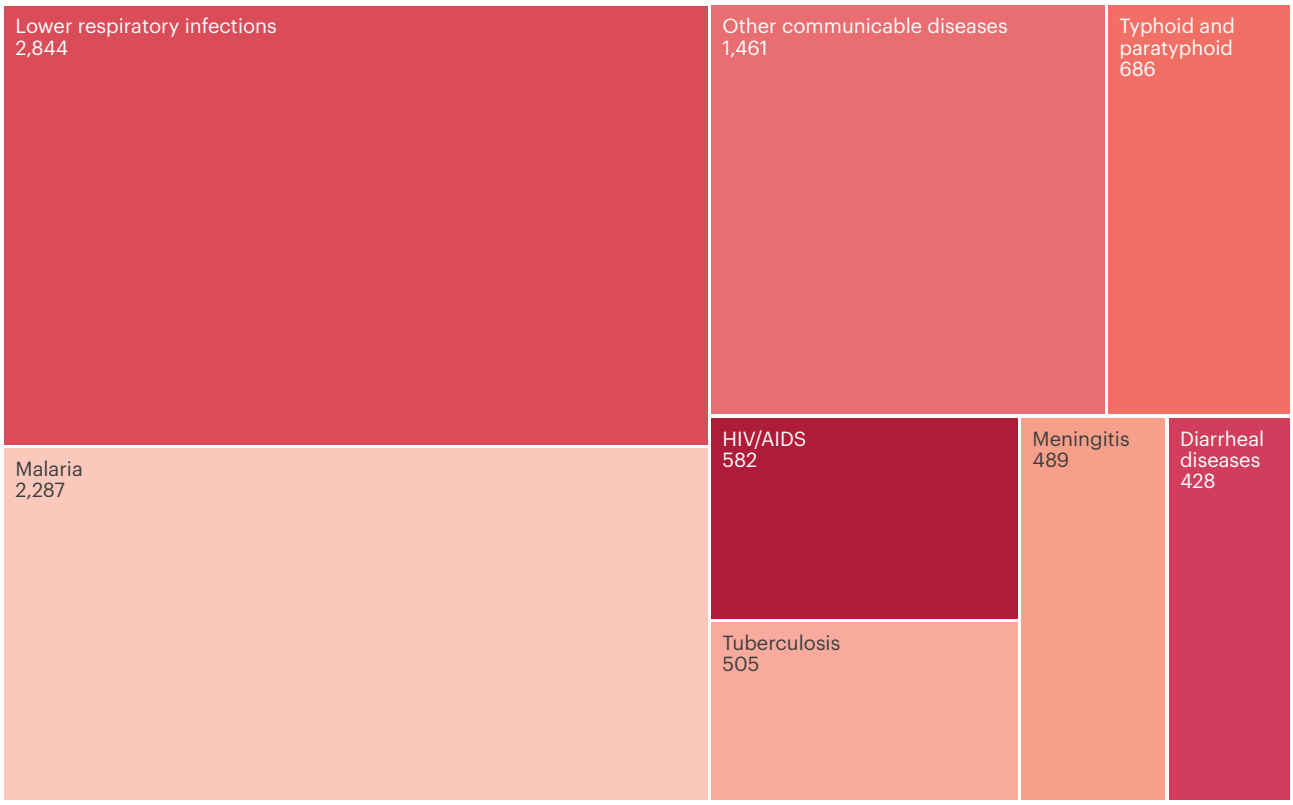
Just two conditions, **lower respiratory tract infections** and **malaria**, account for **more than half of all deaths due to communicable diseases**

In early adolescence, respiratory tract infections and diarrheal diseases account for the largest burden of poor health due to communicable diseases, with malaria, tuberculosis and HIV increasing in significance from later adolescence into early adulthood (Figure 31). Just two conditions, lower respiratory tract infections (31 per cent) and malaria (25 per cent) account for more than half the total deaths of young people due to communicable disease (Figure 32).

Figure 31. Total number of DALYs and deaths due to communicable diseases, by age group

Source: GBD 2019

Figure 32. Total number of deaths due to communicable diseases among 10–24-year-olds



"Other" includes encephalitis, acute hepatitis, measles, tetanus, and other neglected tropical diseases

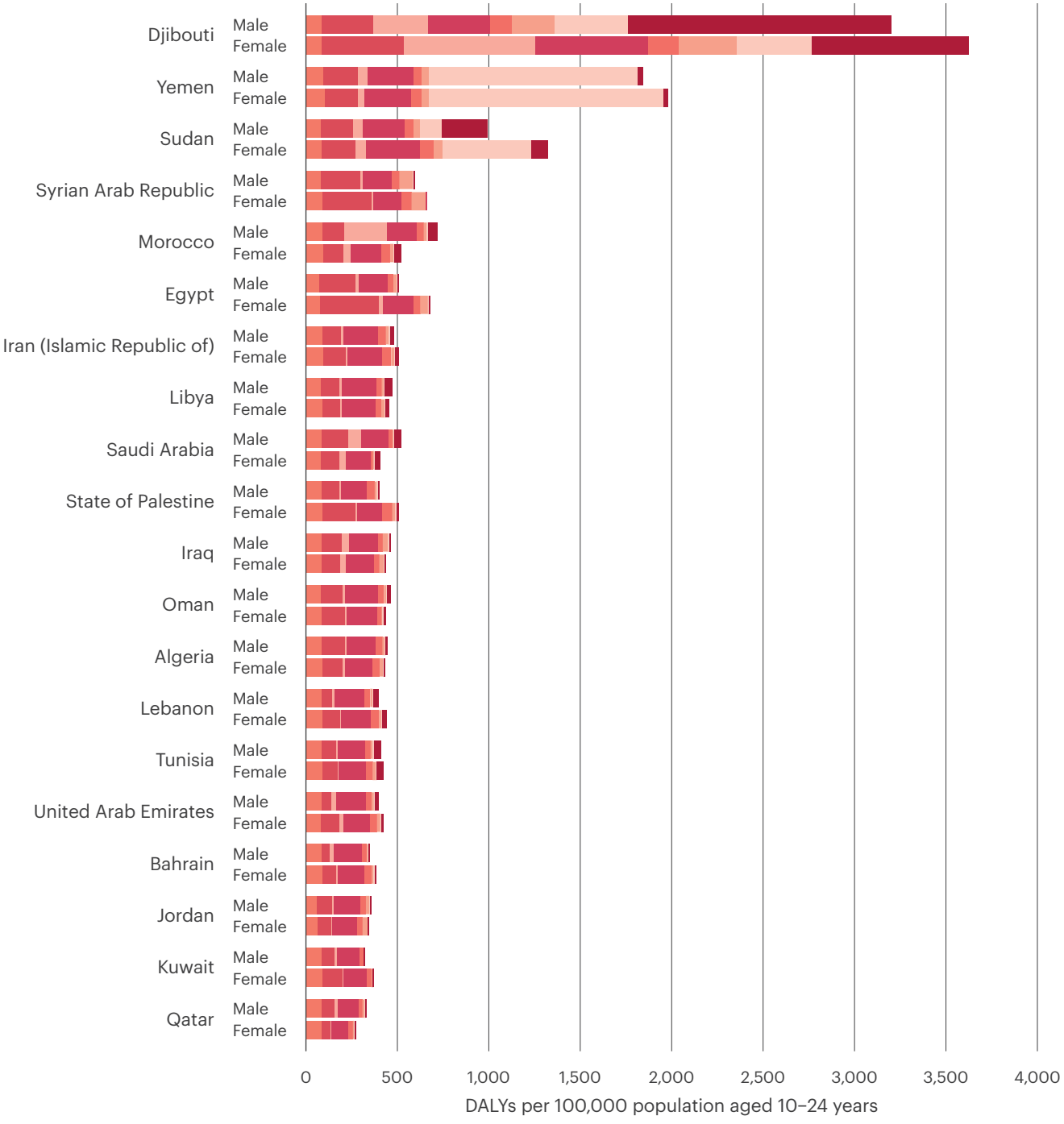
Source: GBD 2019

Three countries, Yemen, Sudan and Egypt, account for almost two thirds of the region's DALYs and deaths due to communicable disease. Overall, the burden of communicable disease morbidity and mortality is low in most countries, accounting for less than 10 per cent of the total burden of poor health in 17 of the 20 countries in the MENA region. However, in Yemen, Sudan and Djibouti, these communicable diseases account for between 12 and 26 per cent of the disease burden among 10–24-year-olds. This is most marked in Djibouti, where the burden of disease and mortality due to diarrhoeal disease, tuberculosis, meningitis, malaria and HIV is substantially higher than any other country in the region, and the mortality rate due to communicable diseases is more than 7.5 times higher than in most other countries in the region (Figure 33 and Figure 34).

Yemen, Sudan and Egypt
account for almost **two thirds**
of the region's burden of disease and
mortality due to communicable diseases

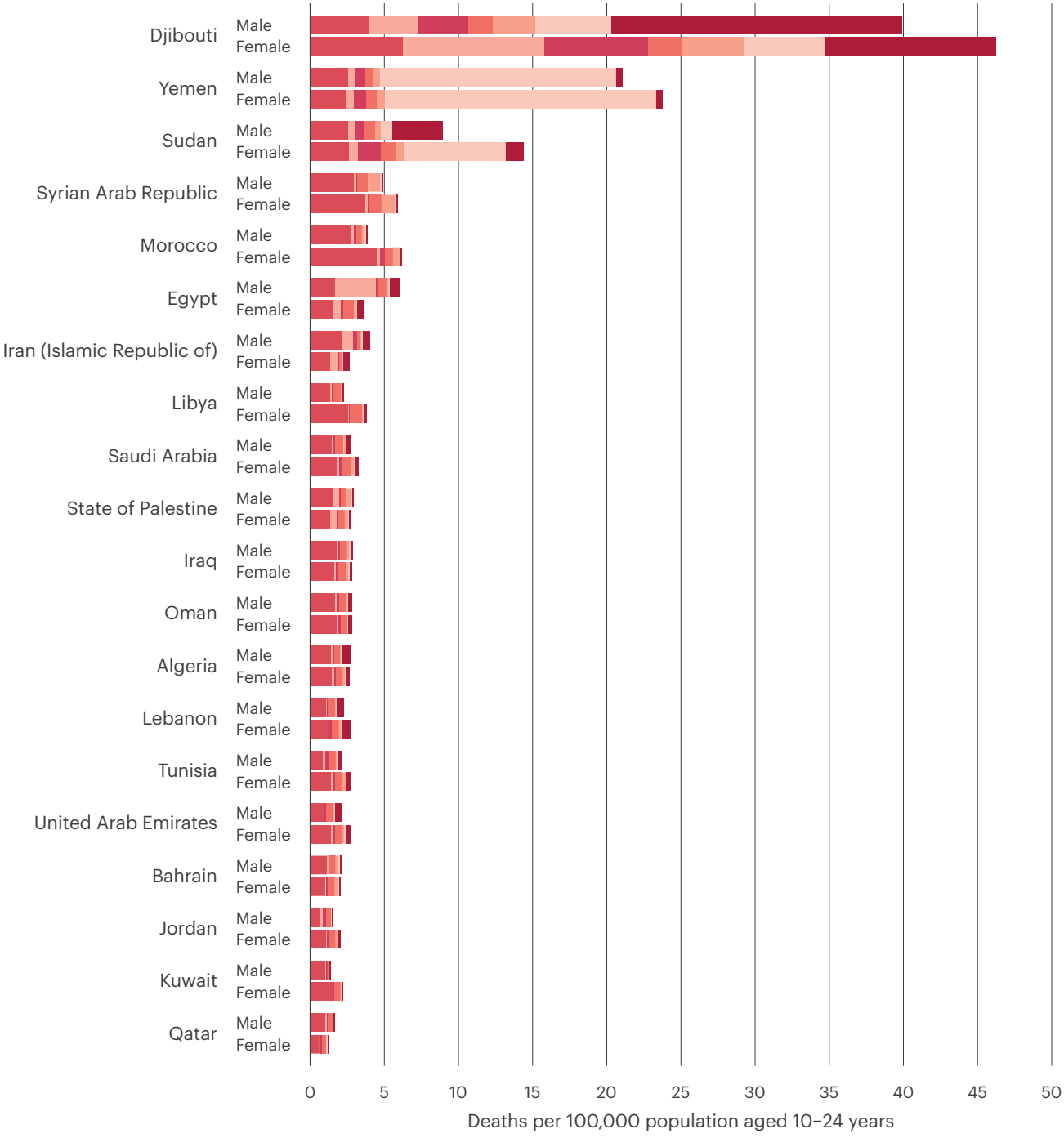
The highest burden is in **Djibouti** where
mortality is 7.5 times higher
than most other countries

Figure 33. DALY rate due to selected communicable diseases (per 100,000 population aged 10–24 years) by country and sex



Source: GBD 2019

Figure 34. Mortality rate due to selected communicable diseases (deaths per 100,000 population aged 10–24 years)

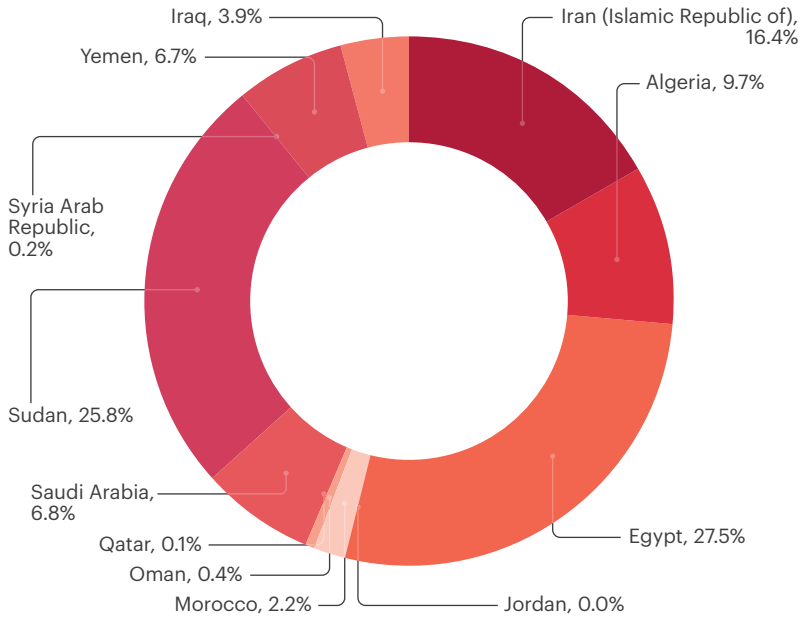


Source: GBD 2019

HIV and AIDS

Six out of 12 countries with data account for 70 per cent of new HIV infections among young people. As of 2022, the highest number of new HIV infections among young people are in Algeria, Egypt, Iran, Saudi Arabia, Sudan and Yemen (Figure 35). HIV incidence in the general population of adolescents is very low, but is higher among young key populations (although data for these populations of young people are very limited) (Table 8).

Figure 35. Percentage (%) of new HIV infections among young people (15–24 years of age) in 2022, by country



Notes: No data reported by Djibouti, Kuwait, Lebanon, Libya, Tunisia and United Arab Emirates. UNAIDS definition of young people is 15–24 years.

Source: UNAIDS 2023 (data for 2022)

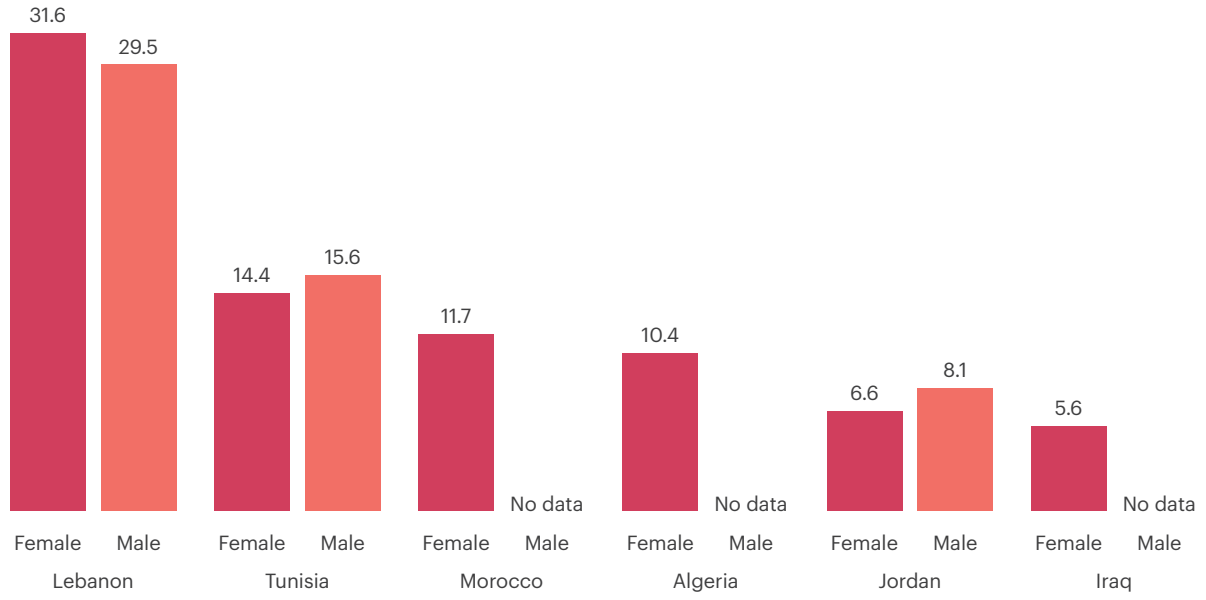
Table 8. HIV prevalence (%) among young key populations (<25 years)

	HIV prevalence among young people who inject drugs (<25 years)	HIV prevalence among young men who have sex with men (<25 years)	HIV prevalence among young sex workers (<25 years)
Algeria	2.6	3.3	3.5
Egypt	2.2	6.6	2.3
Iran (Islamic Republic of)	0		0.6
Kuwait	0		
Morocco	5.4	2.2	
Sudan		0.8	0.4
Tunisia	0	10.6	0
Yemen		3.1	

Source: UNAIDS 2023

Data describing young people's HIV knowledge are very limited for this region. However, available estimates for six countries reveal that the majority of young people lack comprehensive and correct knowledge, with the lowest levels reported in Iraq where fewer than 6 per cent of girls have accurate knowledge about HIV (Figure 36).

Figure 36. Proportion (%) of 15–24-year-olds with comprehensive and correct knowledge of HIV



Source: MICS and DHS 2004–2020

COVID-19

Modelled estimates of disease and mortality pre-date the COVID-19 pandemic. Age-disaggregated data at country level describing COVID-19 cases and deaths are very limited. Across the entire population in the MENA region, there have been almost 22 million COVID-19 cases and 315,505 deaths, with the highest burden of cases per population in Bahrain, Lebanon and Jordan (Table 9). Globally, UNICEF estimates that 10–24-year-olds have accounted for around 20 per cent of all COVID-19 cases, but only 0.5 per cent of all COVID deaths, with the mortality rate among adolescents very low compared with older age groups. However, the indirect impacts of the pandemic on young people's mental health and well-being, education participation and attainment, poverty, and inequality are likely to have been substantial. In some settings, social isolation, financial insecurity and loss of education have increased exposure to risks, such as family violence, sexual violence and child marriage, particularly among girls.[1; 2]

Table 9. Total COVID-19 cumulative cases per 100,000 population and cumulative deaths per 100,000 population, all ages

	Cumulative cases per 100,000	Cumulative deaths per 100,000
Algeria	10,393	24
Bahrain	9,694	247
Djibouti	327	18
Egypt	144	11
Iran (Islamic Republic of)	13,776	112
Iraq	2,346	27
Jordan	15,677	24
Kuwait	7,802	91
Lebanon	3,427	44
Libya	7,379	94
Morocco	17,816	156
Oman	15,420	60
Qatar	17,122	138
Saudi Arabia	6,117	63
State of Palestine	8,988	172
Sudan	504	24
Syrian Arab Republic	1,588	19
Tunisia	40,034	89
United Arab Emirates	617	16
Yemen	40	7

Source: WHO 2022

2.7 Non-communicable diseases and nutrition

Key findings

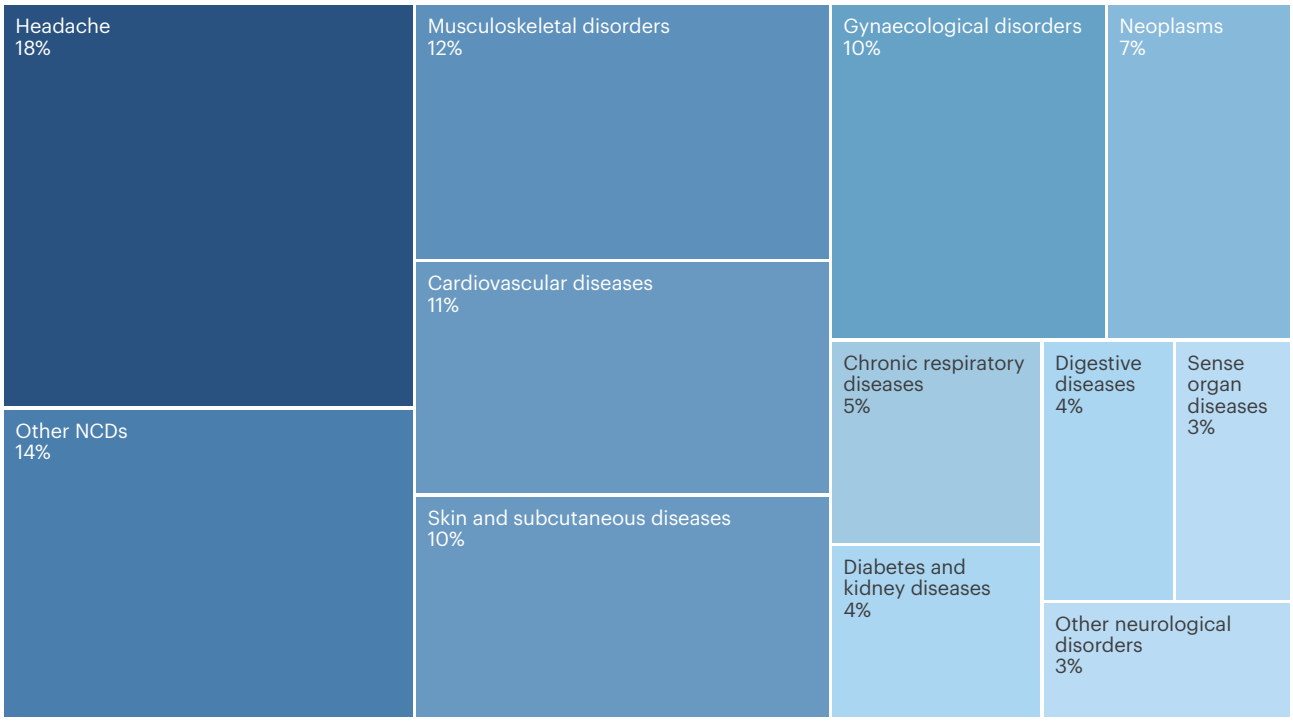
- Non-communicable diseases account for around half the disease burden among girls and over one third of the burden among boys. Headache, cardiovascular disease, musculoskeletal disorders and skin conditions are the main causes of non-communicable disease burden, as well as gynaecological disorders for girls.
- Just two conditions, cancer and cardiovascular disease, account for three quarters of all deaths due to non-communicable diseases.
- The prevalence of behavioural and nutritional risk factors for non-communicable diseases is also high, including high rates of insufficient physical activity, tobacco use, consumption of carbonated soft drinks, and overweight and obesity.
- Less than 13% of girls and 25% of boys report adequate physical activity, and rates of smoking are very high among adolescents in most countries, particularly among boys.
- With the exception of Djibouti and Yemen, more than 1 in 5 adolescents are overweight, and 1 in 10 obese.
- Undernutrition and nutritional deficiencies are higher in Yemen and Djibouti, where the highest rates of iron deficiency among young people are found.

In this region, non-communicable diseases are one of the leading causes of poor health for adolescents and young people, accounting for almost half the disease burden among girls (total 3,273,676 DALYs and 4,835 DALYs per 100,000), and over one third of the burden among boys (total 2,909,594 DALYs and 4,107 DALYs per 100,000), second only to injuries. Headache, musculoskeletal disorders, skin diseases and cardiovascular diseases are the major non-communicable diseases that cause poor health for boys and girls, with gynaecological disorders also contributing to 10 per cent of the disease burden for girls (Figure 37). The burden of non-communicable diseases increases with age. For girls this is mostly due to increased burden of gynaecological disorders, and for boys increasing cardiovascular disease (Figure 38).

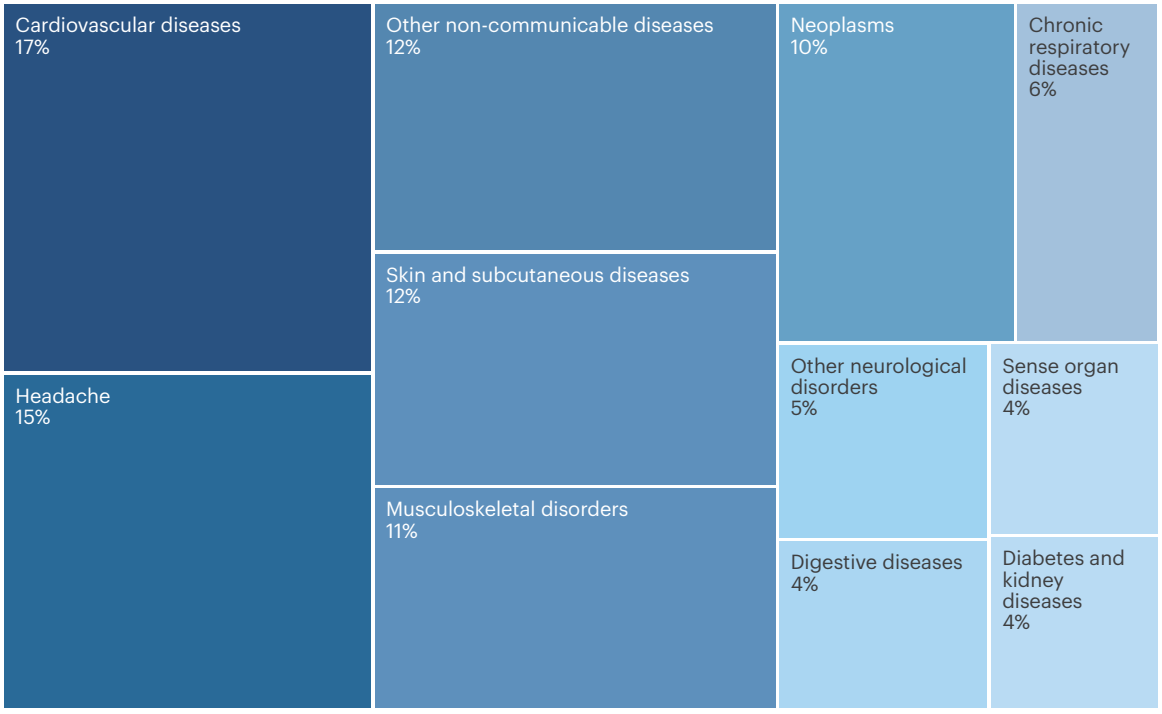
Non-communicable diseases account for almost **half the disease burden in girls** and **over one third among boys**

Figure 37. Proportion (%) of DALYs by non-communicable disease causes among 10–24-year-olds, by sex

Girls aged 10–24 years

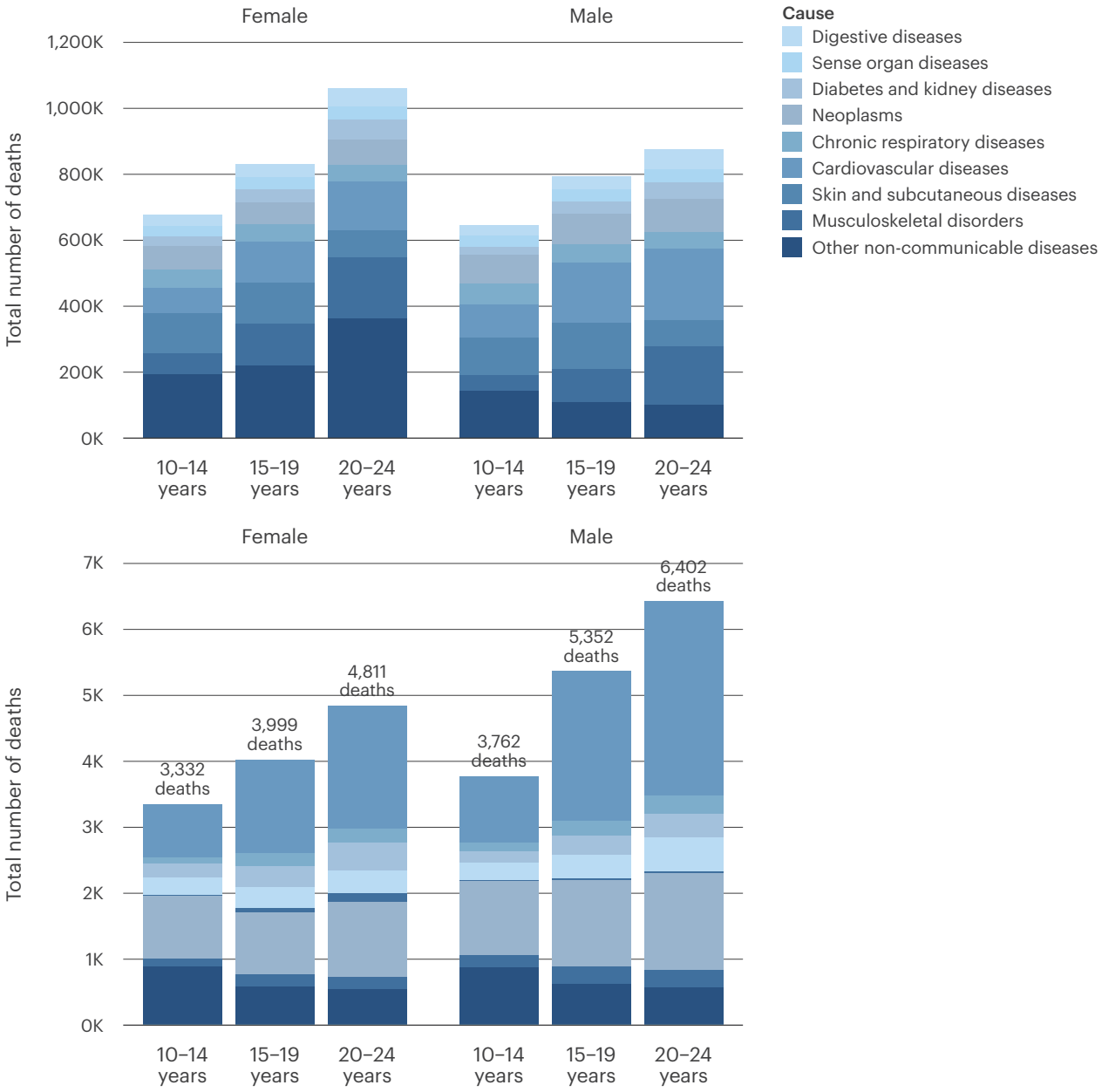


Boys aged 10–24 years



Source: GBD 2019

Figure 38. Total number of DALYs and deaths due to non-communicable disease by cause, by age group and sex

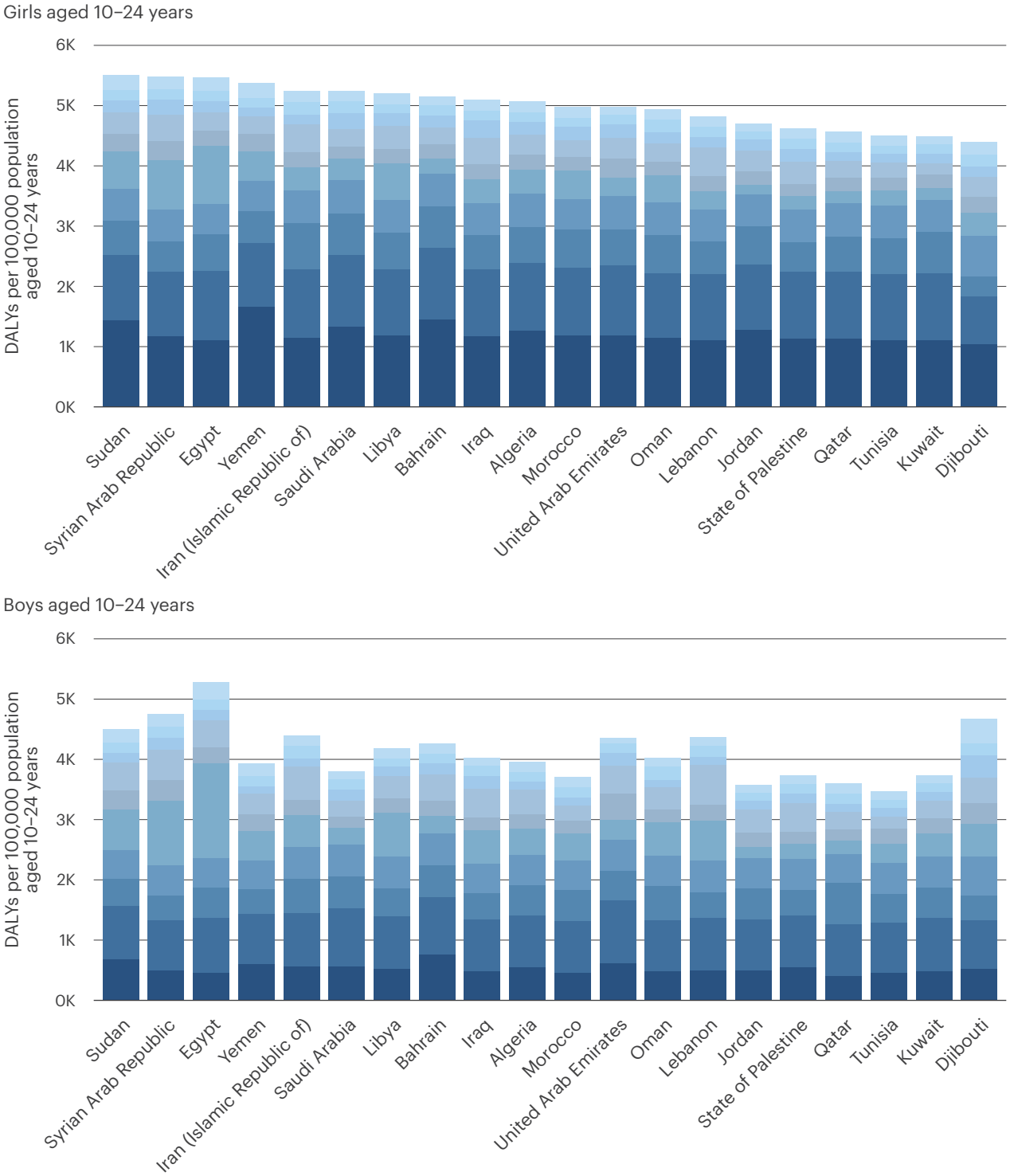


Source: GBD 2019

In 2019, there were an estimated 27,658 deaths among 10–24-year-olds due to non-communicable diseases, over half (15,516) among boys and young men. The majority of non-communicable-disease deaths are due to cancer and cardiovascular disease. These two conditions account for 70 per cent of non-communicable disease deaths among boys and 75 per cent among girls.

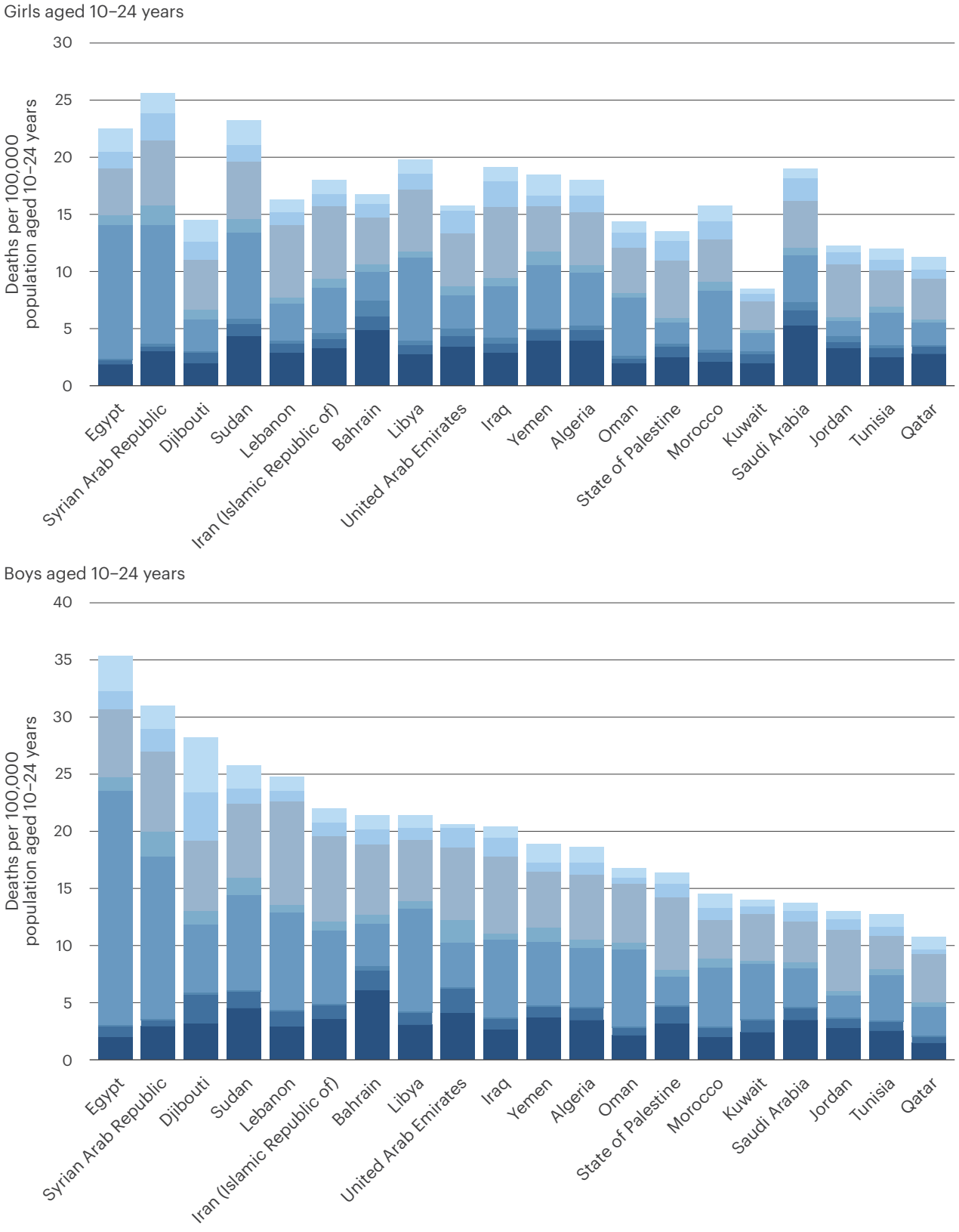
Just two conditions, **cancer** and **cardiovascular disease**, cause almost **three quarters of all deaths from non-communicable diseases**

Figure 39. DALYs due to non-communicable diseases (per 100,000 population aged 10–24 years), by country and sex



Source: GBD 2019

Figure 40. Mortality rate due to non-communicable diseases (deaths per 100,000 population aged 10–24 years), by country and sex



Source: GBD 2019

The DALY rate due to non-communicable disease is similar between countries, however as a proportion of total DALYs, non-communicable diseases cause a substantial burden in higher-income and non-conflict affected countries, where the burden of communicable disease, maternal disorders and violence is lower (Figure 39). The burden of poor health due to non-communicable diseases is higher among girls than boys in all countries, in large part due to gynaecological disorders. However, mortality rates are higher among boys as a result of a higher number of deaths due to cardiovascular disease (Figure 40).

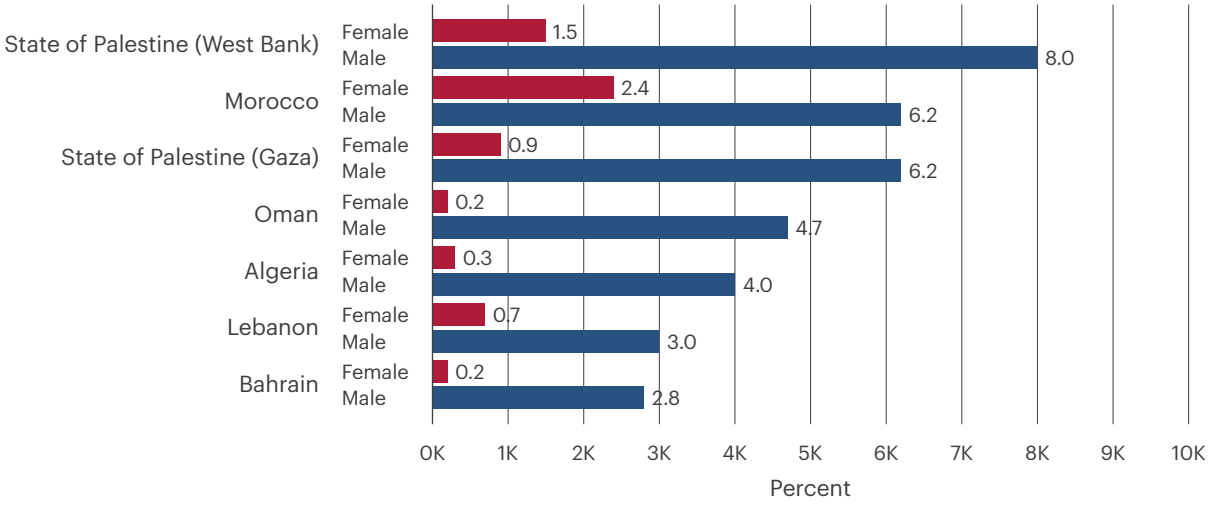
Behavioural risk factors

In addition to contributing to substantial burden of poor health during adolescence, risk factors for non-communicable diseases in later life are prevalent among young people in the MENA region (Table 10). In all countries with available data, more than three quarters of adolescents do not meet WHO's recommendation for daily physical activity. Only 10 per cent of girls in the region report engaging in at least moderate physical activity for 60 minutes or more, lower than their male peers in all countries where data are available.

Prevalence of **behavioural and nutritional risk factors for non-communicable diseases** is very high among adolescent girls and boys

Between 7 per cent and 35 per cent of adolescent boys aged 13–25 years report using cigarettes or tobacco products in the last month, with around one third of boys reporting smoking or other tobacco use in Jordan, Lebanon and Syria. At least 1 in 10 girls report tobacco use in the last month in Bahrain, Djibouti, Iraq, Jordan, Kuwait, Lebanon, Syria and Yemen – although rates among girls are lower than boys in all countries. Harmful use of alcohol (heavy episodic drinking) is uncommon for girls and boys in the region, with the exception of Djibouti, Qatar and United Arab Emirates where 9 per cent, 18 per cent and 5 per cent of boys reported binge drinking in the past month. Data on use of other drugs in the region is very limited. GSHS estimates for six countries (two surveys in the State of Palestine) reveal that lifetime use of marijuana by 13–15-year-olds girls is very low, and while higher among boys, less than 10 per cent report having ever used marijuana (Figure 41).

Figure 41. Percentage of students aged 13–15 years who report having ever used marijuana, by country and sex



Source: GSHS 2007–2016

Table 10. Selected non-communicable-disease behavioural risk factors, by country and sex

	Insufficient physical activity among school going adolescents aged 11–17 years (%)		Adolescents (aged 13–15 years) who smoked cigarettes or used tobacco products at any time during the last month (%)		Adolescents aged 15–19 years who had at least one episode of heavy alcohol drinking in the last month (%)	
	Female	Male	Female	Male	Female	Male
Algeria	91	76	3	17	0	1
Bahrain	87	75	10	27	0	2
Djibouti	89	81	11	18	1	9
Egypt	92	82	8	18	0	0
Iran (Islamic Republic of)			8	13	0	0
Iraq	90	80	11	20	0	1
Jordan	88	81	14	34	0	1
Kuwait	90	79	10	24	0	0
Lebanon	88	76	28	35	0	1
Libya	89	78	5	11	0	0
Morocco	90	85	4	7	0	0
Oman	90	78	4	9	0	2
Qatar	91	86	9	16	3	18
Saudi Arabia			9	21	0	0
State of Palestine			10	23		
Sudan	91	90	7	15	0	0
Syrian Arab Republic	91	84	17	32	0	0
Tunisia	88	75	5	19	0	1
United Arab Emirates	87	78	8	18	0	5
Yemen	90	83	10	24	0	0

Note: *Data for State of Palestine are for Gaza Strip only

Source: GSHS 2007–2017, Global Youth Tobacco Survey 2010–2019, WHO Global Status Report on Alcohol and Health 2018

Nutrition and nutritional risk factors

Nutritional risks for non-communicable diseases are also highly prevalent among girls and boys in the region (Table 11). Between 12 per cent and 45 per cent of boys aged 10–19 years are overweight,[v] and with the exception of Djibouti and Yemen, more than 1 in 10 are obese. The highest prevalence of obesity is reported in Kuwait, where 1 in 4 boys and 1 in 5 girls aged 10–19 years are obese. Similar rates of overweight and obesity are reported for adolescent girls, with between 19 per cent and 40 per cent of girls in the region overweight. Consumption of carbonated soft drinks among adolescents is very high, with at least one third of adolescents consuming one or more drinks a day in the majority of countries with data.

v Overweight is defined as BMI>1 SD of the median according to the WHO growth reference for school-age children and adolescents; obesity BMI>2 SD of the median; and thinness BMI<2 SD of the median.

Table 11. Nutritional risk factors, by country and sex

	Prevalence of overweight among adolescents aged 10–19 years (%)		Prevalence of obesity among adolescents aged 10–19 years (%)		Prevalence of thinness among adolescents aged 10–19 years (%)		Percentage of students aged 13–15 years who usually drank carbonated soft drinks one or more times per day duirng the past 30 days (%)	
	Female	Male	Female	Male	Female	Male	Female	Male
Algeria	29	29	11	12	6	6	78	75
Bahrain	33	35	15	16	6	6	28	40
Djibouti	21	12	5	4	4	7		
Egypt	36	34	17	13	2	4	51	60
Iran (Islamic Republic of)	25	25	8	9	8	9		
Iraq	31	30	13	12	4	6	50	57
Jordan	30	30	12	12	4	4		
Kuwait	40	45	20	26	4	3	49	54
Lebanon	29	34	10	15	5	5	44	56
Libya	30	32	12	14	5	6		
Morocco	26	25	9	9	6	7	34	33
Oman	29	32	12	14	7	7	39	49
Qatar	34	39	15	20	5	5	65	60
Saudi Arabia	32	37	14	19	7	8		
State of Palestine							54	60
Sudan	16	8	3	2	4	9	41	38
Syrian Arab Republic	27	27	9	10	6	6	27	34
Tunisia	26	23	8	8	6	7		
United Arab Emirates	32	35	13	16	5	5	30	39
Yemen	19	18	6	5	11	16	32	40

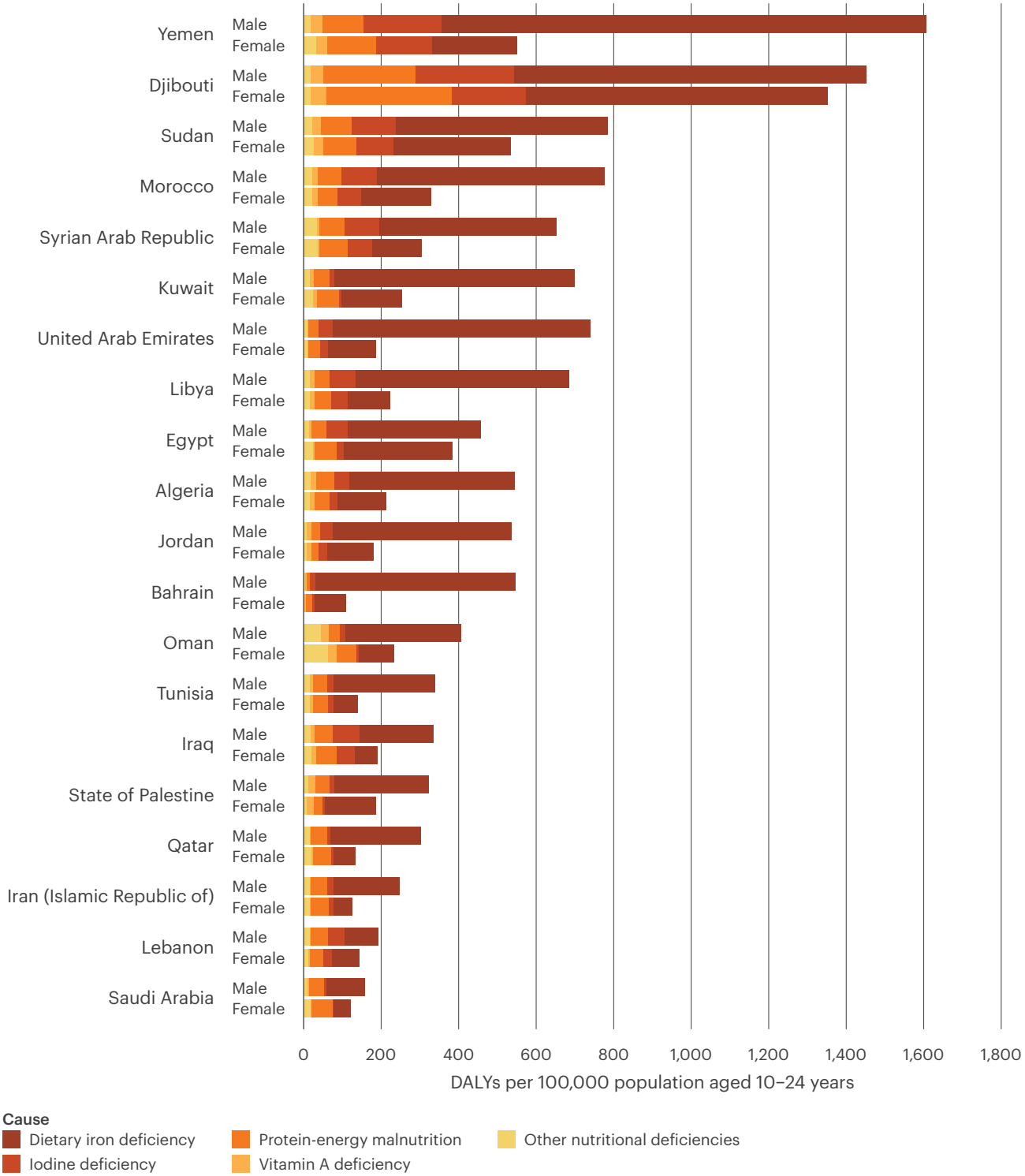
Source: NCD Risk Factor Collaboration (Lancet 2017), GSHS 2007–2017

Thinness is much less prevalent than overweight and obesity among adolescents in this region, less than 7 per cent in most countries with available data. However, in Yemen more than 1 in 10 adolescents are underweight, with rates also slightly higher than the regional average in Iran, Oman and Saudi Arabia.

The burden of poor health due to nutritional deficiencies among this age group is low in most countries, accounting for less than 3 per cent of the total burden of poor health in 18 countries. Rates are higher among girls than boys, and the highest in Yemen and Djibouti, where nutritional deficiencies cause 5 per cent of the disease burden among adolescent girls and young women (Figure 42). Much of the excess burden experienced by girls is due to dietary iron deficiency, with girls in the region having 2.4 times the disease burden due to iron deficiency than boys (Figure 43).

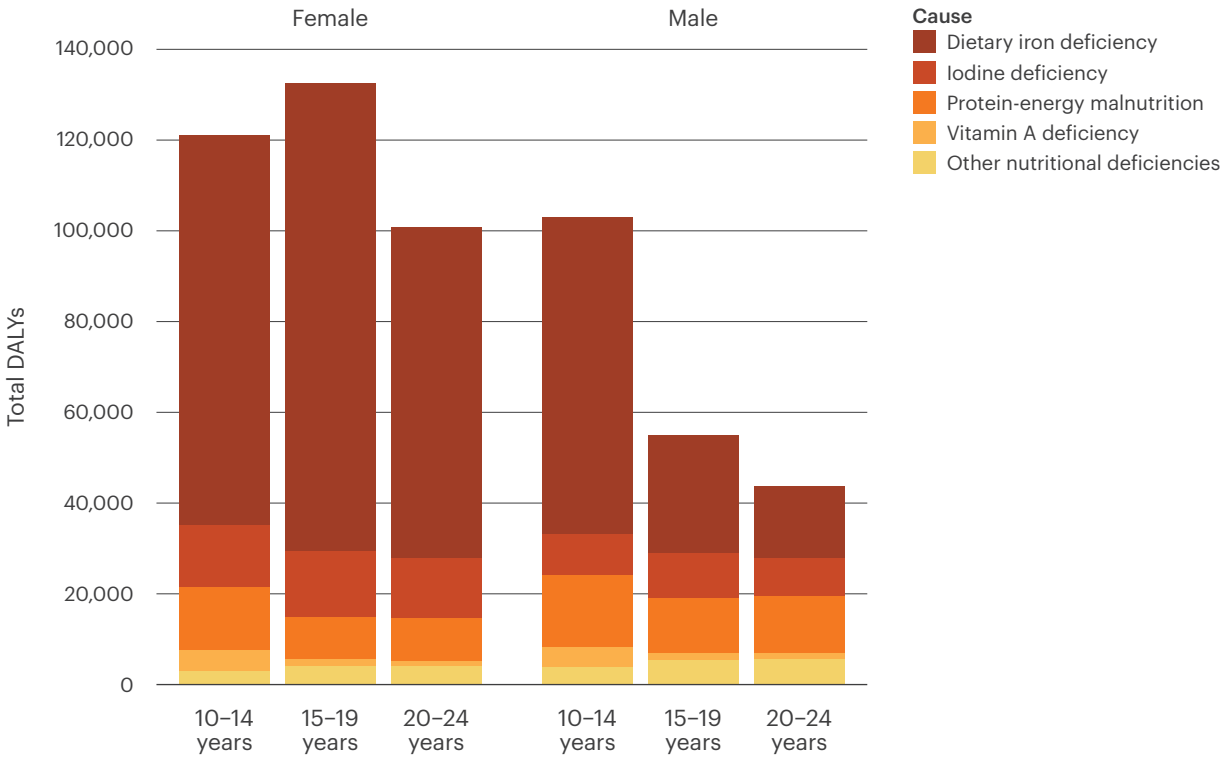
The prevalence of dietary iron deficiency varies substantially in the region, from 2 per cent in Saudi Arabia to 16 per cent in Djibouti. In all countries, the prevalence of iron deficiency is higher among girls compared with boys, most markedly in Bahrain where girls have 5 times the prevalence of their male peers (Figure 44). Young people in Yemen and Djibouti also experience a much higher burden of protein-energy malnutrition and iodine deficiency compared to other countries in the region.

Figure 42. DALYs due to nutritional deficiencies (per 100,000 population aged 10–24 years), by country and sex



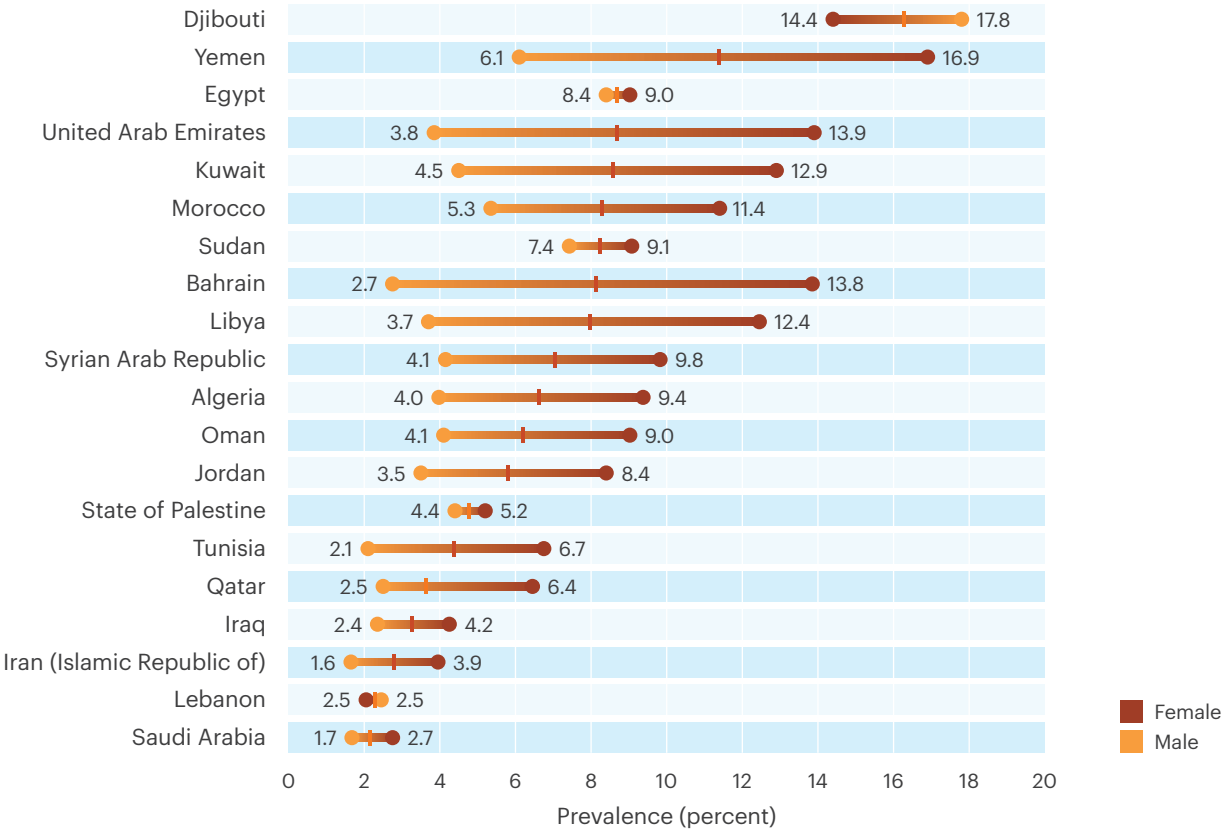
Source: GBD 2019

Figure 43. Total DALYs due to nutritional deficiencies, by age group and sex



Source: GBD 2019

Figure 44. Prevalence (%) of dietary iron deficiency among 10–24-year olds, by country and sex



Source: GBD 2019

3 Education, learning and transition to work

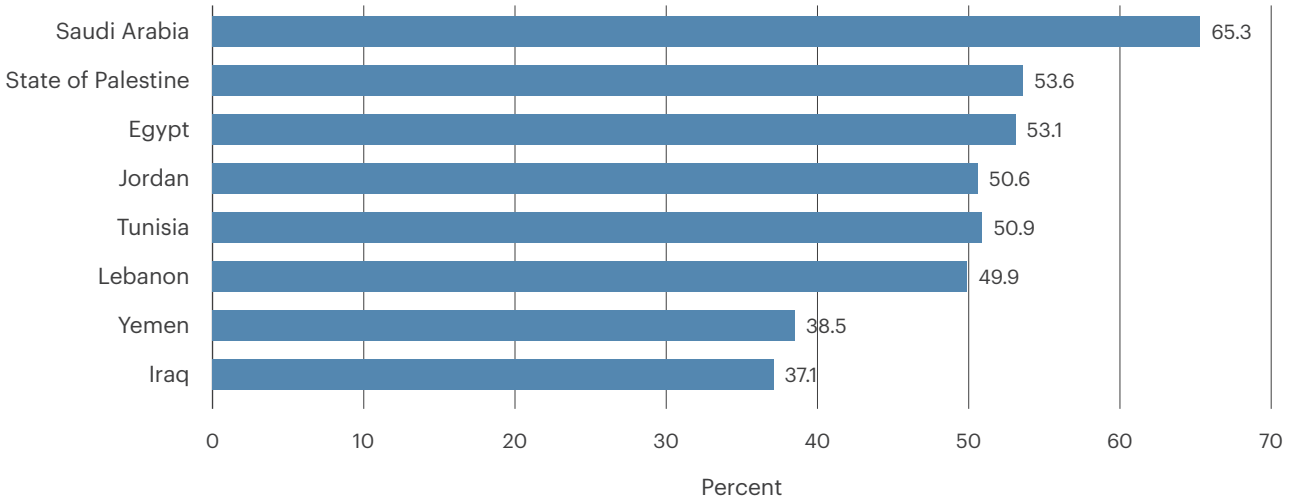
Key findings

- 28% of boys and 35% of girls are out of upper secondary school.
- Fewer than half of adolescents complete upper secondary education in Iraq, Egypt, Sudan and Yemen.
- In most countries, fewer than half of students achieve minimum average proficiency in maths and reading, and youth literacy is lower than 75% in Sudan.
- Across the region, the majority of young people aged 15–24 years have not attained secondary education level skills, and in 12/19 countries, more than half of young people do not have basic digital skills.
- 20% of boys and 44% of girls aged 15-24 years are not in employment, education, or training, and girls experience higher rates of unemployment.

Secondary education is vital for supporting the development of the cognitive, social and emotional skills, and capabilities young people require to fully participate in society. Participation in education is also associated with a range of protective benefits for adolescent health and well-being, and schools are an important platform for delivery of health interventions.

Fewer than half of adolescents complete upper secondary school in **Iraq, Egypt, Sudan and Yemen**

Figure 45. Proportion (%) of young people aged 15–24 years participating in formal or non-formal education or training



Source: UIS 2014-2021

3.1 Participation in education

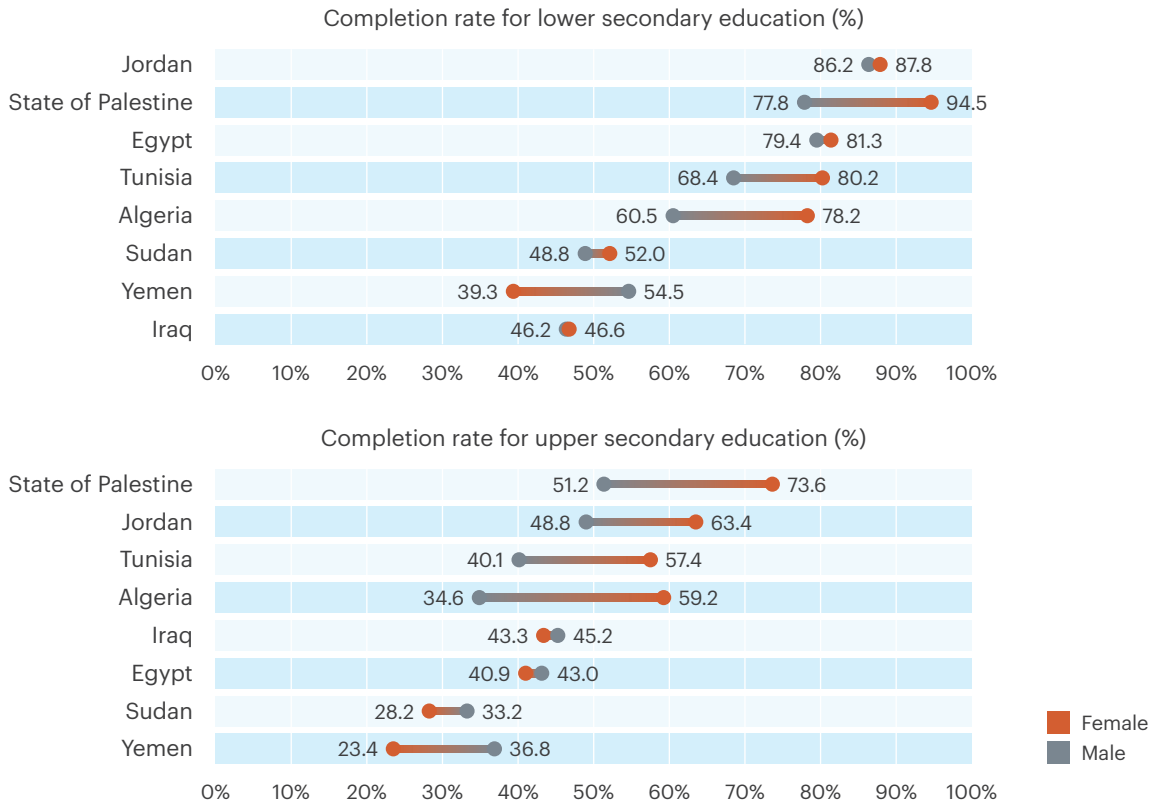
Data on participation of young people aged 15–24 years in formal and non-formal education and training were available for eight countries in the region. The lowest rates of participation were reported in Yemen and Iraq, where only around one third of young people were participating in education or training (Figure 45).

Data for countries in the MENA region describing school completion for secondary education are relatively limited. Only eight countries had available estimates, but these reveal significant inequities in rates of completion for both lower and upper secondary education between countries (Figure 46). The majority of adolescents complete lower secondary education in Jordan, Palestine, Egypt, Tunisia and Algeria, however fewer than half complete this level in Sudan, Yemen and Iraq.

Rates of completion of upper secondary education are significantly lower in all countries (except for in Iraq where rates of completion of both lower and upper secondary education are low). The biggest disparity between upper and lower secondary completion is in Egypt, where the rate of completion of upper secondary is almost half that of lower secondary education.

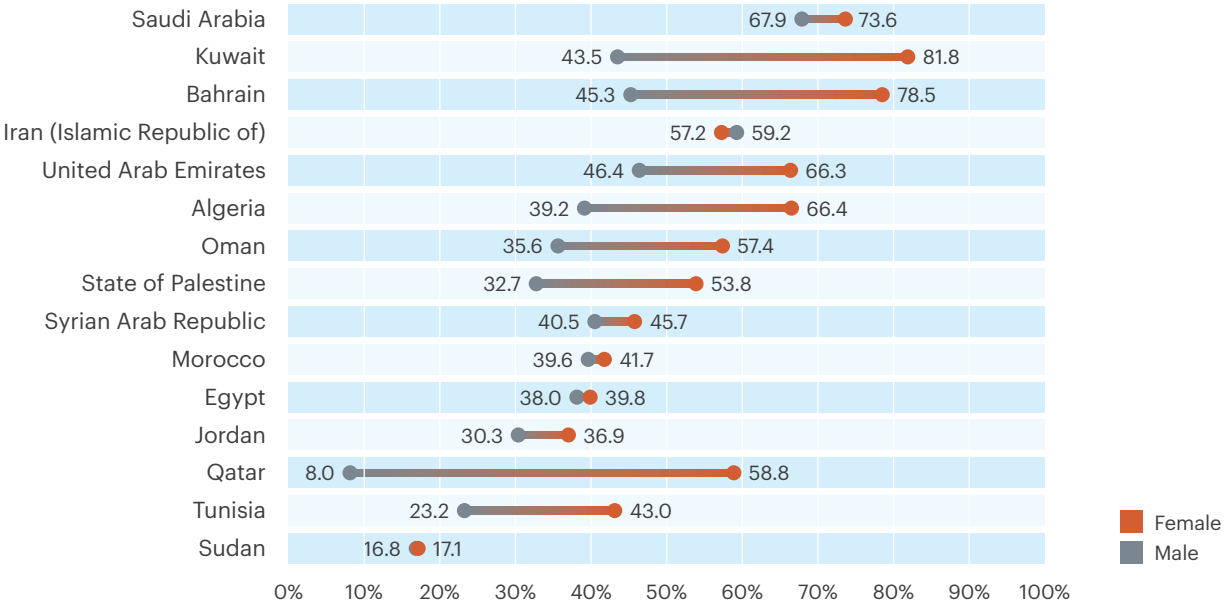
Girls have higher completion rates of lower secondary education than boys in all countries except Yemen. More boys complete upper secondary education than girls in half of the countries where estimates are available. Gendered differences in education participation are also evident in tertiary enrolment, with a much higher percentage of girls enrolled in tertiary education compared with boys in 8 out of 15 countries, and similar rates between boys and girls in other countries (Figure 47).

Figure 46. School completion rates (%), lower and upper secondary education, by country and sex



Source: MICS and DHS, 2013–2020

Figure 47. Gross enrolment ratio (%), tertiary education, by country and sex



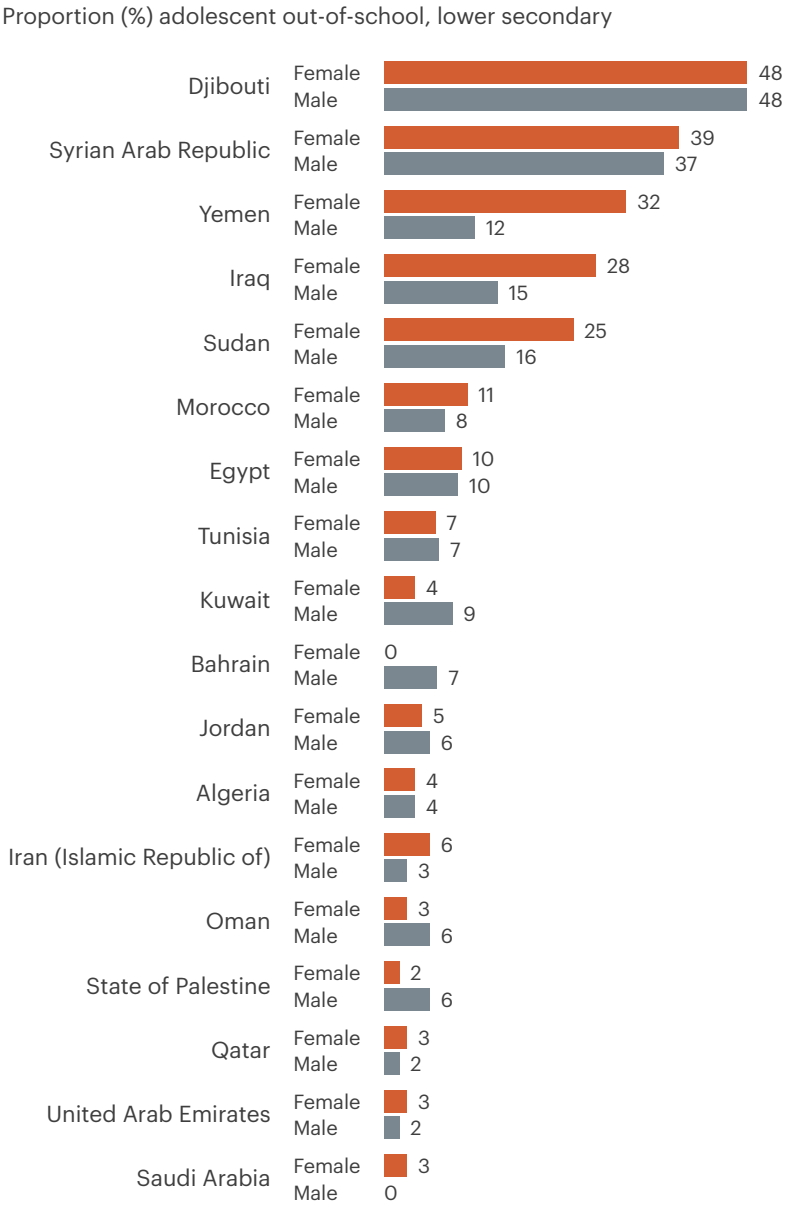
Source: UNESCO 2020

It is estimated that 9 per cent boys and 12 per cent of girls of lower secondary age are **out of school** in the MENA region, increasing to 28 per cent of boys and 34 per cent of girls of upper secondary age. The highest proportion of out-of-school youth is found in Djibouti and Syria, where more than one third of lower-secondary age and over two thirds of upper-secondary age adolescents are out of school (Figure 48). Rates between girls and boys are similar in these two countries, but there is a mixed pattern in other countries. In Yemen, Iraq, Sudan and Oman a greater proportion of girls are out of school compared with boys, however, in other countries, rates are similar or higher among boys.

9% of boys and
12% of girls
of lower secondary age are
out of school

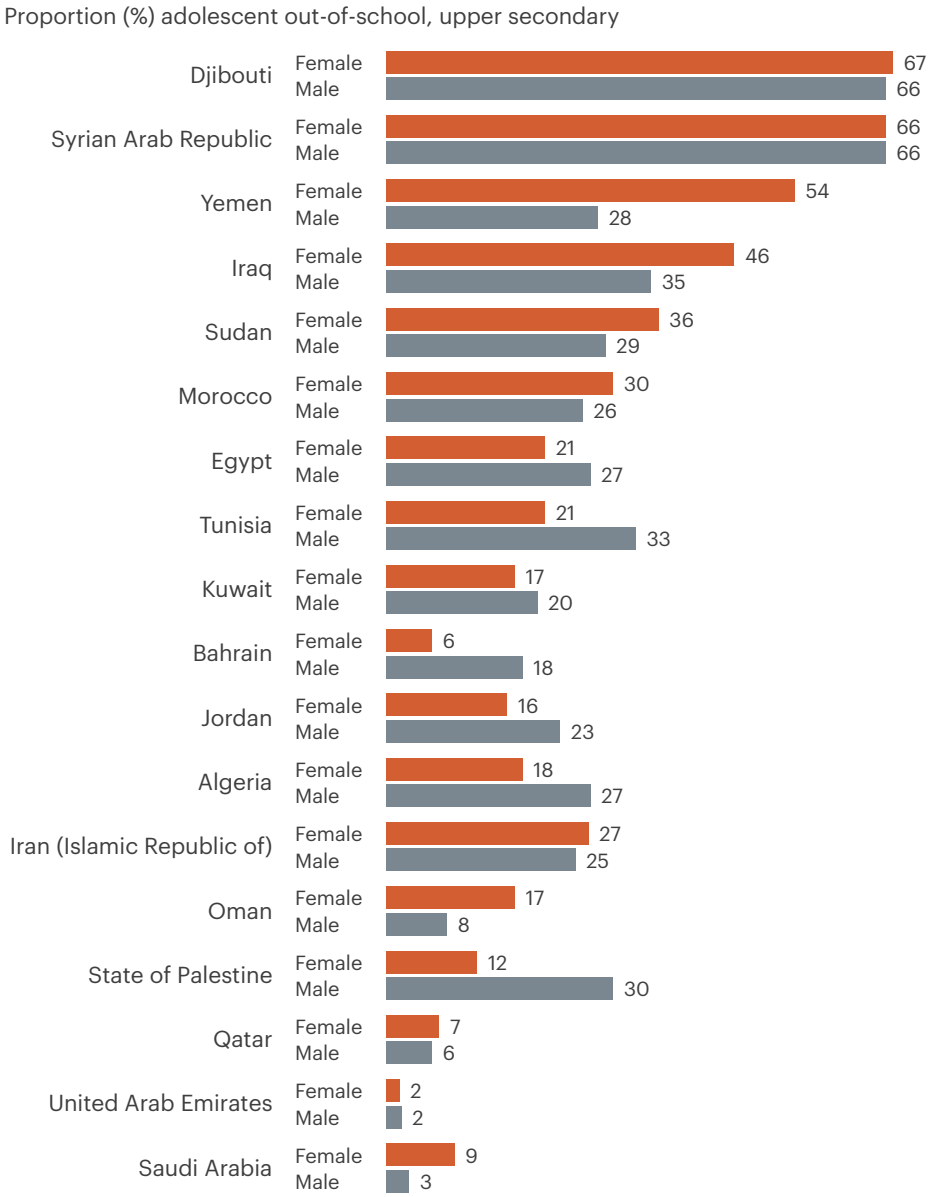
28% of boys and 35% of girls are out-of-upper secondary

Figure 48. Proportion (%) of adolescents out of school, lower and upper secondary levels, by country and sex



Source: UNICEF 2012-2021

Figure 48. Proportion (%) of adolescents out of school, lower and upper secondary levels, by country and sex *(continued)*



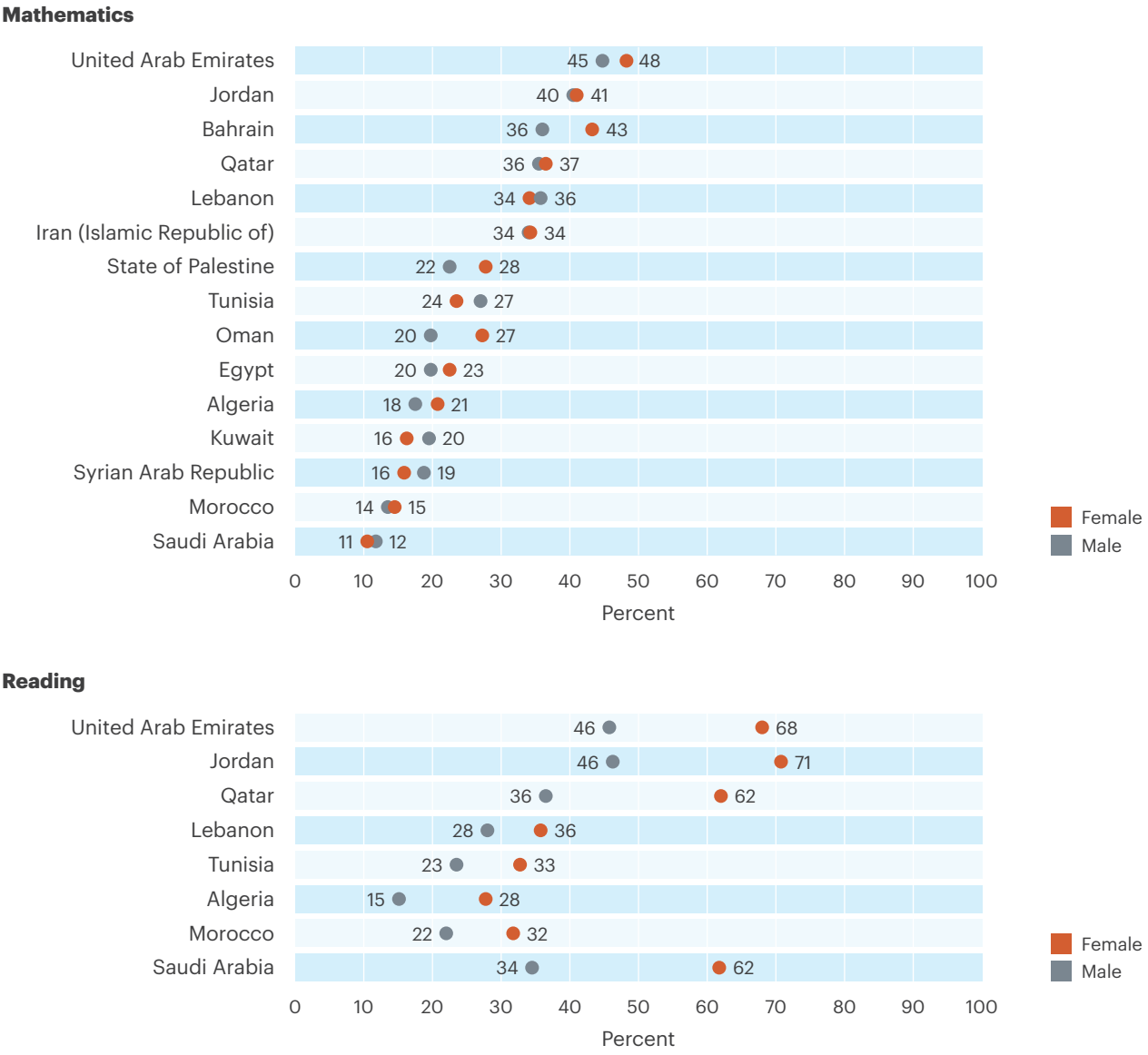
Source: UNICEF 2012-2021

3.2 Skills and educational attainment

In most countries in MENA, **fewer than half of students** achieve minimum average proficiency in maths and reading

Educational attainments in maths and reading vary considerably in the region, however, in all countries with available data, fewer than half of lower-secondary students achieve or exceed minimum proficiency levels in maths (Figure 49). Reading proficiency is higher, although the majority of students have not achieved minimum levels in most countries with data. Levels of attainment in maths are similar between girls and boys, however these is a more marked disparity for reading, with a much greater percentage of girls achieving minimum proficiency compared with boys in United Arab Emirates, Jordan, Qatar and Saudi Arabia. Youth literacy rates are very high across the region for those countries with available data, and similar for girls and boys (Figure 50). Sudan is a noted exception, where less than three quarters of girls and boys are literate.

Figure 49. Percentage (%) of adolescents at the end of lower secondary education achieving or exceeding the minimum proficiency level in maths and reading

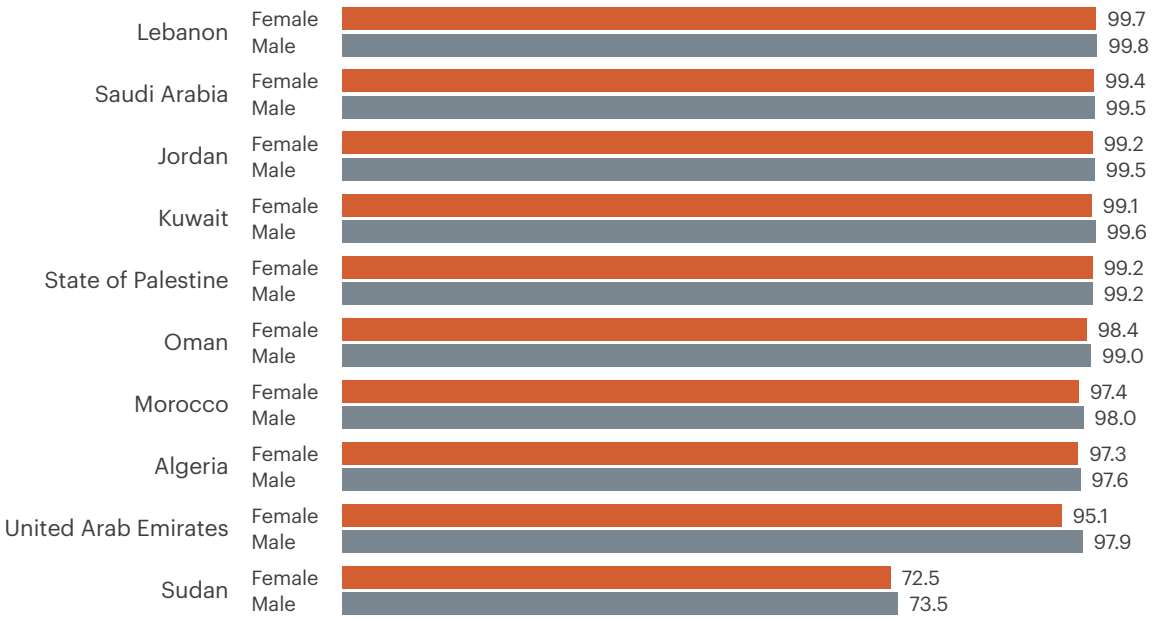


Source: UNESCO 2011-2019

Estimates of secondary-education-level skills are also provided by the World Skills Clock,[1] which uses available data on numeracy and literacy skills, proficiency (UNESCO, Programme for International Student Assessment, and Trends in International Mathematics and Science Study), and school enrolment to calculate skills acquisition. Estimates for the MENA region indicate that the majority of young people aged 15–24 years do not have secondary-education-level skills, with fewer than 20 per cent meeting benchmarks in literacy and/or numeracy in Yemen, Morocco, Djibouti, Syria, Saudi Arabia, Sudan and Kuwait (Figure 51).

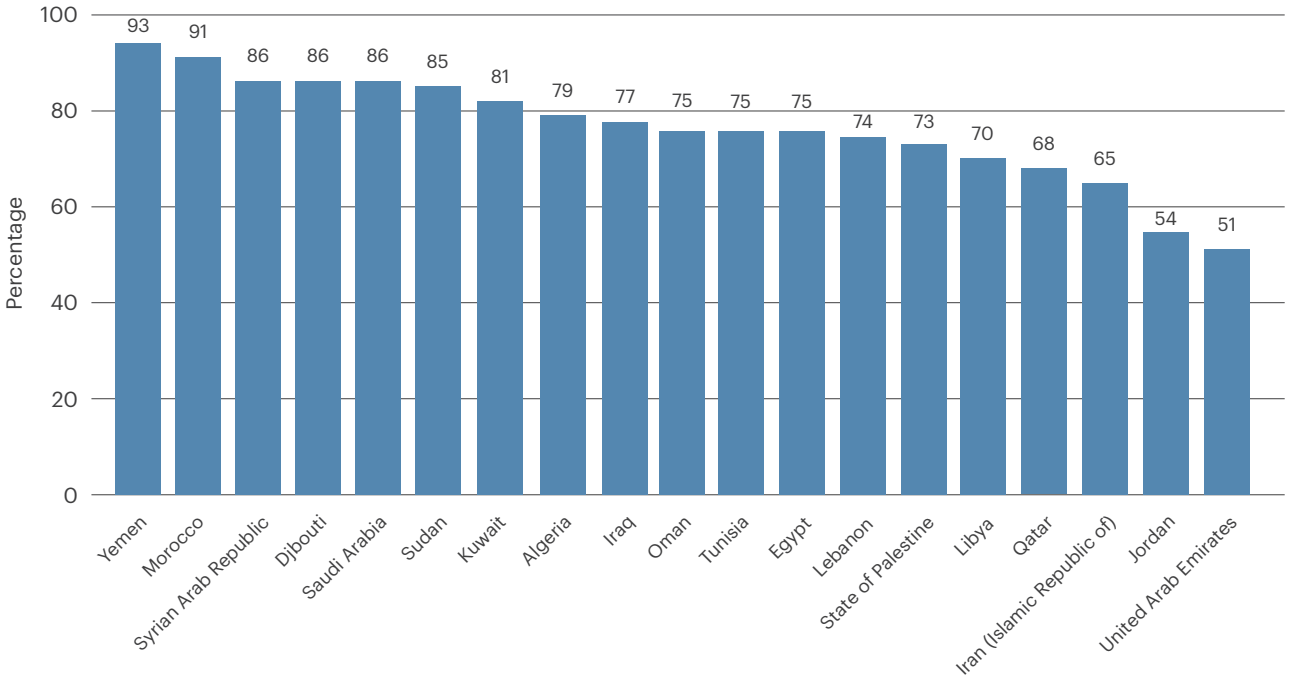
There are limited data describing information and communication technology (ICT) skills of young people in this region. Primary data for young people aged 15–24 years are only available for four countries. The proportion of youth who used at least one of nine ICT skills in the three months prior ranges from 45 per cent of girls in State of Palestine to 8 per cent of girls in Iraq (Figure 52). Data for boys was only available in Tunisia, and rates were similar to that of girls (42 per cent).

Figure 50. Youth literacy rate (%) among 15–24-year-olds



Source: UNESCO 2018-2020

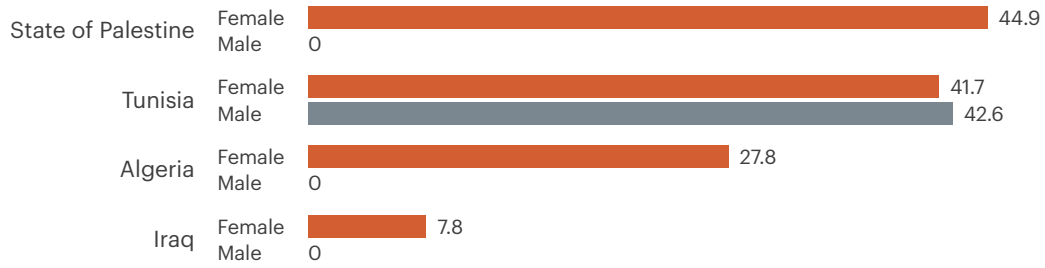
Figure 51. Proportion (%) of youth aged 15–24 years without secondary education level skills



Source: World Skills Clock

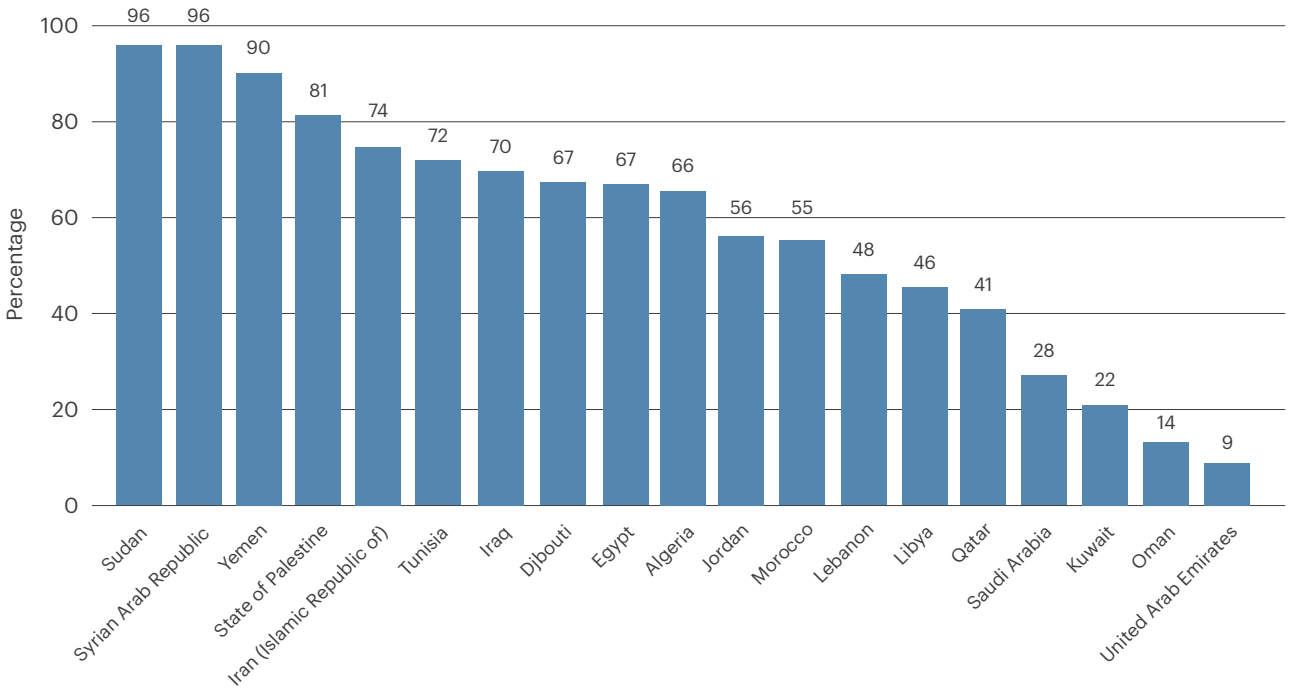
The World Skills Clock[2] also provides modelled estimates on digital skills for young people aged 15–24 years. This includes the ability to use and understand technology, estimated from UNICEF and UNESCO data on the proportion of young people who are able to perform basic computer-related activities (copying or moving files, copy and paste tools, sending emails with files and transferring files between devices). There is considerable variation in digital skills among young people in MENA. More than three quarters of young people have basic digital skills in Oman, United Arab Emirates, Saudi Arabia and Kuwait, however over 90 per cent lack these skills in Syria, Sudan and Yemen (Figure 53).

Figure 52. Percentage (%) of young people aged 15–24 years with ICT skills



Source: UNESCO 2018-2020

Figure 53. Proportion (%) of youth aged 15–24 years without digital skills



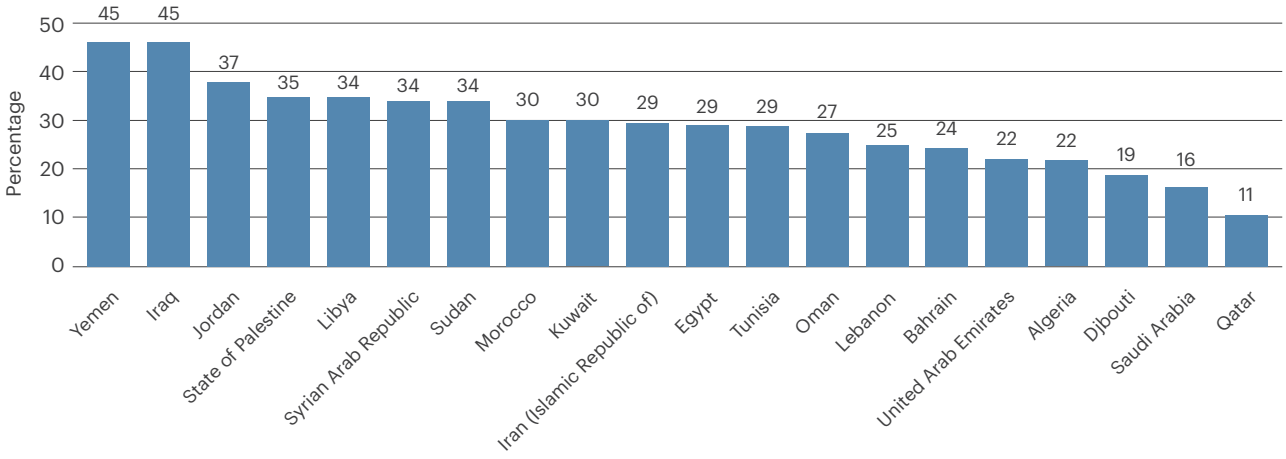
Source: World Skills Clock 2021

3.3 Transition to work

Around **20% of boys** and **44% of girls** aged 15–24 years are **not in education, employment or training**

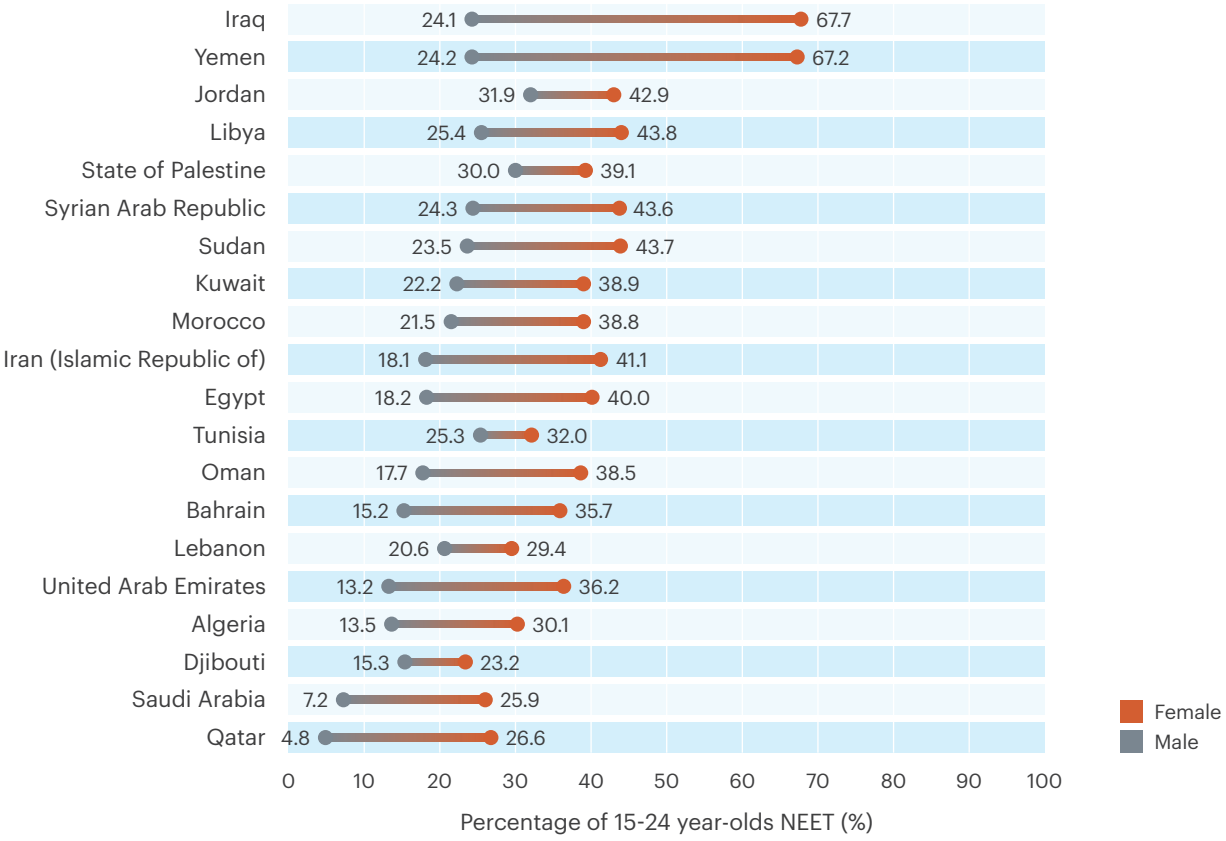
Around 20 per cent of boys and 44 per cent of girls aged 15–24 years in the region are not in education, employment, or training (NEET). The highest proportion is found in Yemen and Iraq, where 45 per cent of young people are NEET (Figure 54). In these two countries, the proportion of girls NEET is 2.8 times higher than for boys (Figure 55). Girls have higher rates of NEET compared with boys in all countries. While Qatar has the lowest proportion of youth NEET in the region, it has the greatest gender disparity, with the rate of NEET five times higher among girls compared with boys.

Figure 54. Percentage (%) of youth aged 15–24 years not in education, employment or training



Source: ILO modelled estimates 2020

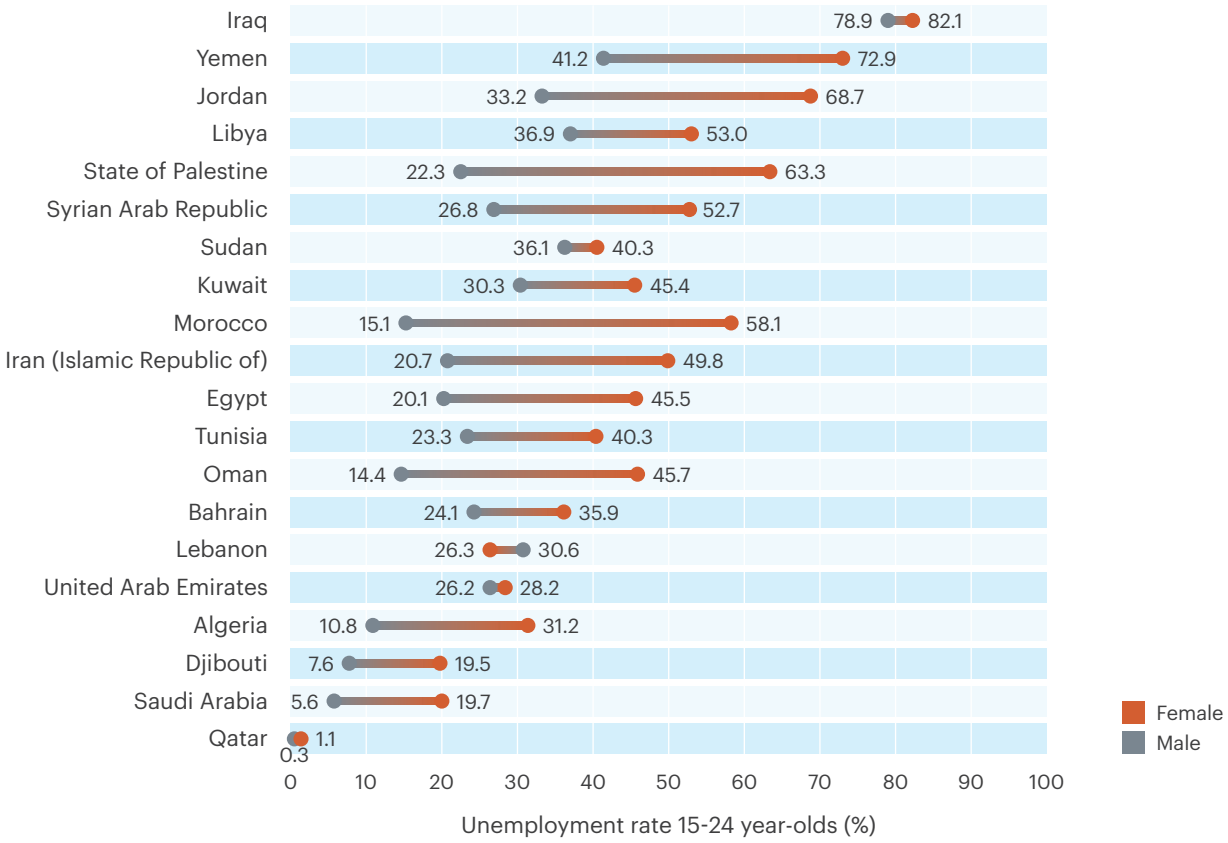
Figure 55. Percentage (%) of 15–24-year-olds not in education, employment or training, by country and sex



Source: ILO modelled estimates 2020

Girls also experience higher rates of unemployment in all countries, except for Lebanon where rates are similar with boys aged 15–24 years (Figure 56). In nine countries female youth unemployment is 50 per cent or higher, with the biggest burden in Djibouti where the rate for girls is 82 per cent. Male unemployment is similar to female unemployment in Djibouti, but in most other countries, boys have much lower rates of unemployment – although rates are still high and exceed 25 per cent in eight countries (in addition to Djibouti).

Figure 56. Unemployment rate (%) among 15–24-year-olds, by country and sex



Source: ILO modelled estimates 2022

4 Protection

Key findings

- Fewer than half of adolescents aged 13–15 years report that their parents understand their worries or problems.
- 8 out of 10 young adolescents experienced violent discipline in the past month.
- Half of 13–15-year-old students report experiencing peer victimization in the past month, and up to half were physically attacked or in a physical fight. Boys experience rates of peer violence between 1.3 and 2.9 times higher than girls.
- The GBD study estimated that there were 3,208 deaths among young people due to interpersonal violence in 2019. Almost 80% of deaths were among boys, and 40% in Iraq.
- Around one third of girls were married by age of 18 years in Iraq, Yemen and Sudan, and 1 in 10 married by the age of 15 years in Sudan and Yemen.
- FGM remains prevalent in Djibouti, Sudan, Yemen and Egypt.
- In 2022, there were 11 million displaced and refugee children and adolescents in the region. There were also an estimated 6,300 deaths due to conflict and collective violence, 75% of which occurred in Yemen.

Across the MENA region, young people experience a high prevalence of risk factors that contribute to injuries, poor mental health, and adverse sexual and reproductive health outcomes. For some populations, such as young people affected by conflict and young people who are refugees or displaced, these risks are profound.

4.1 Relationships with parents, caregivers and families

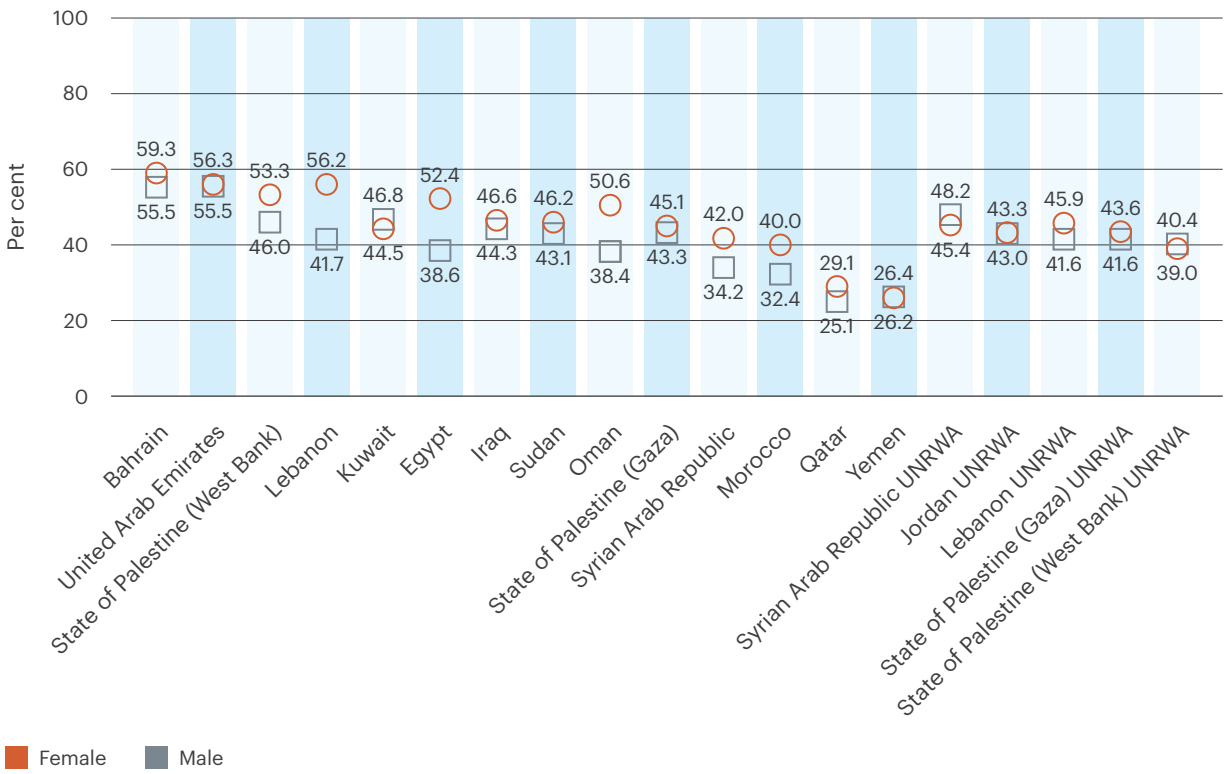
Nurturing and positive relationships with parents and carers are important determinants of adolescent health and well-being. Around half of 13–15-year-olds report that their parents or guardians mostly or always knew what they were doing with their free time, although this was true for only around one quarter of adolescents in Qatar and Yemen (Figure 57).

In most countries, fewer than half of 13–15-year-olds reported that their parents really understood their problems or worries, with the lowest rates reported in Syria, Morocco, Qatar and Yemen. Rates were similar between girls and boys, although a slightly higher percentage of girls reported parental supervision and understanding. Rates were also similar between refugees registered with UNRWA and non-refugees in the same country. Note that in Jordan, Libya and Tunisia, these indicators are reported differently. The percentage of 13–15-year-olds who reported that their parents never or rarely knew what they were doing was 34.9 per cent in Jordan, 39.6 per cent in Libya and 30.6 per cent in Tunisia. Similarly, the percentage who reported that their parents never or rarely understood their problems was 43.4 per cent in Jordan and 51.3 per cent in Libya. Rates were very similar for girls and boys in these countries.

Figure 57. Parent supervision of adolescents and parent understanding of adolescents

Parent supervision

Percentage of students aged 13-15 years whose parents or guardians really knew what they were doing with their free time, most of the time or always, during the past 30 days

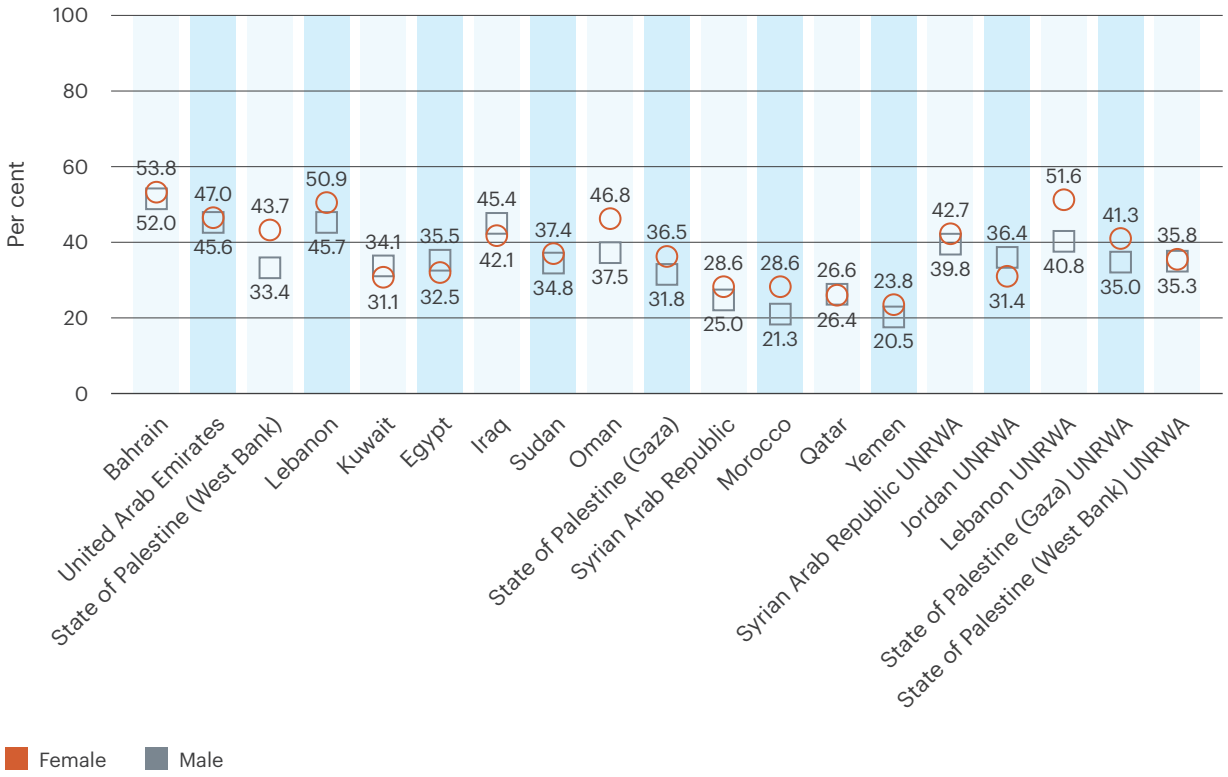


Source: GSHS 2007-2017

Figure 57. Parent supervision of adolescents and parent understanding of adolescents *(continued)*

Parent understanding

Percentage of students aged 13-15 years who reported that their parents or guardians, most of the time or always, understood their problems and worries during the last 30 days



Source: GSHS 2007-2017

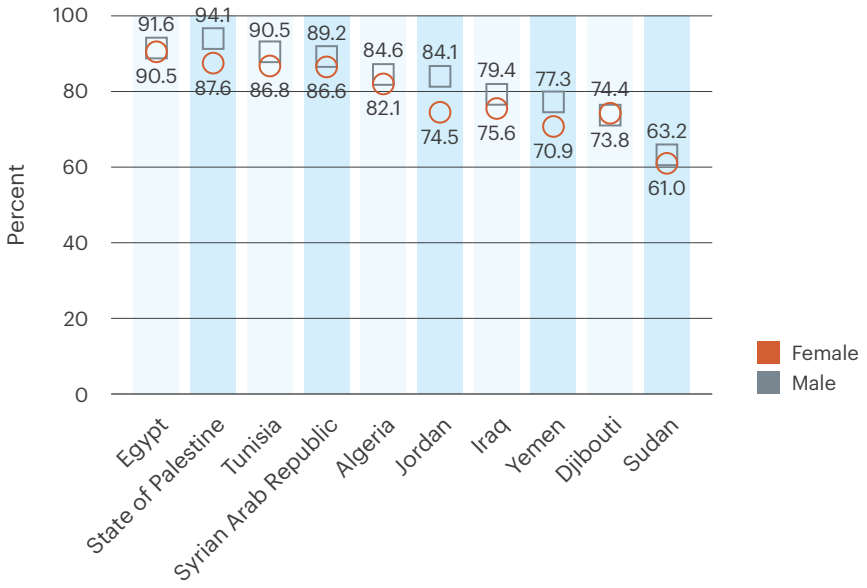
4.2 Exposure to violence

8 out of 10
young adolescents
in MENA
experience violent
discipline at home

Across the region, between 62 per cent and 91 per cent of young adolescents aged 10-14 years have experienced any form of **violent discipline** (psychological aggression and/or physical punishment)[i] at home in the past month, and in seven countries more than three quarters had experienced this violence (Figure 58). With the exception of Djibouti, a higher proportion of boys than girls have experienced violent discipline.

i Includes psychological aggression (shouting, yelling, screaming, calling child offensive names) and physical punishment intended to cause pain or discomfort (shaking, hitting, slapping with hand or hard object)

Figure 58. Percentage (%) of adolescents aged 10–14 years who have experienced psychological aggression and/or physical punishment by a caregiver in the past month, by country and sex



Source: MICS and DHS 2006–2020

1 in 2 students
aged 13-15
have experienced
peer victimization
in the past month

GSHSs for 17 countries report that between 17.5 per cent and 70 per cent of students aged 13–15 years have experienced **bullying behaviour or peer victimization** (including teasing, verbal abuse, threats, harassment, physical violence from a peer(s)) in the past month (Figure 59). With the exception of Algeria, more boys reported being the victim of bullying than girls. The prevalence of peer victimization was generally higher among adolescent refugees registered with UNRWA compared with other adolescents in the same country, and some of the highest rates of bullying in the region were reported among adolescent refugees registered with UNRWA.

Witnessing, perpetrating or being the victim of **physical violence** in school settings is also common. Across countries with available GSHS data, between 37.1 per cent and 56.2 per cent of 13–15-year-old students reported having been in a physical fight in the 12 months prior (Figure 60), and between 20.5 per cent and 56.2 per cent report being physically attacked. Rates of violence were similar for adolescent refugees registered with UNRWA, compared with other adolescents in the same country. The prevalence of violence is substantially higher among adolescent boys compared with girls.


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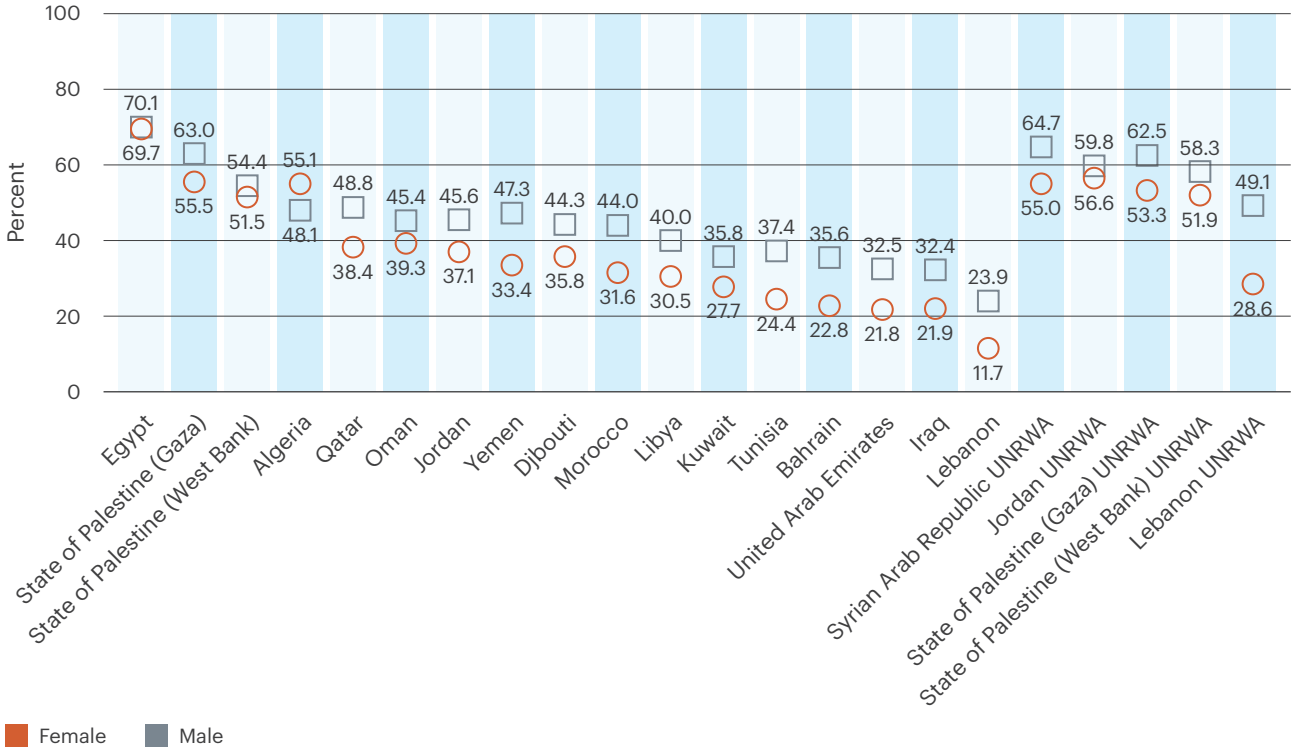
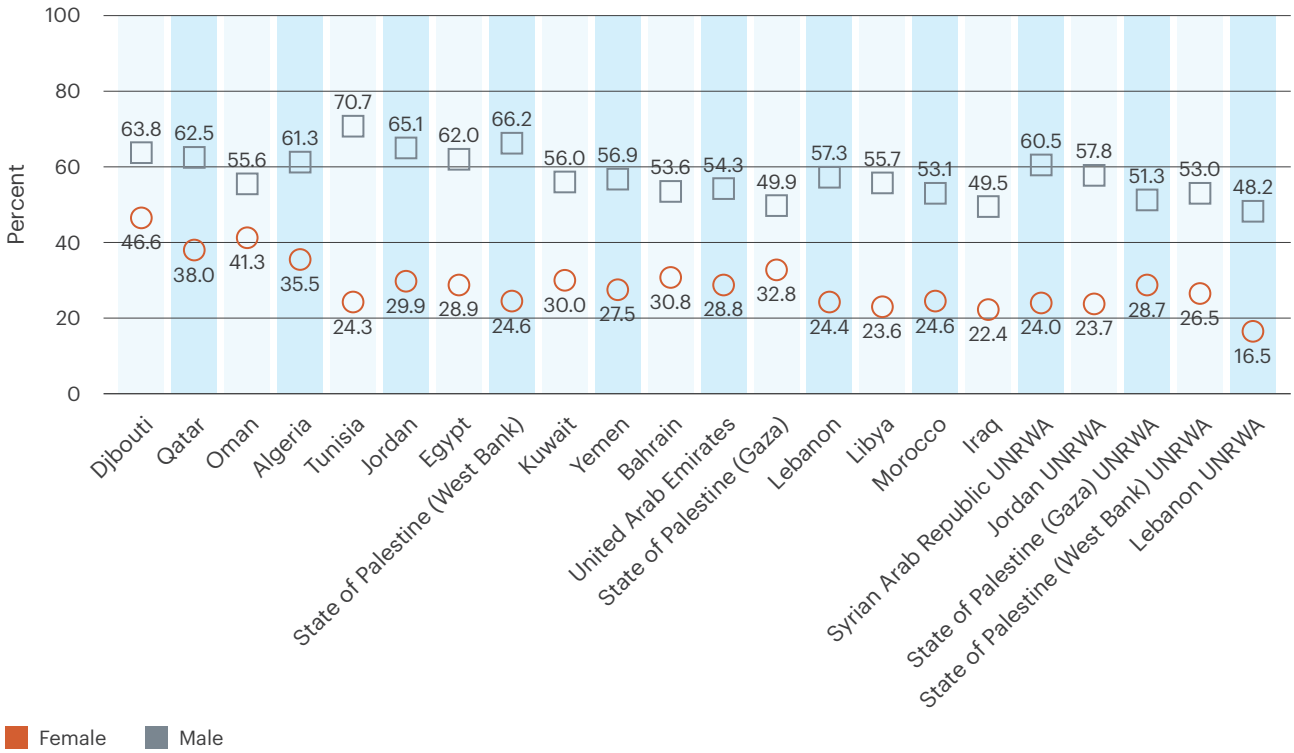
Figure 59. Percentage (%) of students aged 13–15 years who report having experienced bullying in the past month, by country and sex



Source: GSHS 2007-2017

Figure 60. Percentage (%) of students aged 13–15 years who report having been in a physical fight in the previous 12 months, by country and sex



Source: GSHS 2007-2017

Data describing sexual or intimate partner violence, or sexual exploitation are very limited for this region

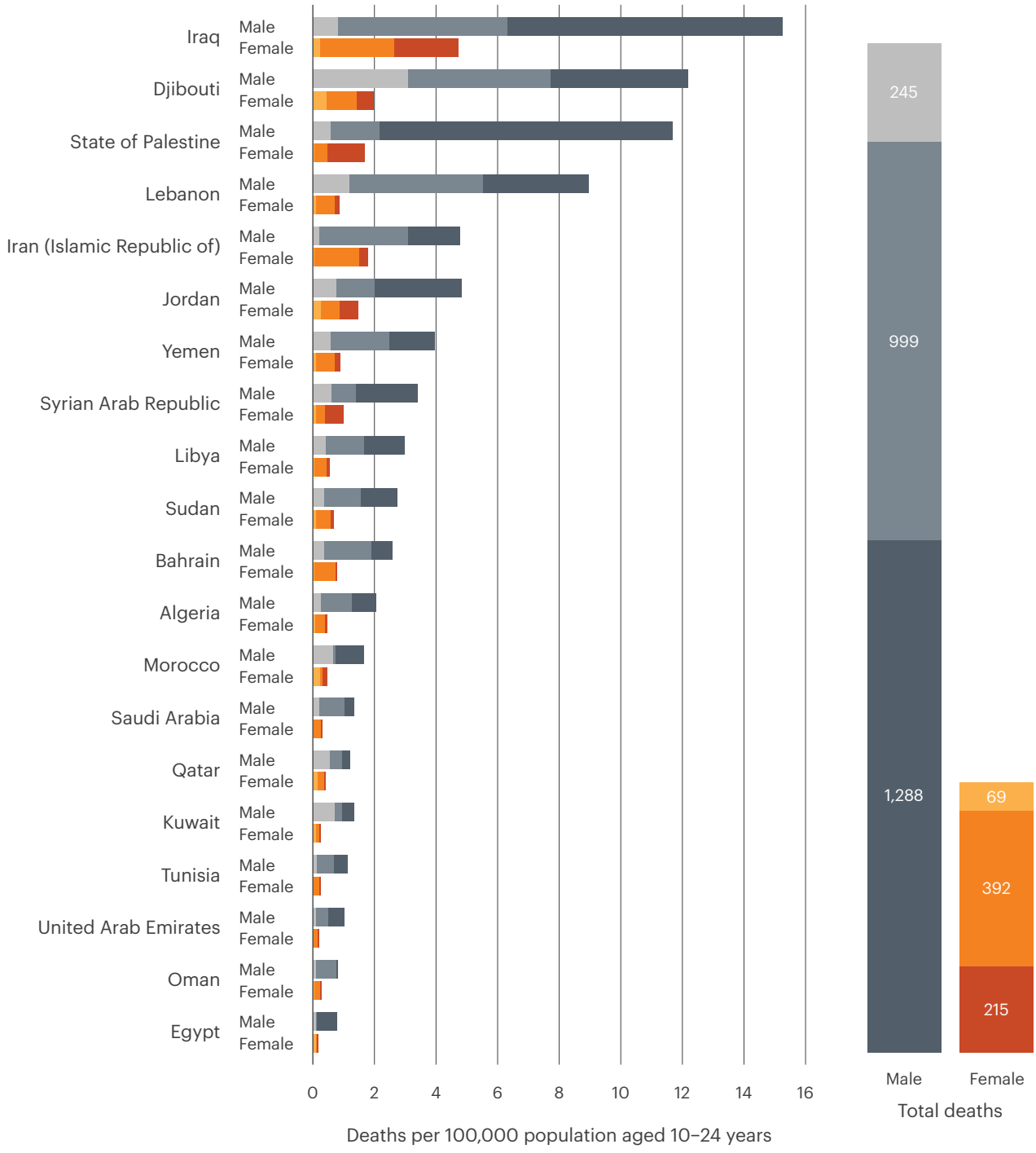
There is very limited data on **sexual or intimate partner violence**[ii] for this region. Estimates of sexual violence during adolescence are only available for State of Palestine, Egypt and Jordan. In the State of Palestine, 4 per cent of men and 2 per cent of women aged 18–29 years reported experiencing sexual violence before the age of 18 years (2019 UNICEF data). In Egypt, DHS data from 2014 revealed that 6 per cent of girls aged 15–19 and 5 per cent of 20–24-year-olds reported having ever experienced sexual violence, similar to rates reported in Jordan (3 per cent among 15–19-year-olds and 4 per cent among 20–24-year-olds). Data for the prevalence of intimate partner violence for adolescent girls aged 15–19 years are only available for Egypt and Jordan, where 17 per cent and 15 per cent of girls, respectively, report experiencing physical and/or sexual intimate partner violence in the last 12 months.[1] Modelled data estimate the prevalence of sexual violence among girls aged 10–19 years in the region was between 2.2 per cent and 4.2 per cent in 2019, with around 1.5 per cent of boys also having experienced sexual violence.

While data are limited, **online sexual exploitation and abuse** are likely to be increasingly prevalent risk factors. A global online survey conducted in 2021 reported that 44 per cent of 18–20-year-olds who responded to the survey in the MENA region had experienced at least one form of online sexual harm, with 50 per cent of girls and 47 per cent of boys reporting online sexual exploitation or abuse.[2]

In 2019, there were an estimated 3,208 deaths due to **interpersonal violence** among young people in the region. The majority of these deaths (79 per cent) occurred among boys and young men, and almost half were due to firearms (Figure 61). The highest homicide rates were found in Iraq, Djibouti, State of Palestine and Lebanon. Iraq alone accounted for 40 per cent of all deaths due to interpersonal violence in the region (Figure 62).

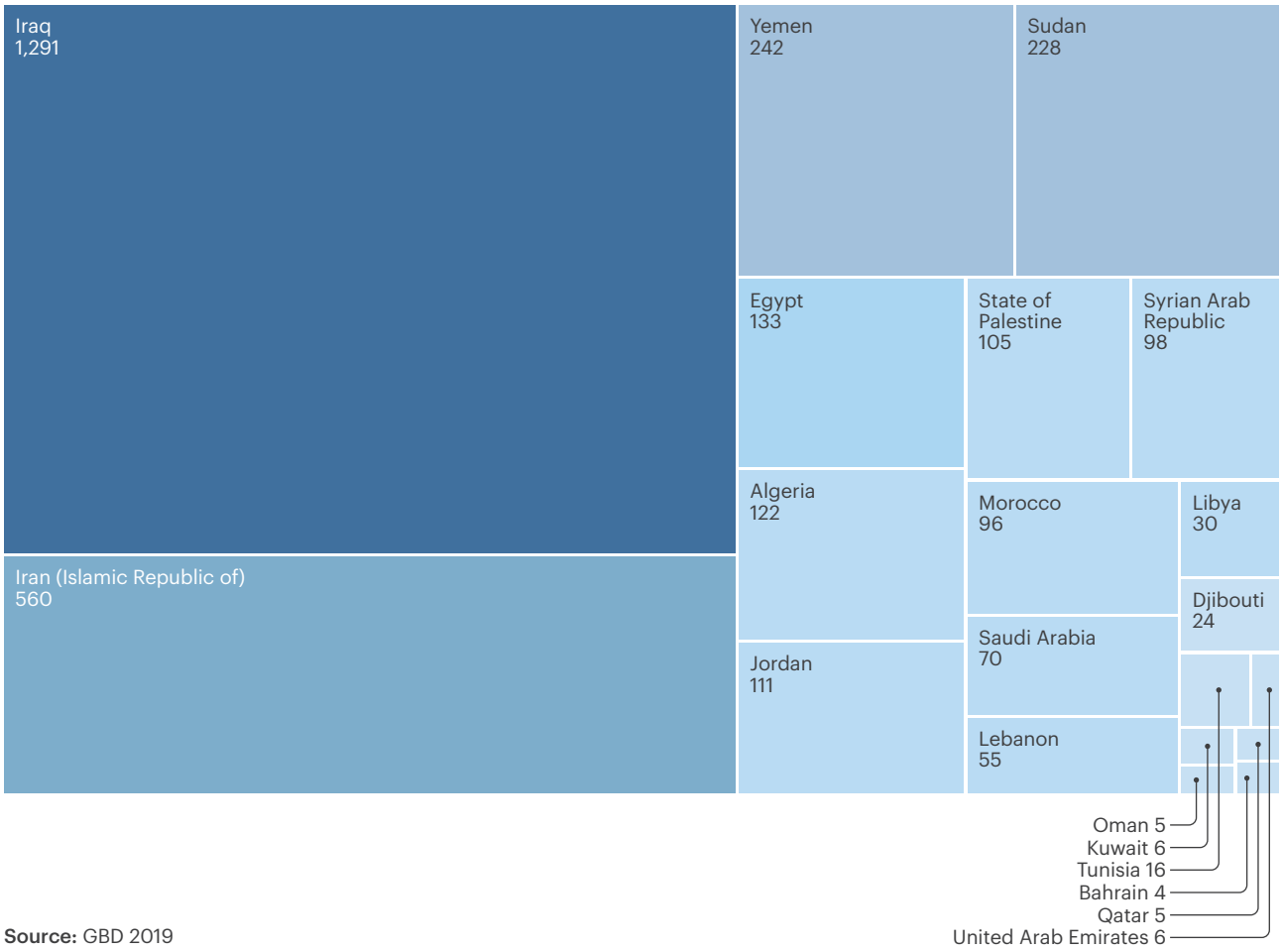
ii Physical violence' consists of acts aimed at physically hurting the victim and include, but are not limited to acts like pushing, grabbing, twisting the arm, pulling hair, slapping, kicking, biting or hitting with a fist or object, trying to strangle or suffocate, burning or scalding on purpose, or threatening or attacking with a weapon, gun or knife. 'Sexual violence' is defined as any sort of harmful or unwanted sexual behaviour that is imposed on someone, whether by use of force, intimidation or coercion. It includes acts of abusive sexual contact, forced engagement in sexual acts, attempted or completed sexual acts without consent, non-contact acts such as being forced to watch or participate in pornography, etc. In intimate partner relationships, sexual violence is commonly defined as: being physically forced to have sexual intercourse, having sexual intercourse out of fear for what the partner might do or through coercion, and/or being forced to do something sexual that the woman considers humiliating or degrading. 'Psychological violence' includes a range of behaviours that encompass acts of emotional abuse and controlling conduct.

Figure 61. Deaths due to interpersonal violence (mortality rate by country and sex, and total deaths by sex)



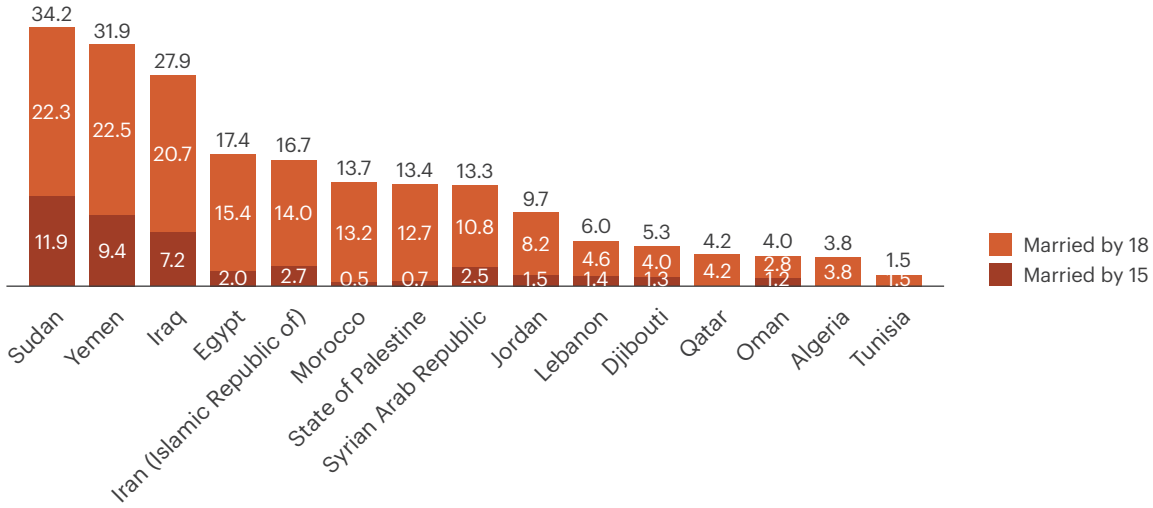
Source: GBD 2019

Figure 62. Total deaths among 10–24-year-olds due to interpersonal violence, by country



Source: GBD 2019

Figure 63. Proportion (%) of women aged 20–24 years who were married by age 15 and 18 years



Source: MICS and DHS 2006-2020

4.3 Exposure to harmful practices and other risks

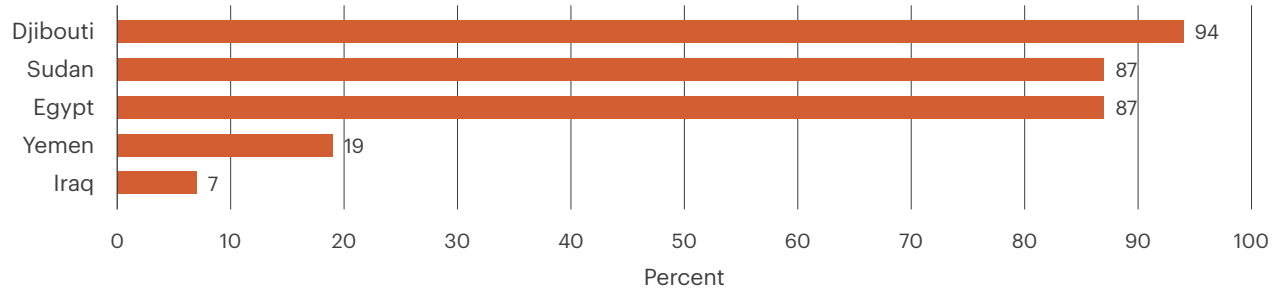
The prevalence of **child marriage** (marriage or union/cohabitation before the age of 18 years) ranges from 1.5 per cent in Tunisia to 34.2 per cent in Sudan (Figure 63). In three countries, Iraq, Yemen and Sudan, almost one third of young women were married by the age of 18 years, and around 1 in 10 girls married by the age of 15 years. In six other countries (Egypt, Iran, Morocco, State of Palestine, Syria and Jordan) around 1 in 10 women were married by the age of 18 years.

In **Iraq, Yemen and Sudan,** almost one third of young women were **married by age 18**

Estimates for the prevalence of female genital mutilation/cutting (FGM) girls and women aged 15–40 years were available for five countries (Figure 64). The prevalence was highest in Djibouti where almost half of girls and women have undergone FGM.

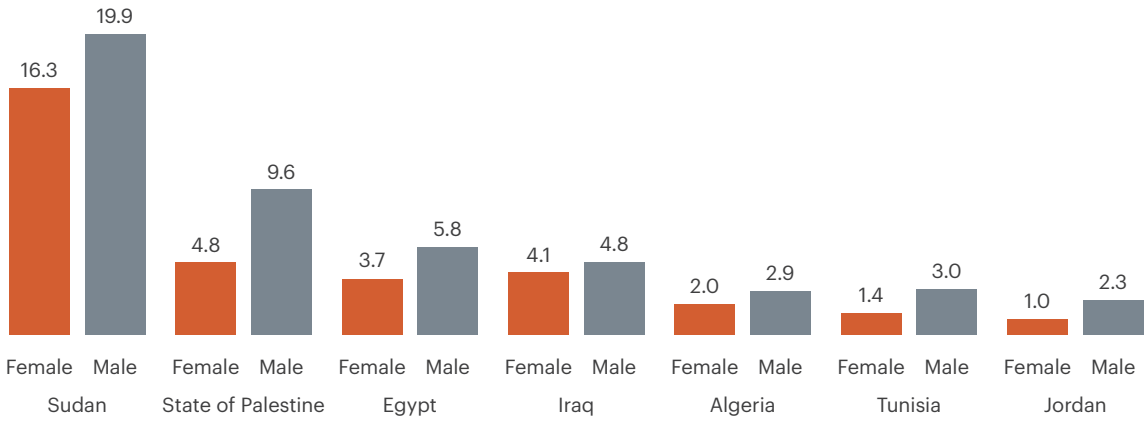
Seven countries in the MENA region have data reporting the prevalence of **child labour** among 5–17-year-olds, with between 2.3 per cent and 18.1 per cent of children and adolescents engaged in economic activities or household chores.[iii] In all countries with available data, rates of child labour were higher among boys compared with girls (Figures 65 and 66).

Figure 64. Percentage (%) of girls and women aged 15–49 years who have undergone FGM



Source: MICS and DHS 2012-2018

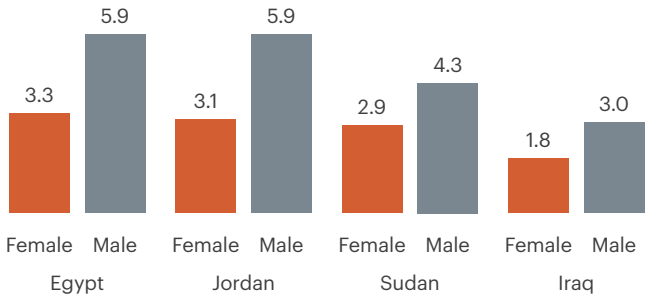
Figure 65. Percentage (%) of children and adolescents aged 5–17 years engaged in child labour (economic activities or household chores)



Source: UNICEF data/MICS 2000-2020

iii Child labour is defined as (a) children 5–11 years old who, during the reference week, did at least one hour of economic activity and/or more than 21 hours of unpaid household services, (b) children 12–14 years old who, during the reference week, did at least 14 hours of economic activity and/or more than 21 hours of unpaid household services, (c) children 15–17 years old who, during the reference week, did at least 43 hours of economic activity.

Figure 66. Percentage (%) of 15–17-year-olds who did at least 43 hours of economic activity in the previous week



Source: UNICEF data/MICS 2000-2020

4.4 Young people affected by conflict and displacement

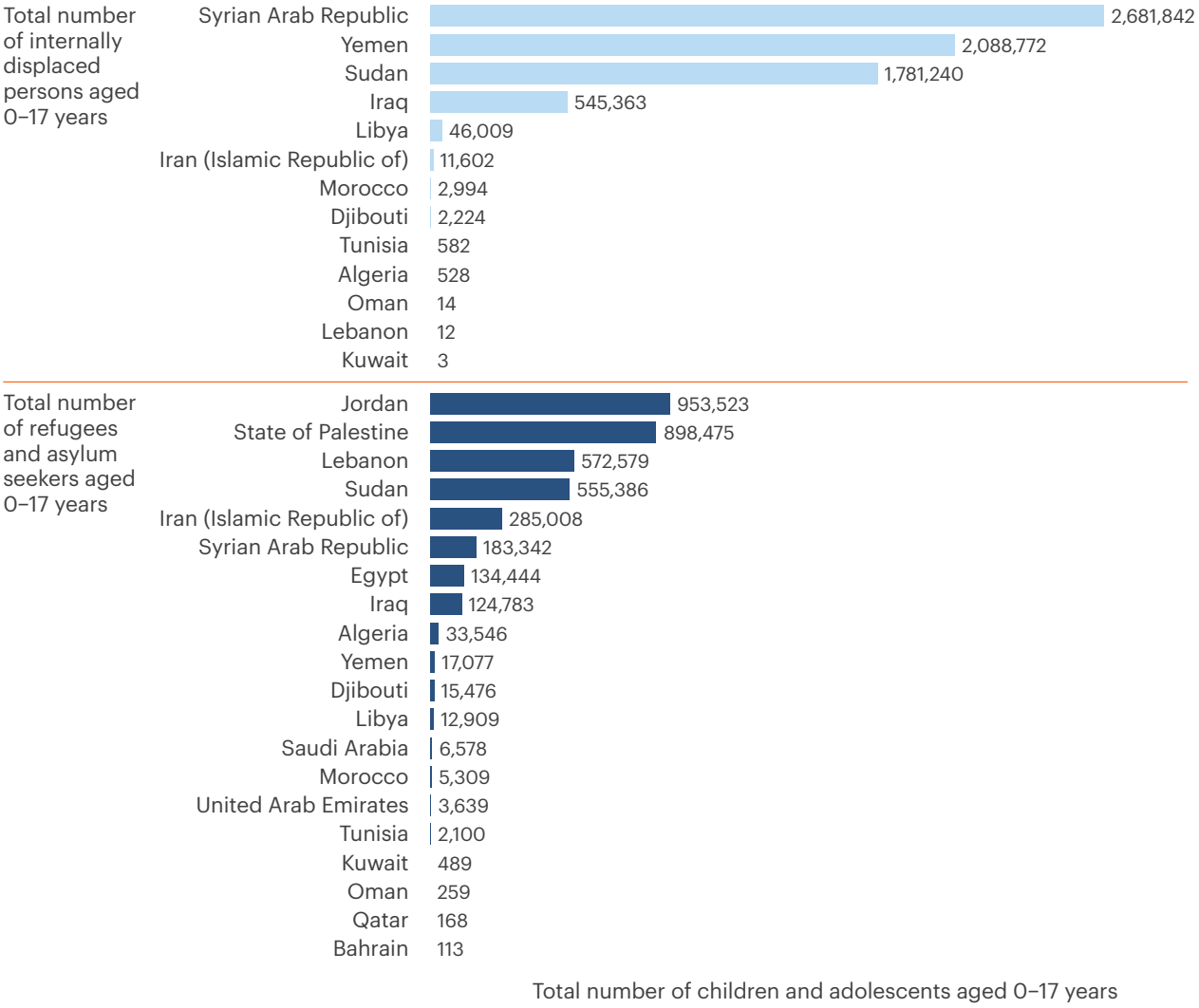
In 2022 there were
3.8 million refugees and asylum seekers
and
7.2 million internally displaced persons
under the age of 18

UNHCR and UNRWA estimated that in 2022 there were almost 2 million **refugees and asylum seekers** under the age of 18 years in the MENA region and 6.7 million children and adolescents who were **internally displaced** (Figure 67). Just three countries (Syria, Yemen and Sudan) account for 90 per cent of all the region's internally displaced children and adolescents, while Jordan, State of Palestine, Lebanon and Sudan host the largest numbers of child refugees and asylum seekers.

Young people affected by conflict and displacement are likely to experience a significant burden of poor health outcomes and risk factors that impact on well-being. While an in-depth analysis of health and well-being of young refugees and displaced persons was beyond the scope of this review, some available data indicate that risks such as exposure to peer victimization are higher among young refugees compared to their non-refugee peers. However, many comparable indicators of health and education were not available for young refugees.

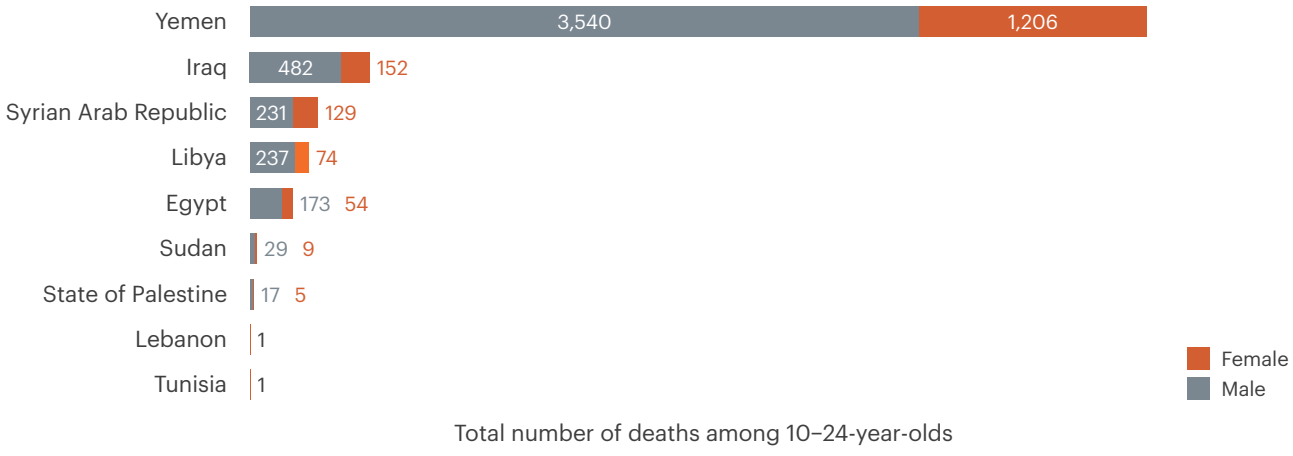
In 2019, there were an estimated 6,300 deaths due to conflict and terrorism, three quarters among boys and young men. Six countries accounted for 99 per cent of all deaths, with Yemen alone accounting for 75 per cent of deaths due to conflict in the region (Figure 68). Boys experience mortality rates between 2 and 3 times higher than girls in countries with a total mortality rate >1 per 100,000 (Figure 69).

Figure 67. Total number of children and adolescents aged 0–17 years who are internally displaced, or refugee and asylum seekers, by country



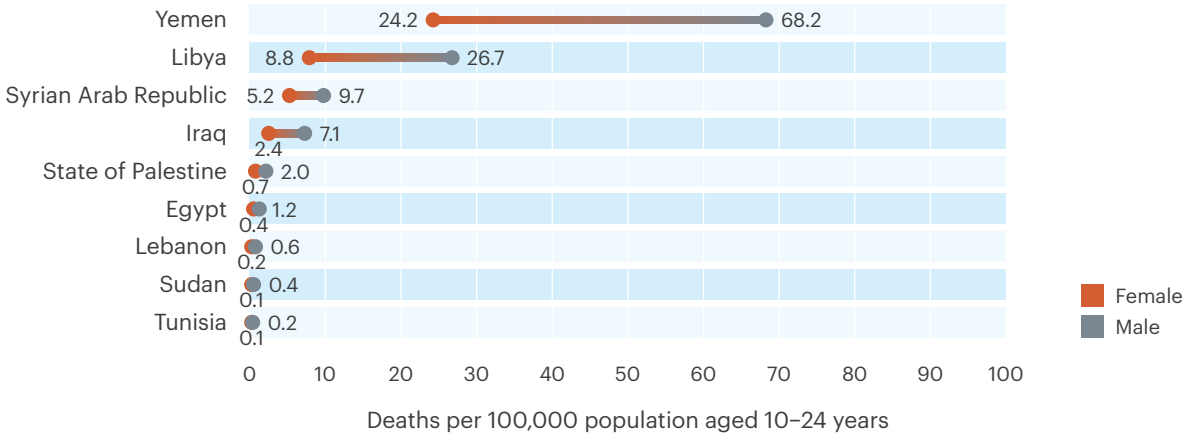
Source: UNICEF MENARO 2022

Figure 68. Total estimated number of deaths among 10–24-year-olds due to conflict and terrorism in 2019, by country and sex



Source: GBD 2019

Figure 69. Mortality rate due to conflict and terrorism (deaths per 100,000 population aged 10–24 years), by country and sex



Notes: Countries with total rate <0.1 per 100,000 have been excluded from this figure

Source: GBD 2019

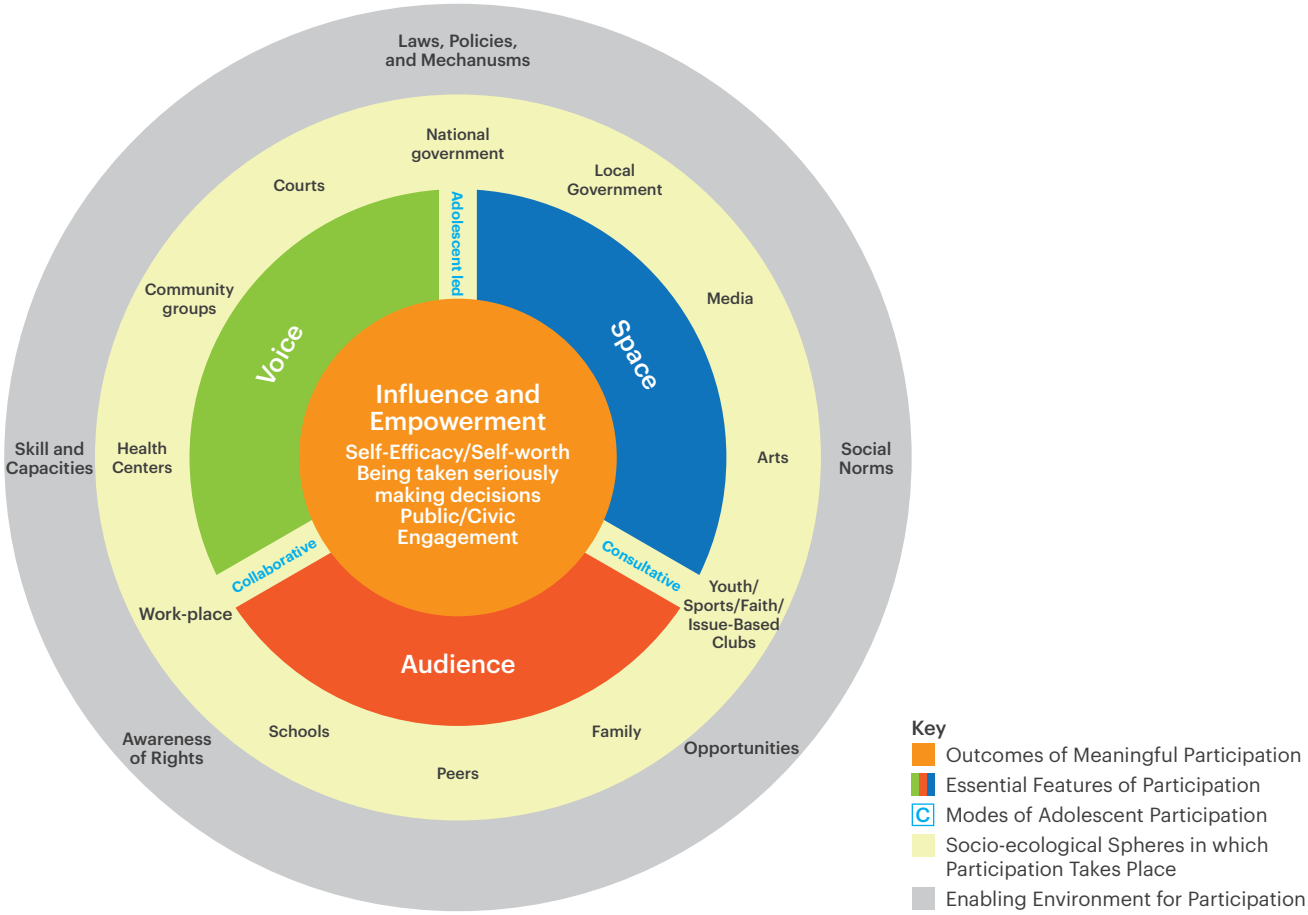
5 Participation

Key findings

- There are limited indicators and data to describe young people's participation, voice and agency.
- There are huge disparities in access to information and communication technologies between countries.
- Six countries have a national youth organization or association.
- In five countries, Bahrain, Kuwait, Lebanon, Oman and United Arab Emirates, the legal voting age is 20 years or older.
- 6.5% of parliamentarians in Tunisia, where there is quota for youth representation, are aged under 30 years. In all other countries 2.5% or fewer of elected representatives are under the age of 30.

There are currently limited internationally defined indicators of youth participation, and fewer indicators that are reliably measured at the national level. UNICEF has described a framework for measuring outcomes of meaningful youth participation (Figure 70), which includes factors related to individual-level skills, self-efficacy and agency, opportunities for voice, and civic and public engagement.

Figure 70. UNICEF conceptual framework for measuring youth participation



In the MENA region, there are currently no nationally comparable age-disaggregated data that describe young people's participation in decision-making within families or intimate relationships with respect to financial, social or health-related decisions. There are also no data related to the prevalence of discrimination or social norms or attitudes enabling of youth participation. There are also no age-disaggregated data for the region identifying young people's participation in volunteerism.

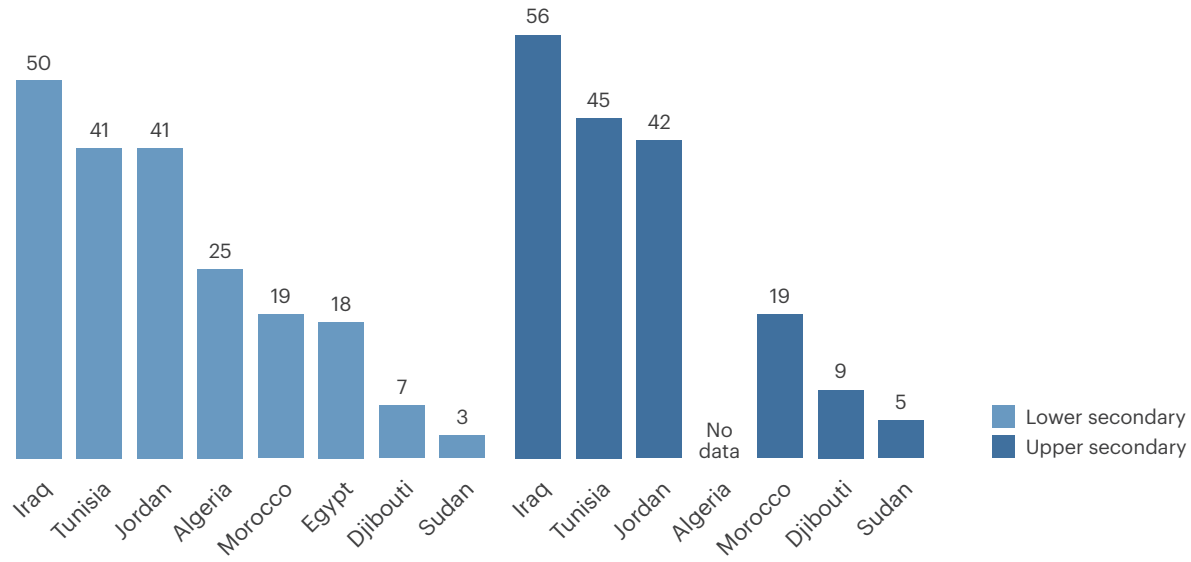
What does youth participation mean for young people?

Members of the UNICEF MENA Youth Advisory Group described meaningful participation as:

- Participation at all levels, from policy-making through to implementation
- Viewing young people as partners, not beneficiaries
- Not just 'hearing' the voices of young people but giving them a seat at the decision-making table with real opportunities to contribute to policy and design of programmes
- Not only focused on 'youth issues' but recognizing that young people should contribute to discussions on other issues of national importance, such as the economy and the response to climate change
- Supporting skills-building and capacity development of young people

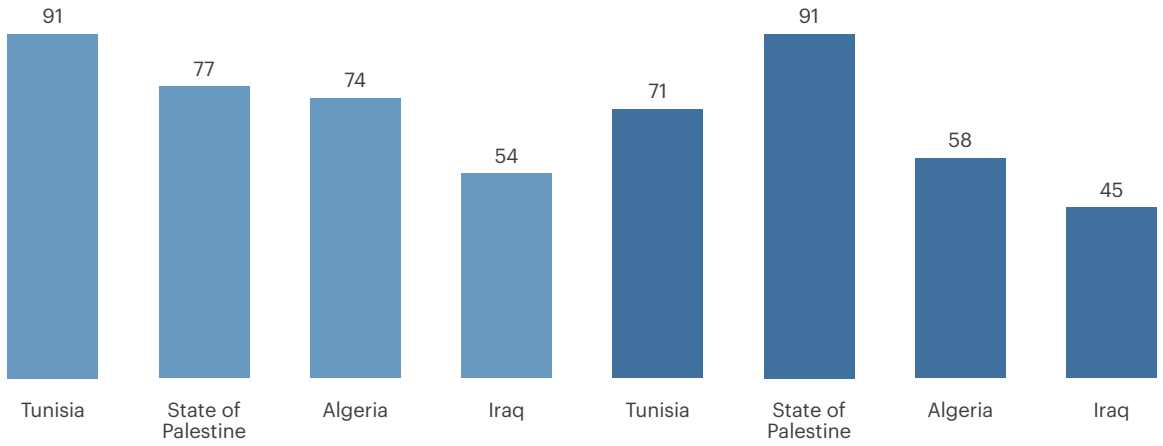
Digital technologies and social media provide new opportunities for supporting young people's voice, space and access to diverse audiences. Age and sex disaggregated data for the MENA region describing adolescents' access to and use of the internet and social media are limited. Eight countries have data in relation to internet access, with between 3 per cent (Sudan) and 50 per cent (Iraq) of lower-secondary-aged adolescents having an internet connection at home (Figure 71). Mobile phone ownership among girls aged 15–24 years is high in Tunisia, State of Palestine and Algeria (Figure 72). However, in Iraq only 54 per cent of girls own a mobile phone and less than half had used the internet in the previous three months. Internet use was also lower among girls in Algeria compared to those in State of Palestine and Tunisia.

Figure 71. Percentage (%) of adolescents with internet connection at home, by school-age



Source: UNICEF 2010-2019

Figure 72. Percentage (%) of females aged 15–24 years who a) own a mobile phone and b) used the internet in the last three months



Source: MICS 2018-2020

There are limited data concerning young people's meaningful participation in policy-making. Six countries in the region, Djibouti, Jordan, Kuwait, Lebanon, Libya and Syria have a **national youth organization or association** providing a platform to support youth participation in decision-making and to promote dialogue between youth, policy-makers and international organizations (Table 12).

In the majority of countries in the region, young people have a legal right to vote from the age of 18 years (Table 13). However, in five countries (Bahrain, Kuwait, Lebanon, Oman and United Arab Emirates) voting age is 20 years or more. In 2016, 2.3 per cent of parliamentarians were under 30 years of age in North Africa, compared with 0.3 per cent in the Middle East (Figure 73). Tunisia and Morocco have quotas for youth representation, with 7.6 per cent of seats reserved for those under the age of 40 in Morocco, and a legislated quota of 25 per cent representation for under 35-year-olds in Tunisia.[1]

Table 12. Existence of a national youth organization or association

Country	National youth organization/association (council, platform, body)
Algeria	
Bahrain	
Djibouti	
Egypt	
Iran (Islamic Republic of)	
Iraq	
Jordan	
Kuwait	
Lebanon	
Libya	
Morocco	
Oman	
Qatar	
Saudi Arabia	
State of Palestine	
Sudan	
Syrian Arab Republic	
Tunisia	
United Arab Emirates	
Yemen	

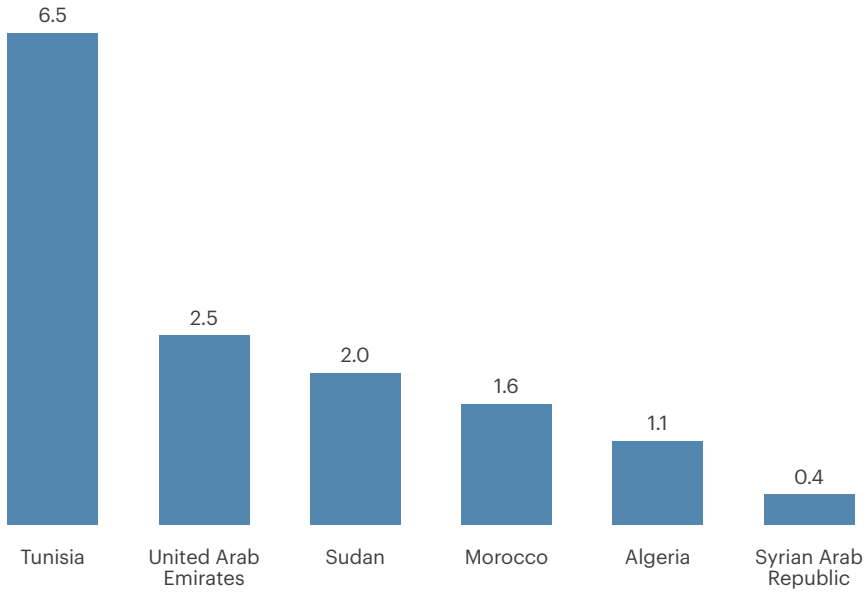
Yes
No
Unclear

Table 13. Legal voting age in national elections (years)

Age 18 years	Age 20 years	Age 21 years	Age 25 years
Algeria	Bahrain	Kuwait	United Arab Emirates
Djibouti		Lebanon	
Egypt		Oman	
Iran (Islamic Republic of)			
Iraq			
Jordan			
Libya			
Morocco			
Qatar			
Saudi Arabia*			
State of Palestine			
Sudan			
Syrian Arab Republic			
Tunisia			
Yemen			

Notes: *Municipal council elections

Figure 73. Percentage (%) of parliamentarians in single or lower houses of government aged under 30 years



Notes: The % for other reporting countries was 0 (and not shown)

Source: IPU 2016

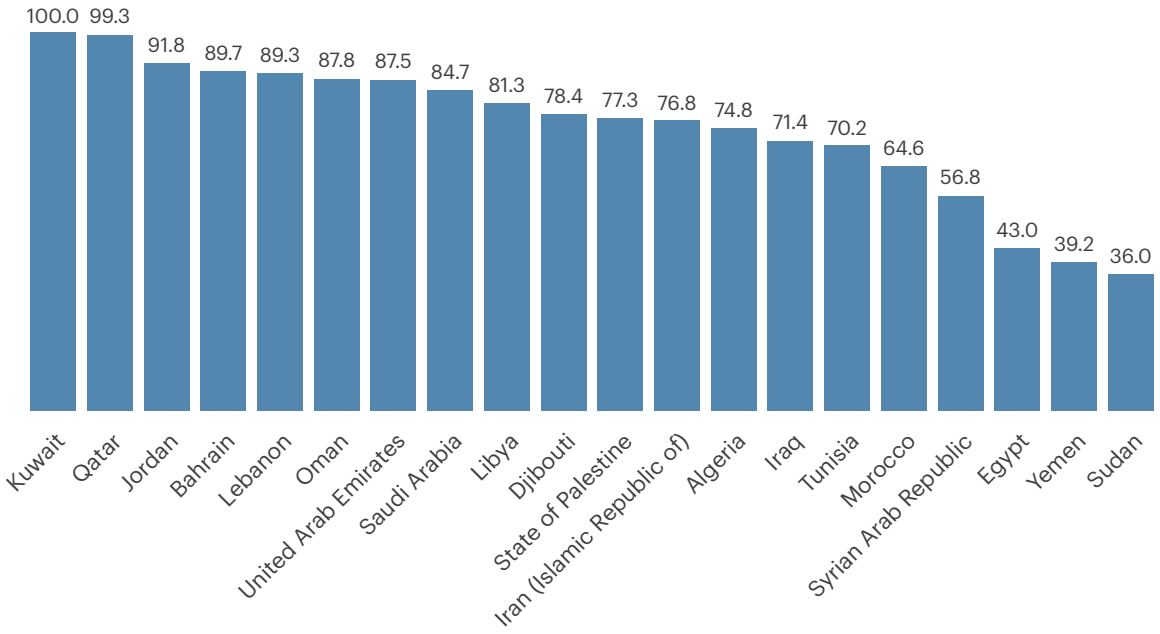
6 Safe and sustainable environment

Key findings

- The majority of the region's young people live in urban areas, with the exception of Yemen, Sudan and Egypt where most of the population live in rural areas.
- Most of the population has access to basic water, sanitation and hygiene services, but fewer than three quarters have access in Yemen, Sudan and Djibouti.
- There are very limited data describing menstrual health, but available estimates indicate there are unmet needs for appropriate materials and sanitation facilities with impacts on participation of adolescent girls in school and social activities.
- Eleven countries have a medium Climate Risk Index. In Yemen, Sudan, Djibouti and Egypt, this risk is high or extremely high.

The majority of the region's young people live in **urban areas** (Figure 74). In only three countries, Egypt, Yemen and Sudan, are most of the population residing in rural areas. Yemen and Sudan, in addition to Djibouti, also have the lowest coverage of basic **water and sanitation** in the region (Figure 75), and these countries experience among the highest burden poor health due to communicable diseases.

Figure 74. Share (%) of the total population living in urban areas



Source: UN DESA World Urbanization Prospects 2018

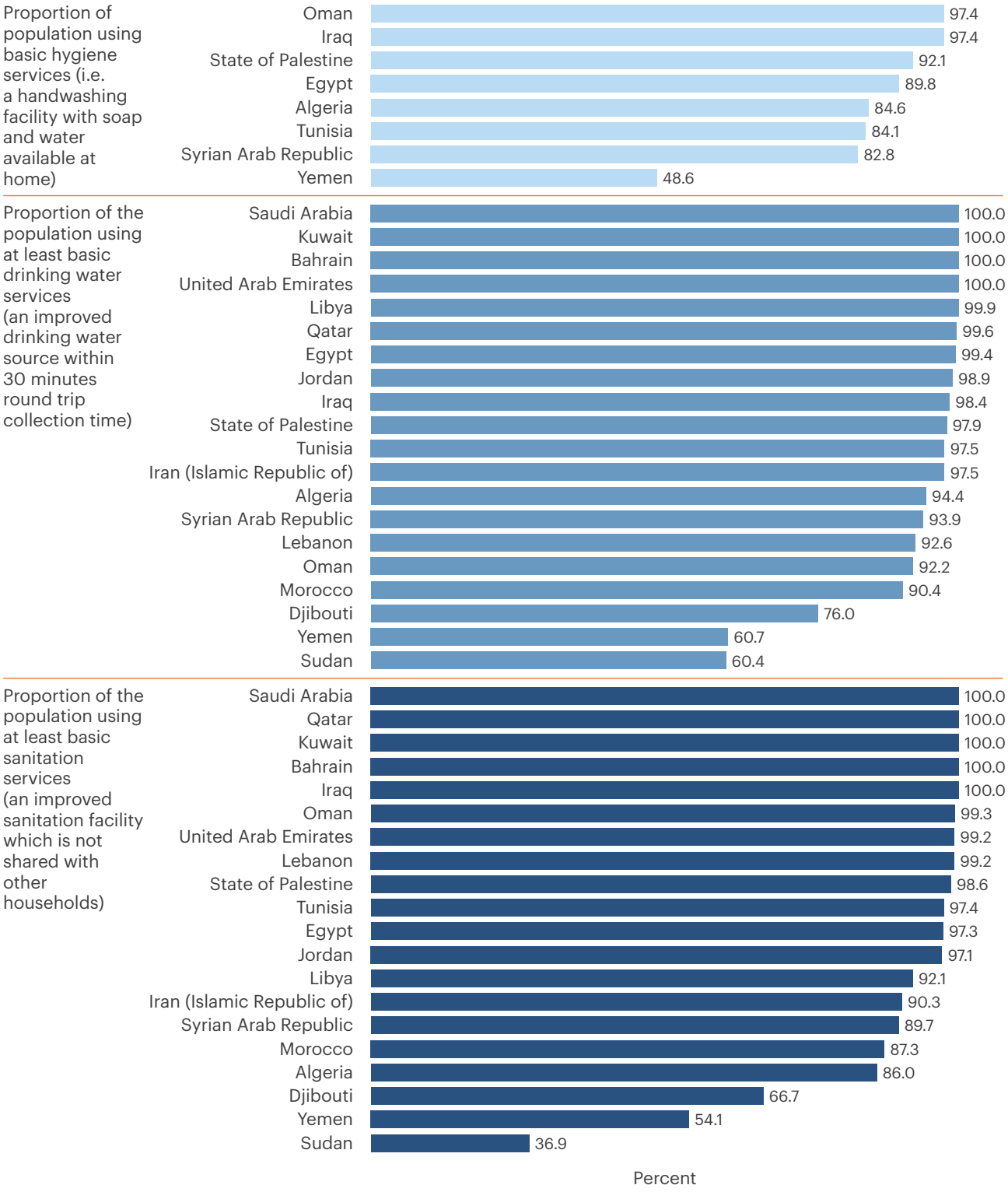
There is very limited data describing **menstrual health** needs of girls in the region. Estimates for girls aged 15–24 years were only available for three countries. Of these, around 1 in 10 girls in Algeria and Iraq were not using appropriate material for menstrual hygiene or did not have a private place at home to change, increasing to 40 per cent of girls aged 15–24 years in Tunisia (Figure 76).

The climate crisis and environmental degradation pose direct threats to the health and well-being of adolescents and young people. Twelve countries in MENA have high to extremely high exposure to climate and environmental shocks as stressors, including water scarcity, heatwaves, pollution and vector-borne diseases.[1] The top four countries for carbon dioxide emissions per capita are also in this region (Qatar, Kuwait, United Arab Emirates and Bahrain).

UNICEF's Climate Change Risk Index (CCRI) is a composite index to measure the likelihood of climate and environmental shocks and stressors that deepen child deprivations and/or humanitarian situations. It includes both the likelihood of exposure to climate shocks and children's vulnerability (Figure 77).[2] Four countries, Yemen, Sudan, Djibouti and Egypt have a high or extremely high CCRI, with eleven countries rating as medium for climate risk (Figure 78).

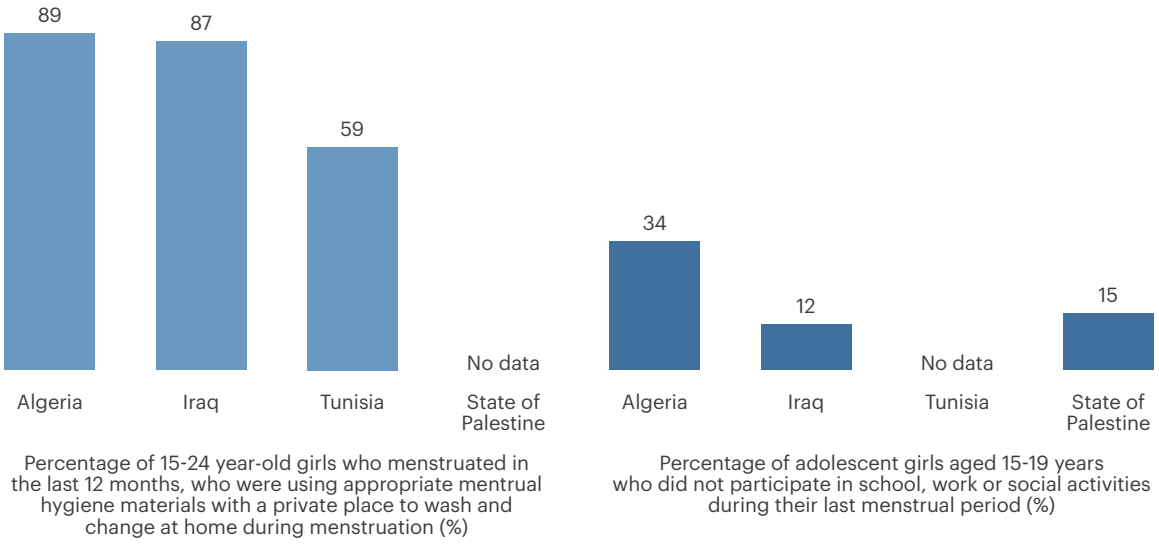
Yemen, Sudan, Djibouti and Egypt have high or extremely high children's climate change risk

Figure 75. Proportion (%) of the population with basic hygiene, drinking water and sanitation at home



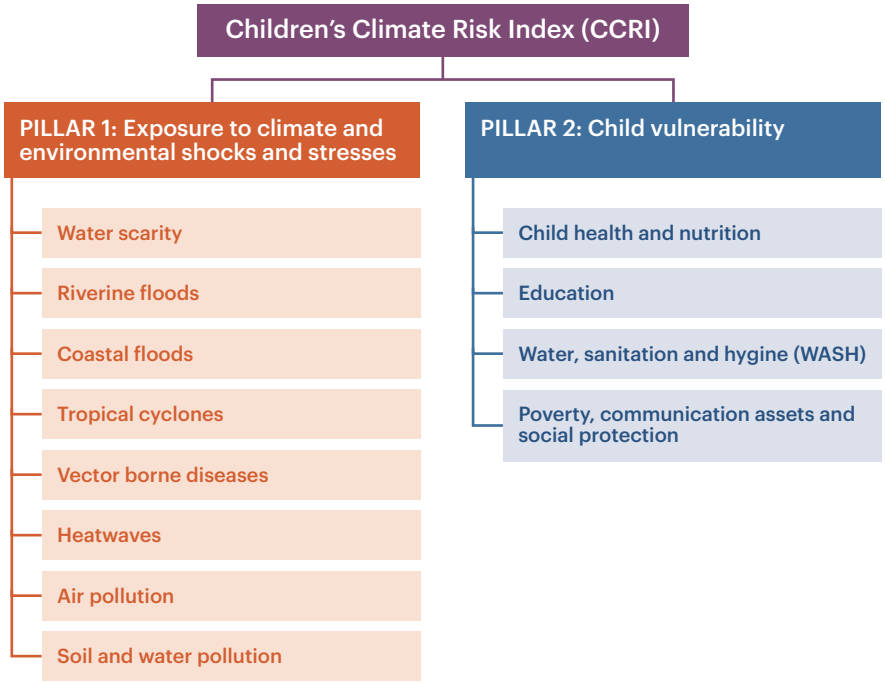
Source: WHO/UNICEF 2017-2020

Figure 76. Percentage (%) of 15–24-year-olds who menstruated in the last 12 months, who were using an appropriate material for menstrual hygiene and had a private place at home to wash and change and percentage (%) of adolescent girls aged 15–19 years who did not participate in school, work or social activities during their last menstrual period



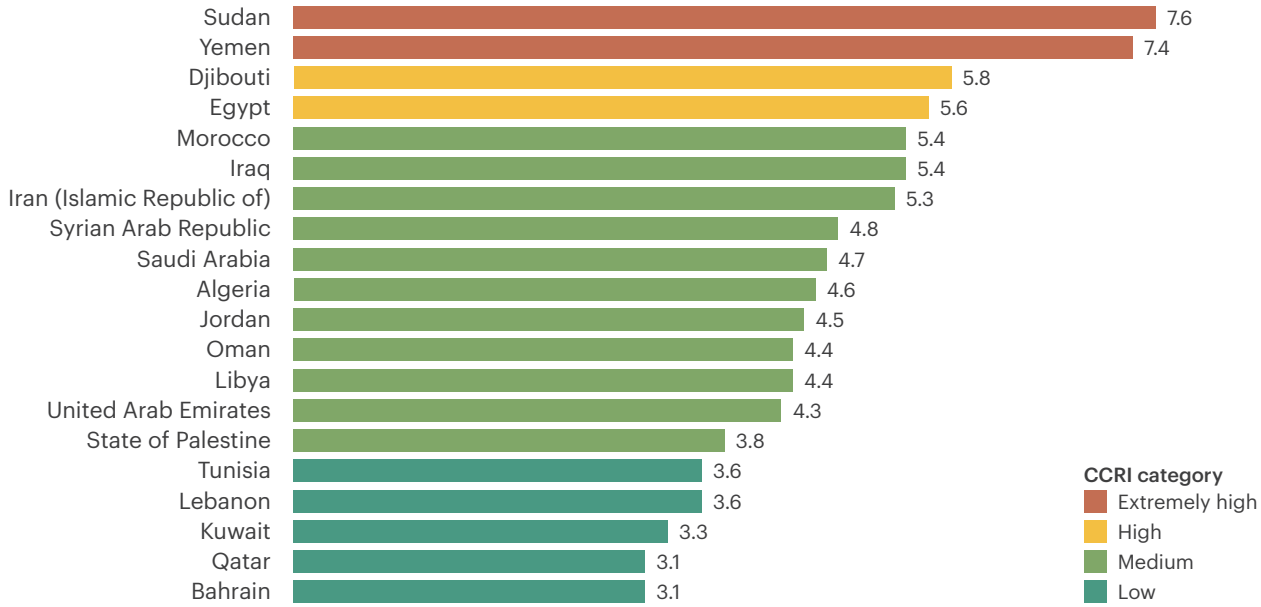
Source: MICS 2018-2020

Figure 77. Children's Climate Risk Index conceptual framework and components



Source: UNICEF

Figure 78. Children's Climate Risk Index



Source: UNICEF 2021

Conclusions

The MENA region is home to almost 140 million young people aged 10–24 years, one quarter of the population. The region's young population represents a powerful opportunity to influence health and well-being into adulthood and for the next generation, and to advance equitable and sustainable development for communities and societies.

Much of the disease burden and 90,000 deaths among young people are preventable, and there is a high prevalence of risk factors for poor health both in adolescence and in adulthood that are amenable to intervention. This represents a crucial opportunity for both individual and population-level gains in health and other socioeconomic outcomes. Young people in the region face multiple threats to their well-being, including exposure to violence, conflict, harmful practices and missed opportunities to engage in education, employment and civil society that limit the capacity of young people to reach their potential.

One in two deaths of young people in the region (45,000 deaths) are due to injury (transport, other unintended injury and violence). Injuries also cause substantial morbidity, accounting for one quarter of the total disease burden (measured in DALYs) among 10–24-year-olds.

Non-communicable diseases, including cardiovascular disease, cancers, headache, musculoskeletal disorders and skin diseases, account for 41 per cent of the total disease burden of young people and led to over 27,000 deaths in 2019. Almost one quarter of the total disease burden is due to **mental disorders and intentional self-harm**, with over 4,000 deaths of young people in the region due to suicide.

Communicable diseases account for less than 10 per cent of the disease burden among young people in the region. However, in some countries, Djibouti, Sudan and Yemen, **communicable diseases, maternal disorders and nutritional deficiencies** are leading contributors to poor health – accounting for 20 per cent of the total disease burden. Sudan and Yemen alone accounted for over half of the 11,000 deaths due to these causes in 2019.

Young people also experience high rates of risk factors for poor health in adulthood (including tobacco smoking, physical inactivity, overweight and obesity) and limited opportunities to complete quality education, transition to meaningful employment, and participate in decisions that impact their lives.

There are substantial disparities in health outcomes and risks between countries, and important gender differences:

- **Boys** in the region experience a higher burden of poor health and around twice the mortality rate compared with girls, largely driven by injury. While transport and other unintentional injuries are leading causes of mortality and morbidity, boys also experience substantially higher rates of violence, including peer victimization, homicide and interpersonal violence, and mortality as a result of conflict and collective violence. While the prevalence of suicidal behaviour is similar between boys and girls, two thirds of all suicide deaths are among boys. Boys in the region also experience higher rates of use of tobacco, alcohol and other drugs compared with girls, and in 11 countries, one third or more of adolescent boys are overweight or obese.

- **Girls** also experience a high burden of poor health due to injury, and transport injuries are the leading cause of death of girls in half of the MENA countries. Non-communicable diseases are the leading cause of poor health for girls, accounting for around half of the disease burden (compared to 36 per cent for boys). Girls experience a higher burden of mental disorder compared with boys, due to increased depression and anxiety. While boys have higher suicide mortality, girls in the region experience a similar prevalence of suicidal behaviour: between 10 and 23 per cent of female students report attempting suicide in the previous 12 months. Girls also face substantial threats to their health, well-being and full participation: around one third of girls are married by the age of 18 years in Iraq, Yemen and Sudan; FGM remains prevalent in some settings; and the rate of girls not in education, employment or training is more than double that of boys. Poor reproductive health, including high unmet need for contraception, adolescent childbearing and maternal disorders are important contributors to morbidity and mortality in many settings, and contributed to almost 1,700 maternal deaths among 10–24-year-old girls and young women in 2019. However, data for many indicators of sexual and reproductive health are lacking in the region.

Knowledge gaps and research priorities

While this analysis has been limited to national-level estimates of key health and well-being outcomes and risks, it highlights some key areas where data for many countries in the MENA region are limited. These include age-disaggregated data describing:

- Sexual and reproductive health knowledge, behaviours and risks (including access to services)
- Intimate partner and sexual violence
- Mental health
- Menstrual health
- Education completion and attainment
- Child labour
- Information and communication technology skills and access
- Discrimination

There were also some key areas of health and well-being where there are currently no or limited internationally recognized indicators, including indicators of:

- Mental health and psychosocial wellbeing
- Youth participation, connectedness, voice and agency
- Safety
- Health care access and quality for adolescents and young people

This work also highlights areas where further research is needed to better understand the health and well-being of young people in the MENA region. These include:

- Sub-national analyses to identify and describe health and well-being inequities, including the needs of refugee, displaced, migrant, out-of-school, and marginalized young people
- Qualitative research to understand the context and drivers of key health and well-being needs and risks, including mental health, sexual and reproductive health, injuries and violence, non-communicable disease risks (including substance use), unemployment and out-of-school young people
- Quantitative and qualitative studies to understand the impact of the COVID-19 pandemic and public health response on the health and well-being of young people, including impacts on education and mental health, and exposure to risks such as violence and early marriage
- Research to understand the risks and impacts of climate change on young people's health and well-being
- Research to identify and understand the needs, priorities and service-delivery preferences of young people themselves to inform responsive policies and programming

It is also noted that many household or school surveys (for example, GSHS, MICS and DHS) used for this analysis were conducted over ten years ago, and these estimates may not reflect the current situation for young people in the region.

Policy Implications

In addition to investing in research to address the priorities listed above, further recommendations arising from this analysis include:

- Invest in research to understand adolescent health needs and track progress – including expanding population and household surveys to include health outcomes, risks and determinants that are a high priority for this age group (injury, mental health, sexual and reproductive health, substance use) and inclusion of married and unmarried adolescents
- Strengthen, or develop, adolescent health policy or strategies that address major causes of poor health and health risks, and respond to the gendered differences in health needs, risks and barriers
- Strengthen adolescent-responsive health services to address major causes of death and poor health, including preventive interventions to address risk factors and support continuity of care (including transition from paediatric to adult health care for chronic diseases and non-communicable diseases)
- Increase multisectoral action to address injury – particularly transport injuries and other unintentional injuries
- Strengthen multisectoral action (particularly health, education, social welfare and humanitarian response) to support mental health and well-being (including responsive care, prevention, suicide prevention, mental health promotion)

- Develop policies and programmes to reduce adolescent pregnancy, informed by research, to better understand the context and drivers in countries in the region
- Include adolescent-specific actions and targets within broader policy and programmes to address communicable diseases, and the specific barriers and needs of young people (e.g., tuberculosis screening and treatment, HIV programmes)
- Strengthen or develop policies and programmes that address non-communicable diseases and their risk factors, including a focus on risks that emerge and/or are consolidated during adolescence (physical activity, smoking, nutritional risks)
- Improve protection for young people, with a focus on protection from violence, child marriage and FGM, including through policy, legislation and programmes, to address harmful social and gender norms
- Increase opportunities for meaningful participation of young people in education, training and meaningful work, as well as greater participation in decision-making and public engagement, particularly around issues of heightened significance for young people, such as the climate crisis and environmental sustainability
- Establish or improve national systems and mechanisms that tackle the growing threat that the climate crisis poses to young people, including those aspects that impact their health, development and overall well-being

Endnotes

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