

Chapter 5

Health Status and Access to Health Services

Optimum health and well-being ensures that young people can grow and thrive. Inequities in health care usually stem from social determinants shaped by wealth, resources and power. Yet, in some places, even where services are fully accessible, there are gaps in the quality of services, often for social and economic reasons.

Thus, the biggest challenges in health care may lie outside the field of health in the wider

socioeconomic context. Yet, because individual behaviour affects health promotion and disease prevention if the environment is not supportive, governments must improve the health care environment.¹

While giving young people all the facts about how their own decisions impact their health and well-being, governments must encourage young people to make the healthy choice, so that they live longer and healthier lives.²

5.1

The health status of youth

“ Good health is both a driver and a beneficiary of economic growth and development. Ill health is both a consequence and a cause of poverty. ”

*A Million Voices: The World We Want
(UN 2013c.)*

Health is rarely a primary objective for any person. Rather it is a resource for everyday living. Health as a resource suggests that the concept has utility in the minds of people and professionals beyond itself.³ When asked to define health, people usually use terms such as the capacity or ability to engage in various activities, fulfill roles, and meet the demands of daily life.⁴ The interactions between health and social conditions are inseparable.

Youth well-being is generally an indicator of future adult well-being. The health of youth is affected by factors beginning with conception; as in turn adult health is affected by youth health.⁵ The past decades have witnessed impressive worldwide

gains in child health and steep falls in infant and under-5 mortality rates. However, these gains need now to be matched through similar investments in the second and third decades of life.⁶

Challenges to improving health among youth

Understanding youth health and planning for interventions depend on accurate, up-to-date data for monitoring and evaluation. Yet, globally comparable data for measuring the health status, health risks, and protective factors among the 15–29 age-group are in short supply.⁷ At least three global surveys provide health-specific data

Box 5.1 Hadeel Abou Soufeh: Disability, access to services and basic rights

As a wheelchair user, Hadeel from Jordan, who survived a car accident at age 11, faces daily obstacles that restrict her mobility and choices. She offers a few examples of these problems, which are shared by many other people with disabilities across the region.

- Lack of physical infrastructure to accommodate her wheelchair; the absence of slopes, elevators and accessible restrooms
- Stereotypes and judgements according to which the disabled are incapable of doing anything unaided
- The looks of superiority, arrogance, or pity
- Lack of specialized transport facilities for persons with physical restrictions
- Lack of parking spaces for wheelchair users; if the spaces do exist, lack of enforcement against people who use them, but do not need them
- Reluctance of private or public institutions to hire people in wheelchairs because of biases

about their abilities

The main problem in Jordan is the failure to implement the Law on the Rights of Persons with Disabilities, issued in 2007 by virtue of a royal decree, and the Convention on the Rights of Persons with Disabilities.

Policies that could help solve these problems include the following:

- Ensuring real integration by adopting and enforcing every article of the Convention
- Developing an annual budget within government programmes and projects and stipulating environmental arrangements to accommodate people with disabilities
- Building and maintaining equipped transport through a special plan of the Ministry of Transportation
- Conducting awareness programmes in schools, universities and the media on the rights of people with disabilities

Note: Hadeel Abou Soufeh was a participant in the report's youth consultative group meeting.

on younger adolescents in the 13–15 age-group, but surveys rarely produce health data on the 16–18 age-group, and none cover the 15–29 age-group (annex 2 table A.13).⁹ The gap must be closed.

Health care systems in Arab countries also suffer from insufficient capacity to deal with youth health needs, which is a worldwide pattern.⁹ A 2012 review of the history of population health care services that was not limited or necessarily specific to young people indicates that the access to and utilization of health care services remain a great concern, especially for vulnerable groups (box 5.1).¹⁰ Barriers exist and relate to, for example, exclusion of services (dental and mental health care are excluded from the health basket), access (transport issues and remoteness), culture and society (gender, nationality, religion, ethnicity and health literacy), functions (administrative hurdles), the supply side (information technology) and finance (out-of-pocket fees). This is the grim picture for the general public; the situation among youth is likely worse. Thus, for instance, a 2009 UNICEF situational analysis concluded that health services and public awareness and informational campaigns on sexual and reproductive health are targeted only at young married individuals and do not address the needs of the vast majority of young people in the Arab region.¹¹

Youth can be powerful catalysts in their own development and in the development of their communities.¹² Youth participation in health promotion efforts helps empower youth to become involved in their own development.¹³ Such efforts can be built up through intervention programs that include opportunities for adults and youth to work

together equally and meaningfully to enhance the development of youth. The relationships can be controlled by adults or youth, or the control can be shared. Research in Lebanon indicates that young people value relationships with adults and more active engagement and that such engagement has a positive impact on their well-being.¹⁴

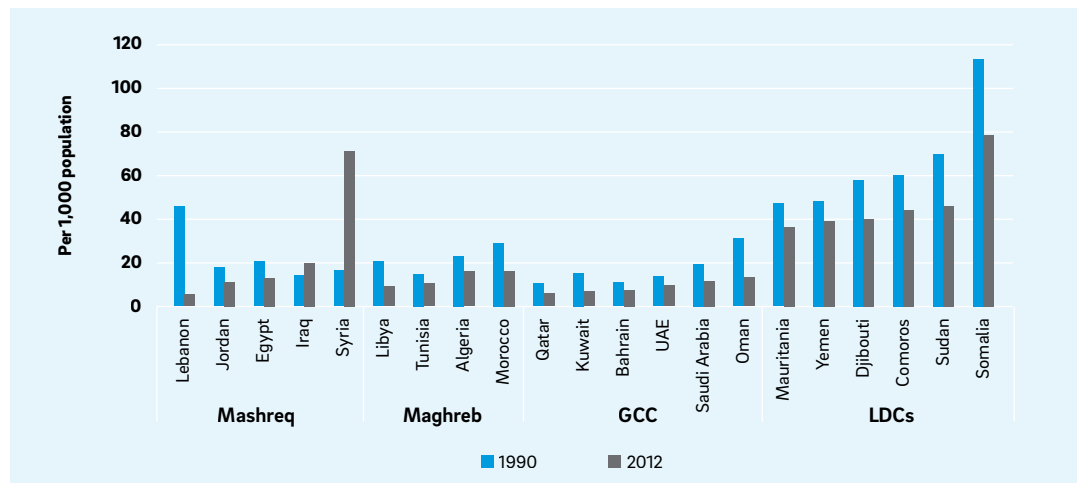
Youth across the Arab region have used their voices to become agents of change in health care. For example, a variety of youth-led initiatives have been developed in the Arab region such as the Y-Peer network, the Arab network for Sexual and Reproductive Health and Rights, and the Middle East and North Africa Youth Network of the International Federation of Red Cross and Red Crescent Societies.

The Report team organized two forums with youth from Arab countries in the 18–29 age-group. These young people raised three main concerns over the health status in their respective countries: the deteriorating health status among women, the lack of awareness of health risks and differential health service provision between the public and private sectors (annex 2 table A.14).

The main causes of youth mortality and morbidity

With two exceptions, all Arab countries have succeeded in reducing youth mortality over the past decades (figure 5.1). In Iraq, the rate rose by around 6 per 1,000 population, while, in Syria, it surged almost fourfold. In both cases, the increases may be attributed to the continuing conflicts in the two countries. In the other Mashreq countries, the rates fell, notably, in Lebanon, where the rate dropped in 2012 to almost one ninth the rate in 1990. All

Figure 5.1 Trend in mortality rates per 1,000 population, 15–19 age-group, Arab countries



Source: WHO 2012a.

Maghreb countries saw a reduction in rates, ranging from 4 per 1,000 in Tunisia to around 13 per 1,000 in Morocco. The rates in Bahrain, Kuwait, and Qatar are the lowest in the region and approach the rates in high-income developed countries. Though the rates in the least developed countries are improving, progress is slow, and the rates are still unacceptably high.

In all Mashreq countries, Maghreb countries (except Tunisia), Qatar and the least developed countries in the region, the 25–29 age-group faces a higher burden of mortality, accounting for around 40 percent of all deaths among youth deaths (figure 5.2). By contrast, in Kuwait and United Arab Emirates, more deaths occur among adolescents (15–19 years), while in Bahrain, Oman, Saudi Arabia and Tunisia, more deaths occur in the 20–24 age-group than the other youth age-groups.

The main causes of death among the 15–29 age-group are almost equally divided among diarrhoeal diseases, lower respiratory tract infections and other infectious diseases; cardiovascular diseases; transport injuries; and unintentional injuries (annex 2 table A.15).¹⁵ The main causes of disability-adjusted life years in this age-group are diarrhoeal diseases, lower respiratory tract infections and other infectious diseases; cardiovascular and circulatory diseases; mental and behavioural disorders; musculoskeletal disorders; unintentional injuries; transport injuries; other non-communicable diseases (NCDs); and HIV/AIDS and tuberculosis.

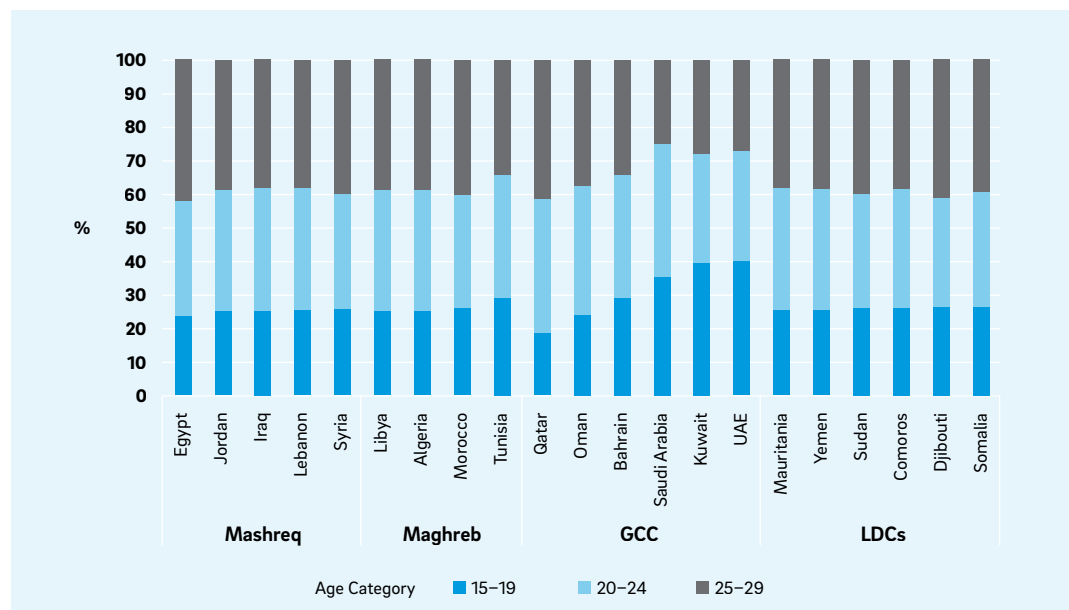
Road traffic injuries and deaths: a plague among more well off young men

Road traffic injuries are the leading cause of death in the 15–29 age-group globally, and about 75 percent of traffic-related mortality occurs among young males.¹⁶ In a comparison across 193 countries, five Arab countries were among the top 25 in the fatality rate associated with road accidents per 100,000 population, and 10 were among the top 25 in fatalities due to road accidents as a share of fatalities from all causes. Four Arab countries were the highest in the world on this indicator: Bahrain, Kuwait, Qatar and United Arab Emirates.¹⁷

The global burden of morbidity and mortality associated with road traffic events among youth suggest that these have implications for this age-group in Arab countries. The WHO Eastern Mediterranean Region exhibits the second-highest number of road traffic deaths per 100,000 population among WHO world regions, second only to Africa. Globally, road traffic fatality rates are more than two times greater in low-income countries than in high-income countries. In the WHO Eastern Mediterranean Region, however, this trend is reversed: the rate is 21.7 deaths per 100,000 population in high-income countries in the region versus 8.7 deaths per 100,000 population in high-income countries globally.¹⁸

The distribution of deaths by type of road user in the WHO Eastern Mediterranean Region shows that vulnerable road users account for 45 percent

Figure 5.2 Mortality by age category, 15–29 age-group, Arab countries



Source: WHO 2012a.

of fatalities (annex 2 figure A.9). However, in high-income countries, 63 percent of fatalities occur among car occupants.¹⁹ Men account for 75 percent of fatalities associated with road traffic events in the same WHO region, and 63 percent of fatalities occur among the 15–44 age-group.²⁰

This does not tell the whole story: it is estimated that there are at least 20 nonfatal road traffic injuries for every road traffic fatality.²¹ Thus, in a hospital-based study on road traffic crashes in Libya in 2001–2010, individuals in the 20–29 age-group accounted for the highest share of traffic-related patients; men represented 81 percent of such patients.²² In Qatar, a hospital-based study in 2006–2010 found that road traffic crashes constituted 42.1 percent of all injuries. Of these, almost half (49.4 percent) were among the 15–29 age-group; and almost 90 percent (87.7 percent) were among men.²³ A national study in Bahrain in 2003–2010 indicated that under-25-year-olds accounted for 40 percent of road traffic fatalities. Within this age-range, death rates were generally higher among 15–19-year-olds and 20–24-year-olds than among other age-groups.²⁴

Traffic-safety rules should cover five key areas: seat belts, child restraints, drunk-driving, excessive speed, and motorcycle helmets.²⁵ Only five Arab countries require all passengers to wear seat belts (Iraq, Lebanon, Morocco, Palestine and Saudi Arabia); two have comprehensive speeding laws and child restraint laws (Sudan and Tunisia for the former; Palestine and Saudi Arabia for the latter); seven have comprehensive drunk-driving laws (Lebanon, Morocco, Palestine, Qatar, Syria, Tunisia and United Arab Emirates); and three have comprehensive motorcycle helmet laws (Lebanon, Morocco and Tunisia). Enforcement is a problem, however. Only 37 percent of the countries in the WHO Eastern Mediterranean Region rated the implementation of any of these laws as 'good'.²⁶ The problem will only grow; car use is accelerating in Arab countries. Between 2009 and 2013, 8 million additional vehicles came onto the roads in the same WHO region. Some NGOs have tried to raise awareness, particularly among youth, and to advocate for policy change and stronger legal enforcement.

Non-communicable disease: an increasing burden

NCDs are the leading cause of global deaths, resulting in two thirds of deaths worldwide in 2008 and 2010; 80 percent of these deaths occurred in low- to middle-income countries.²⁷ In the WHO Eastern Mediterranean Region in 2005, 50 percent of all deaths were due to NCDs, and the regional

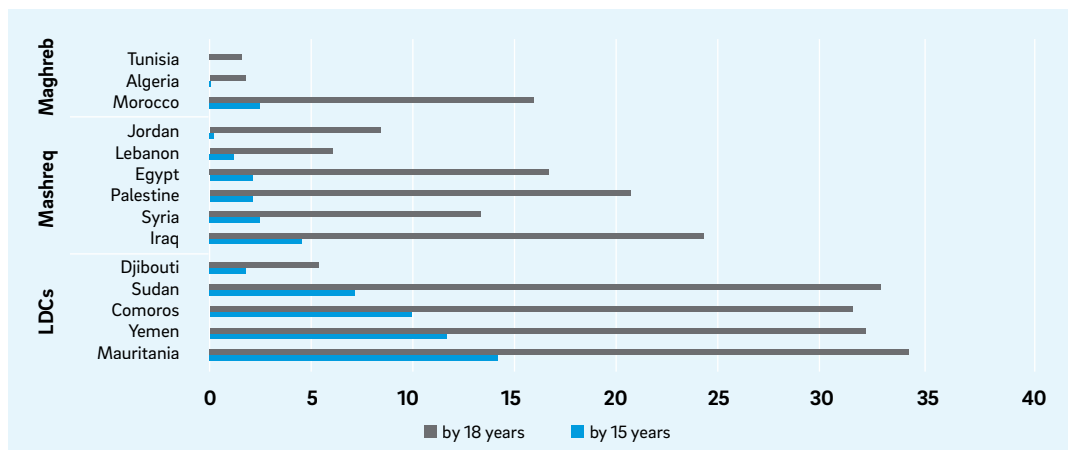
NCD burden is increasing.²⁸ In the Arab region, nutrition-related NCDs are the leading cause of NCD deaths, the other risk factors being physical inactivity, tobacco and alcohol use.²⁹ One-fourth of the adult population in this region is hypertensive and six Arab countries are among the top 10 worldwide for diabetes prevalence.³⁰ Overweight and obesity are important public health concerns in the Arab region. Data suggest that 20–40 percent of under-18-year-olds are overweight or obese in Bahrain, Kuwait, Qatar, Saudi Arabia and United Arab Emirates (annex 2 figure A.10).³¹

Sexual and reproductive health: a delicate discourse

In Arab countries, sexual and reproductive health among youth is often a sensitive topic surrounded by political and cultural barriers: some countries still have significant proportions of 15–19-year-olds marrying; FGM remains a problem in some countries, and young people are engaging in sexual relations outside marriage or in alternative marriage arrangements, particularly in countries with a higher mean age of marriage.³²

Arab countries have experienced an overall trend towards delayed marriage, but there are, nonetheless, population groups among which early marriage and childbearing remains common. In Arab countries overall, 15 percent of women in the 20–24 age-group had married prior to age 18. According to the available data, 0–14 percent of girls in Arab countries marry by the age of 15, and from 2 to 34 percent marry by the age of 18.³³ The highest rates of early marriage occur in the least developed countries, Comoros, Mauritania, Sudan and Yemen. A report of the United Nations Population Fund (UNFPA 2012a) indicates that two Arab countries (Sudan and Yemen) showed rates of 30 percent or more of women currently aged 20–24 who had married before they were 18. Algeria, Jordan, Lebanon and Tunisia show the lowest rates of early marriage among girls in Arab countries on which data are available (figure 5.3). Cultural and traditional values in Arab countries encourage families to have daughters marry before age 18. Girls who marry early are pressured by their families to have children quickly, and they are more likely to have less knowledge about family planning and sexual and reproductive health than their older counterparts; they and their offspring thus face greater health risks. A recent UNICEF report (2014a) provides some hope, indicating that, among all regions, the Middle East and North Africa "Made the fastest progress in reducing child

Figure 5.3 Share of girls married by the age of 15 and 18, Arab countries



Source: UNICEF 2014b.

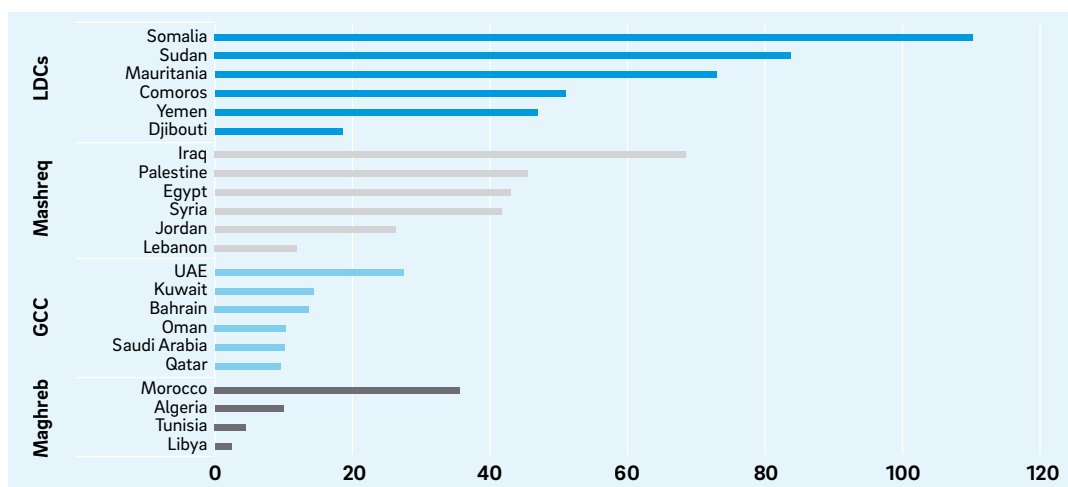
marriage” between 1985 and 2010, halving the share of women married under age 18 from 34 to 18 percent.

There are wide variations in early marriage by educational attainment and rural or urban residence.³⁴ Across the region, the share of women who married early was 12 percent in urban areas, but 20 percent in rural areas; 17 percent among women with some secondary education, but 54 percent among women with no education; and 7 percent among women in households in the richest quintile versus 25 percent among women in households in the poorest quintile. Recommendations to decrease early marriages focus on changing social and community norms, initially by adopting policies that foster empowerment and enhance opportunities among women.

The adolescent fertility rate—the number of births per 1,000 women aged 15–19 years—in Arab countries ranged from 2.5 in Libya to 110 in Somalia (figure 5.4). Many of these births are a result of early marriage.

FGM is concentrated in seven countries: Djibouti, Egypt, Iraq, Mauritania, Somalia, Sudan and Yemen. However, it may exist in pockets in a few other countries. In the least developed countries, the incidence of FGM among women who have ever been married ranges from 23 percent in Yemen to 98 percent in Somalia. Around 91 percent of such women in Egypt and 8 percent in Iraq were circumcised early in life (annex 2 figure A.11). Most of the cutting occurs between 5 and 14 years of age. The majority of girls have had their genitalia cut and some flesh removed. In nearly all countries, FGM is carried out by traditional healers.

Figure 5.4 Adolescent fertility rate per 1,000 girls aged 15–19, 2010–2015



Source: UN DESA 2013c.

While FGM is supported by religious traditions and is socially accepted, the majority of girls and women living in areas where it is practiced believe it should end, though this is so to a lesser extent in Egypt and Somalia.

Little is known about the dynamics of the HIV epidemic in Arab countries because of a belief among the public that the region is immune to the epidemic. The sensitivity of the topic has resulted in denials in almost all Arab countries. HIV prevalence is currently classified as low in the region, despite pockets of high prevalence in almost all countries among key populations at elevated risk of HIV, such as injecting drug users, men who have sex with men and women sex workers. According to United Nations General Assembly Special Session national reports in 2014, around 290,000 cases of HIV were reported in Arab countries through the end of December 2013.³⁵ The epidemic touches both men and women to varying degrees, ranging from dominance among men in almost all countries on which data are available, except Qatar, where the epidemic touches both sexes equally, as well as Djibouti and Sudan, where the infection is more concentrated among women.

Arab countries can be classified in terms of the HIV epidemic as follows:

- Countries with a generalized epidemic (prevalence >1 percent in the general population): Djibouti and Sudan
- Countries with a concentrated epidemic (prevalence >5 percent in at least one high-risk group and <1 percent in the general population): Egypt, Libya, Morocco, Tunisia and Yemen
- Countries with low prevalence (prevalence <5 percent among high-risk groups and <1 percent in the general population): Bahrain, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria and United Arab Emirates
- Countries in which the magnitude of the epidemic cannot be determined because of a lack of data: Algeria, Comoros and Mauritania

Young people represent a rapidly growing share of the people living with HIV worldwide. In 2013 alone, 670,000 young people in the 15–24 age-group were newly infected with HIV, of whom 250,000 were adolescents between the ages of 15 and 19 years. In Arab countries, it is clear from reported cases that there is an annual expansion of the epidemic. UNAIDS estimates the number of people living with HIV in Arab countries at double or triple the reported figures.³⁶ In Arab countries on which information is available, the share of adolescents (10–19 age-group) among people living

with HIV is estimated to range from 6 percent in Algeria and Tunisia to 8 percent in Sudan.

Access to sexual and reproductive health information and services is limited. Taboos on discussing sexuality and sex, except in a context of formal marriage, often prevent youth from obtaining information and other services.³⁷ A 2010 survey among 10–29 year-olds in Egypt explored a variety of youth issues, including reproductive health.³⁸ Only 24 percent of respondents had talked to their parents about pubertal changes; young women (42 percent) had done so more often than young men (7 percent). Almost half (43 percent) of the respondents felt they had not received sufficient information about puberty.

UNICEF reported on the knowledge about HIV/AIDS among older adolescents 15–19 years of age in all world regions. Young women in the Arab region had the lowest rate of knowledge among all young men and young women globally.³⁹ Research in Arab countries confirm this dearth of knowledge.⁴⁰ For example, among 15–20-year-old young men in Saudi Arabia, only 51 percent knew that condoms could prevent sexually transmitted infections.

Differential access to sexual and reproductive health information and services seems to be mostly along lines of gender rather than any other characteristic, and, because social norms discriminate against women, they are at greater risk.⁴¹ Young women in the region are less likely to have information about sex than young men, less able to speak about it or protect themselves, and have less opportunity to access emergency services where and when they need them.

Mental health among youth: a dangerous age

Mental health issues are prevalent in about 20–25 percent of youth populations worldwide.⁴² In developed nations, this prevalence has risen drastically: five times as many college students scored high enough on the Minnesota Multiphasic Personality Inventory to suggest they had mental health problems in 2007 than in 1938, and rates are higher among young people than among any other age-group.⁴³ In Oman, a 2006 study by Afifi and colleagues found that rates of depressive symptoms among 14–20-year-old students were higher among girls (19.4 percent) than boys (14.7 percent) and range between 7.0 percent and 19.0 percent. As part of the World Mental Health Survey, Oman carried out a survey in secondary schools in 2005.⁴⁴ Mental health

protective factors included being male and younger, having a good relationship with social contacts and sleeping 7–8 hours each night. Risk factors included abuse by parents, older age, being female, failing a year at school, a history of organic illness and a history of mental illness.

Based on burden-of-disease data for 2000, an analysis of patterns of suicide among people aged 15 or above in the countries of the WHO Eastern Mediterranean Region suggested that the peak age for suicide among women is 15–29 years (8.6 per 100,000) and that suicide accounted for 20 percent of all deaths due to injuries among women in this age-group.⁴⁵ Suicide rates among women and men were lowest in high-income countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates). Official statistics are likely to underreport actual rates, given sociocultural and religious taboos; likewise, mental conditions are underreported because of the attached stigma.⁴⁶

5.2

Risk and protective factors

Risk factors: Tobacco and substance abuse ⁴⁷

In the Arab world, the tobacco epidemic is characterized by high cigarette use among men; water-pipe use, particularly among youth and women and lax policy enforcement.⁴⁸ Tobacco use is estimated to kill 6 million people each year worldwide, a global figure expected to rise to 8 million by 2030; 80 percent of these deaths occur in low- and middle-income countries.⁴⁹

The Global Youth Tobacco Survey has been conducted in all Arab countries.⁵⁰ Survey results indicate that the share of 13–15-year-olds who have ever smoked cigarettes ranges from 7.4 percent in Iraq to 35.4 percent in the West Bank. These rates are alarming at this young age, but, in most Arab countries in which the survey has been carried out more than once, decreasing prevalence rates have been found, suggesting

that interventions against cigarette use have been successful.

Similarly, the Global Health Professions student survey assessed tobacco use among university students studying nursing, medicine, pharmacy, or dentistry. Data on third-year medical students across 48 countries (including eight Arab countries) over 2005–2008 indicated relatively high use.⁵¹ Current smoking among the students ranged from 12.9 percent among men in Egypt to 39.1 percent among men in Palestine. Prevalence rates were lower among women, from 1.2 percent in Egypt to 16 percent in Lebanon. Other surveys of university students across the Arab world indicate current prevalence rates of cigarette smoking of 29 percent in Irbid, Jordan; 14.5 percent in Riyadh and 11.7 percent in Jazan region, Saudi Arabia; 21 percent among medical students in Baghdad, Iraq; and 9.4 percent in Sharjah, United Arab Emirates.⁵² Determinants of the use of cigarettes among people from Arab countries are similar to those globally and include gender (men are more likely to smoke); having friends, parents, or siblings who smoke, and having less knowledge of the harmful effects of smoking.

In the Arab region, water-pipe tobacco smoking is another predominant youth behaviour. Youth rates of the use of this method exceed adult rates in almost every study conducted.⁵³ Global statistics on high school and university students who are now or who have ever used this method reveal alarming levels, often surpassing rates of cigarette use.⁵⁴ Water-pipes are not a safe alternative to cigarettes: the toxicant yields and health effects are equal to or worse than those associated with cigarettes.⁵⁵ Determinants are similar to those of cigarette use, including the social and policy environment.⁵⁶

Most Arab countries are taking part in the global fight against tobacco use, but are lax in enforcing rules. Thus, although Jordan and Qatar ban smoking in all public places, public tobacco use remains common.⁵⁷ In 2003, the first-ever global health treaty came into force, with 168 signatory countries. The Framework Convention on Tobacco Control sets out evidence-based strategies to control and prevent tobacco use.⁵⁸ Though not specific to youth, these strategies can have an impact on youth smoking.⁵⁹ The Convention includes price and tax measures to reduce the demand for tobacco, as well as non-price measures to reduce demand and protect from the harm of tobacco such as protecting others

from exposure to tobacco smoke, regulating the contents of tobacco products and tobacco-product disclosure, making packaging and labelling of tobacco products unattractive and pointing out the dangers of tobacco use, and restricting tobacco advertising. Of the 22 countries of the Arab League, 20 are parties to the Convention (Morocco and Somalia are not).⁶⁰

Abuse of alcohol is the third-largest risk factor behind disease and disability, contributing more than 60 types of NCDs and other diseases.⁶¹ It is a concern among youth because of the high prevalence rates of abuse and the younger ages of initiation to alcohol use in some countries.⁶² The religious stigma against alcohol consumption ensures there is a dearth of data in most Arab countries, despite anecdotal information on prevalence rates and data on per capita consumption.⁶³ Although the Global School-based Student Health Survey was conducted in 16 countries in the WHO Eastern Mediterranean Region, surveys in only three (Lebanon, Morocco and Syria) included questions on alcohol use.⁶⁴ A recent review of alcohol harm reduction and control policies in Arab countries indicated that comprehensive policies are all but absent, largely because of cultural and religious reasons.⁶⁵

The information available on illicit drug use among youth in the region is limited. Epidemiologic trends suggest that age at first use is decreasing, and that cannabis is the substance most used among young persons in the 15–25 age-group.⁶⁶ The 2012 Atlas on Substance Use in the same WHO region indicates that Bahrain, Sudan and Syria have no data on illicit drug use among youth. In Iraq in 2011, 322 young men and 106 young women under age 17 were among the registered patients with drug or alcohol use problems. In Egypt in 2009, 18.9 percent of 15-year-olds were reported to have used cannabis. In Morocco in 2009, the share of 15–17-year-olds who had ever used cannabis was estimated at 6.6 percent, and, in 2010, the share of those in the same age-group who had used cannabis at least once in the previous year was estimated at 4.6 percent. Of 13–15-year-olds in Morocco in 2010 who had ever used drugs, 84 percent had used them for the first time before age 14. In Oman in 2012, there had been an increasing trend towards substance use among young people during the previous five years. In Saudi Arabia in 2010, medical students perceived alcohol and drug problems to be common among young adult men. In Tunisia in 2008, 3.8 percent of 13–15-year-old students had used drugs at least once.

Other studies indicate that, in Egypt, the most abused drugs are hashish, stimulants, tranquilizers, hypnotics, and opium. Male university students are more likely to use these substances than females except for tranquilizers and hypnotics, for which rates of use are similar.⁶⁷ Secondary-school students are most likely to use hashish; the main reason for the use is entertainment and socializing with friends. Sedatives and hypnotics are the second most widely used substances, to help cope with psychosocial problems or if tired or studying for examinations.⁶⁸ In Bahrain, the risk factors involved in overdose among young people include family problems, relationship problems with the opposite sex, unemployment and problems with school performance.⁶⁹ In Lebanon, 10 percent of university students have tried tranquilizers at least once, 8 percent barbiturates, and 4 percent marijuana; women are more likely to have tried the first two, and men the last.⁷⁰ Considering the size of the problem, there is little research on the prevalence or the determinants of drug use and abuse among young people.

Protective factors: positive behaviours, experiences and characteristics

A variety of behaviours and systems operate to protect young people from health risks, though hard data are scarce. A common conceptualization of youth protective factors is seen in the Search Institute's 40 Developmental Assets for Adolescents, 20 internal and 20 external.⁷¹ Internal assets are "Characteristics and behaviours that reflect positive personal and psychological development in young people" and include the themes of commitment to learning, positive values, social competencies and positive identity. External assets are "Positive experiences, relationships, and encouragement and support young people receive from peers, parents, teachers, neighbours, and other adults in the community" and include support, empowerment, boundaries and expectations, and constructive use of time.

Global data provide evidence of the power of these assets in protecting young people from risks such as tobacco use, violence and early sexual behaviour and in enhancing thriving outcomes such as success in school.⁷² Research in Lebanon has found that internal and external assets are negatively associated with tobacco use, involvement in violence and victimization in bullying, and positively associated with self-rated health, school achievement and the relationship with the mother and father.⁷³

5.3

Inequities in young people's health

Health status, risk factors and protective factors among youth often show serious inequities within and across countries. These inequities frequently stem from the social, economic and political circumstances that create unhealthy environments. The landmark document "Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health," published by the WHO Commission on the Social Determinants of Health, places social determinants of health squarely on the global agenda as the main drivers of population health and well-being (see below).⁷⁴ WHO defined these determinants as follows:

The conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national, and local levels.⁷⁵

The social inequities lead to different outcomes in well-being and health, including morbidity and mortality. These differences are unjust and nearly always preventable.

As a country's GDP rises, rates of infant mortality, under-5 mortality, and maternal mortality fall, whereas rates of life expectancy at birth and healthy life expectancy rise. For individuals, the results in the Arab world generally confirm the international literature on the links between social determinants (such as wealth, education, rural or urban residence and gender) and health (such as live births, stunting, anaemia and chronic disease).⁷⁶ While some of the health outcomes are specific to children, and others specific to adults (included those aged 15 and over), the links have not been measured specifically for adolescents and youth.

However, some interesting analysis on the connection between structural determinants (neighbourhood variables) and health has been conducted in Egypt (respondents aged 22 and above). Body mass index varied by neighbourhoods in Cairo and

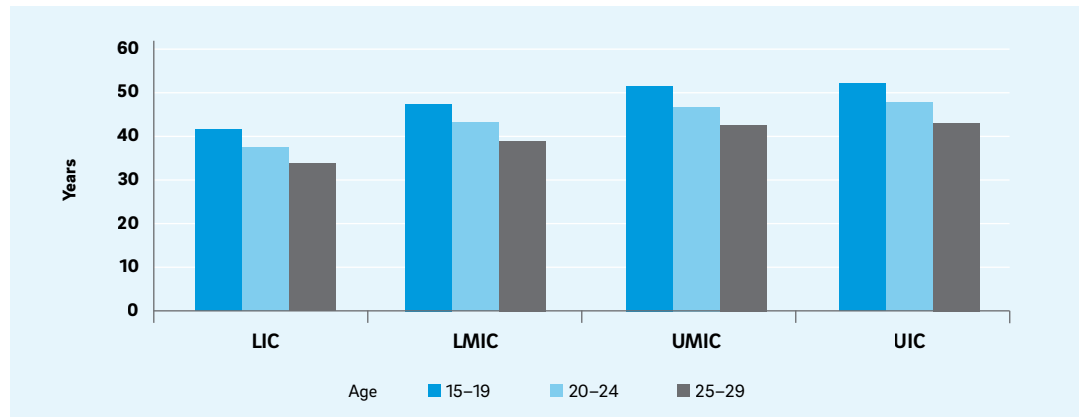
was negatively associated with the neighbourhood's educational attainment—measured as the share of households including respondents who had more than secondary- school educational attainment—even if other socio-demographic, economic, health and environmental factors were considered.⁷⁷

A report published in *Lancet* provides evidence on the impact of social determinants on adolescent health (the 10–24 age-group).⁷⁸ Drawing on multiple analyses, the report indicates that structural conditions such as GDP and income inequality within a country are tied to health outcomes such as all-cause mortality among young men aged 15–19, as well as birth rates among young women aged 15–19. The birth rate data cover 14 countries of the Arab League; most have higher GDPs, replicating the patterns in the other countries on this link.

Youth in poorer Arab countries exhibit worse health outcomes than youth in richer Arab countries. Data compiled on health-adjusted life expectancy and mortality rates among three age-groups (15–19, 20–24 and 25–29) per 100,000 population in all Arab League countries confirm the findings in the international literature, revealing increasing gradients of inequity among the 15–29 age-group (figures 5.5 and 5.6). The pattern was the same overall and across both genders: youth in low-income countries show worse outcomes than youth in lower-middle-income countries, who exhibit worse outcomes than youth in middle-income countries, and so on through upper-middle-income countries and upper-income countries. These variations accounted, in 2010, for a difference of 10 years in health-adjusted life expectancy across young people in the three age-groups in low-income countries and upper-income countries and a fivefold increase in the mortality rates in lower-income countries relative to the rates in upper-income countries overall and in each age-group. As one climbs the income ranks, health-adjusted life expectancy rose and mortality rates per 100,000 population declined within countries in an almost perfect dose-response relationship.

Among men in the 20–24 age-group, inequities widened over 1990–2010 between the poorest Arab countries and countries in every other category of income (figures 5.7 and 5.8). While health-adjusted life expectancy increased and death rates decreased in lower-middle-income countries, upper-middle-income countries and upper-income countries, health-adjusted life expectancy declined and death rates rose in low-income countries.

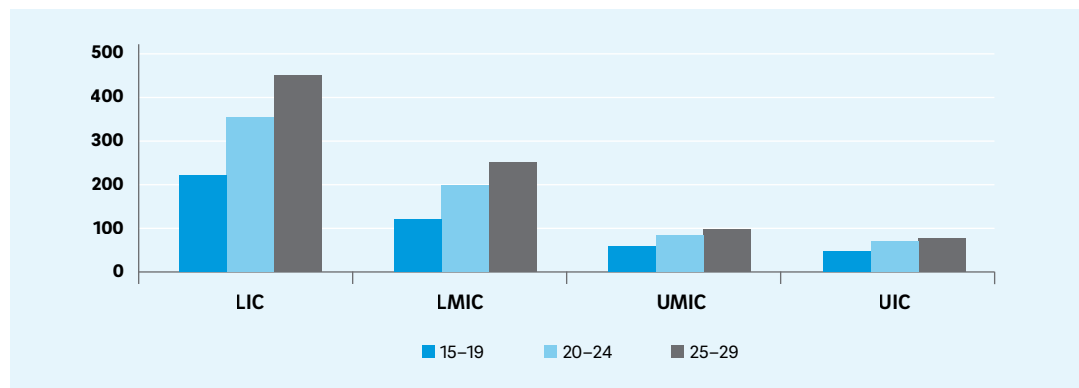
Figure 5.5 Healthy life expectancy, 15–29-year-olds, by income group, 2010 (unweighted average)



Source: GBD 2010.

Note: Based on World Bank country income groupings in 2014. LIC = low-income country. LMIC = lower-middle-income country. UMIC = upper-middle-income country. UIC = upper-income country.

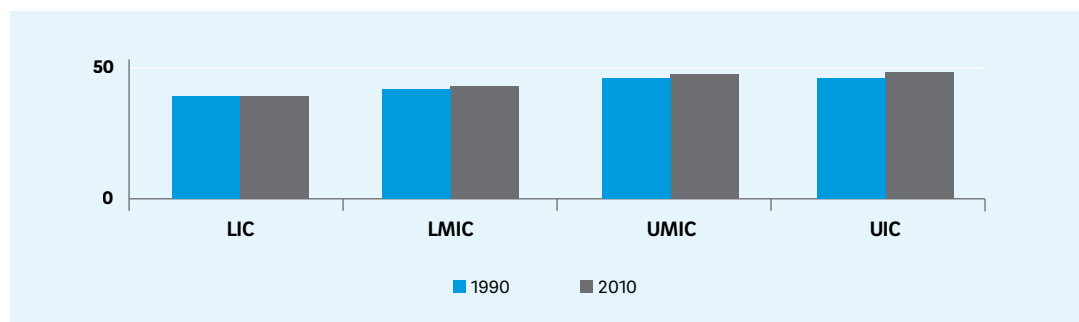
Figure 5.6 Mortality rate per 100,000 population, 15–29-year-olds, by income group, 2010 (unweighted average)



Source: GBD 2010.

Note: Based on World Bank country income groupings in 2014. LIC = low-income country. LMIC = lower-middle-income country. UMIC = upper-middle-income country. UIC = upper-income country.

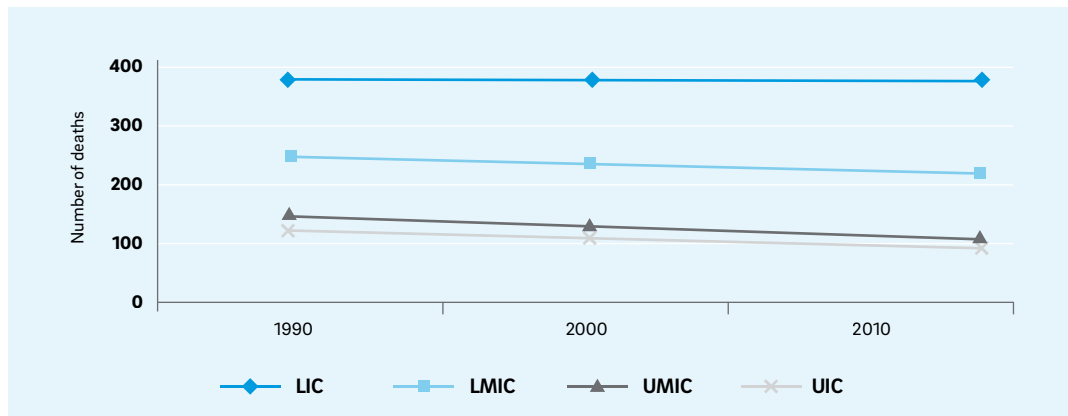
Figure 5.7 Health-adjusted life expectancy, men aged 20–24, by income group, 1990 and 2010 (unweighted average)



Source: GBD 2010.

Note: Based on World Bank country income groupings in 2014. LIC = low-income country. LMIC = lower-middle-income country. UMIC = upper-middle-income country. UIC = upper-income country.

Figure 5.8 Mortality rate per 100,000 population, men aged 20–24, by income group, Arab region, 1990 and 2010



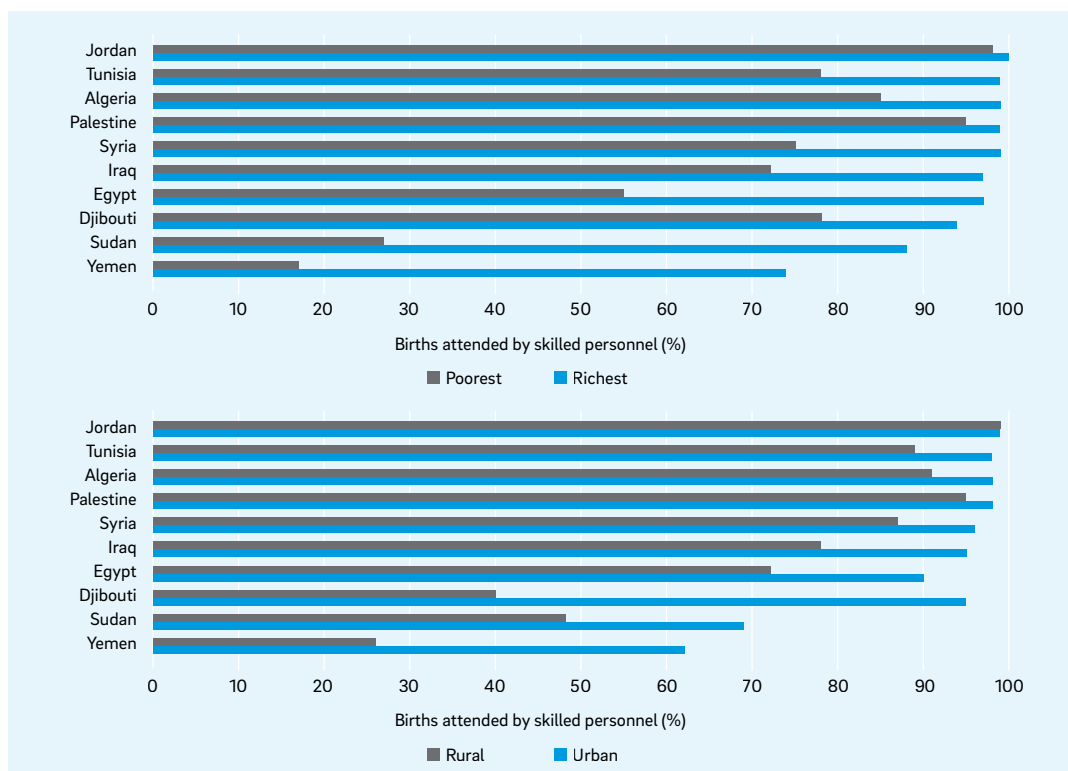
Source: GBD 2010.

Note: Based on World Bank country income groupings in 2014. LIC = low-income country. LMIC = lower-middle-income country. UMIC = upper-middle-income country. UIC = upper-income country.

Within the same gender norms, disparities are evident by income and location of residence (figure 5.9). The gap in coverage in deliveries assisted by skilled birth personnel between the poorest and richest population segments is highest in Egypt, Sudan and Yemen. The gap is also evident in the

share of deliveries assisted by skilled personnel between rural and urban residents. This gap is highest in Djibouti and Sudan. Similar disparities were reported in antenatal care coverage and contraceptive prevalence between poorest and richest and between rural and the urban (figure 5.9).

Figure 5.9 Disparities in assistance by skilled personnel at childbirth, Arab countries



Source: UNICEF 2011c.

5.4

Health interventions to promote well-being: adolescent and youth friendly health services

Adolescent and youth friendly health services, though initially focused on sexual and reproductive health services, have since expanded to cover many more areas, in great part because of feedback from youth explaining what they need (box 5.2).⁷⁹

In the region, adolescent and youth friendly health services have been implemented in Egypt, Iraq, Jordan, Lebanon and Morocco. Process evaluations have been carried out on most of these services, but no known impact evaluations have been conducted.⁸⁰ In all but Iraq and Lebanon, the services focus on youth sexual and reproductive health. Estimates based on global data indicate that the scaling-up of essential services in this service group in 74 low- and middle-income countries, including eight in the Arab League, had required additional annual per capita spending of \$0.82 by 2015.⁸¹ This is financially efficient in view of the cost of treatment and rehabilitation among adolescents now and, in the future, owing to the health problems avoided because these adolescents do not undertake risky behaviours following their experience with the services.

In Egypt, the services have shown mixed results. They have not been implemented in a comprehensive manner, and gaps exist. Interviews conducted in Egypt in 2013 with physicians, nurses and social workers in 10 clinics affiliated with the Ministry of Health and Population or managed by NGOs and supplying these services, as well as with two young anonymous clients (one young man and one young woman), indicated that young patients could not locate the clinics especially when they were in a hospital hosting such a clinic “Because there were no signs and,

Box 5.2 Domains and delivery of adolescent and youth friendly health services

The five aims targeted by adolescent and youth friendly health services are equity, effectiveness, accessibility, acceptability, and appropriateness of care, but many barriers—economic, social and religious—prevent young people from using the services, according to a 2007 review.¹ Modes of delivery are varied and encompass delivery through inpatient units for young people, community-based primary health care centres, school or university health services, general community centres, pharmacies and outreach.

The 2007 review, which examined studies worldwide (including in developing countries) to gather information on the effectiveness of these services in any delivery mode, showed that the services tended to enhance access to care, reduce health risk

behaviours (although only four studies investigated this issue, three of which were on sexual behaviour), and improve provider performance after training.² The review suggested that, although the evidence was promising and although high-order principles such as the fulfillment of human rights compel one to promote such services, more robust evidence was needed on service impact.³

Still, the review recommended that “each country, state, and locality has a policy and support to encourage provision of innovative well assessed youth-friendly services.”⁴ Because no impact studies have been published in the meantime, it is impossible to determine how much the recommendation has been followed.

1. Ambresin and others 2013; Tylee and others 2007.

2. Tylee and others 2007.

3. Tylee and others 2007, 1567.

4. Tylee and others 2007, 1572.

in some instances, staff members at the hospital were not aware of the presence of the clinics.⁸² Moreover, the physicians were often absent, and patients had to return several times to receive professional care.⁸³

Most of the providers in Egypt had not had training in youth sexual and reproductive health. No clear guidelines on youth triage had been drafted, nor were there referral guidelines. The interviews with providers suggested that the services might not be acceptable to young people because few of the providers believed in the importance of supplying services to youth regardless of marital status, although they were more likely to supply the services in any case to young men than to young women, indicating possible inequities.⁸⁴ This gender bias was reflected in the experiences of the anonymous patients. The providers spent much more time with the young man and answered his questions, while the young woman reported that she felt insulted by their treatment.⁸⁵ Privacy was breached in many clinics. Providers stated that the clinics were underused partially because parents discouraged young household members from relying on the services, although the experience of one NGO was positive after parents had participated in awareness sessions.

The results of the report echo those of a previous report by Family Health International 360 that was conducted six years earlier.⁸⁶ However, a 2014 Population Reference Bureau report based on a much larger number of interviews with youth after the youth had visited adolescent and youth friendly health services in Egypt in 2010 and 2011 indicated overall satisfaction with the assistance of the clinics.⁸⁷ Among the youth, 74 percent described their discussions with the providers as good, and 80 percent said the privacy and confidentiality measures were good. Over 90 percent stated they would return to the clinics. The report identified the same barriers as above on provider attitudes and gender differences. It found that the services did not meet many of the needs expressed by youth, such as mobile clinics, educational programmes targeted at specific age-groups and according to gender, outreach services, and training courses on how to tackle major risk factors.

In sexual and reproductive health care, three main strategies are recommended to enhance outcomes among youth: clinical services that are accessible and of high quality, evidence-based and developmentally appropriate sexual education programmes, and life-skills building programmes.⁸⁸

A primary intervention that enhances health

among youth is universal health care coverage. According to WHO, universal health care coverage ensures that all people have access to "Promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring that people do not suffer financial hardship when paying for these services."⁸⁹ The commitment to universal health care coverage is substantial in the Arab region, but barriers remain in several countries, including high out-of-pocket fees, the poor quality of care, the shortage of trained health care professionals, lack of access to essential medications and technologies, and deficiencies in health information systems.

WHO has developed the 4S strategy to strengthen the response of health care systems to issues in adolescent health and development.⁹⁰ The 4Ss are (1) gathering and using strategic information, (2) developing supportive evidence-based policies, (3) scaling up the provision of health care services and products, and (4) strengthening other sectors. Elements of all four should be evident in adolescent and youth friendly health services and universal health care coverage. A 2009 report on missed opportunities in the provision of adolescent health services noted these sorts of factors that need to be considered in undertaking interventions to enhance youth health and well-being, as follows:⁹¹

- **Timing:** many risk behaviours are initiated in adolescence, and this stage of life is thus critical in health promotion.
- **Need:** the needs of adolescents are different from the needs of other population groups. Within the age-group of adolescents, some segments exhibit health needs that require particular attention (diabetes, sexual behaviour and so on).
- **Context:** social, cultural, economic and geographic contexts affect access to services as well as health care needs.
- **Participation:** health care services aimed at adolescents must engage adolescents actively and, if possible, engage their families as well.
- **Family:** families, especially parents, are critical because of their influence in health care and access to health care services of youth.
- **Community:** the communities in which adolescents live have an impact on the health of adolescents because they provide social support.
- **Skills:** health care providers must be equipped with the skills they require to engage with young people.

- **Money:** the services available to young people and the quality of these services depend on financial factors.
- **Policy:** “Policies, both public and private, can have a profound effect on adolescent health services. Carefully crafted policies are a foundation for strong systems of care that meet a wide variety of individual and community needs.”⁹²

Interventions that are aimed at enhancing youth well-being and that tackle the social and structural determinants of health, promote healthy social and physical environments, and decrease inequities are the most effective. A systematic review that used an equity lens on health interventions found that upstream interventions that attempt to minimize, control, or prevent upstream policy and social determinants were more likely to reduce inequities in health, whereas downstream interventions that focus on the individual were more likely to foster inequities and even make them worse.⁹³ The barriers to access to health care services in the Arab world, as in other regions, are often exacerbated among marginalized or vulnerable groups, including adolescents and youth.⁹⁴

O’Neill and others (2014) apply the acronym PROGRESS (place of residence; race, ethnicity, culture and language; occupation; gender and sex; religion; education and socioeconomic status; and social capital) to represent interventions that embody an equity lens in their efforts to minimize barriers to access among vulnerable groups. They find that the mere availability of an intervention in a particular context does not guarantee that inequities in health care will be reduced; rather, the interventions must be accessible, acceptable, and effective among the most disadvantaged groups within a population and used by these groups.⁹⁵ Does the intervention disadvantage rural residents or young people who are out of school? Several additional categories have been added to the PROGRESS tool, which is then labelled PROGRESS Plus.⁹⁶ These include personal characteristics that put people at a disadvantage (such as a disability), relationships (exclusion from school), and time-dependent issues (such as respite care).⁹⁷ The tool should help governments and others to ensure that all interventions in the Arab region promote youth health and well-being by being designed, implemented and evaluated with an eye to equity and coverage even among the hardest to reach.

5.5

Current non-health sector interventions: from health for all to health in all policies

Interventions that are limited to the health care system will not be sufficient alone to promote youth well-being.⁹⁸ The health in all policies approach, which has been finding adherents in the last decade, is a collaborative approach to improve the health of all people by incorporating health considerations into decision making across sectors and policy areas.⁹⁹ The approach essentially requires that policy makers should be informed about and consider the impact of various policy options on health, sustainability and equity. One example is linked to a risk factor among youth, obesity. Policy strategies to curb the obesity epidemic will need to incorporate ministries and other entities involved in transport, planning, agriculture, economics and education. In Arab countries, the approach is beginning to be discussed.¹⁰⁰ Though not targeted specifically at health among youth, the approach can be used to ensure that policies have a positive impact on health among youth.

Another approach not specifically oriented to health involves the development of national youth policies. Such policies represent a declaration of a government’s position towards youth issues. Ten Arab countries have developed or are drafting youth policies.¹⁰¹

Other key interventions include positive youth development programmes, which are aimed at building skills and strengthening the social environment among youth. According to the approach, young people are assets in their own and their community’s development. A typical slogan of the programmes is ‘problem-free

is not fully prepared.' Effective programmes share several axes. Thus, they "Strengthen social, emotional, cognitive and/or behavioural competencies, self-efficacy, and family and community standards for healthy social and personal behaviour; target healthy bonds between youth and adults; increase opportunities for youth participation in positive social activities; and recognize and reinforce that participation."¹⁰²

Research into the impact of the programmes on individuals and on the schools, families and community-based organizations involved in the programmes has found that programme outcomes among individuals include positive reproductive and sexual health outcomes that extend into adulthood, as well as social and educational outcomes such as greater school success.¹⁰³

5.6

Looking to the future

Non-communicable diseases

The global NCD strategy outlines key NCD prevention and control interventions with six objectives, including the following:¹⁰⁴

- Raising the priority accorded to NCD prevention and control in global, regional and national agendas and internationally agreed development goals through strengthened international cooperation and advocacy
- Strengthening national capacity, leadership, governance, multisectoral action and partnerships to accelerate country responses for NCD prevention and control
- Reducing modifiable NCD risk factors and underlying social determinants by creating health-promoting environments
- Strengthening and orienting health systems to address NCD prevention and control and the underlying social determinants through people-centred primary health care and universal health coverage
- Promoting and supporting national capacities for high-quality research and development for NCD prevention and control

- Monitoring NCD trends and determinants and evaluating the progress in NCD prevention and control

The WHO Eastern Mediterranean Regional Office has developed a plan that identifies NCD actions that should be taken by member states, by WHO and by regional and international partners. The plan provides guidelines to reduce NCD prevalence and incidence among all population groups. At the first global ministerial conference on healthy lifestyles and NCD control, WHO also identified a set of best buys for the control and prevention of NCD risk factors, as follows:¹⁰⁵

Tobacco use

- Raise taxes on tobacco.
- Protect people from tobacco smoke.
- Warn about the dangers of tobacco.
- Enforce bans on tobacco advertising.

Unhealthy diet and physical inactivity

- Reduce salt intake by reducing salt in food.
- Replace trans fat with polyunsaturated fat.
- Promote public awareness about diet and physical activity (through mass media).

School- or university-based interventions

Interventions that are based on protective factors and assets and that involve a focus on positive development should be designed and incorporated into the youth programmes and policies of relevant agencies and ministries in the region. Many of these interventions would be carried out through schools. Such interventions will have little effect unless they focus on skills and unless they are paired with other interventions. In view of the lack of programme evaluation in the Arab region, the evidence for this assertion comes from programmes around the world on tobacco abuse, bullying, drugs and obesity.¹⁰⁶ A school approach is appropriate for sexual and reproductive health, although, in this area, cultural stigma and taboo are barriers to access to information.

Regional cooperation is crucial to ensuring that health and non-health interventions are successful. Although the analysis in this chapter identifies policies that each country can implement, success will be enhanced if countries apply the policies comprehensively and if groups of countries adopt similar policies. Tobacco shows why: before 2006, Jordan and Syria had bans on advertising in tobacco products, although Lebanon did not. Because they received satellite television transmissions from Lebanon, the impact of the bans in Jordan and Syria was largely nullified.¹⁰⁷

Endnotes

- ¹ WHO defines health promotion as the “process of enabling people to increase control over, and to improve, their health” by building public health policy, reorienting health services, creating supportive environments, strengthening community action, and developing personal skills. WHO, The Ottawa Charter for Health Promotion, <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/index1.html>.
- ² WHO 1986.
- ³ A variety of conceptual frameworks have been developed to explain the influences on youth health (Afifi and others 2012; Blum and others 2014; Sawyer and others 2012; WHO 2010c). All highlight the interplay of a range of determinants at different levels on health (Richard, Gauvin, and Raine 2011), from the biological to the individual to the social and to the political (Halfon and others 2014). The political may be least obvious, but includes global health, trade and economic policies (Bettcher, Yach, and Guindon 2000; Navarro and others 2006). For example, the “extended promotion and marketing of harmful commodities (as a result of trade liberalization), especially tobacco, cannot be overlooked,” (Bettcher, Yach, and Guindon 2000, p. 522).
- ⁴ Williamson and Carr 2009.
- ⁵ Life-course models suggest that adult health is “more than a combination of his/her genetic endowment and adult lifestyle choices, and that social, psychological, and environmental factors operating early in life could have major impacts on both short- and long-term outcomes” (Halfon and others 2014, p. 345). Though early life-course models focused mainly on the impact of early infant and child experiences and circumstances, more recent discussions have focused on four pathways during adolescence (health, health behaviour, social relations, school / education) that have a unique impact on adult health (Due and others 2011, p. 65) and therefore identify adolescence as a “sensitive and critical period” (Halfon and others 2014) for adult health.
- ⁶ Health among youth is on the global agenda. See WHO, “Health of the World’s Adolescents”, May 2014, <http://apps.who.int/adolescent/second-decade/>. A Lancet Youth Well-Being Commission was also established in 2013.
- ⁷ Patton and others 2012.
- ⁸ The Institute for Health Metrics and Evaluation Unit at Washington University has collected all data related to this age-group from any type of national, community, facility, or school-based survey and therefore is a good source of information.
- ⁹ NAP 2009.
- ¹⁰ Kronfol 2012.
- ¹¹ UNICEF 2009.
- ¹² Afifi and others 2012.
- ¹³ Wong, Zimmerman, and Parker 2010.
- ¹⁴ Bteddini and others 2012; Makhoul, Alameddine, and Afifi 2012.
- ¹⁵ Main causes were determined by visual analysis of graphs. Global data indicate that 2.6 million deaths occurred among 10–24-year-olds in 2004; 97 percent of these deaths occurred in lower-middle-income countries (Patton and others 2009). The same report indicates that, in the WHO Eastern Mediterranean Region (includes 16 lower-middle-income countries), young people (10–24 years of age) had a relative risk ratio of dying of 3.7 compared with those in high-income countries across the globe (39 countries, five in the WHO Eastern Mediterranean Region: Bahrain, Kuwait, Qatar, Saudi Arabia and United Arab Emirates). The lower-middle-income countries in the same WHO region had the third-highest relative risk of dying among all the low- to middle-income countries after Africa and Southeast Asia. The report classified the causes of death by four causes: maternal causes, communicable disease, non-communicable disease (NCD), and injuries. In the WHO Eastern Mediterranean Region, in the 15–19 age-group, injuries are the most frequent cause of death among men, followed almost equally by communicable diseases and NCDs. Among women in this age-group, injuries are the most frequent cause of death; maternal deaths are the least likely cause of death. In the 20–24 age-group, death rates among men increase dramatically; injuries are the main cause of the increase. Among women, death rates also rise with increasing maternal mortality. The four causes of death are approximately equally distributed among women in this age-group. A note of caution is warranted, however: this analysis included countries at all income levels. In the WHO Eastern Mediterranean Region, no lower-middle-income country had death registration data with greater than 85 percent coverage; so, cause of death was modelled in six of these countries, and estimates abstracted from epidemiological studies in 10 of the countries.
- ¹⁶ WHO 2013a.
- ¹⁷ Sivak and Schoettle 2014.
- ¹⁸ WHO 2013a.
- ¹⁹ WHO 2013a.
- ²⁰ WHO 2013a.

- 21 WHO 2013a.
- 22 Bodalal, Bendardaf, and Ambarek 2012.
- 23 Bener and others 2012.
- 24 Hamadeh and Ali 2013.
- 25 WHO 2013a.
- 26 WHO 2013c.
- 27 Abdul Rahim and others 2014; WHO 2010d.
- 28 Abdul Rahim and others 2014; WHO 2011a.
- 29 Musaiger and Al-Hazzaa 2012.
- 30 WHO 2011a.
- 31 Ng and others 2011.
- 32 Ghandour and others 2014; Roudi-Fahimi and El Feki 2011; UNFPA 2012a.
- 33 UNFPA 2012a.
- 34 UNFPA 2012a; Diers 2013.
- 35 UNGASS 2014.
- 36 UNAIDS 2014.
- 37 De Jong and El-Khoury 2006.
- 38 Population Council 2010.
- 39 UNICEF 2012b.
- 40 Alquaiz, Almuneeff, and Minhas 2012; BinSaeed, Mahmood, and Raheel 2013.
- 41 Roudi-Fahimi and El Feki 2011.
- 42 Patel and others 2007.
- 43 Eckersley 2011.
- 44 Jaju and others 2009.
- 45 Rezaeian 2007.
- 46 Jaju and others 2009; Rezaeian 2007.
- 47 The focus on risk factors is often called a prevention science approach, and the attention to protective factors a positive youth development approach (Catalano and others 2002). These approaches are complementary rather than competing. Several frameworks have set out key risk and protective factors for youth risk behaviours, such as Dickson and Derevensky 2002, Fong and others 2006, McLeroy and others 1988, and Tyas and Pederson 1998.
- 48 Maziak and others 2014b.
- 49 Usmanova and Mokdad 2013; WHO 2011a.
- 50 Usmanova and Mokdad 2013; WHO 2006b, 2007a, 2007b.
- 51 Warren and others 2011.
- 52 Khabour and others 2012; Mahfouz and others 2014 (data for 2011–2012); Mandil and others 2007, 2011 (data for 2008–2009); Yasso and others 2013.
- 53 Akl and others 2011; Maziak and others 2014b.
- 54 Barnett and others 2013; Warren and others 2009; Maziak 2011.
- 55 Akl and others 2010; Shihadeh and others 2015.
- 56 Akl and others 2015.
- 57 Maziak and others 2014a.
- 58 WHO 2003.
- 59 Lantz and others 2000.
- 60 WHO FCTC 2014.
- 61 Mathers and Loncar 2006.
- 62 Johnston and others 2011; Karam, Kypri, and Salamoun 2007.
- 63 Salamoun and others 2008.
- 64 CDC 2015.
- 65 Afifi and others 2012.
- 66 WHO 2012b.
- 67 Okasha 1999.
- 68 Okasha 1999.
- 69 Al-Ansari and others 2001.
- 70 Karam and others 2000.

- 71 See <http://www.search-institute.org/content/40-developmental-assets-adolescents-ages-12-18>.
- 72 Scales 2011.
- 73 Affi and others 2015.
- 74 WHO 2008b.
- 75 See http://www.who.int/social_determinants/en/.
- 76 Khadr and others 2012, p. 61–74.
- 77 Mowafi and others 2011.
- 78 Viner and others 2012.
- 79 Andrew, Patel, and Ramakrishna 2003; WHO 1978.
- 80 Geel 2014; FHI 360 2007; IPPF 2012; Khalaf, Abu Moghli, and Froelicher 2010; Population Council 2013.
- 81 Deogan, Ferguson, and Stenberg 2012.
- 82 Population Council 2013, p.4.
- 83 Population Council 2013, p. 30.
- 84 Population Council 2013, p. 32.
- 85 Population Council 2013.
- 86 FHI 360 2007.
- 87 Geel 2014.
- 88 Bearinger and others 2007.
- 89 See http://www.who.int/healthsystems/universal_health_coverage/en/.
- 90 WHO 2009a.
- 91 NAP 2009.
- 92 NAP 2009, p. 27.
- 93 Oliver and others 2008.
- 94 Kronfol 2012.
- 95 O'Neill and others 2014, p. 57.
- 96 Evans and Brown 2003; Kavanagh, Oliver, and Lorenc 2008.
- 97 Considering the evidence on social and structural determinants of health, ministries of health "have an important role to play as active stewards, affecting the development plans, policies, and actions of players in other sectors" (Oliver and others, 2008).
- 98 Viner and others 2012.
- 99 Rudolph and others 2013.
- 100 WHO 2012a.
- 101 ESCWA 2010.
- 102 Catalano and others 2002, p. 6.
- 103 Gavin and others 2010; Roth and others 1998; Roth and Brooks-Gunn 2003.
- 104 WHO 2013b.
- 105 WHO 2011b.
- 106 Cuijpers 2002; Glantz and Mandel 2005; Gonzalez-Suarez and others 2009; Wiehe and others 2005.
- 107 Maziak, Nakkash, and Affi Soweid 2006.

