



## SDG 3: Ensure healthy lives and promote well-being for all at all ages

Past decades have witnessed significant improvement in key health indicators in the Arab region, including lower maternal and under-5 mortality. Yet overall, levels of health and well-being remain significantly uneven within and between countries. Health services are fragmented and often supply driven, and access to universal health coverage varies widely within and among countries and social groups. Most health systems continue to focus largely on curative health services instead of primary and preventative care, and pay little attention to the social determinants of health. The region as a whole needs to shift to a rights-based and multisectoral approach to human health and well-being, including through consolidating systems and services, enhancing the capacity and numbers of service providers, and addressing the economic, social and environmental dimensions of SDG 3.

### Key facts



The Arab region has made some progress in reducing maternal mortality, but the overall regional average remained at 142 deaths per 100,000 live births in 2015, twice the global SDG target. The least developed countries have the second highest maternal mortality ratio in the world at 493 deaths per 100,000 live births.<sup>1</sup>



Life expectancy at birth is on the rise and projected to improve from 71 years in 2015 to 76.4 years in 2050. Yet it remains worryingly low in several countries, including Somalia at less than 60 years and Djibouti at 62 years in 2015. Conflict, poverty and the reemergence of some infectious diseases is altering a rising life expectancy trajectory in countries including Comoros, Djibouti, Iraq, Mauritania, Somalia, the Sudan, the Syrian Arab Republic and Yemen.<sup>5</sup>



By 2017, the GCC, Mashreq and Maghreb subregions had reached the SDG target for under-5 mortality of 25 deaths per 1,000 live births. Rates in the least developed countries, however, are significantly behind at 77 deaths per 1,000 live births.<sup>2</sup>

### Neonatal mortality

Neonatal mortality has declined less rapidly than child mortality in the region and accounts for over 45 per cent of under-5 mortality in 2017.<sup>3</sup> There are major inequalities among countries, with the least developed countries having some of the highest rates in the world, more than twice the SDG target at 31 deaths per 1,000 live births.<sup>4</sup>

### Malaria

In 2018, four countries (Djibouti, Somalia, Sudan and Yemen) accounted for more than 97 per cent of reported confirmed cases of malaria in the region, and more than 85 per cent of reported cases were in the Sudan.<sup>6</sup>



Conflict and displacement have undermined primary care including reproductive health and immunization in affected countries, and have exacerbated the spread of infectious diseases.



37.3%

Based on 2015 data, where available, out-of-pocket payment for health care as a share of current health expenditure in the region was on average 37.3 per cent,<sup>7</sup> with large variations among countries, ranging from 6.2 per cent in Qatar to 81 per cent in Yemen.<sup>8</sup>



In the Sudan, only 30 per cent of health workers provide health services in rural areas where 70 per cent of the rural population reside. In the State of Palestine, 91 per cent of health workers are employed in urban areas.<sup>9</sup>

## Universal health coverage

In 2015, the average universal health coverage index for the Arab region was around 61 per cent, three percentage points below the global average. The percentages range from Somalia and Mauritania at 22 per cent and 23 per cent, respectively, to Kuwait and Qatar at 77 per cent each.<sup>10</sup>



The adolescent birth rate is the third highest of all world regions, standing at 56 per 1,000 women aged 15–19. There are major differences within the region, with the Mashreq and least developed countries having by far the highest rates at 60 and 75 per 1,000, respectively.<sup>11</sup>

## Family planning

The proportion of women who are married or in a union whose need for family planning can be satisfied is close to the world average of 65.66 per cent, but there are striking disparities within the region. The GCC has the third lowest proportion in the region at 48.70 per cent, which is only slightly above that of sub-Saharan Africa. The proportion in the least developed countries is half that of the world average at 36.68 per cent.<sup>12</sup>

## NCDs

Non-communicable diseases are the main cause of death in most countries of the region. The prevalence of risk factors, such as raised blood glucose, high blood pressure, obesity and smoking, is higher than global averages and rates in other countries at similar income levels.<sup>13</sup>

## Double burden

The region suffers from a double burden of malnutrition comprising both undernutrition and obesity.

## Obesity

Ten countries in the region rank among the top 25 globally for obesity for both males and females, with rates for female obesity often higher. Female obesity rates are 45.6 per cent in Kuwait, 43.1 per cent in Qatar and Jordan, and 41.1 per cent in Egypt.<sup>14</sup>



The prevalence of current tobacco use among people over age 15 is three times the SDG target and the fourth highest rate in the world.<sup>15</sup> Five countries had tobacco-use prevalence rates topping 25 per cent in 2015 – Bahrain, Egypt, Lebanon, Tunisia and the United Arab Emirates.<sup>16</sup>



The Arab region has one of the world's highest death rates due to road traffic injuries.<sup>17</sup>



HIV prevalence is relatively low in the region but increasing at 1 person per 23,000 people.<sup>18</sup> The majority of people living with HIV/AIDS are not aware of their status.<sup>19</sup>

## Mental health

In some countries of the region where studies are available, rates of depression and anxiety are higher among women, with depression the leading cause of morbidity in women.<sup>20</sup>

## Measuring SDG 3 in the Arab region according to the global SDG indicator framework

Data are available for 24 out of 27 indicators, covering all of the targets under SDG 3.

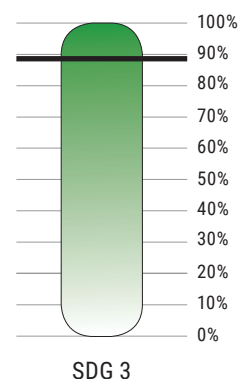
Despite such a high level of data availability, there are a number of limitations on the nature and extent of available data:

- Civil registration and vital statistics systems, essential to measure the health of populations and determine health care and other legal entitlements, need to be enhanced. Only 54 per cent of births are registered in the least developed countries.<sup>21</sup> The completeness of cause-of-death data ranges from 29 per cent in Morocco and Tunisia to over 90 per cent in Bahrain and Egypt.<sup>22</sup> Massive forced displacement in the region has undermined existing civil registration and vital statistics systems, and there are multiple barriers to registering births and deaths for refugees in host countries.<sup>23</sup>
- There is no clarity on the degree to which non-citizen residents, including migrants and refugees, are or are not included in available health-related data. Such data may not be publicly accessible. The results of population-based surveys are not always publicly and readily available in a timely fashion, impeding the efforts of policymakers, researchers and civil society, and weakening accountability to citizens.
- SDG 3 indicators do not adequately capture disability as well as factors leading to poor quality of life or well-being that are more relevant to middle- and high-income countries.
- Sexual and reproductive health data are usually available only for “ever-married women”. Existing population-based surveys do not adequately cover the sexual and reproductive health needs of young people, unmarried or not yet married people, or men.
- Few countries collect data on gender-based violence regularly and over time.

In addition to these regional limitations, the global targets under SDG 3 need to be complemented by improved indicators as follows:

- To measure the quality or appropriateness of health care, the functionality of health systems, and the degree to which health systems engage in prevention and not merely curative treatment.
- To address wider issues related to sexual and reproductive health, going beyond the fertility-focused ones related to family planning and the adolescent

Indicator coverage



SDG 3

### Mental health

SDG 3 indicators only address mental health through the relatively extreme indicator of suicide. Yet mental health disorders are a leading cause of a variety of non-fatal health problems in many countries of the region.<sup>(a)</sup> The age-standardized suicide rates in some Arab countries are less than half the global rate (4.3/100,000 compared to 10.5/100,000) according to 2016 estimates.<sup>(b)</sup> Throughout the region, services are mostly unprepared to address mental health. For example, in some countries, there are 7.7 mental health workers per 100,000 people compared to a global average of 9. Likewise, there are 5.1 beds per 100,000 mental health patients compared to a global average of 16.4.<sup>(c)</sup> Conflict and forced displacement, with the resulting deterioration of livelihoods and the social fabric, have increased the risk of mental health problems. Recent WHO estimates show that one person in five (22 per cent) living in areas affected by conflict has some form of mental disorder. This is more than double the figure for the general population. The rates of depression and anxiety are among the highest in the world, wholly explained by prevailing emergencies.<sup>(d)</sup> Overall, the occupied Palestinian territory has one of the highest burdens of adolescent mental disorders among neighbouring countries. About 54 per cent of Palestinian boys and 47 per cent of Palestinian girls aged 6 to 12 years reportedly have emotional and/or behavioural disorders, and the overall disease burden for mental illness is estimated to account for about 3 per cent of disability-adjusted life years.<sup>(e)</sup>

Sources: (a) Charara and others, 2017; (b) WHO, 2017 (corresponds to the WHO country grouping for the East Mediterranean Region); (c) Ibid.; (d) Charlson and others, 2019; (e) WHO, 2019b.

birth rate, such as those related to reproductive cancers and male sexual and reproductive health issues.

- To address upstream interventions outside the health sector, such as taxation or restrictions on the marketing of tobacco, alcohol or other health-damaging products.
- To address mental health.

- To address dental health needs and services.

**SDG 3 CONTAINS ONE TARGET TO BE ACHIEVED BY 2020**

TARGET 3.6 - Halve the number of global deaths and injuries from road traffic accidents

## The main barriers to ensuring healthy lives and promoting well-being for all at all ages in the Arab region

People are at the heart of the 2030 Agenda. Their health and well-being are fundamental if they are to benefit from, and drive forward the shift to sustainable development. Health is a critical indicator of human development progress generally.

Significant variations in health-care access and quality exist among the Arab region's poorer and richer countries, poorer and richer social groups, and different areas within countries. Additionally, conflict and displacement have often led to the overburdening and destruction of health services and the deterioration of health indicators. Overall, the region has yet to shift to a comprehensive, rights-based approach to health for all, and a model of health care that integrates social determinants of health into planning and service delivery.

Achieving SDG 3 is intertwined with achieving several other goals and targets. Poverty is a barrier to accessing affordable, quality health care; it is also a driver of risky health behaviours (SDG 1). The poor are often engaged in economic activities that are hazardous to their health (SDG 8), and live in crowded, polluted or underserved areas that might lack necessary water and sanitation services (SDGs 11 and 6), increasing the risk of water-borne diseases and the spread of viruses. Water scarcity and climate change pose threats to agricultural productivity and food security (SDGs 13 and 2) with associated impacts on human health.

Urbanization, pollution and poor transport infrastructure and lack of green public spaces (SDG 11) aggravate chronic illnesses, increase sedentary behaviours and reduce options for exercise, all of which are detrimental to health. The region's changes in dietary patterns are a prominent driver of escalating rates of obesity and non-communicable diseases (SDG 2). In the least developed countries, the world's highest rates of age-standardized mortality stem from acute household and ambient air pollution.<sup>24</sup>

Women and girls of childbearing age continue to suffer disproportionately high rates of illness and death in many countries or areas due to limited access to adequate,

### Health workers

The average densities of different health workers in the region are similar to world averages except for nurses, where the regional average is lower (see figure 23). Overall densities, however, disguise distributional inequities between urban and rural areas. Underserved areas are often associated with low-quality work conditions, a lack of financial incentives for health workers and poor transportation.<sup>(a)</sup> Disparities are also stark in the least developed countries, which have critical shortages of doctors and nurses. GCC countries have a much higher density of nurses, given a tendency for nurses to migrate there from poorer countries.

Source: (a) AbuAlRub and others, 2013.

**Reproductive health** problems are a leading cause of ill-health and death among women and girls of child-bearing age in the region. Some countries have made great strides in reducing maternal mortality, including Morocco, which cut ratios by 35 per cent between 2010 and 2016.<sup>(a)</sup>

Humanitarian settings have seen a rise in early marriage. For example, the percentage of underage Syrian girls who registered their marriages in Jordan increased three times from 2011 rates, reaching 32 per cent of all marriages by 2014.<sup>(b)</sup> Early marriage boosts the number of higher-risk pregnancies and Caesarean sections. Gender-based violence also tends to increase, while access to primary and preventative care as well as contraceptives significantly declines.

Sources: (a) UNICEF, 2019; (b) Sahbani, Al-Khateeb and Hikmat, 2016.

rights-based care. Many face daunting constraints on their ability to make choices related to their sexual and reproductive health (SDG 5).

## THE FOLLOWING ARE THE KEY BARRIERS TO ACHIEVING SDG 3 IN THE ARAB REGION

### Fragmented health systems



Health systems generally remain fragmented between public and private providers, as well as across levels of care and multiple types of providers, including non-governmental and military services. This results in patchy coverage and availability and quality of services, and it effectively ensures that many social and demographic groups and geographic areas fall through the cracks. Fragmentation also disrupts the continuity of care for individual patients and makes it difficult for policymakers to define health needs and gaps. Few services have been allocated to catchment populations (the population in a certain area seeking services).

Overall, gaining an understanding of population health needs is challenging, both now and over time, especially for marginalized groups such as persons with disabilities, older persons, adolescents, women or migrants. Most Arab States have a national health policy strategy and plan in place. It is not clear, however, if these strategies target the needs of different population groups, build on a holistic grasp of health profiles and needs, or link to specific targets and results in the medium to long term.<sup>25</sup>

### Expansion of health services is not evidence-based



The region suffers from a number of weaknesses in national health systems, a situation that has worsened as conflict and forced displacement have disrupted health-care provision and vastly increased demand for services. Expansion of health services is typically not based on evidence concerning demographic and health needs, but rather – and particularly within the private sector – in response to market demand.<sup>26</sup> At the same time, especially in middle- and high-income countries, there is a heavy emphasis on technologically intensive care for individuals with minimal emphasis on lower cost prevention at a population level. In maternal health care, huge disparities persist between low-income countries, which suffer from limited access and inadequate availability of emergency delivery services, and middle-income countries, where excessive medical intervention not based on actual need is costly and pervasive. In Egypt, which has otherwise seen good improvements in trained assistance at delivery and declines in maternal mortality, over half of all deliveries nationally are by Cesarean-section.<sup>27</sup> Similar rates are seen in Lebanon and other countries.

### High out-of-pocket expenditures



Across the region, high out-of-pocket costs deter service use, impede the continuity of care and can lead to impoverishment. In the GCC countries, out-of-pocket health expenditure as a share of total health expenditure is relatively low for nationals. In Oman, for example, the share was only 6.4 per cent in 2015. In countries like Egypt and Iraq, however, it accounted for 62 per cent and 76 per cent, respectively, in 2015.<sup>28</sup> In many Arab countries and for a number of social groups, out-of-pocket spending is now considered catastrophic.<sup>29</sup> Particularly in the least developed countries but also throughout the region, groups who need services most often have poor access to affordable care. The situation is exacerbated by high rates of informality in the workforce as well as substantial unemployment among women and youth.

Highly fragmented health-care coverage accentuates vulnerability. In Lebanon, for example, the national social security fund is the main insurer covering around 28 per cent of the population; military schemes cover around 9 per cent, followed by the Civil Servant Cooperative, which insures around 5 per cent. Mutual funds and private insurance cover 12 per cent each.<sup>30</sup> While some schemes may overlap, it is estimated that at least half the population remains uninsured. In the Sudan, health insurance coverage in 2018 reached 46.3 per cent of the population, with almost 60 per cent of the covered population defined as impoverished or vulnerable, and 56 per cent working in the informal sector.<sup>31</sup>

### Primary preventative care is not prioritized



Frequent bypassing of primary health-care services in favour of secondary and tertiary care raises costs and creates inefficiencies. A larger private sector role in part encourages investment in expensive curative technologies and interventions rather than regular primary preventative care.

The region has only begun to pay attention to the underlying multisectoral determinants of health, such as education, which influences behaviours including health-care seeking and lifestyle choices. This shortfall is evident in the region's fast-growing consumption of tobacco products such as cigarettes and argileh, even as tobacco use declines in the rest of the world.<sup>32</sup> Few governments have explored the potential for fiscal policy to institute taxes on cigarettes or alcohol that could generate revenues while reducing consumption rates. Proven policy recommendations for the control of key health risk-factors are not strongly implemented and often are not backed up by political will to prevent regression.<sup>33</sup>

Another behavioural issue is physical inactivity, which is high among children and adults, and higher among women. National surveys among schoolchildren indicate that 60 per cent to 90 per cent were physically inactive during the last seven days.<sup>34</sup> As populations become increasingly urban, relying on transport instead of walking, attention to the built environment and its health consequences will be critical. Currently, expanding urban centres often lack green or public spaces for play or recreation. Those that are available are not always accessible to persons with disabilities, women and children, who generally face higher restrictions on their mobility. High obesity rates fuel diabetes, hypertension, heart disease, stroke and other chronic illnesses.<sup>35</sup> Road traffic injuries are another widespread yet highly preventable problem.



## Weak regulation and accountability



Even as health service coverage increases, governments have not always paid attention to the quality of services. Across the region, systems of clinical auditing are often inadequate, while quality assurance efforts are oriented around sanctions rather than learning and improvement. Relatively little attention has been paid to stimulating demand for health services, particularly in sensitive areas of health, and to reducing social barriers to accessing care. These elements are particularly urgent for sexual and reproductive health, and for women (including unmarried women and adolescent girls) and young people. Additionally, while vocal civil society and patients' rights movements shape health care in other parts of the world, such activism remains relatively muted in the Arab region, effectively reducing accountability to patients and citizens at large.

## Conflict and crisis



Conflict has led to massive displacement and the loss and maldistribution of health-care workers, and diminished and sometimes destroyed health-care facilities. It has weakened disease surveillance while also creating conditions conducive to the reemergence of communicable diseases, such as the unprecedentedly serious cholera outbreak in Yemen. Conflict has disrupted the continuity of care for non-communicable diseases and widened gaps in maternal and neonatal health care. Within conflict and crisis areas, other challenges relate to the unavailability of medicines and emergency services, as well as heightened risks from surgeries and other interventions where basic infrastructure and systems of safety and hygiene have broken down.

In Libya in 2015, 71 per cent of people with chronic diseases could not get the essential medicines they needed.<sup>36</sup> A shortage of funding has undercut the ability to vaccinate children against measles or rubella, putting them and others in the country at risk of highly contagious and potentially fatal diseases. Conflict is also driving a rise in mental illnesses, which are inadequately detected and treated in both conflict and non-conflict countries.<sup>37</sup>

**Government expenditure on health-care** in the region is increasing overall, although it remains relatively low compared to other regions.<sup>(a)</sup> As a percentage of total government expenditure, spending ranged from 3.9 per cent in Yemen to 14.2 per cent in Tunisia in 2014. The regional mean of 8.3 per cent in 2014 marked a slight increase from 8 per cent in 2004. From 2004 to 2014, general government expenditure on health as a percentage of total government expenditure decreased in nine Arab States and increased in 11, with the largest increases in Iraq (104 per cent), the Sudan (78 per cent) and Bahrain (20 per cent). The largest drops were in Qatar (-40 per cent), Yemen (-36 per cent) and the Syrian Arab Republic (-30 per cent).<sup>(b)</sup>

Sources: (a) World Bank, 2013; (b) WHO, 2014.

**Excise taxes** have recently been introduced in GCC countries on products harmful to human health. Measures include a 50 per cent levy on carbonated drinks and a 100 per cent levy on tobacco products and energy drinks. In 2019, Saudi Arabia and the United Arab Emirates introduced similar levies on electronic smoking devices and products with added sugars or sweeteners.

Source: ESCWA, 2019.

While data are scarce, some existing studies on **medical tourism** in the region indicate significant economic benefits, especially in Egypt, Jordan, Lebanon, Tunisia and the United Arab Emirates. In the last alone, returns reached \$250 million in 2015. More studies are needed to determine the impacts of medical tourism, including to see if it weakens service delivery for local populations by diverting resources towards more expensive and curative interventions.<sup>(a)</sup> More research is also needed to address uneven concentrations of health expertise, including through the migration of doctors and nurses within the region.

Sources: (a) Dewachi, 2018; Lertora, 2016.

The unavailability and weak classification of health-related data are linked in part to **limited research and development** in the region. In 2013, its collective spending on medical research was 1 per cent of global scientific research spending, and less than half of the amount spent in either the Islamic Republic of Iran or Turkey.

Source: Dewachi, 2018.

In the **Syrian Arab Republic**, between 2011 and 2019, 588 attacks on 350 separate health-care facilities were documented as well as the killing of 914 medical personnel. In **Yemen**, as of April 2018, 49 per cent of health facilities were either not functioning or only partially functioning due to staff shortages, a lack of supplies, the inability to meet operational costs or limited access. Fewer specialized staff were working in district and tertiary hospitals; 53 per cent of health facilities lacked general practitioners; and 45 per cent of functional hospitals had no specialists. With only 1 health worker per 1,000 people, Yemen reaches less than half the WHO minimum benchmark. Most equipment in hospitals is non-functioning or obsolete, and many health personnel have not received regular salaries for two years.

Sources: Physicians for Human Rights, 2019; OCHA, 2019.

## At risk of being left behind

Across the region, the following groups of people are often among those most at risk of being left behind, even as they stand to gain the most from health improvements.

**The poor and uninsured:** High out-of-pocket expenditures for health care hit the poorest the hardest and can push people below or further below the poverty line. Amid privatization, economic reforms and economic decline, and the damage caused by conflict, low-cost and free health care have become less available. Private-sector care has expanded, and in several countries, the majority of health care is now offered privately. Yet many social groups lack access to formal health insurance to defray rising care and medication costs. They include youth, with unemployment rates that are the highest in the world, and women, with low formal labour force participation. Many workers in general are self-employed or involved in the informal sector, and lack health-related benefits.<sup>38</sup>

**Arab least developed countries:** These nations perform worst on almost all SDG 3 indicators. There is a stark 10-fold difference, for example, between the neonatal mortality rates of less than 4 per 1,000 in the richest countries versus nearly 40 in the poorest countries.<sup>39</sup> Extreme differences also occur in the coverage of essential services, which ranges from a low of 22 per cent in Somalia to 77 per cent in Kuwait.<sup>40</sup> In Mauritania in 2009, there were 12.7 physicians per 100,000 people, compared to 343 per 100,000 in Jordan in 2015.<sup>41</sup>

**Refugees, internally displaced people and conflict-affected populations:** Conflict has undermined health-care access, destroyed health-care facilities, and propelled an exodus of trained health-care personnel along with shortages in medicine and equipment. Massive displacement and social and economic disruption can increase mental health problems as well as gender-based violence. Crowded conditions in camps for internally displaced people or refugees spread infectious diseases amid weak disease control.

Conflicts in the region have been occurring in middle-income settings where non-communicable diseases

**Access to health-care facilities** varies across the region. In Tunisia, for example, around 90 per cent of the population lives less than 5 kilometres from a health facility. By contrast, in Yemen, 14.8 million people lack access to basic health care, including 8.8 million people in severely underserved areas. In Morocco, around 25 per cent of the population currently lives more than 10 kilometres from a formal health centre, and over 40 per cent of people struggle to obtain hospital care.

Source: WHO EMRO, 2019b.

“The limited and unpredictable electricity supply to the **Gaza Strip**, with an average of seven hours of electricity per day from the grid in 2018, has severe implications for the health sector. Hospitals and clinics depend on the provision of fuel to supply emergency generators, with fuel shortages and electricity outages potentially putting the lives of patients at risk. The legislative and physical division of the West Bank has created particularly vulnerable populations in Area C, the Seam Zone and H2 in Hebron. Of approximately 330 000 Palestinian residents in these areas, 114 000 (35%) have limited access to primary health care. Mobile clinics are currently serving 135 communities, but uncertainties of funding cast doubt over the sustainability of these services. Efforts to establish more permanent facilities for some communities are hampered by restrictive planning policies towards Palestinians in Area C, where Israel has civil and military control”.

Source: WHO, 2019b.

are dominant. Forced displacement may therefore mean interruption of cancer, diabetes or hypertension treatment, or disruptions in access to essential medications for a wide range of other conditions. Three-quarters of Syrian refugees in neighbouring countries are women and children, whose access to antenatal, delivery,

immunization and other services has fallen.<sup>42</sup> Local health systems have staggered under enormous pressure from absorbing large flows of refugees, with no end in sight from protracted crises. The humanitarian system too has struggled to cope with health needs.

**Persons with disabilities:** Special health-care needs of persons with disabilities—both physical and cognitive—are not adequately addressed. Barriers to access intensify with intersecting inequalities such as persons with disabilities in rural, refugee or other marginalized communities. Financial difficulties as well as lack of information about available services also play roles in excluding persons with disabilities from health-care services.<sup>43</sup>

**Non-national residents and migrants:** The Arab region—particularly the GCC countries—has some of the highest shares of non-national residents or migrants in the world, including as workers in the health sector. With few publicly available data about these groups, relatively little is known about their health needs, service use and service barriers.

**Adolescents:** Compared to those in the rest of the world, adolescents in the region have higher rates of transport injuries, cardiovascular and metabolic conditions as well as mental health problems.<sup>44</sup> Yet health-care providers have generally not been sensitized and services have not been tailored to meet the health needs of this group. The lack of comprehensive health education in schools, including sexuality education, or the reluctance to teach it has meant that young people often rely on the Internet or peers for information, which may be inaccurate. Unmarried adolescents, men and women, face social barriers in raising issues concerning their sexual and reproductive health with health-care providers.

**Women and girls:** Lack of sufficient attention to gender considerations in health is reflected in the fact that among all the indicators for SDG 3, only six have sufficient sex-disaggregated data in the region. Maternal mortality ratios remain high, driven by bleeding, infections and high blood pressure during pregnancies, among other factors, all of which are preventable with timely and quality care. Access to pre- and postnatal care

While **migrants** often begin their journey with a health advantage, since those who are healthy are more likely to migrate, adverse living and working conditions soon heighten their vulnerability to disease and injury. Who pays for health coverage, how inclusive coverage is and the quality of services that migrants can access all impact their ability to lead healthy lives. Specific migrant groups are more vulnerable to being excluded from health coverage. These include irregular migrants, children, women and older persons. Some promising practices in recent years in a few countries comprise efforts to ensure that regular migrants can at least participate in medical assistance schemes targeting low-income people.

Source: ESCWA and IOM, 2019.

varies significantly. Little is known about the extent of access to comprehensive sexual and reproductive health care in the region, as social barriers persist in using services and asking for information. In addition, millions of girls still fall victim to female genital mutilation in a number of countries, suffering harm that lasts throughout their lives.

Data in several countries indicate that the female-to-male ratio of HIV prevalence is below rates in other regions of the world, but this may indicate lower use of voluntary testing and detection among women.<sup>45</sup> Lower detection is attributed to stigma and difficulties in accessing services as well as a lack of knowledge about the potential risks of unsafe sex, even within marriage. Women sometimes will not come forward for testing if a husband's consent is needed, or due to restrictions on mobility, difficulties in accessing transport and childcare, and limited treatment literacy.<sup>46</sup> This carries grave implications for women's overall well-being, including physical and mental health.

Gender-based violence remains pervasive, as an estimated 37 per cent of ever-partnered women in some countries of the region have experienced physical and/or sexual intimate partner violence at some point in their lives.<sup>47</sup>

## What the region can do to accelerate progress on SDG 3

Only an integrated, rights-based approach to health and health-care systems can deliver more comprehensive coverage and better quality for all, and meet the health needs of different groups, including women and girls. It would also engage populations in achieving SDG

3 through better education and awareness (SDG 4). This should, in turn, improve the governance of health care and increase transparency in service planning, budgeting and delivery (SDG 16).



## 1. Expand evidence-based health services and health coverage, and enhance affordability:

- Formulate a national vision for universal health coverage and a road map towards its realization, taking into account country-specific health system challenges, macroeconomic outlooks and people's needs.
- Integrate targets and results in health strategies that address health needs and gaps in different areas and for different social and demographic groups, including persons with disabilities, women and girls, older persons, adolescents and others.
- Define national essential or priority health service packages, including preventive, promotive, curative, rehabilitative and palliative services related to communicable and non-communicable diseases across the life course, and develop appropriate people-centred, integrated models of care with functioning referral systems.
- Establish/reconfigure prepayment arrangements for various population groups, leaving no one behind. These should be financed via budget allocation and/or mandatory contributions to reduce fragmentation, enhance equity and promote financial and social protection.
- Ensure a human rights based approach to sexual and reproductive health, backed by requisite budgetary allocations.
- Expand the goal of universal health coverage to include non-nationals residing within national territories, including refugees and migrant workers as well as other marginalized groups.

## 2. Improve the quality of health care:

- Reorient health systems towards more prevention, with an emphasis on primary health care, enhanced local primary health-care centres and encouragement of patient follow-up.
- Improve regulatory frameworks to make health services more accountable to citizens. Ministries of health can introduce better regulations to uphold the quality of care through institutionalized systems of audit and surveillance.
- Improve knowledge of health-care needs to inform better planning, implementation and impact assessments of health services.
- Work towards a cultural change in health-care systems by tracking patient safety and medical errors. This could use a no-blame approach and aim at better documentation of patient safety problems.

- Strengthen health systems governance and institutional arrangements as well as supportive legislation to improve performance and accountability, and mitigate the risk of corruption.
- Address shortages and create incentives to reduce the emigration of health professionals, including nurses.
- Promote a whole-of-government approach, conduct a health impact assessment of all public health policies, and engage parliamentarians, civil society and the private sector in health sector efforts to enhance social protection strategies.
- Enable civil society action around health and health services to increase accountability to consumers and citizens. This could entail adopting and enforcing access to information legislation, and lifting limitations on the work of civil society generally.

## 3. Intervene upstream to address the determinants of health:

- Integrate risk factors accounting for a huge increase in non-communicable diseases into public health strategies, making links to consumption and environmental factors.
- Integrate health dimensions across national development plans and sectoral strategies, including those related to urban planning, transport, energy, and water and sanitation.
- Introduce regulatory frameworks to control salt, trans-fats and other additives, and introduce deliberate fiscal policies and regulation for the marketing of alcohol, tobacco and sugary drinks, among other products with proven health impacts. Further, provide comprehensive nutrition information to consumers.
- Integrate health into educational curricula at early stages to raise awareness of health risks, enhance literacy on sexual and reproductive health, and promote behavioural and environmental changes in line with better health.
- Monitor compliance with road safety legislation to address an epidemic of traffic accidents affecting both drivers and pedestrians, particularly young people.
- Target the prevention and treatment of malnutrition among pregnant women and children up to 2 years of age. Promote adequate micronutrient intake and exclusive breastfeeding up to six months and continued breastfeeding for two years.

#### 4. Invest in better monitoring, data and analysis:

- Invest in better and more comprehensive data collection especially at subnational levels, as well as the capacity and willingness to analyse data to develop accountable and evidence-informed policies.
- Improve data disaggregation by sex, age and other relevant variables. This can be done in part through enhanced systems of vital registration, including for non-nationals (refugees and migrants).
- Enhance the collection of data on gender-based violence, and coordinate its generation across different social sectors, and legal and law enforcement entities.
- Ensure better use of extensively available administrative data collected by health-care systems.
- Promote digital health, and strengthen routine data sources while also introducing non-formal data sources for early detection and monitoring of trends in diseases.
- Commit to making data publicly available in line with global trends and the call in SDG 16 to advance knowledge, and increase transparency and accountability.

#### 5. Strengthen regional and country-level capacities for emergency preparedness and responses to all hazards:

- Adopt a humanitarian-development-peace nexus approach to provide integrated assistance to countries affected by emergencies.
- Advance specific capacities to prevent, detect and respond to emerging infectious diseases and to seasonal and pandemic influenza.
- Strengthen systems and capacities to address sexual and reproductive health needs and maternal health issues in humanitarian settings.
- Strengthen overall emergency management capacities in the region by undertaking all-hazard risk profiling, and developing all-hazard emergency preparedness and response plans.
- Strengthen systems and capacities for managing trauma and injury, especially violent trauma in conflict settings.
- Integrate efforts to reduce and respond to gender-based violence in health and social services targeting refugee and forcibly displaced populations.

## SDG 3 targets and indicators in the Arab region

### Target

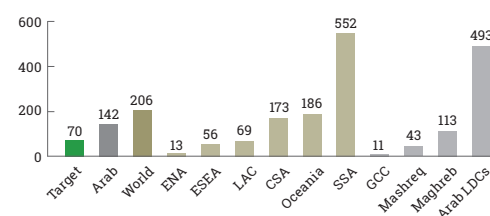
**3.1**  
By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

### Indicator

**3.1.1**  
Maternal mortality ratio

### Data

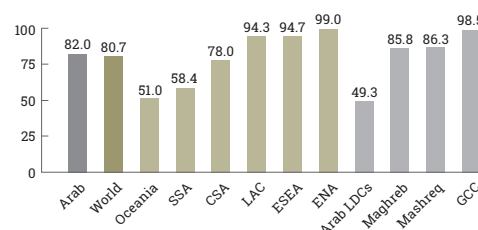
Figure 1 Maternal mortality ratio (deaths per 100,000 live births)



Note: All means are weighted by the total number of births for 2011 taken from United Nations Statistics Division, 2019b. The calculated Arab regional aggregate includes the 2015 data values of all Arab countries except the Sudan. Data availability was negatively affected by weighting by the denominator (live births in 2015), so a compromise was made to weight by the latest data available for the total number of births for 2011 instead.

### 3.1.2 Proportion of births attended by skilled health personnel

Figure 2 Proportion of births attended by skilled health personnel (percentage)

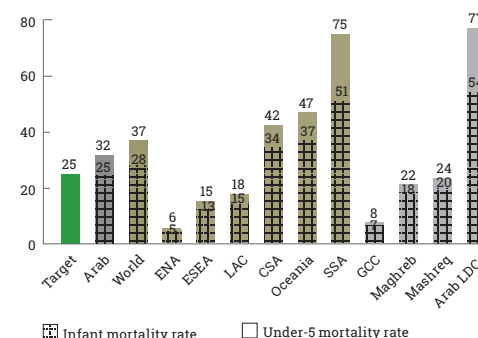


Note: All means are weighted by the total number of births (i.e., the denominator) for 2011 taken from United Nations Statistics Division, 2019a. The calculated Arab regional aggregate includes the data values of the following Arab countries and years: Syrian Arab Republic (2009), Morocco (2011), Algeria, Comoros, Djibouti, Iraq, Jordan and Tunisia (2012), Libya, Saudi Arabia and Yemen (2013), Egypt, Oman and State of Palestine (2014), Bahrain, Kuwait, Mauritania, Qatar and United Arab Emirates (2015).

### 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

#### 3.2.1 Under-5 mortality rate

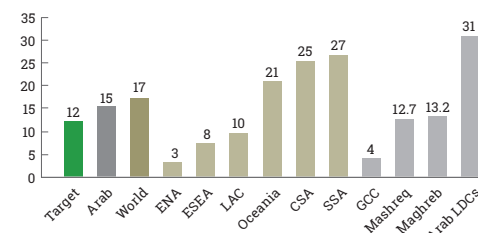
Figure 3 Under-5 mortality rate and infant mortality rate (deaths per 1,000 live births)



Note: All means are weighted by the total number of births for 2011 taken from United Nations Statistics Division, 2019b. The calculated Arab regional aggregates of both series include the 2017 data values of all Arab countries except the Sudan. We visualize and analyse the two series using a stacked bar chart since they measure different facets and intensities of preventable child mortality, and the under5- mortality rate includes the infant mortality rate (more details in the Annex). For each series, data availability was negatively affected by weighting by the denominator (live births in 2015), so a compromise was made to weight by the latest available data on the total number of births for 2011.

#### 3.2.2 Neonatal mortality rate

Figure 4 Neonatal mortality rate (deaths per 1,000 live births)



Note: All means are weighted by the total number of births for 2011 taken from United Nations Statistics Division, 2019b. The calculated Arab regional aggregate includes the 2017 data values of all Arab countries except the Sudan. Data availability was negatively affected by weighting by the denominator (live births in 2015), so a compromise was made to weight by the latest data available for the total number of births for 2011.

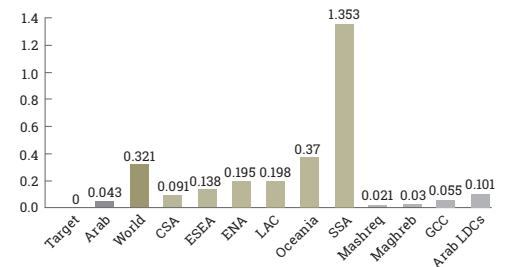
### 3.3

By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

#### 3.3.1

Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations

Figure 5 Number of new HIV infections per 1,000 uninfected population

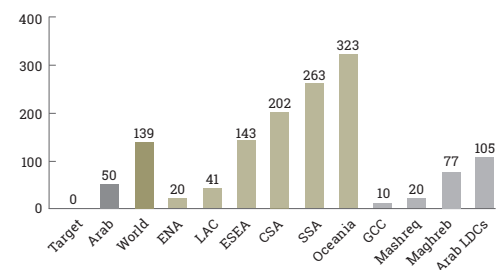


Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes data values of the following Arab countries for 2017: Algeria, Bahrain, Comoros, Djibouti, Egypt, Kuwait, Lebanon, Mauritania, Morocco, Qatar, Somalia, Sudan and Tunisia. Ideally, we would weight by the total number of uninfected population, which is the denominator. To get to this variable, we would need to use WHO data on total number of people living with HIV and subtract it from total population data. More than one quarter of the world's countries are not covered by this particular data, however. Therefore, we weighted by total population (2015 is the latest available year) as a proxy.

#### 3.3.2

Tuberculosis incidence per 1,000 population

Figure 6 Tuberculosis incidence per 100,000 population

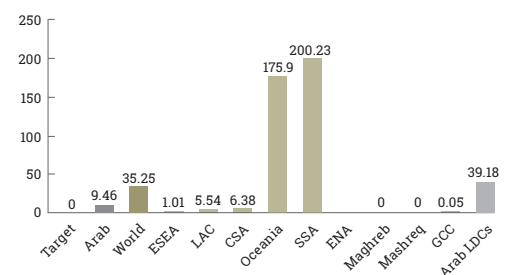


Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017 and United Nations Statistics Division 2019a). The calculated Arab regional aggregate includes data values of all 22 Arab countries in 2016.

#### 3.3.3

Malaria incidence per 1,000 population

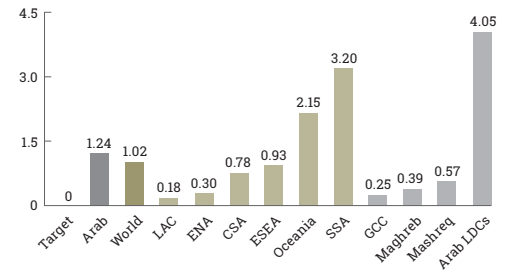
Figure 7. Malaria incidence per 1,000 population at risk



Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of the following Arab countries for 2017: Algeria, Comoros, Djibouti, Egypt, Iraq, Mauritania, Morocco, Oman, United Arab Emirates, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic and Yemen.

**3.3.4**  
Hepatitis B incidence per 100,000 population

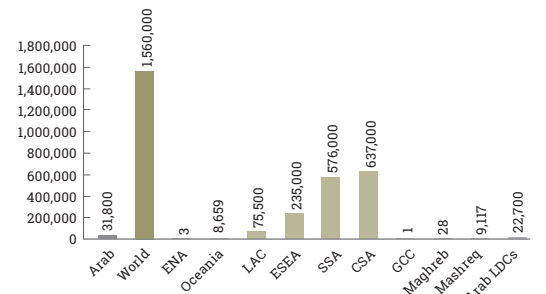
**Figure 8** Prevalence of Hepatitis B surface antigen (HBsAg) (percentage)



Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2015.

**3.3.5**  
Number of people requiring interventions against neglected tropical diseases

**Figure 9** Number of people requiring interventions against neglected tropical diseases (thousands)

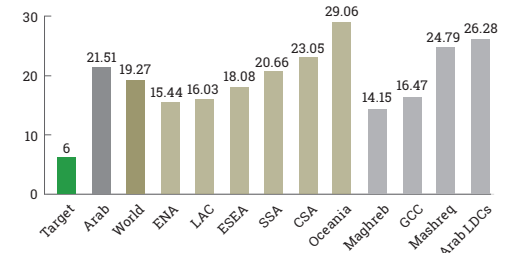


Note: Aggregates are the total sum of country values (United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2017.

**3.4**  
By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

**3.4.1**  
Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease

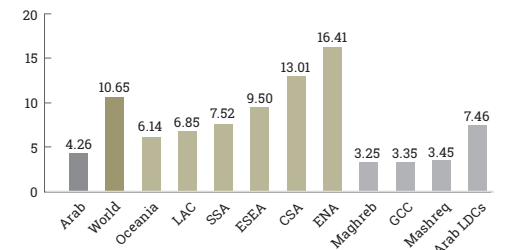
**Figure 10** Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease (probability, percentage)



Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2016.

**3.4.2**  
Suicide mortality rate

**Figure 11** Suicide mortality rate (number of suicides per 100,000 population)



Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2016.



**3.5**

Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

**3.5.1**

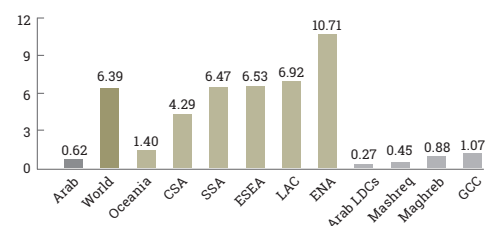
Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders

Adopted criteria to obtain a regional average are not met for this indicator.

**3.5.2**

Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol

Figure 12 Alcohol consumption per capita (aged 15 years and older) within a calendar year (litres of pure alcohol)



Note: All means are weighted by total population aged 15 years and above, using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2016.

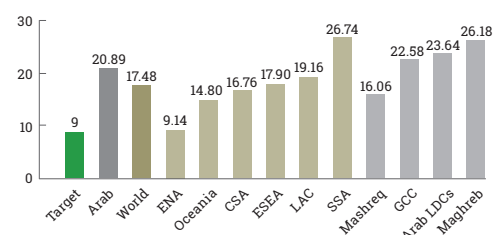
**3.6**

By 2020, halve the number of global deaths and injuries from road traffic accidents

**3.6.1**

Death rate due to road traffic injuries

Figure 13 Death rate due to road traffic injuries (number of deaths per 100,000 population)



Note: All means are population weighted using 2013 population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all 22 Arab countries in 2013.

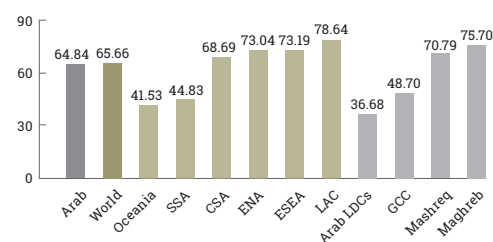
**3.7**

By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

**3.7.1**

Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods

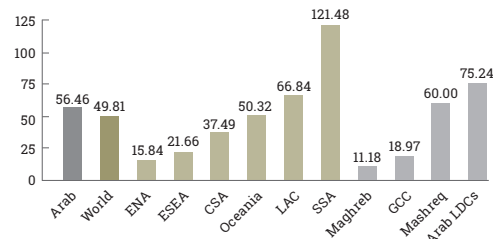
Figure 14 Proportion of women married or in a union of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods (percentage)



Note: All means are weighted by the total population of women aged 15-49 in 2014 (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of the following Arab countries and years: Syrian Arab Republic (2009), Iraq and Morocco (2011), Comoros, Jordan, Qatar and Tunisia (2012), Algeria and Yemen (2013), Egypt, Oman, State of Palestine, and Sudan (2014) and Mauritania (2015).

**3.7.2**  
Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group

**Figure 15** Adolescent birth rate (per 1,000 women aged 15-19 years)

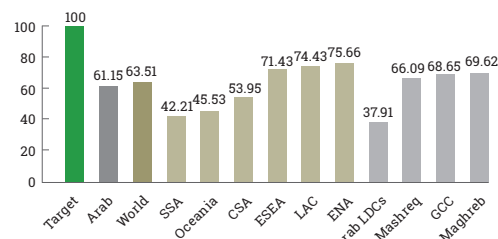


Note: All means are weighted by the total population of women aged 15-19 in 2015 (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of the following Arab countries and years: Iraq, Syrian Arab Republic and United Arab Emirates (2009), Djibouti (2010), Comoros, Jordan, Mauritania, Somalia and Tunisia (2011), Egypt and Yemen (2012), Algeria, Libya and Sudan (2013), Bahrain and State of Palestine (2014), Kuwait and Qatar (2015) and Oman (2016).

**3.8**  
Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

**3.8.1**  
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)

**Figure 16** Universal health service coverage index (index from 0 to 100)



Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2015.

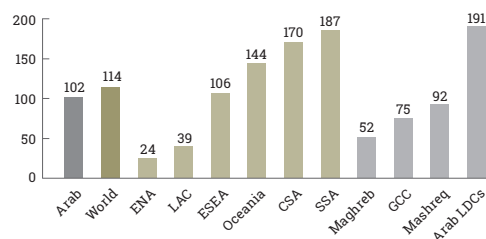
**3.8.2**  
Proportion of population with large household expenditures on health as a share of total household expenditure or income

Adopted criteria to obtain a regional average are not met for this indicator.

**3.9**  
By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

**3.9.1**  
Mortality rate attributed to household and ambient air pollution

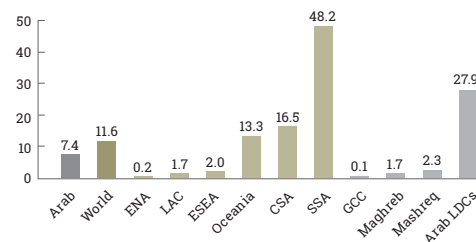
**Figure 17** Age-standardized mortality rate attributed to household and ambient air pollution (number of deaths per 100,000 population)



Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2016.

**3.9.2**  
**Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)**

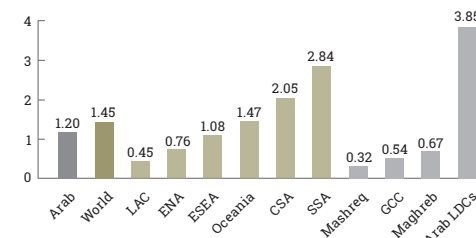
**Figure 18** Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (number of deaths per 100,000 population)



Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2016.

**3.9.3**  
**Mortality rate attributed to unintentional poisoning**

**Figure 19** Mortality rate attributed to unintentional poisonings (index, number of deaths per 100,000 population)

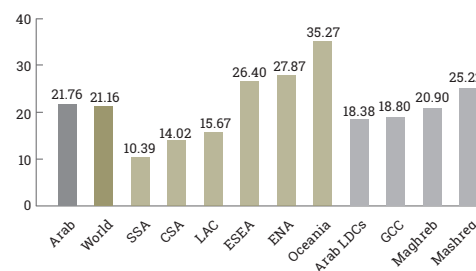


Note: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2016.

**3.a**  
**Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate**

**3.a.1**  
**Age-standardized prevalence of current tobacco use among persons aged 15 years and older**

**Figure 20** Age-standardized prevalence of current tobacco use among persons aged 15 years and older (percentage)



Note: All means are weighted by total population aged 15 years and above, using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of the following Arab countries for 2015: Algeria, Bahrain, Comoros, Djibouti, Egypt, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, United Arab Emirates and Yemen.

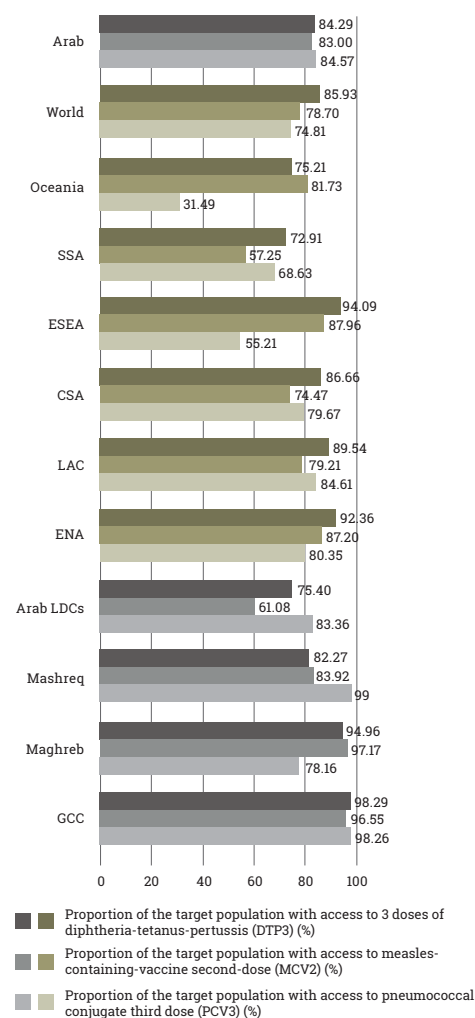
### 3.b

Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

#### 3.b.1

Proportion of the population with access to affordable medicines and vaccines on a sustainable basis

Figure 21 Proportion of the target population with access to three doses of diphtheria-tetanus-pertussis (DTP3), to measles-containing-vaccine second-dose (MCV2) and to pneumococcal conjugate third dose (PCV3) (percentage)

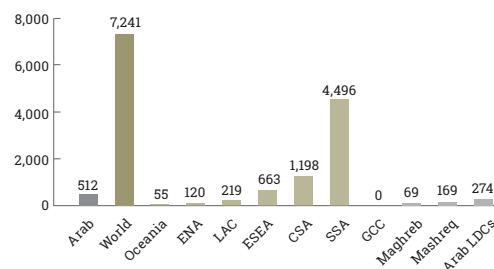


Note: All means are weighted by the total population of children aged 0–2 years (i.e., the target population and the denominator), using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a) as, "The target population for given vaccine is defined based on recommended age for administration. The primary vaccination series of most vaccines are administered in the first two years of life". For DTP3, the calculated Arab regional aggregate includes the data values of all 22 Arab countries in 2016. For MCV2, the calculated Arab regional aggregate includes the data values of all Arab countries except Comoros, Mauritania and Somalia in 2016. For PCV3, the calculated Arab regional aggregate includes the data values of the following Arab countries for 2016: Algeria, Bahrain, Djibouti, Kuwait, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, State of Palestine, Sudan, United Arab Emirates and Yemen.

#### 3.b.2

Total net official development assistance to medical research and basic health sectors

Figure 22 Total official development assistance to medical research and basic health sectors (net disbursements, in millions of constant 2016 United States dollars)



Note: Indicator 3.b.2 only covers recipient countries/territories and excludes the 33 donor countries/territories listed by the OECD. Aggregates are the total sum of country values (United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of following Arab countries in 2016: Algeria, Comoros, Djibouti, Egypt, Iraq, Jordan, Lebanon, Libya, Mauritania, Morocco, Somalia, State of Palestine, Sudan, Syrian Arab Republic, Tunisia and Yemen.

**3.b.3**

Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis

**3.c**

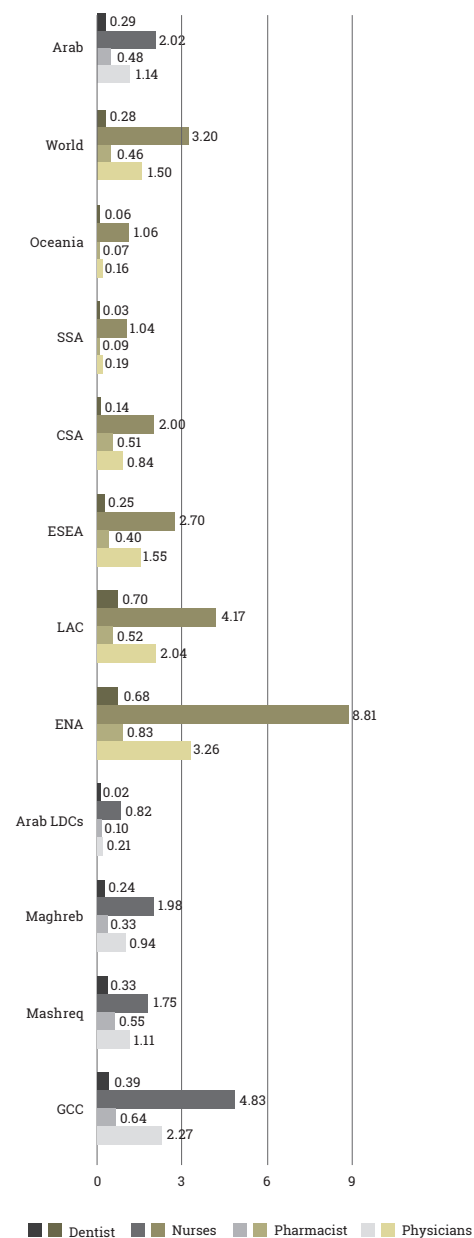
Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

**3.c.1**

Health worker density and distribution

Adopted criteria to obtain a regional average are not met for this indicator.

Figure 23 Health worker density of dentists, nurses, pharmacists and physicians (index, per 1,000 population)



Note: All means are population weighted using 2014 population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of the following Arab countries and years as follows:

Dentists: Mauritania (2009), Tunisia (2010), Djibouti, Egypt, Iraq, Lebanon, Libya, Morocco, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen (2014), Bahrain, Jordan and Kuwait (2015) and Oman (2016).

Nurses: Mauritania (2009), Djibouti, Egypt, Iraq, Lebanon, Libya, Morocco, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, United Arab Emirates and Yemen (2014), Bahrain, Jordan and Kuwait (2015), Oman and Tunisia (2016).

Pharmacists: Mauritania and Morocco (2009), Tunisia (2010), Djibouti, Egypt, Iraq, Kuwait, Lebanon, Libya, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen (2014), Bahrain and Jordan (2015) and Oman (2016).

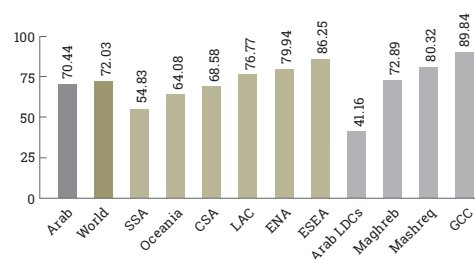
Physicians: Mauritania (2009), Djibouti, Egypt, Iraq, Lebanon, Libya, Morocco, Qatar, Saudi Arabia, Somalia, Syrian Arab Republic, United Arab Emirates and Yemen (2014), Bahrain, Jordan, Kuwait and Tunisia (2015) and Oman (2016).



### 3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

#### 3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness

Figure 24 Average of 13 International Health Regulations core capacities (percentage)

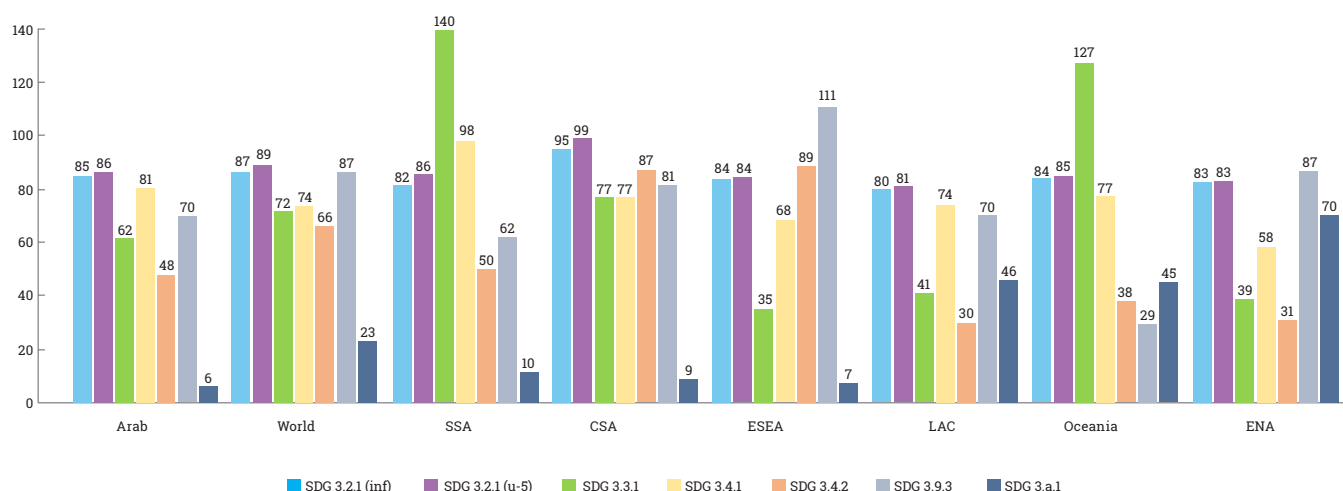


Note: Aggregates are the simple means of country values, since this is a State-level indicator (United Nations Statistics Division, 2019a). The calculated Arab regional aggregate includes the data values of all Arab countries but the State of Palestine in 2017.

Note: Central and Southern Asia (CSA); Eastern and South-Eastern Asia (ESEA); Europe and Northern America (ENA); Gulf Cooperation Council (GCC); Latin America and the Caribbean (LAC); Arab Least Developed Countries (Arab LDCs); Oceania (excluding Australia and New Zealand); Sub-Saharan Africa (SSA).

All figures are based on the Global SDG Indicators Database (United Nations Statistics Division, 2018) except for updated data (United Nations Statistics Division, 2019c) for the following indicators: 3.1.1 [Maternal mortality ratio (deaths per 100,000 live births)], 3.2.1 [Under-5 mortality rate and Infant mortality rate (deaths per 1,000 live births)], 3.2.2 [Neonatal mortality rate (deaths per 1,000 live births)], 3.3.1 [Number of new HIV infections per 1,000 uninfected population], 3.3.3 [Malaria incidence per 1,000 population at risk] and 3.3.5 [Number of people requiring interventions against neglected tropical diseases].

Figure 25 Gender inequality in terms of SDG indicators 3.3.1, 3.4.1, 3.4.2, 3.9.3 and 3.a.1, and two series of 3.2.1, female-to-male ratio



Note: Central and Southern Asia (CSA); Eastern and South-Eastern Asia (ESEA); Europe and Northern America (ENA); Latin America and the Caribbean (LAC); Oceania (excluding Australia and New Zealand); Sub-Saharan Africa (SSA).

All means of these ratios are weighted by the same weighting variables used for their corresponding series. For ratios of SDG 3.2.1 (infant mortality and under5- mortality): All means are weighted by the total number of births in 2011 taken from United Nations Statistics Division, 2019b. For the ratios of SDG 3.3.1, SDG 3.4.1, SDG 3.4.2, and SDG 3.9.3: All means are population weighted using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). For the ratio of SDG 3.a.1: All means are weighted by total population aged 15 years and above, using the latest (2015) population estimates (United Nations Population Division, 2017; United Nations Statistics Division, 2019a). To a slight degree, data availability was negatively affected by weighting.

## ENDNOTES

---

1. Calculated by ESCWA, see figure 1.
2. Calculated by ESCWA, see figure 3.
3. Calculated by ESCWA based on figures 3 and 4.
4. Calculated by ESCWA, see figure 4.
5. ESCWA, 2018.
6. Calculated by the WHO Regional Office for the Eastern Mediterranean based on data from WHO, 2018b.
7. Calculated by the WHO Regional Office for the Eastern Mediterranean based on data from WHO EMRO, 2019b.
8. WHO EMRO, 2019b.
9. Federal Health Ministry of Sudan, Sudan Health Observatory, 2018; Federal Health Ministry of Sudan, Directorate General of Human Resources for Health Development, 2012; WHO EMRO, 2019a.
10. Calculated by ESCWA, see figure 16. For country level data, please refer to the annex complementing this report.
11. Calculated by ESCWA, see figure 15.
12. Calculated by ESCWA, see figure 14.
13. World Bank, 2013.
14. WHO, 2016.
15. Calculated by ESCWA, see figure 20.
16. Calculated by ESCWA, Figure 20 (indicator 3.a.1)
17. Calculated by ESCWA, see figure 13.
18. Calculated by ESCWA, see figure 5.
19. UNAIDS, 2019.
20. Mokdad and others, 2016. The statement pertains to the Eastern Mediterranean region as defined by the WHO (including Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Somalia, the Sudan, the State of Palestine, the Syrian Arab Republic, Tunisia, the United Arab Emirates and Yemen, in addition to non-Arab countries, namely Afghanistan, the Islamic Republic of Iran and Pakistan).
21. Refer to the targets and indicators of SDG 16.
22. The latest data available from WHO, 2019d are 2015 for Egypt, 2014 for Morocco and 2013 for Tunisia.
23. United Nations, 2014.
24. For more details on country values, please refer to the annex complementing this report.
25. WHO, 2019a.
26. WHO, 2018a.
27. Ministry of Health and Population (Egypt), El-Zanaty and Associates and ICF International, 2015.
28. WHO EMRO, 2019b.
29. WHO and IBRD, 2017; WHO EMRO, 2019b.
30. WHO EMRO, 2019b.
31. Ibid.
32. WHO, 2019c.
33. Al-Mandhari and others, 2020.
34. Based on Sharara and others, 2018.
35. World Bank, 2013.
36. WHO EMRO, 2019b; WHO and IBRD, 2017.
37. Charlson and others, 2019.
38. World Bank, 2013.
39. For country data, refer to the annex complementing this report.
40. For country data, refer to the annex complementing this report (indicator 3.8.1).

41. For more information on country figures, please refer to the annex complementing this report (indicator 3.c.1).
42. DeJong and others, 2017.
43. See for example Baroud, 2017.
44. Obermeyer, Bott and Sassine, 2015.
45. DeJong and Battistin, 2015.
46. UNAIDS, 2012.
47. WHO, 2013; UN Women 2018. This statement covers four Arab countries (Egypt, Iraq, Jordan, State of Palestine) as well as the Islamic Republic of Iran.

## REFERENCES

---

- AbuAlRub, Raeda F., and others (2013). "The Challenges of Working in Underserved Areas: A Qualitative Exploratory Study of Views of Policy Makers and Professionals". *International Journal of Nursing Studies* 50(1): 73–82. <https://doi.org/10.1016/j.ijnurstu.2012.08.014>.
- Al-Mandhari, Ahmed, and others (2020). "Full Implementation of the WHO Framework Convention on Tobacco Control in the Eastern Mediterranean Region Is the Responsibility of All". *East Mediterranean Health Journal* 26(1): 4–5. <https://doi.org/10.26719/2020.26.1.4>.
- Baroud, Maysa (2017). "Improving Healthcare Access for Persons with Disabilities in Lebanon: Together for Justice in Service Provision". AUB Policy Institute.
- Charara, Raghid, and others (2017). "The Burden of Mental Disorders in the Eastern Mediterranean Region, 1990-2013". Pallab K. Maulik, ed. *PLOS ONE* 12(1): e0169575. <https://doi.org/10.1371/journal.pone.0169575>.
- Charlson, Fiona, and others (2019). "New WHO Prevalence Estimates of Mental Disorders in Conflict Settings: A Systematic Review and Meta-Analysis". *The Lancet* 394(10194): 240–48. [https://doi.org/10.1016/S0140-6736\(19\)30934-1](https://doi.org/10.1016/S0140-6736(19)30934-1).
- DeJong, Jocelyn, and Francesca Battistin (2015). "Women and HIV: The Urgent Need for More Research and Policy Attention in the Middle East and North Africa Region". *Journal of the International AIDS Society* 18(1). <https://doi.org/10.7448/IAS.18.1.20084>.
- DeJong, Jocelyn, and others (2017). "Reproductive, Maternal, Neonatal and Child Health in Conflict: A Case Study on Syria Using Countdown Indicators". *BMJ Global Health* 2(3). <https://doi.org/10.1136/bmjgh-2017-000302>.
- Dewachi, Omar (2018). "Status of Arab Public Health". In *Innovation or Extinction: Scientific Research in the Arab World: Realities, Challenges and Perspectives*, 10th ed., 441–56. Beirut: Arab Thought Foundation. [www.arabthought.org/en/researchcenter/report](http://www.arabthought.org/en/researchcenter/report).
- ESCWA (Economic and Social Commission for Western Asia) (2018). "Population and Development Report Issue No. 8: Prospects of Ageing with Dignity in the Arab Region". Beirut. [www.unescwa.org/publications/population-development-report-8](http://www.unescwa.org/publications/population-development-report-8).
- (2019). "Fiscal Policy Review of Arab States 2019". Beirut. [www.unescwa.org/sites/www.unescwa.org/files/publications/files/l1901323.pdf](http://www.unescwa.org/sites/www.unescwa.org/files/publications/files/l1901323.pdf).
- ESCWA (Economic and Social Commission for Western Asia), and IOM (International Organization for Migration) (2019). "Situation Report on International Migration 2019: The Global Compact for Safe, Orderly and Regular Migration in the Context of the Arab Region". Beirut. [www.unescwa.org/publications/situation-report-international-migration-2019](http://www.unescwa.org/publications/situation-report-international-migration-2019).
- Federal Health Ministry of Sudan, Directorate General of Human Resources for Health Development (2012). *National Human Resources for Health Strategic Plan for Sudan 2012-2016*. [www.who.int/workforcealliance/countries/Sudan\\_HRHPlan\\_2012-16.pdf](http://www.who.int/workforcealliance/countries/Sudan_HRHPlan_2012-16.pdf).
- Federal Health Ministry of Sudan, Sudan Health Observatory (2018). *Annual Health Statistical Report 2018*. [www.sho.gov.sd/controller/kn\\_hub\\_featured.php?sm\\_id=133&mid=110&lid=1#](http://www.sho.gov.sd/controller/kn_hub_featured.php?sm_id=133&mid=110&lid=1#).
- Lertora, Emanuela (2016). "The Rise of Medical Tourism in the Middle East". *Insight World Editor*, 11 November 11. [www.insight-world.co/rise-medical-tourism-middle-east/#.XkJcPTEzayl](http://www.insight-world.co/rise-medical-tourism-middle-east/#.XkJcPTEzayl).
- Ministry of Health and Population (Egypt), El-Zanaty and Associates, and ICF International (2015). *Egypt Demographic and Health Survey 2014*. Cairo. <https://dhsprogram.com/pubs/pdf/FR302/FR302.pdf>.
- Mokdad, Ali H., and others (2016). "Health in Times of Uncertainty in the Eastern Mediterranean Region, 1990–2013: A Systematic Analysis for the Global Burden of Disease Study 2013". *The Lancet Global Health* 4(10): e704–13. [https://doi.org/10.1016/S2214-109X\(16\)30168-1](https://doi.org/10.1016/S2214-109X(16)30168-1).
- Obermeyer, Carla Makhlof, Sarah Bott, and Anniebelle J. Sassine (2015). "Arab Adolescents: Health, Gender, and Social Context". *Journal of Adolescent Health* 57(3): 252–62. <https://doi.org/10.1016/j.jadohealth.2015.01.002>.

- OCHA (United Nations Office for the Coordination of Humanitarian Affairs) (2019). "Crisis Overview: Yemen". [www.unocha.org/yemen/crisis-overview](http://www.unocha.org/yemen/crisis-overview).
- Physicians for Human Rights (2019). "A Map of Attacks on Health Care in Syria". <http://syriamap.phr.org/#/en/findings>.
- Sahbani, Shible, Maysa Al-Khateeb, and Ruba Hikmat (2016). "Early Marriage and Pregnancy among Syrian Adolescent Girls in Jordan; Do They Have a Choice?" *Pathogens and Global Health* 110(6): 217–18. <https://doi.org/10.1080/20477724.2016.1231834>.
- Sharara, Eman, and others (2018). "Physical Inactivity, Gender and Culture in Arab Countries: A Systematic Assessment of the Literature". *BMC Public Health* 18(1): 1–19. <https://doi.org/10.1186/s12889-018-5472-z>.
- UN Women (United Nations Entity for Gender Equality and the Empowerment of Women) (2018). "Facts and Figures: Ending Violence against Women". [www.unwomen.org/en/what-we-do/ending-violence-against-women/facts-and-figures](http://www.unwomen.org/en/what-we-do/ending-violence-against-women/facts-and-figures).
- UNAIDS (Joint United Nations Programme on HIV/AIDS) (2012). "Standing Up, Speaking Out: Women and HIV in the Middle East and North Africa". [http://files.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2012/20120713\\_MENA\\_Women\\_and\\_AIDS\\_2012\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2012/20120713_MENA_Women_and_AIDS_2012_en.pdf).
- (2019). "UNAIDS Data 2019". Geneva. [www.unaids.org/sites/default/files/media\\_asset/2019-UNAIDS-data\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/2019-UNAIDS-data_en.pdf).
- UNICEF (United Nations Children's Fund) (2019). "Maternal Mortality Ratio (Number of Maternal Deaths per 100,000 Live Births)". UNICEF data. 2019. [https://data.unicef.org/resources/data\\_explorer/unicef\\_f/?ag=UNICEF&df=GLOBAL\\_DATAFLOW&ver=1.0&dq=MAR.MNCH\\_MMR+MNCH\\_LTR\\_MATERNAL\\_DEATH+MNCH\\_MATERNAL\\_DEATHS..&startPeriod=2010&endPeriod=2020](https://data.unicef.org/resources/data_explorer/unicef_f/?ag=UNICEF&df=GLOBAL_DATAFLOW&ver=1.0&dq=MAR.MNCH_MMR+MNCH_LTR_MATERNAL_DEATH+MNCH_MATERNAL_DEATHS..&startPeriod=2010&endPeriod=2020).
- United Nations (2014). *Principles and Recommendations for a Vital Statistics System*. New York. <https://unstats.un.org/unsd/demographic/standmeth/principles/M19Rev3en.pdf>.
- United Nations Population Division (2017). *World Population Prospects*. <https://population.un.org/wpp/Download/Standard/Population/>.
- United Nations Statistics Division (2018). "Global SDG Indicators Database". <https://unstats.un.org/sdgs/indicators/database/>.
- (2019a). "SDG Indicators Metadata Repository". <https://unstats.un.org/sdgs/metadata/>.
- (2019b). "UNdata Annual Number of Births". <http://data.un.org/Data.aspx?d=SOWC&f=inID%3A75>.
- (2019c). "Global SDG Indicators Database". <https://unstats.un.org/sdgs/indicators/database/>.
- WHO (World Health Organization) (2013). "Global and Regional Estimates of Violence Against Women: Prevalence and Health Effects of Intimate Partner Violence and Non-Partner Sexual Violence". <https://apps.who.int/iris/handle/10665/85239>.
- (2014). "Global Health Observatory Data Repository". Current expenditure on health by general government and compulsory schemes (percentage of current expenditure on health). <https://apps.who.int/gho/data/view.main.HS05v>.
- (2016). "Global Health Observatory Data Repository". Prevalence of obesity among adults. <http://apps.who.int/gho/data/node.main.A900A?lang=en>.
- (2017). "2017 Mental Health Atlas". Geneva. <https://apps.who.int/iris/bitstream/handle/10665/272735/9789241514019-eng.pdf?ua=1>.
- (2018a). "Regional Committee for the Eastern Mediterranean Sixty-Fifth Session". Private Sector Engagement for Advancing Universal Health Coverage 11. [http://applications.emro.who.int/docs/RC\\_Technical\\_Papers\\_2018\\_8\\_20546\\_EN.pdf?ua=1](http://applications.emro.who.int/docs/RC_Technical_Papers_2018_8_20546_EN.pdf?ua=1).
- (2018b). "Reported Indigenous Confirmed Cases: Data by Country". Malaria: number of reported confirmed cases. <http://apps.who.int/gho/data/node.main.A1364?lang=en>.
- (2019a). "Country Planning Cycle Database". [www.nationalplanningcycles.org/](http://www.nationalplanningcycles.org/).
- (2019b). "Health Conditions in the Occupied Palestinian Territory, Including East Jerusalem, and in the Occupied Syrian Golan: Report by the Director-General". [https://apps.who.int/iris/bitstream/handle/10665/328758/A72\\_33-en.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/328758/A72_33-en.pdf?sequence=1&isAllowed=y).
- (2019c). WHO Global Report on Trends in Prevalence of Tobacco Use 2000-2025. Geneva. [www.who.int/publications-detail/who-global-report-on-trends-in-prevalence-of-tobacco-use-2000-2025-third-edition](http://www.who.int/publications-detail/who-global-report-on-trends-in-prevalence-of-tobacco-use-2000-2025-third-edition).
- (2019d). "World Health Statistics Data Visualizations Dashboard". Completeness of cause-of-death data. <http://apps.who.int/gho/data/view.sdg.17-19-data?lang=en>.
- WHO EMRO (World Health Organization Regional Office for the Eastern Mediterranean) (2019a). "Palestine Human Resources for Health Observatory". [www.emro.who.int/health-workforce/highlights/palestinian-human-resources-for-health-observatory.html](http://www.emro.who.int/health-workforce/highlights/palestinian-human-resources-for-health-observatory.html).
- (2019b). *Strengthening Health Financing Systems in the Eastern Mediterranean Region towards Universal Health Coverage: Health Financing Atlas 2018*. <https://apps.who.int/iris/handle/10665/311328>.
- WHO (World Health Organization), and IBRD (International Bank for Reconstruction and Development) (2017). *Tracking Universal Health Coverage: 2017 Global Monitoring Report*. <https://apps.who.int/iris/bitstream/handle/10665/259817/9789241513555-eng.pdf>.