ASSESSING NATIONAL CAPACITY FOR THE PREVENTION AND CONTROL OF

NONCOMMUNICABLE DISEASES

2021

Report of the 2021 country capacity survey in the Eastern Mediterranean Region

World Health Organization

Eastern Mediterranean Region

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Contents

Foreword

Countries and territories of the World Health Organization Eastern Mediterranean Region continue to spare no effort in battling noncommunicable diseases (NCDs), their risk factors and related morbidity and mortality. Concurrently, and in alignment with the regional Vision 2023 to achieve health for all by all, WHO continues to support countries optimize capacities to make measurable progress towards Sustainable Development Goal target 3.4 – reduce premature mortality from NCDs by one third by 2030. NCDs, especially cardiovascular diseases, cancers, chronic respiratory diseases and diabetes, remain major causes of ill health and death worldwide. In the Eastern Mediterranean Region, NCDs account for 66% of all deaths among adults, of which more than 50% occur before the age of 70 years old.

Monitoring and surveillance of NCDs and their risk factors is crucial to combat the rising burden of disease and its effect on populations at country, regional and global levels. By making use of standardized approaches and methods, WHO supports countries to report on key progress indicators in the areas of governance, prevention, risk factor reduction, surveillance, monitoring and evaluation, and health service provision. WHO also identifies and monitors the core indicators on essential interventions required in countries for progress in NCD prevention and control based on the Global Monitoring Framework and its three main components: health outcomes, risk factors and health system response.

Such assessment is important to identify the population groups that are at higher risk of exposure to NCD risk factors and at higher risk of developing disease. This gives stakeholders greater opportunities for targeted and strategic evidence-based policies and population interventions to prevent and control NCDs. In addition, tracking the health system response to NCDs and identifying capacity gaps are essential to allow systematic enhancement and continuous improvement of interventions, with the involvement of all key players.

The NCD country capacity survey is a periodic global assessment of capacities for the prevention and control of NCDs, conducted by WHO in all countries, to gather data and information from Member States. This 2021 report marks the fourth round of the survey in the Eastern Mediterranean Region, and is the first assessment conducted since the COVID-19 pandemic. It is evident that the pandemic had a toll on people living with NCDs in terms of the severity of their illness, as well as disruption of access to health care services. COVID-19 massively stretched health systems and capacities and, in turn, adversely affected NCD-related services and activities. Assessment of how countries were able to respond to the pandemic and of their capacities for future emergency response will allow WHO to develop tailored technical guidance and modalities to safeguard the well-being of people living with NCDs during health emergencies.

This report represents a major milestone on the road to 2025, the year of the fourth High-level Meeting of the United Nations General Assembly on the Prevention and Control of NCDs, where Member States will come together to reflect on what has been accomplished and how to better pave the way to 2030. The report provides vital information on the progress made in the Region to date, and will help every country to achieve the NCD targets and build a better, healthier future for its population.

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Acknowledgements

This report is the culmination of collaborative efforts by multiple individuals. Heba Fouad, WHO Regional Office for the Eastern Mediterranean, played a pivotal role in overseeing the execution, validation and reporting of the survey findings, as well as in compiling the report. Assisting in this endeavour was Ghada Nasr Radwan, WHO consultant and professor of public health at the Faculty of Medicine, Cairo University, Egypt. Dr Radwan provided invaluable expertise in managing Region-specific data, conducting statistical analysis and crafting sections of the report.

Heading the global survey initiative was Leanne Riley, WHO headquarters, who took charge of coordinating the survey's planning, execution and the overall reporting of results on a global scale. Furthermore, Melanie Cowan, WHO headquarters, provided leadership in facilitating the web-based data-collection process, handling all data management responsibilities and conducting the necessary statistical analyses to generate the global survey results.

WHO extends great appreciation to the NCD focal points for their indispensable support in conducting the survey at the country level, without which this comprehensive report would not have been possible.

Executive summary

Noncommunicable diseases (NCDs), including cardiovascular diseases, cancers, chronic respiratory diseases and diabetes, are responsible for 74% of all deaths globally. Low- and middle-income countries account for nearly 77% of all NCD deaths and 86% of the 17 million people who die prematurely (before age 70) live in these countries. Cardiovascular diseases account for the largest share of NCD deaths annually (17.9 million people), followed by cancers (9.3 million), respiratory diseases (4.1 million) and diabetes (1.5 million). Tobacco use, physical inactivity, harmful use of alcohol and unhealthy diet all increase the risk of dying from an NCD (1).

The rise in NCDs is a significant barrier to achieving target 3.4 of the Sustainable Development Goals (SDGs), which is to reduce premature mortality from NCDs by one third through prevention and treatment by 2030. The financial burden of NCDs also jeopardizes the attainment of other SDGs, particularly those on reducing poverty, inequalities and hunger.

WHO conducts a periodic assessment of national capacity for NCD prevention and control through the use of a global survey of all Member States, known as the NCD country capacity survey. Such periodic assessment allows countries and WHO to monitor progress and achievements in expanding capacities to respond to the NCD epidemic. In addition to tracking the progress made over time, the survey gathers information on the challenges in implementing the policies and plans delineated in the WHO *Global action plan for the prevention and control of NCDs 2013–2030*. The NCD country capacity survey has been carried out eight times since 2001. The 2021 survey included additional questions designed to measure the impact of the COVID-19 pandemic on the provision of NCD services.

This report summarizes national capacities to prevent and control NCDs in the WHO Eastern Mediterranean Region, including an exploration of the impact of the COVID-19 pandemic on the provision of health services relevant to NCDs. The survey was carried out in 2021 in all 22 countries and territories of the Region, with a 100% response rate. A web-based questionnaire was used for the survey data collection, consisting of five modules: (i) public health infrastructure, partnerships and multisectoral collaboration; (ii) policies, strategies and action plans; (iii) health information systems, monitoring, surveillance and surveys; (iv) health system capacity for detection, treatment and care; and (v) NCD-related disruptions during the COVID-19 pandemic (see full questionnaire in Annex 1).

Compared to 2019, the 2021 survey found improvement in eight out of 19 progress indicators and sub-indicators, no change in eight and a decline in three (indicator 4, sub-indicator 7a and indicator 10). For public health infrastructure and resourcing in national governments, all countries and territories in the Region except Lebanon reported the availability of a unit, branch or department within the ministry of health for NCDs and their risk factors, with the presence of at least one full-time technical/professional member of staff in the unit. Twenty countries and territories (91%) reported having NCD unit staff dedicating a significant proportion of their time to cancer, while 18 countries/territories (82%) reported staff dedicated to tobacco use, cardiovascular diseases, chronic respiratory diseases and diabetes. Staff dedicated to harmful use of alcohol and ear health were the least prevalent in the Region, reported by six and 11 countries/territories, respectively.

The most commonly funded NCD-related activities were health care and treatment (82% of countries/territories) and capacity-building (82%), followed by primary prevention, health promotion and early detection/screening (68% each). The least funded areas were rehabilitation, research and palliative care (50%, 55% and 62%, respectively).

Many countries and territories (10 out of 22, or 46%) reported government revenues as the largest source of regular funding for activities related to NCDs and their risk factors. There was, however, variation among the three income-determined country groups of the Region in terms of the relative size of funding from different sources, including government revenues. Taxation on tobacco was the most commonly reported health-related fiscal intervention, with 91% of countries and territories – all except Djibouti and Sudan – reporting they had implemented such a tax. The next most common types of fiscal intervention were taxation on alcohol and taxation on sugar-sweetened beverages, which were reported by nearly half of the countries and territories (10 out of 22, or 46%, for both interventions).

The presence of a national multisectoral commission, agency or mechanism to oversee NCD engagement, policy coherence and accountability of sectors beyond health was reported by 15 countries and territories (68%), although two could not confirm that it was operational.

Similar to the results of the 2019 survey, all but two of the 22 countries and territories (91%) reported the inclusion of NCD prevention and control in their national health plan. Region-wide, 64% of countries reported having some time-bound national targets for NCDs in place, based on the nine voluntary global targets of the WHO Global Monitoring Framework for NCDs, with indicators.

More than two thirds of the countries and territories (77%) reported having multisectoral policies, strategies or action plans that integrate several NCDs and their risk factors; however, only 59% reported that their policies, strategies or plans are operational. Seventeen countries and territories (77%) reported the availability of a multisectoral integrated policy, strategy or action plan that includes unhealthy diet, physical activity and tobacco. Fewer reported including diabetes (16 countries, or 73%), cancers (15 countries, or 68%), cardiovascular diseases (15 countries, or 68%) and chronic respiratory diseases (13 countries, or 59%) in such policies, strategies or plans.

In terms of policies, strategies and plans that are specific to key NCDs and their risk factors, cancer plans were the most commonly available, reported by more than half of the countries and territories in the Region (55%). Among all NCDs, the most common vertical programmes were those addressing oral health (present in 64% of countries and territories) and eye health (55%). On the other hand, the least available vertical programmes were those addressing chronic respiratory diseases (32% of countries and territories) and hearing health (36%). The NCD risk factors most commonly addressed by vertical programmes were tobacco use (77% of countries and territories), unhealthy diet (68%) and overweight/obesity (59%), while less than one third of the countries and territories (32%) reported addressing the harmful use of alcohol through a vertical programme. Only 10 countries and territories (46%) reported having guidelines for physical activity. A slightly higher proportion (12 countries and territories, or 55%) reported the availability of dietary guidelines in the 2021 survey as compared to 2019.

An operational NCD-related research policy or plan that includes community-based research and an evaluation of the impact of interventions and policies was reported by half of the countries and territories (50%). Regarding nutrition-related policies, only seven countries and territories (32%) have implemented policies on marketing of unhealthy foods to children: all the countries in Group 1, except Qatar; two in Group 2 (Islamic Republic of Iran and Morocco); and none in Group 3. Ten countries and territories (46%) reported having policies on nutrition labelling to identify foods high in saturated fatty acids, trans-fatty acids, free sugars or salt, compared to only six (27%) in 2019. Ten countries and territories also had policies in place to limit saturated fatty acids in the food supply, six of which are mandatory policies. Policies to reduce salt consumption were reported by 13 countries and territories (59%), unchanged from the 2019 survey. Regarding implementation of national public awareness campaigns on diet and physical activity and national/subnational mass participation events in the past two years, less than half of the countries and territories implemented both types of campaign during this time period. Ten countries and territories (46%) in the Region reported implementing mHealth initiatives in the past two years.

Similar to the findings of the 2019 survey, half of the countries and territories reported that responsibility for the surveillance of NCDs and their risk factors lies with a department or unit within the ministry of health exclusively dedicated to NCD surveillance. The vast majority (91%) reported the availability of a cancer registry; however, population-based cancer registries were less widespread (68%). More than half of the countries and territories (59%) reported having a diabetes registry, six of which were hospital-based (27%). Only seven countries and territories (32%) reported the availability of a myocardial infarction/coronary events registry and five (23%) had a cerebrovascular accident/stroke registry. In addition, 15 (68%) reported having patient information systems in primary health care centres.

In 2021, adult surveys were used to gather data on an average of eight of nine NCD risk factors in Group 1 countries, eight in Group 2 and five in Group 3. For adolescent surveys, which collect data on five NCD risk factors, all three country groups collected four on average. Lastly, for children, eight countries and territories (36%) had conducted recent national surveys on overweight and obesity, but none had conducted surveys on physical inactivity.

More than two thirds of the countries and territories reported having guidelines for each of the four main NCDs. Guidelines for the management of cardiovascular diseases and diabetes were the most commonly utilized (by 17 countries/territories, or 77%) and guidelines for cancer and chronic respiratory diseases were the least utilized (15 countries, or 68%). With respect to the main NCD risk factors, guidelines for the management of tobacco dependence and overweight and obesity were most widely reported (10 and 12 countries/territories, respectively), followed by physical inactivity management guidelines (eight countries, or 36%) and alcohol dependence management guidelines (only five countries, or 23%).

Fourteen countries and territories (64%) reported availability of breast cancer screening programmes, eight countries (36%) reported cervical cancer screening, and nine (41%) reported a national colon cancer screening programme. Early detection of breast cancer was integrated into primary health care services in a

significant proportion of the Region (15 countries, or 68%), but this was less true for cancers of the cervix (10 countries, or 46%) and colon (nine countries, or 41%). Only one country reported integrating early detection of childhood cancers (5%).

The most widely available essential medicines in the public health sector were aspirin, metformin, calcium channel blockers and bronchodilators (available in 18–19 countries/territories, or 82–86%). The least available were fixed-dose combinations – added to the survey for the first time in 2021 – which were reported in five countries and territories (23%). Regarding the availability of seven key procedures for treating NCDs, the most available were thrombolytic therapy, coronary bypass and coronary stenting (reported by 16–18 countries/territories, or 73–82%). Bone marrow transplantation and alteplase for acute stroke management were the least available procedures in the public health sector (available in nine and 10 countries/territories, respectively).

For cancer diagnosis and treatment in the public sector, pathology services and cancer surgery were the most widely available services (19 countries/territories, or 86%). Radiotherapy was the least available cancer treatment service, reported in 13 countries/territories. Rehabilitative services were available at the inpatient and outpatient levels of care in more than half of the countries and territories. Inpatient rehabilitative services for myocardial infarction were the most available (16 countries/territories, or 73%), followed by musculoskeletal conditions (14 countries/territories, or 64%). Palliative care for NCDs was not extensively offered in public health systems in the Region and was more usually provided in primary health care settings (eight countries/territories, or 36%) than in community/home-based settings (six countries/territories, or 27%).

Cardiovascular risk stratification in primary health care facilities was reported by nearly three quarters of the countries and territories (73%); however, the availability reported within these countries varied greatly. While nearly half of them (seven out 16) reported that risk stratification was available at more than 50% of health care facilities), five countries/territories reported that it was available at fewer than 25% of facilities, and the remaining four reported that it was available at 25–50% of facilities.

Disruptions to NCD-related services during the COVID-19 pandemic were assessed in the 2021 survey, and results compared to a WHO rapid assessment conducted in 2020. The majority of countries and territories in the Region (20, or 91%) reported that some or all NCD staff had been supporting COVID-19 efforts either full-time or part-time. In 2021, only seven countries and territories did not reassign NCD funds to non-NCD services, compared to 10 out of 19 that managed to keep their NCD funds intact in 2020.

Two thirds of the countries and territories (64%) reported that they had defined a national essential health services package prior to the COVID-19 pandemic. Furthermore, 13 countries and territories reported that they had included NCD services in the list of essential health services in their COVID-19 response plans. Cardiovascular disease, cancer and diabetes services were the most likely to be included in the list of essential health services (12 countries/territories, or 55%), followed by chronic respiratory disease services (50%) and rehabilitation services (27%).

The activities most commonly postponed due to COVID-19 were mass communication surveys (by nine countries/territories, or 41%), and implementation of NCD surveys and public screening programmes (37% for each). Nearly half of the countries and territories in the Region reported that they had limited access for outpatient and inpatient NCD services (50% and 46%, respectively). Services that were completely suspended in more than 10% of countries and territories were community-based NCD care and mobile NCD clinics (14% and 18%, respectively). Health services were partially or completely disrupted in many countries/territories of the Region. Around two thirds of those surveyed (ranging from 59% to 73%) saw partial disruption of services for hypertension treatment, cardiovascular emergencies, cancer screening, cancer management, diabetes management, asthma services and urgent dental care. The most commonly disrupted services were hypertension management, diabetes management and asthma services, each reported by 16 countries and territories.

The main reasons for service disruption were categorized into supply-side factors and demand-side factors. The most commonly reported supply-side factors were decrease in inpatient volume due to cancellation of elective care (41%), insufficient personal protective equipment available for health care providers (36%) and changes in treatment policies (e.g. stay-at-home policies) (32%). A larger percentage of countries and territories reported community fear/mistrust in seeking health care (64%) and decrease in outpatient volume due to patients not presenting (46%) as the main demand-side factors for NCD services disruption.

Over half of the countries and territories (55%) reported using community communication and self-care interventions to overcome NCD service disruptions. Additional approaches included redirection of patients to alternate care sites/reorientation of referral pathways (50%), triaging to identify priorities (46%), telemedicine to replace in-person consultations (41%) and provision of home-based care where appropriate (41%).

Finally, disparities in the collection of data on NCD-related comorbidities in COVID-19 patients were evident between the country groups. While all countries in Group 1 collected data, 80% of Group 2 and only 33% of Group 3 countries did so.

Introduction

The burden of noncommunicable diseases (NCDs)

NCDs are the leading cause of death and disease burden worldwide. More than two thirds of global deaths (41 million people) annually are attributed to NCDs and the majority of these deaths (77%) occur in low- and middle-income countries *(1)*. The four main types of NCDs – cardiovascular diseases, cancers, chronic respiratory diseases and diabetes – result in more than 32 million deaths annually. Cardiovascular diseases account for the majority of these deaths (17.9 million), followed by cancers (9.3 million), respiratory diseases (4.1 million) and diabetes (1.5 million) *(1)*.

NCDs are the result of a combination of genetic, physiological, environmental and behavioural factors. The NCD epidemic is fuelled by variables such as population ageing, unplanned urbanization and the globalization of unhealthy lifestyles. The four key modifiable risk factors for the main NCDs are tobacco use, the harmful use of alcohol, unhealthy diet and physical inactivity. Overweight and obesity, raised blood lipids, elevated blood glucose and raised blood pressure are all symptoms of unhealthy diets and insufficient physical activity. These are known as metabolic risk factors and can result in cardiovascular disease, the NCD that causes the greatest number of early deaths *(1)*.

NCDs can significantly harm both individual financial stability and expansion of the national economy. In low- and middle-income countries, the most productive years of a person's life are frequently affected by NCDs. Households face serious financial risk when family members with NCDs have high health care expenditures and limited employment options. The high cost of health care and decreased productivity put pressure on emerging economies and obstruct social and economic progress *(2)*.

In March 2020, COVID-19 was declared a pandemic by the World Health Organization (WHO). NCDs and COVID-19 are closely connected and act synergistically on morbidity and mortality *(3)*. According to a modelling study published in *The Lancet Global Health*, one in five people are at a greater risk of severe COVID-19 should they become infected, mostly as a result of underlying NCDs *(4)*. The enormous efforts to deal with COVID-19 placed an enormous strain on health systems globally and adversely impacted the provision of essential health services, including NCD services.

High-level meetings of the United Nations General Assembly were held in 2011, 2014 and 2018 on preventing and controlling NCDs. Consequently, important policy documents were developed: the *Global action plan for the prevention and control of NCDs 2013–2020* (extended to 2030) and the NCD Global Monitoring Framework (2013) *(5,6)*. NCDs are included in the Sustainable Development Goals (SDGs), and target 3.4 is to reduce by one third premature mortality from NCDs through prevention and treatment by 2030. However, the rise in NCDs is a significant barrier to progress on the 2030 Agenda for Sustainable Development. The financial burden of NCDs also jeopardizes the attainment of other SDGs, particularly those on reducing poverty, inequalities and hunger, as well as those on improving access to quality education and achieving gender equality *(7)*. IF no progress is made in combating this epidemic, the social, human and economic costs will overwhelm health systems and economies.

Country grouping system

The WHO Eastern Mediterranean Region comprises 22 countries and territories (Fig. 1) and has an estimated total population of 717.09 million people. In 2012, a country grouping system was devised to take account of the socioeconomic disparities in the Region. Under this system, the countries and territories are classified into three groups: Group 1 countries are at the highest level of socioeconomic development, Group 2 are the next most developed, and Group 3 countries are those at the lowest level of development (Table 1).

Fig. 1.

Map of the 22 countries/territories of the WHO Eastern Mediterranean Region divided into the three country groups

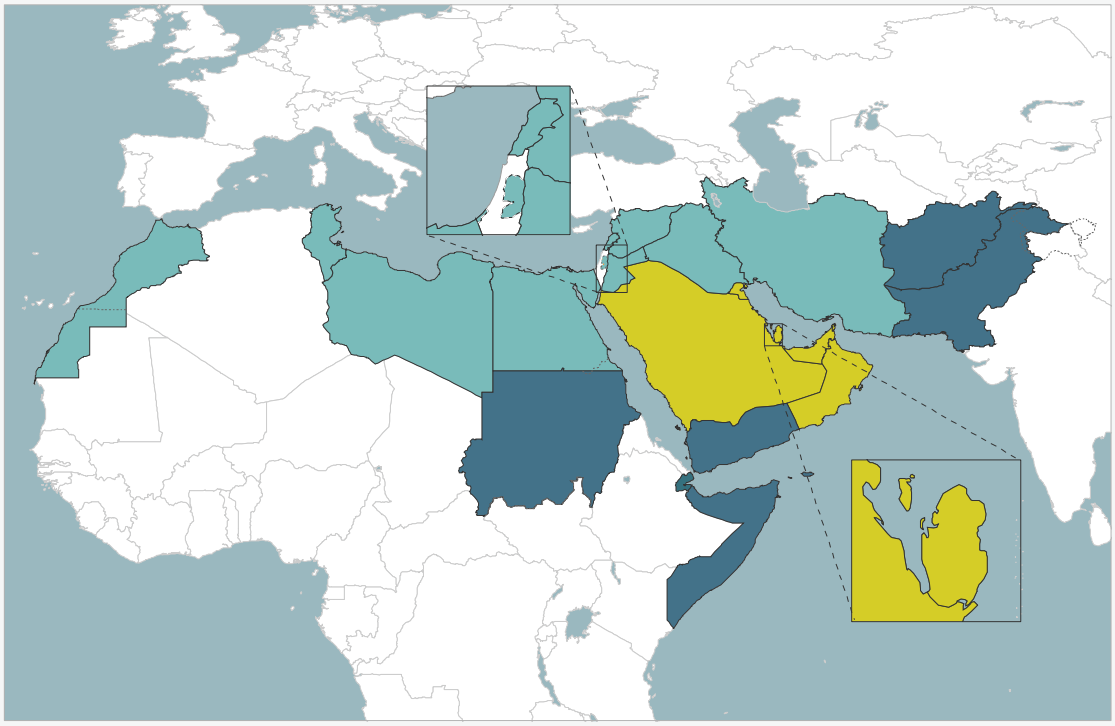


Table 1.

Population size and country groupings of countries/territories in the Eastern Mediterranean Region

Country	Population in millions* (2019)	Country group	2022 World Bank income group classification
Bahrain	1.64	Group 1	High-income
Kuwait	4.21	Group 1	High-income
Oman	4.98	Group 1	High-income
Qatar	2.83	Group 1	High-income
Saudi Arabia	34.27	Group 1	High-income
United Arab Emirates	9.77	Group 1	High-income
Group 1 total population (millions)	**57.70**		
Egypt	100.39	Group 2	Lower middle-income
Iran (Islamic Republic of)	82.91	Group 2	Lower middle-income
Iraq	39.31	Group 2	Upper middle-income
Jordan	10.10	Group 2	Lower middle-income
Lebanon	6.86	Group 2	Lower middle-income
Libya	6.78	Group 2	Upper middle-income
Morocco	36.47	Group 2	Lower middle-income
Occupied Palestinian territory **	4.82	Group 2	Upper middle-income
Syrian Arab Republic	17.07	Group 2	Low-income
Tunisia	11.70	Group 2	Lower middle-income
Group 2 total population (millions)	**316.40**		
Afghanistan	38.04	Group 3	Low-income
Djibouti	974	Group 3	Lower middle-income
Pakistan	216.57	Group 3	Lower middle-income
Somalia	15.44	Group 3	Low-income
Sudan	42.81	Group 3	Low-income
Yemen	29.16	Group 3	Low-income
Group 3 total population (millions)	**342.99**		
Total population of the Region (millions)	**717.09**		

* Population figures taken from WHO Global Health Estimates 2019 *(8)*, except for occupied Palestinian territory.
** Palestinian Central Bureau of Statistics *(9)*.

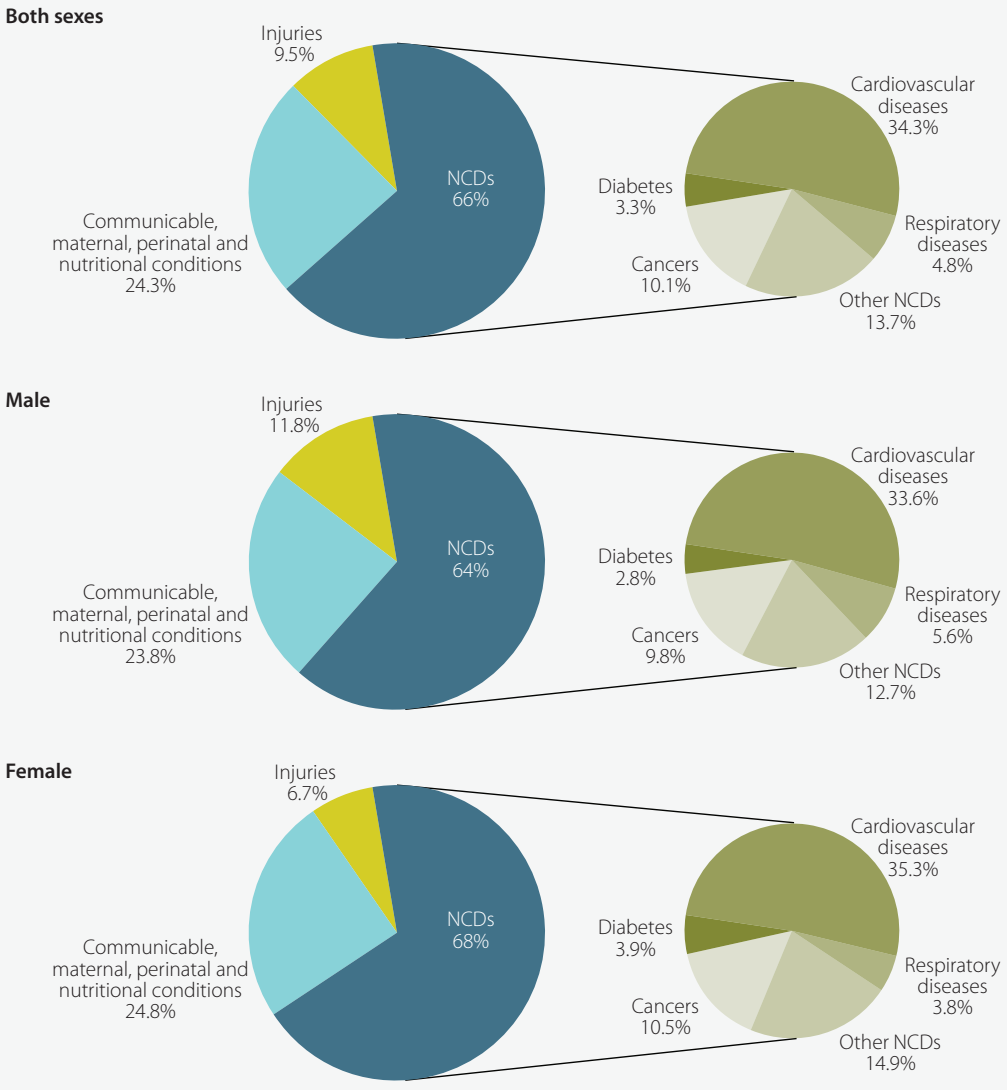
NCD mortality in the Eastern Mediterranean Region

In the WHO Eastern Mediterranean Region, the death toll attributed to NCDs is high and is rising. Out of the 4 266 000 deaths in 2019, 2 826 000 were attributed to NCDs, accounting for 66% of mortality – an increase of 3% compared to 2016 *(10)*. Cardiovascular diseases alone accounted for almost half of NCD deaths (34% of all deaths), while cancer, diabetes and chronic respiratory diseases were responsible for 10%, 3% and 5% of all deaths, respectively (Fig. 1).

The NCD contribution to total crude mortality varied between 30% in Somalia and 89% in Lebanon. The NCD

Fig. 2.

Total deaths in the Eastern Mediterranean Region, by sex, 2019



Source: Global Health Observatory *(11)*.

proportionate mortality rate was found to be lowest in Group 3 countries (56%), followed by Group 1 (75%) and then Group 2 (82%). It is worth noting that some countries in the Region – Bahrain, Egypt, Lebanon and Tunisia – exhibited higher NCD proportionate mortality rates, surpassing 85%. Over the years, there has been a discernible upward trend in the proportionate mortality rate for NCDs, from 62.4% in 2015 to 66.2% in 2019 (Table 2 and Fig. 2).

Fig. 4 shows the proportionate mortality rates of NCDs compared to communicable diseases and injuries by

Table 2.

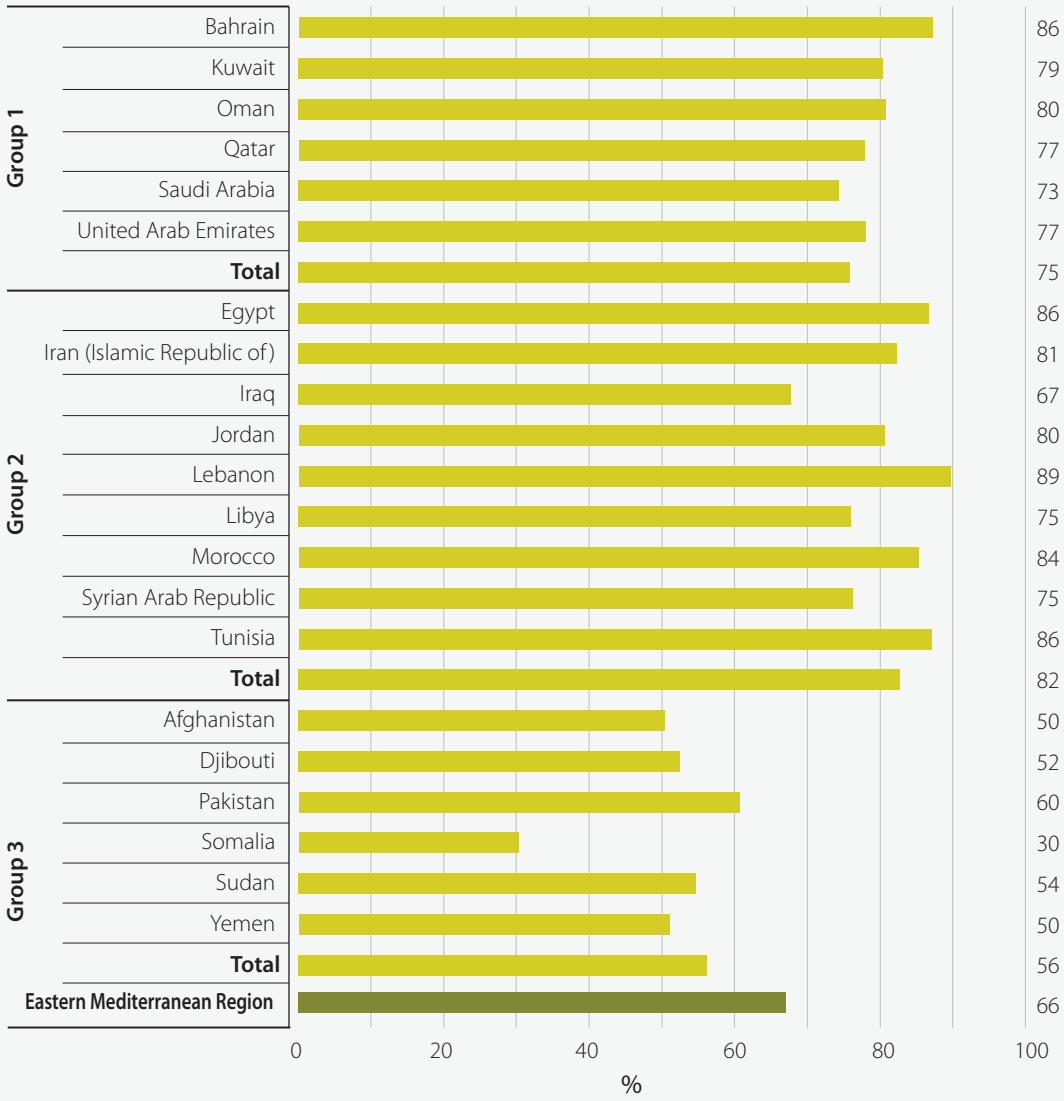
NCD proportionate mortality rate (%) by country/territory and country group, 2015–2019

Country group	Country	2015 (%)	2016 (%)	2019 (%)
Group 1	Bahrain	85	83	86
	Kuwait	77	72	79
	Oman	71	72	80
	Qatar	66	69	77
	Saudi Arabia	72	73	73
	United Arab Emirates	76	77	77
	Total	**74**	**73**	**75**
Group 2	Egypt	83	84	86
	Iran (Islamic Republic of)	81	82	81
	Iraq	54	55	67
	Jordan	78	78	80
	Lebanon	89	91	89
	Libya	76	72	75
	Morocco	78	80	84
	Occupied Palestinian territory		Data unavailable	
	Syrian Arab Republic	48	45	75
	Tunisia	85	86	86
	Total	**75**	**76**	**82**
Group 3	Afghanistan	43	44	50
	Djibouti	43	44	52
	Pakistan	57	58	60
	Somalia	22	24	30
	Sudan	50	52	54
	Yemen	61	57	50
	Total	**46**	**53**	**56**
Eastern Mediterranean Region		**62**	**63**	**66**

Source: Global Health Observatory *(11)*.

Fig. 3.

NCD proportionate mortality rate (%) by country and country group, 2019*



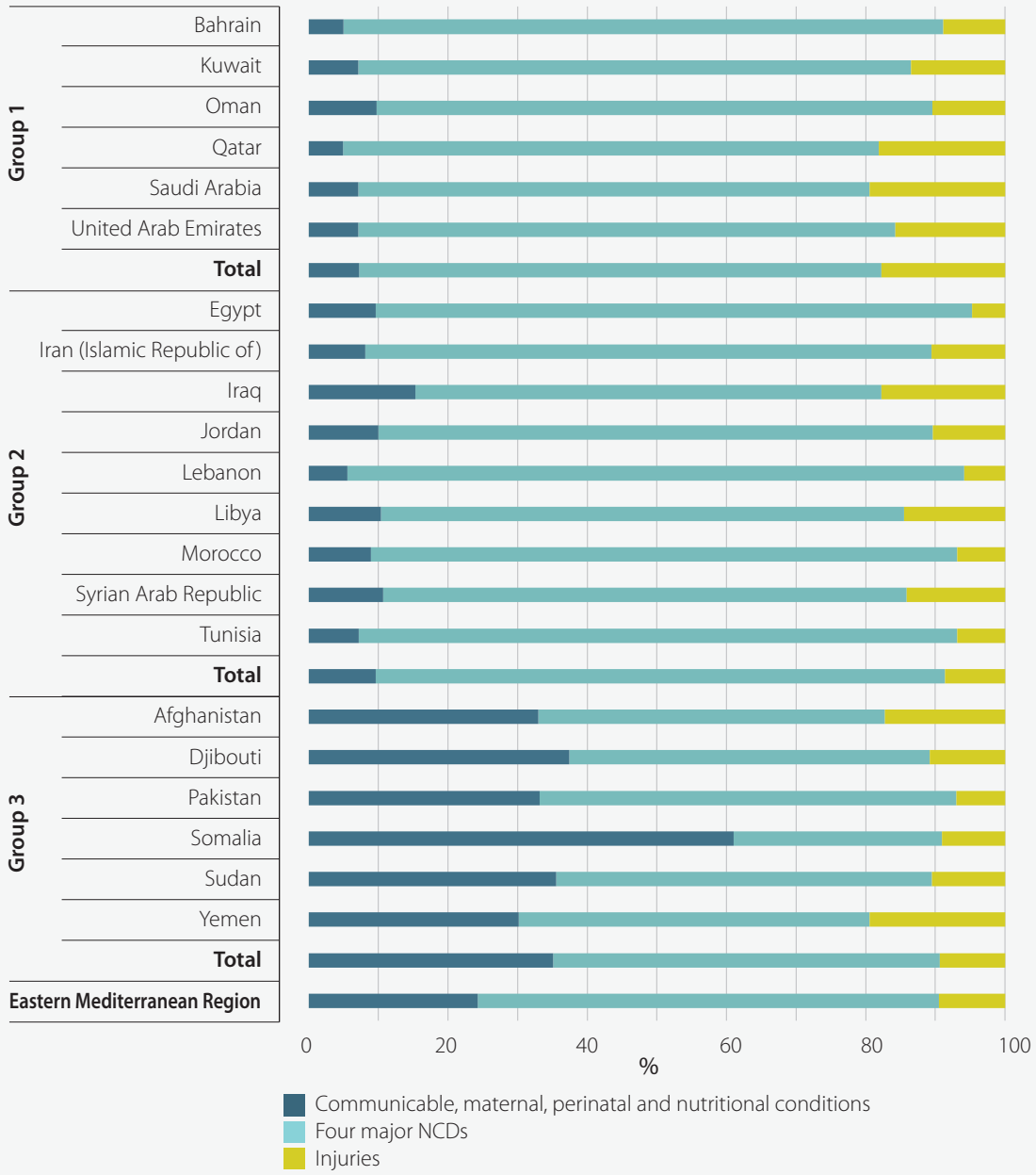
* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

country/territory in 2019. The data underscore the high burden of NCDs for all countries of the Region.

Consistent with global data, cardiovascular diseases are the major contributor to proportionate mortality from NCDs in countries/territories of the Region (Fig. 4).

Fig. 4.

Proportionate mortality rates (%) of NCDs, communicable diseases and injuries by country and country group, 2019*

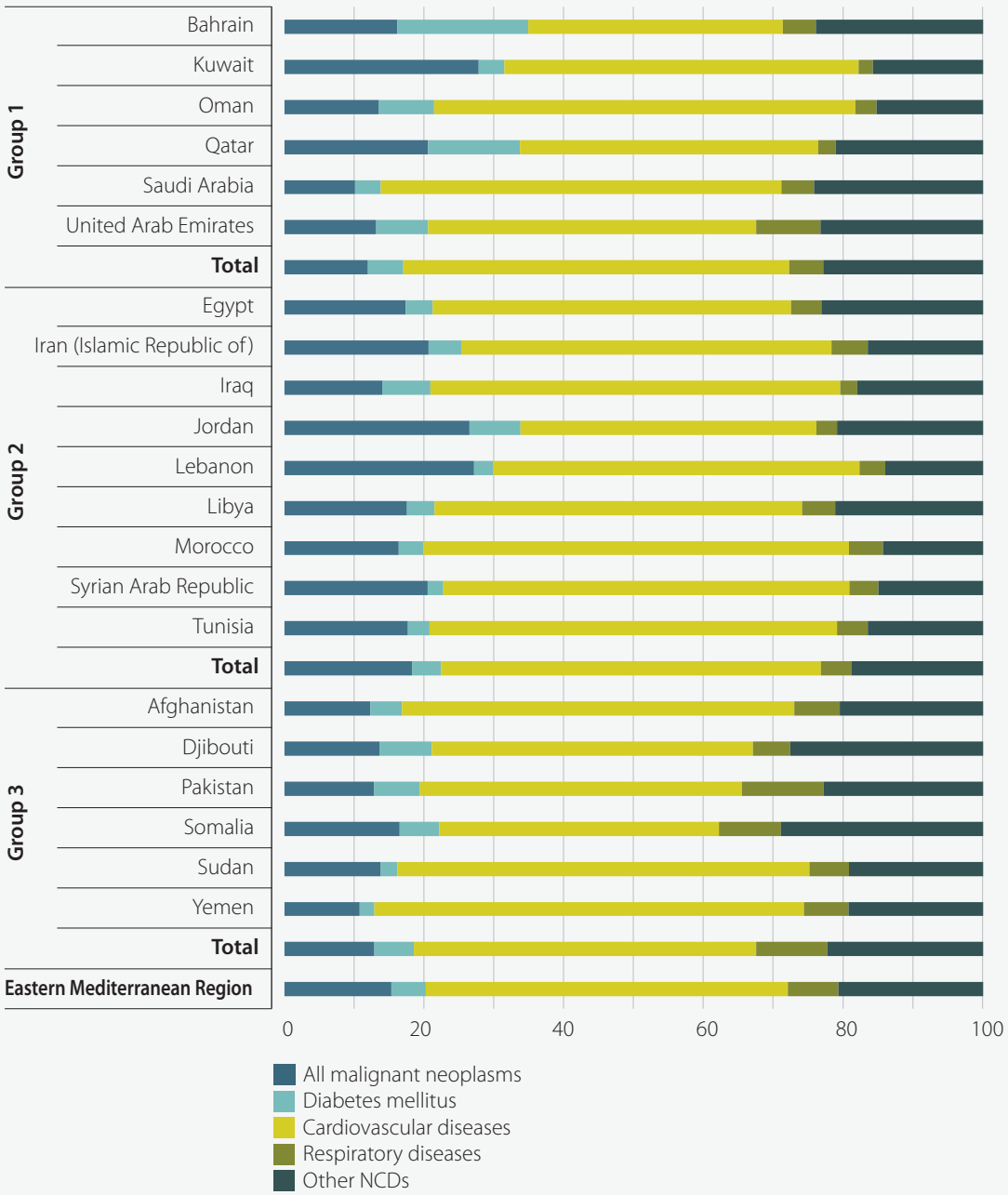


* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

Fig. 6a shows the probability of dying prematurely (between age 30 and exact age 70) from cardiovascular disease, cancer, diabetes or chronic respiratory disease in the Region in 2019, by country and country group.

Fig. 5.

Proportionate mortality rates (%) of different NCDs by country and country group, 2019*

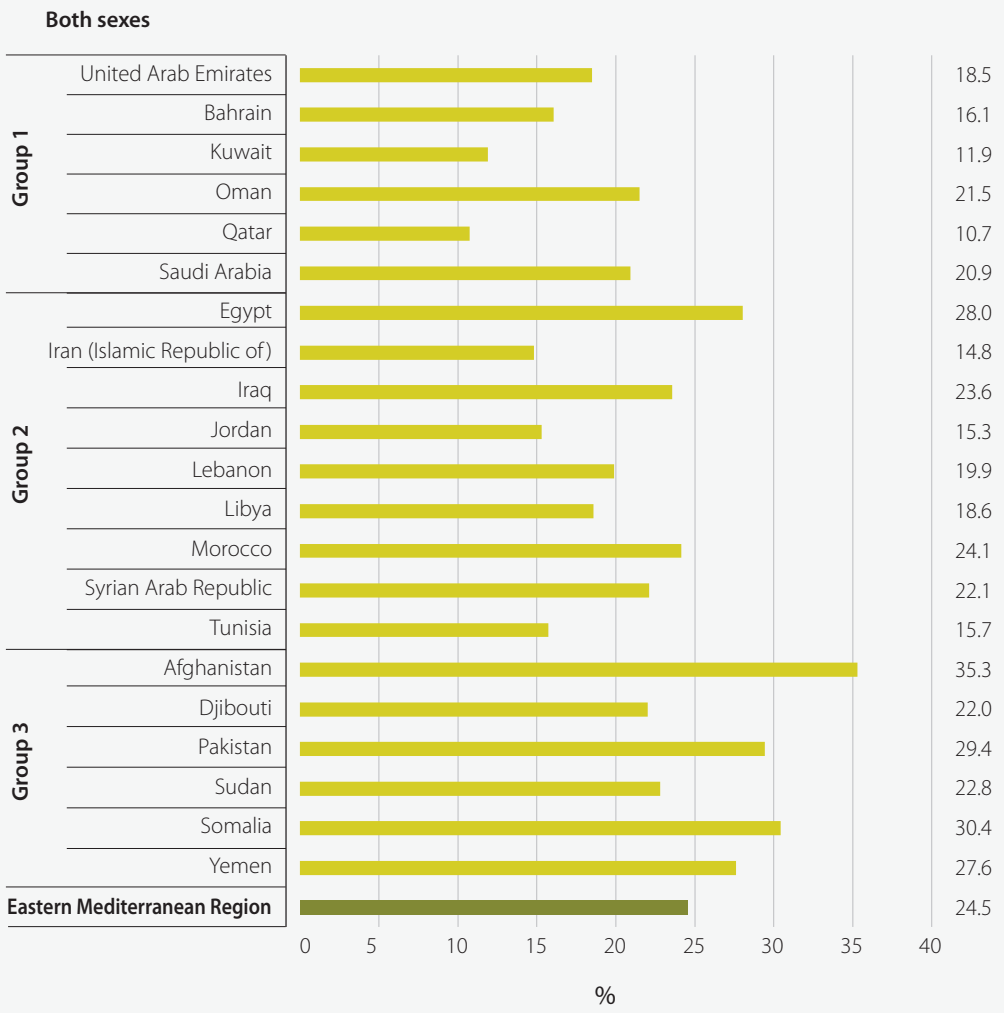


* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

The data reveal that the lowest probability of dying prematurely from any of the four main NCDs was in Qatar (11%) while the highest was in Afghanistan (35%). Figs. 6b and 6c show the data disaggregated for males and females, respectively.

Fig. 6a.

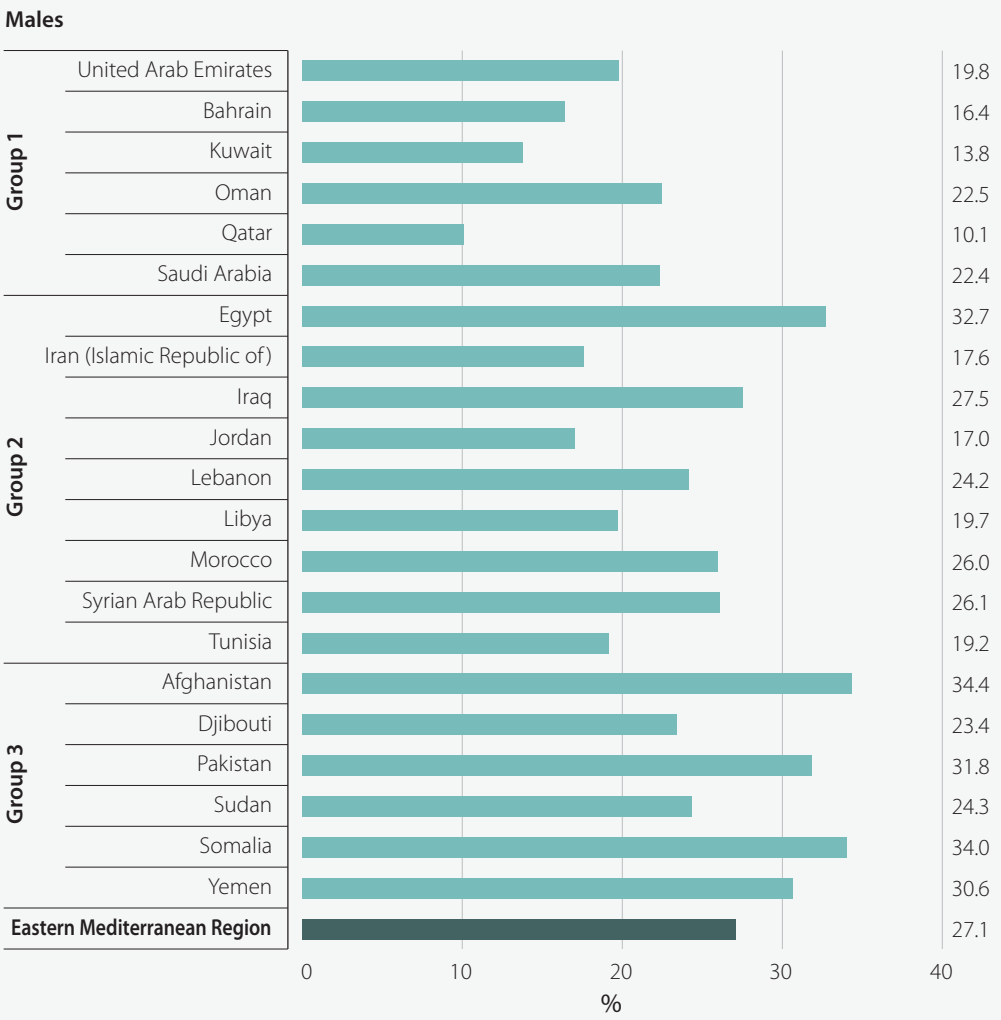
Probability (%) of dying between age 30 and exact age 70 from cardiovascular disease, cancer, diabetes or chronic respiratory disease, by country (both sexes), 2019*



* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

Fig. 6b.

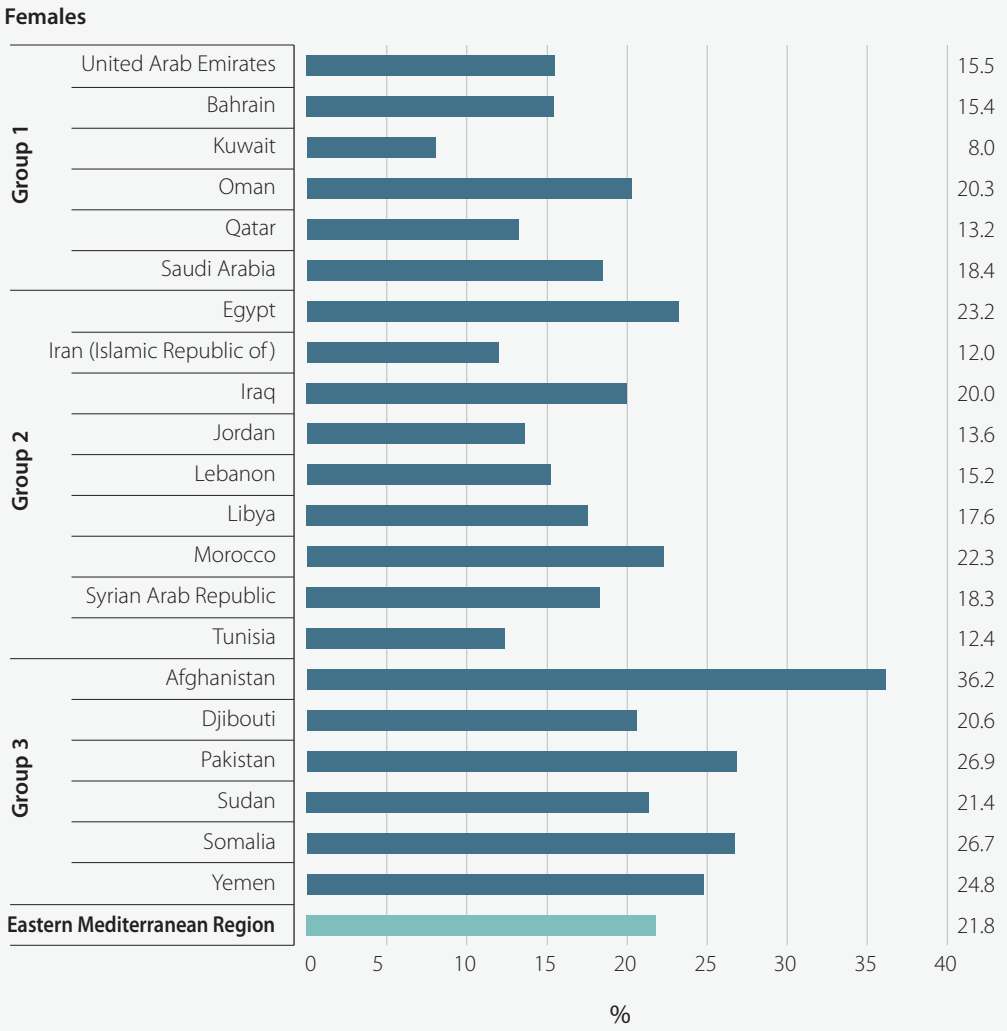
Probability (%) of dying between age 30 and exact age 70 from cardiovascular disease, cancer, diabetes or chronic respiratory disease, by country (males), 2019*



* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

Fig. 6c.

Probability (%) of dying between age 30 and exact age 70 from cardiovascular disease, cancer, diabetes or chronic respiratory disease, by country (females), 2019*



* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

Table 3 shows deaths due to NCDs among people aged under 70 years as a percentage of NCD deaths among all ages. More than half of NCD deaths in the Region (55%) occur prematurely, the second highest level of premature deaths from NCDs among all WHO regions, behind only the African Region (64%) *(8)*. In the Eastern Mediterranean Region, the highest levels of premature death due to NCDs were reported in United Arab Emirates and Kuwait (79% and 75%, respectively).

Table 3.

Premature deaths due to NCDs as a proportion (%) of all NCD deaths, by country/territory, 2019

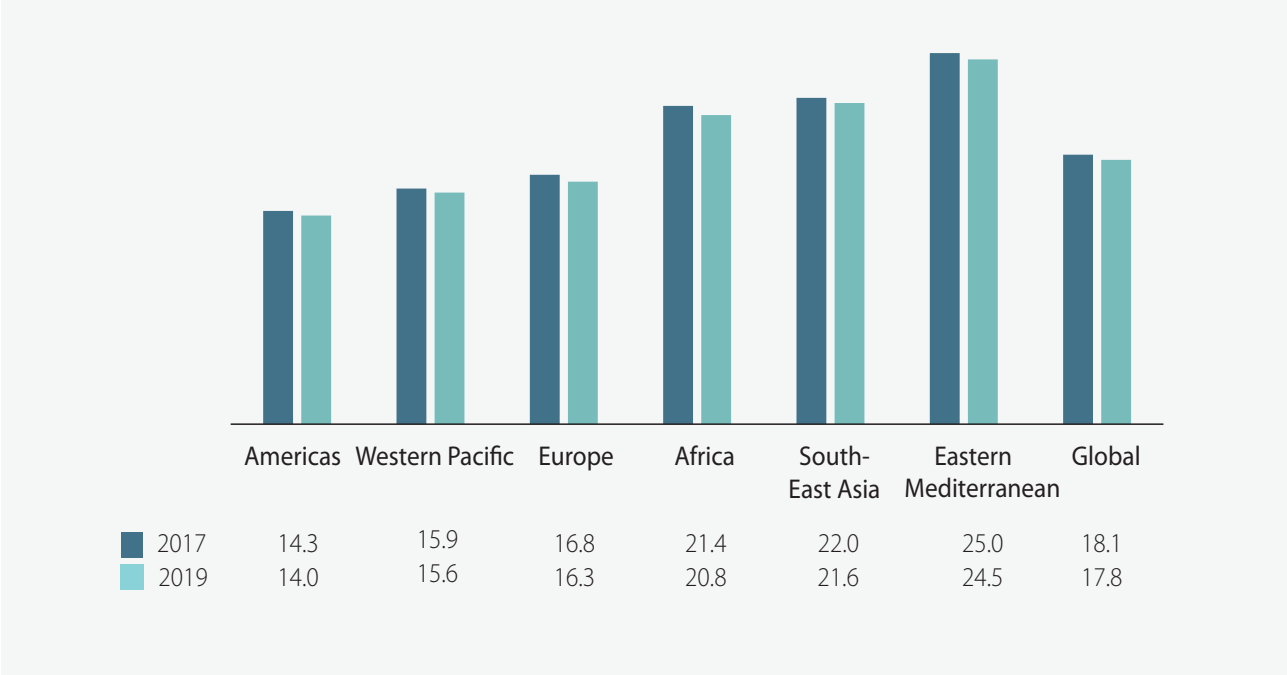
Group	Country	Both sexes (%)	Male (%)	Female (%)
Group 1	Bahrain	54	62	44
	Kuwait	75	78	66
	Oman	50	57	40
	Qatar	57	70	35
	Saudi Arabia	65	70	56
	United Arab Emirates	79	80	75
Group 2	Egypt	55	61	48
	Iran (Islamic Republic of)	43	45	41
	Iraq	55	58	52
	Jordan	47	52	41
	Lebanon	42	47	36
	Libya	54	57	51
	Morocco	46	50	43
	Occupied Palestinian territory	Data unavailable		
	Syrian Arab Republic	48	56	40
	Tunisia	38	43	33
Group 3	Afghanistan	67	70	63
	Djibouti	60	62	57
	Pakistan	59	59	59
	Somalia	69	71	65
	Sudan	55	57	52
	Yemen	62	65	59
Eastern Mediterranean Region		55	58	52

Source: Global Health Observatory *(11)*.

Fig. 7 shows the probability of dying between ages 30 and 70 from any of the four main NCDs in different WHO regions. In 2019, the highest probability was reported in the Eastern Mediterranean Region (25%) followed by South-East Asia (22%), while the lowest probability was reported in the Americas (14%).

Fig. 7.

Probability (%) of dying between age 30 and exact age 70 from cardiovascular disease, cancer, diabetes or chronic respiratory disease, by WHO region, 2017 and 2019

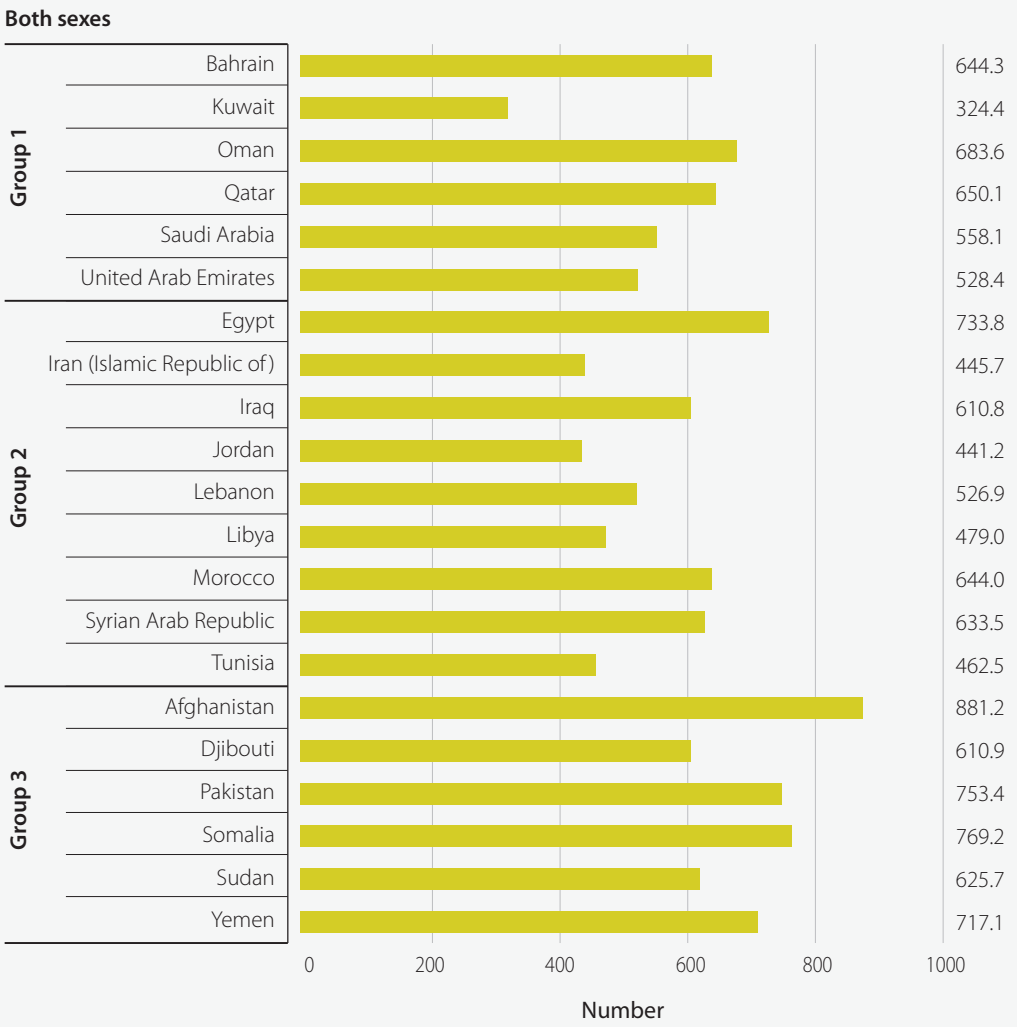


Source: Global Health Observatory ***(11)***.

Figs. 8a, 8b and 8c present age-standardized mortality rates from NCDs in the Region by sex in 2019. The results show the increased burden of NCDs, which disproportionately falls on Group 3 countries.

Fig. 8a.

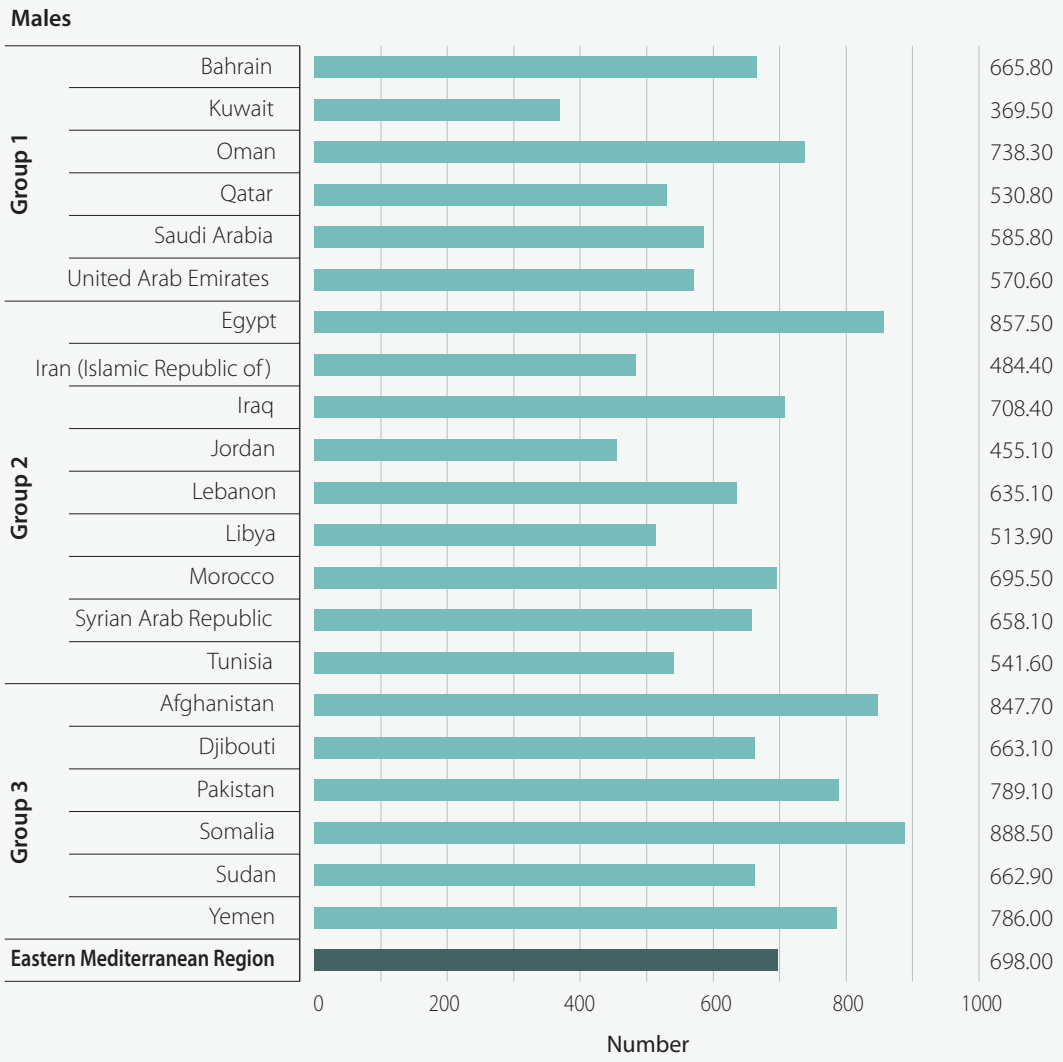
Age-standardized mortality rate from NCDs per 100 000 population, by country (both sexes), 2019



* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

Fig. 8b.

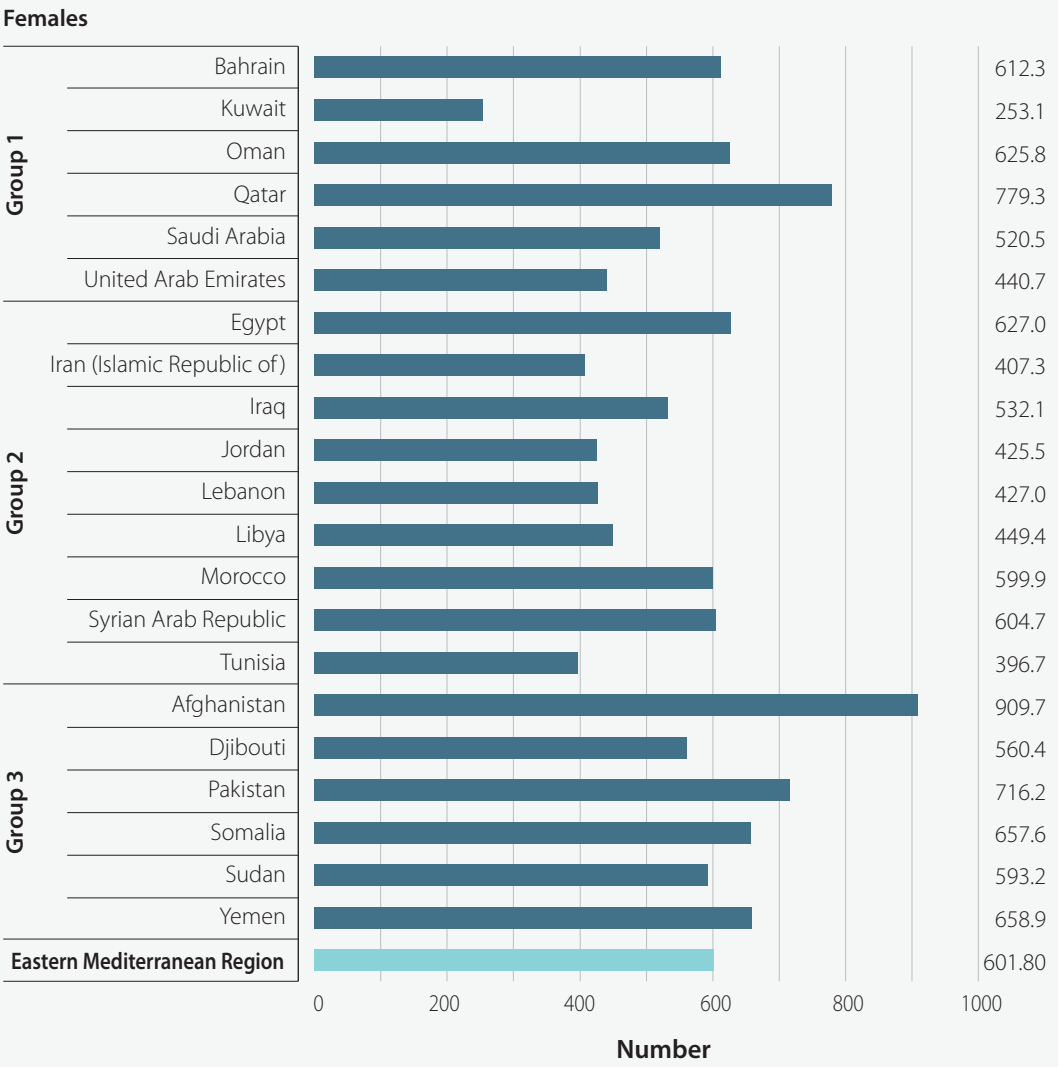
Age-standardized mortality rate from NCDs per 100 000 population, by country (males), 2019



* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

Fig. 8c.

Age-standardized mortality rate from NCDs per 100 000 population, by country (females), 2019



* Data unavailable for the occupied Palestinian territory.
Source: Global Health Observatory *(11)*.

A comparison of the top 10 causes of death in 2019 globally and in the Eastern Mediterranean Region reveals some similarities as well as distinct variations (Table 4). Ischaemic heart disease and stroke are the leading causes of death both globally and in the Region. Lower respiratory infections and diarrhoeal diseases are also among the top causes of death globally and regionally. Notably, neonatal conditions rank higher as a cause of death in the Region than globally. The global list includes trachea, bronchus and lung cancers, and Alzheimer's disease and other dementias, which are absent from the list of leading causes in the Region. Cirrhosis of the liver and road injuries are among the Region's top 10 causes of death but do not appear in the global list. Both regionally and globally, however, seven of the 10 leading causes of death were NCDs.

The NCD country capacity survey

To respond to the increasing burden of NCDs worldwide, WHO conducts periodic assessments of national capacity in preventing and controlling NCDs using a standard global survey of all Member States. The NCD country capacity survey aims to assess each country's capacity for responding to NCDs and to gather detailed information on their progress. Such periodic assessment allows countries and WHO to monitor progress and achievements in expanding capacities to respond to the NCD epidemic. These surveys have been carried out in 2001, 2005, 2010, 2013, 2015, 2017, 2019 and 2021.

The survey tool used in the assessment has evolved and expanded over time, and the 2021 iteration comprises five modules.

I. Public health infrastructure, partnerships and multisectoral collaboration for NCDs and their risk factors.

II. Status of NCD-relevant policies, strategies and action plans.

III. Health information systems, monitoring, surveillance and surveys for NCDs and their risk factors.

IV. Capacity for NCD early detection, treatment and care within the health system.

V. NCD-related disruptions during the COVID-19 pandemic.

Table 4.

Top 10 causes of death globally and in the Eastern Mediterranean Region, 2019

Global top 10 causes of death	Regional top 10 causes of death
Ischaemic heart disease	Ischaemic heart disease
Stroke	Stroke
Chronic obstructive pulmonary disease	Neonatal conditions
Lower respiratory infections	Lower respiratory infections
Neonatal conditions	Cirrhosis of the liver
Trachea, bronchus, lung cancers	Diarrhoeal diseases
Alzheimer's disease and other dementias	Chronic obstructive pulmonary disease
Diarrhoeal diseases	Kidney diseases
Diabetes mellitus	Diabetes mellitus
Kidney diseases	Road injury

Source: Global Health Observatory *(12)*.

Objectives

This report summarizes the findings of the 2021 NCD capacity survey on preventing and controlling NCDs in the WHO Eastern Mediterranean Region, including an exploration of the impact of the COVID-19 pandemic on the provision of health services relevant to NCDs.

The 2021 survey is the eighth NCD national capacity survey in the Region since 2001. It is intended to:

- enable the tracking of progress made over time in the prevention and control of NCDs;
- underscore limitations and challenges to implementing the policies and plans delineated in the *WHO Global Action Plan for the Prevention and Control of NCDs 2013–2030;*
- highlight opportunities to renew, reinforce and enhance commitments to reduce the burden of NCDs;
- measure the impact of COVID-19 on the provision of essential NCD services.

A fifth module, Module V, was an additional feature of the 2021 survey, which aimed to understand gaps in NCD essential health services that need to be addressed to ensure continuity of care during the pandemic.

Methods

Data collection, review and validation

A web-based questionnaire was used for the survey data collection, consisting of five modules (the full questionnaire can be found in Annex 1). The survey was carried out in all 22 countries and territories of the Region, with a 100% response rate.

In May 2020, WHO conducted a rapid assessment of service delivery for NCDs during the COVID-19 pandemic among 194 Member States *(13)*. It was conducted over a three-week period, with an 84% response rate, and aimed to gauge the impact of the pandemic on the provision of health services relevant to NCDs. For the 2021 NCD country capacity survey, the key questions in the rapid assessment were reviewed, updated and incorporated as a fifth module. The 2021 results were then compared to those of the 2020 rapid assessment.

Unique login details for the survey platform were provided for each country's assigned NCD focal point. The focal points were either personnel at ministries of health responsible for a unit or programme on NCDs, or delegated members of staff of ministries of health or other national ministries or institutes. The deadline for survey completion was November 2021. As with previous NCD country capacity surveys, responses to selected questions were coupled with requests to submit relevant supporting documents such as laws, regulations, policies, guidelines or programme reports.

Once submitted, WHO Regional Office staff checked the completeness and validity of the countries' responses by reviewing the relevant supporting documents, as well as by comparing the 2021 responses with those of the 2019 round to check for any unexpected inconsistencies or missing responses. In such cases, the focal point was contacted and requested to explain inconsistencies, complete missing data or supply supporting documents.

Information on recent NCD risk factor surveys was checked against key WHO-supported risk factor surveys. These included the WHO STEPwise approach to NCD risk factor surveillance (WHO STEPS) (adult risk factor surveillance), the Global School-based Student Health Survey, the Global Youth Tobacco Survey and the Global Adult Tobacco Survey. Alcohol and tobacco taxation data available from WHO surveys, such as WHO reports on the global tobacco epidemic, were used to check country responses to questions on fiscal measures. Data on cancer registries from the International Agency for Research on Cancer were used to validate country responses to the cancer registry questions. Data on food and nutrition policies and interventions were reviewed and validated in collaboration with the WHO Nutrition and Food Safety Department.

Questionnaire

The country capacity survey contains a set of standardized questions to allow monitoring of country progress over time as well as regional and global comparisons. However, the questions are reviewed every round and some modifications are introduced to address emerging situations.

The five modules of the 2021 questionnaire are described below.

I. **Public health infrastructure, partnerships and multisectoral collaboration:** Questions relating to the presence of a unit or division within the ministry of health dedicated to NCDs; staffing and funding; fiscal interventions including taxation and subsidies and the motivation for the fiscal interventions; and whether there is a high-level national multisectoral commission, agency or mechanism to oversee NCD-related work.

II. **Policies, strategies and action plans:** Questions relating to the presence of policies, strategies or action plans. The questions differentiated between *integrated* policies, strategies or action plans addressing several risk factors or diseases and *individual* policies, strategies or action plans for a specific disease or risk factor. Ministries of health were asked to name the policy and indicate if the plan is currently in operation. Additionally, this component covered cost-effective policies for NCDs, such as policies to reduce population salt consumption.

III. **Health information systems, monitoring and surveillance:** Questions addressing the existence of cardiovascular diseases, cancer and diabetes registries, standardized systems for recording patient-level data that include NCD status and risk factors in public health facilities, patient information systems including NCD status and risk factors in both primary health care centres and hospitals, and risk factor surveillance activities.

IV. **Health system capacity:** Questions to assess the capacity of the health system related to NCD prevention, early detection, and treatment and care within the primary care sector. Specific questions focused on the existence of guidelines or protocols to treat major NCDs and their key risk factors; the availability of the tests, procedures and equipment related to NCDs within the health system; cancer screening programmes and diagnosis and treatment services; and the availability of palliative care services for NCDs.

V. **NCD-related disruptions during the COVID-19 pandemic:** Questions relevant to the deployment

of NCD staff to help with COVID-19 response, reassignment of NCD-allocated funds to COVID-19 response; the presence of a defined national essential health services package prior to the COVID-19 pandemic; identification of a core set of essential health services to be maintained during the pandemic; inclusion of NCD services in the list of essential health services of the country's COVID-19 response plan; and NCD service disruption due to COVID-19.

The survey included a set of detailed instructions on how to complete the questionnaire and a glossary of terms. The questionnaire was administered in English. All 22 countries and territories of the Region completed the survey, as was achieved in 2019 and 2017.

Responses to the questions in modules I–IV enable reporting against the 10 NCD progress monitoring indicators published in WHO's technical note in 2015 and updated in 2017. The progress monitoring indicators and their sub-indicators (a total of 19) aim to show the progress achieved in countries in the implementation of selected national commitments included in the United Nations 2011 Political Declaration and 2014 outcome document on NCDs. The 2020 Progress Monitor, the third in a series, provides data on the 19 indicators for WHO's 194 Member States *(14)*.

Analysis

Data for each country response were extracted from the web-based application in Microsoft Excel format, with subsequent data cleaning carried out to ensure consistency of the survey responses. SPSS Statistics version 21 software was used for all analysis conducted.

Percentages reported in the findings reflect the positive responses to a question, while non-positive responses ("No", "Don't know", "Not applicable" and missing answers) were treated equally as negative responses.

The Eastern Mediterranean Region country grouping system that classifies the countries and territories into three groups based on their socioeconomic development (see Table 1) was used to conduct stratified analysis, accounting for socioeconomic disparities at the regional level.

For country-level analysis, the denominator used was the total number of responding countries, either overall or within a particular country group.

Whenever possible, trends in national NCD capacity were derived by comparing the results of the 2021 survey with those of 2013, 2015, 2017 and 2019.

Results

Achievement status of the 10 NCD progress monitoring indicators in countries/ territories of the Region

Based on the results of the 2021 survey, the achievement of the 22 countries and territories in the Region with respect to the 10 progress monitoring indicators and sub-indicators (a total of 19) is assessed and presented in Tables 5–24 and in Figs. 9 and 10. Compared to 2019, eight out of 19 indicators/sub-indicators have witnessed improvement in 2021, eight have remained the same and three have declined (indicator 4, sub-indicator 7a and indicator 10).

Progress indicator 1:

Member State has set time-bound national targets based on WHO guidance

The number of countries that have set time-bound targets to reduce NCD deaths remained the same as in 2019. Fourteen countries/territories (64%) have achieved this indicator: Afghanistan, Bahrain, Egypt, Iraq, Islamic Republic of Iran, Jordan, Kuwait, Morocco, occupied Palestinian territory, Oman, Qatar, Saudi Arabia, Tunisia and United Arab Emirates.

Progress indicator 2:

Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis

While none of the countries of the Region were able to fully achieve indicator 2 in 2019, Kuwait fully achieved a functioning mortality data system in 2021. Furthermore, the number of countries and territories that have partially achieved this indicator rose from 14 to 15 (68%). These countries/territories were Bahrain, Egypt, Iraq, Islamic Republic of Iran, Jordan, Lebanon, Libya, Morocco, occupied Palestinian territory, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia and United Arab Emirates.

Progress indicator 3:

Member State has a STEPS survey or a comprehensive health examination survey every 5 years

Five countries in the Region – Egypt, Islamic Republic of Iran, Morocco, Sudan and United Arab Emirates – have fully achieved this indicator (23%), down from six countries in 2019 when Tunisia also reported as achieved.

Progress indicator 4:

Member State has an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors

Half of the countries and territories had an operational multisectoral national strategy or action plan that integrates the major NCDs and their shared risk factors. This represents a slight decline from the number reported in 2019 (12 countries, 55%).

Progress indicator 5 and sub-indicators 5a–e:

Member State has implemented five demand-reduction measures of the WHO Framework Convention on Tobacco Control (WHO FCTC) at the highest level of achievement

There was notable progress in the number of countries fully achieving sub-indicators 5a–e in 2021 compared to 2019. For example, more than half (12 countries, 55%) have fully achieved sub-indicator 5d (bans on tobacco advertising, promotion and sponsorship) compared to 10 countries in 2019. The vast majority of countries/ territories that have fully achieved sub-indicators 5a–e are in Group 2, except for sub-indicator 5d, which has been fully achieved by a larger proportion of countries in Group 1.

Progress indicator 6 and sub-indicators 6a–c:

Member State has implemented, as appropriate according to national circumstances, three measures to reduce the harmful use of alcohol as per the *WHO Global strategy to reduce the harmful use of alcohol*

Nearly half of the countries and territories (41–50%) have implemented some of the measures to reduce the harmful use of alcohol as set out in the WHO *Global strategy to reduce the harmful use of alcohol*. In contrast to most other indicators, Group 3 had the highest proportion of countries reporting full achievement of this indicator (83% for sub-indicators 6a and 6b, and 100% for sub-indicator 6c).

Progress indicator 7 and sub-indicators 7a–d:

Member State has implemented four measures to reduce unhealthy diets

Only five (23%) of the countries/territories (Islamic Republic of Iran, occupied Palestinian territory, Saudi Arabia, Tunisia and United Arab Emirates) have fully achieved sub-indicator 7a on reducing sodium consumption, down from eight in 2019. The number of countries fully achieving sub-indicators 7b and 7d remained the same as in 2019. For sub-indicator 7c (marketing to children), the number of countries fully achieving increased from only four countries in 2019 to seven in 2021. The data show that the vast majority

of the countries that have fully achieved sub-indicators 7a–d are in Group 1, a finding consistent with 2019 data.

Progress indicator 8:

Member State has implemented at least one recent national public awareness and motivational communication on physical activity, including mass media campaigns for physical activity behavioural change

Five of the countries (23%) have fully achieved indicator 8, which is the same as reported in 2019. These were Iraq, Kuwait, Oman, Qatar and United Arab Emirates.

Progress indicator 9:

Member State has evidence-based national guidelines/ protocols/standards for the management of major NCDs through a primary care approach, recognized/ approved by government or competent authorities

The number of countries that have fully achieved this indicator has increased from eight in 2019 to 11 in 2021 (50%). They were Bahrain, Egypt, Islamic Republic of Iran, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic and United Arab Emirates.

Progress indicator 10:

Member State has provision of drug therapy, including glycaemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level

With the exception of Saudi Arabia, the same countries/ territories reported the full achievement of indicator 10 as in 2019. These seven countries/territories (32%) were Bahrain, Islamic Republic of Iran, Kuwait, Lebanon, occupied Palestinian territory, Oman and United Arab Emirates.

Table 5.

Summary of progress indicator achievement in the 22 countries/territories of the Eastern Mediterranean Region

Progress indicator number	Progress indicator/sub-indicator	Number and percentage of countries/territories fully achieving indicator		Countries/territories fully achieving indicator*
1	Member State has set time-bound national targets based on WHO guidance	14	64%	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Morocco, Tunisia, occupied Palestinian territory, Afghanistan
2	Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis	1	5%	Kuwait
3	Member State has a STEPS survey or a comprehensive health examination survey every 5 years	5	23%	United Arab Emirates, Egypt, Iran (Islamic Republic of), Morocco, Sudan
4	Member State has an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors	11	50%	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates, Egypt, Iran (Islamic Republic of), Iraq, Morocco, Tunisia
5	a) Reduce affordability by increasing excise taxes and prices on tobacco products	4	18%	Egypt, Jordan, Morocco, occupied Palestinian territory
	b) Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places and public transport	8	36%	Egypt, Iran (Islamic Republic of), Jordan, Lebanon, Libya, occupied Palestinian territory, Afghanistan, Pakistan
	c) Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages	6	27%	Qatar, Saudi Arabia, Egypt, Iran (Islamic Republic of), Djibouti, Pakistan
	d) Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship	12	55%	Bahrain, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, Iran (Islamic Republic of), Iraq, Jordan, Libya, Afghanistan, Djibouti, Yemen
	e) Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke	4	18%	Qatar, Saudi Arabia, Morocco, Tunisia
6	a) Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)	9	41%	Qatar, Saudi Arabia, Iran (Islamic Republic of), Libya, Afghanistan, Pakistan, Somalia, Sudan, Yemen
	b) Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)	11	50%	Saudi Arabia, United Arab Emirates, Egypt, Iran (Islamic Republic of), Jordan, Libya, Afghanistan, Djibouti, Somalia, Sudan, Yemen
	c) Increase excise taxes on alcoholic beverages	10	46%	Saudi Arabia, Egypt, Iran (Islamic Republic of), Libya, Afghanistan, Djibouti, Pakistan, Somalia, Sudan, Yemen
7	a) Adopt national policies to reduce population salt/sodium consumption	5	23%	Saudi Arabia, United Arab Emirates, Iran (Islamic Republic of), Tunisia, occupied Palestinian territory

Table 5.

Summary of progress indicator achievement in the 22 countries/territories of the Eastern Mediterranean Region *(concluded)*

Progress indicator number	Progress indicator/sub-indicator	Number and percentage of countries/territories fully achieving indicator		Countries/territories fully achieving indicator*
	b) Adopt national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply	9	41%	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates, Iran (Islamic Republic of), Morocco, Tunisia
	c) Implement WHO set of recommendations on marketing of foods and non-alcoholic beverages to children	7	32%	Bahrain, Kuwait, Oman, Saudi Arabia, United Arab Emirates, Iran (Islamic Republic of), Morocco
	d) Legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes	6	27%	Bahrain, Kuwait, Saudi Arabia, United Arab Emirates, Lebanon, Afghanistan
8	Member State has implemented at least one recent national public awareness and motivational communication for physical activity, including mass media campaigns for physical activity behavioural change	5	23%	Kuwait, Oman, Qatar, United Arab Emirates, Iraq
9	Member State has evidence-based national guidelines/protocols/ standards for the management of major NCDs through a primary care approach, recognized/approved by government or competent authorities	11	50%	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates, Egypt, Iran (Islamic Republic of), Lebanon, Syrian Arab Republic, Sudan
10	Member State has provision of drug therapy, including glycaemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level	7	32%	Bahrain, Kuwait, Oman, United Arab Emirates, Iran (Islamic Republic of), Lebanon, occupied Palestinian territory

* Countries and territories are presented in country group order as set out in Table 1, with Group 1 first.

Fig. 9.

Number of progress indicators/sub-indicators fully achieved, by country/territory, 2017–2021

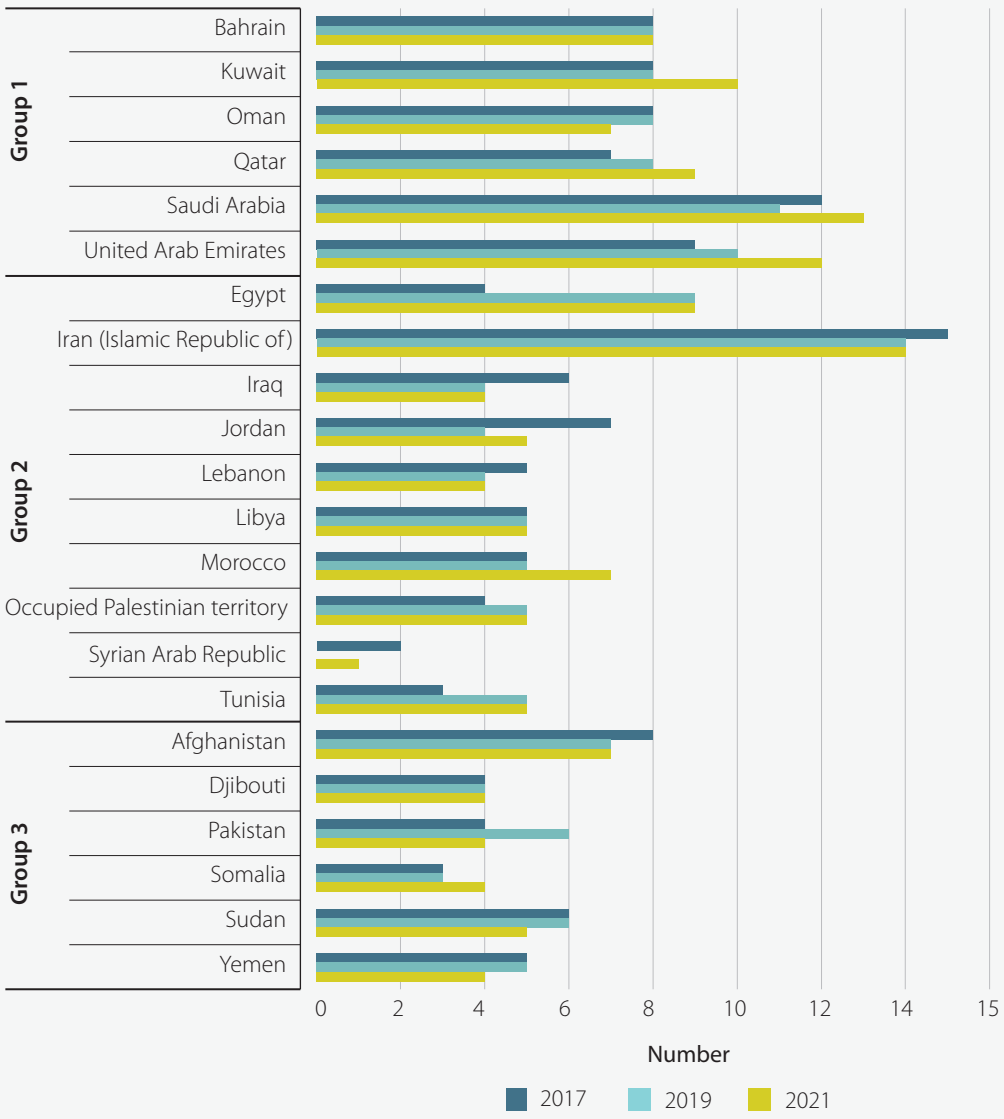


Fig. 10.

Number of countries/territories of the Region that have fully achieved the progress indicators, 2015–2021

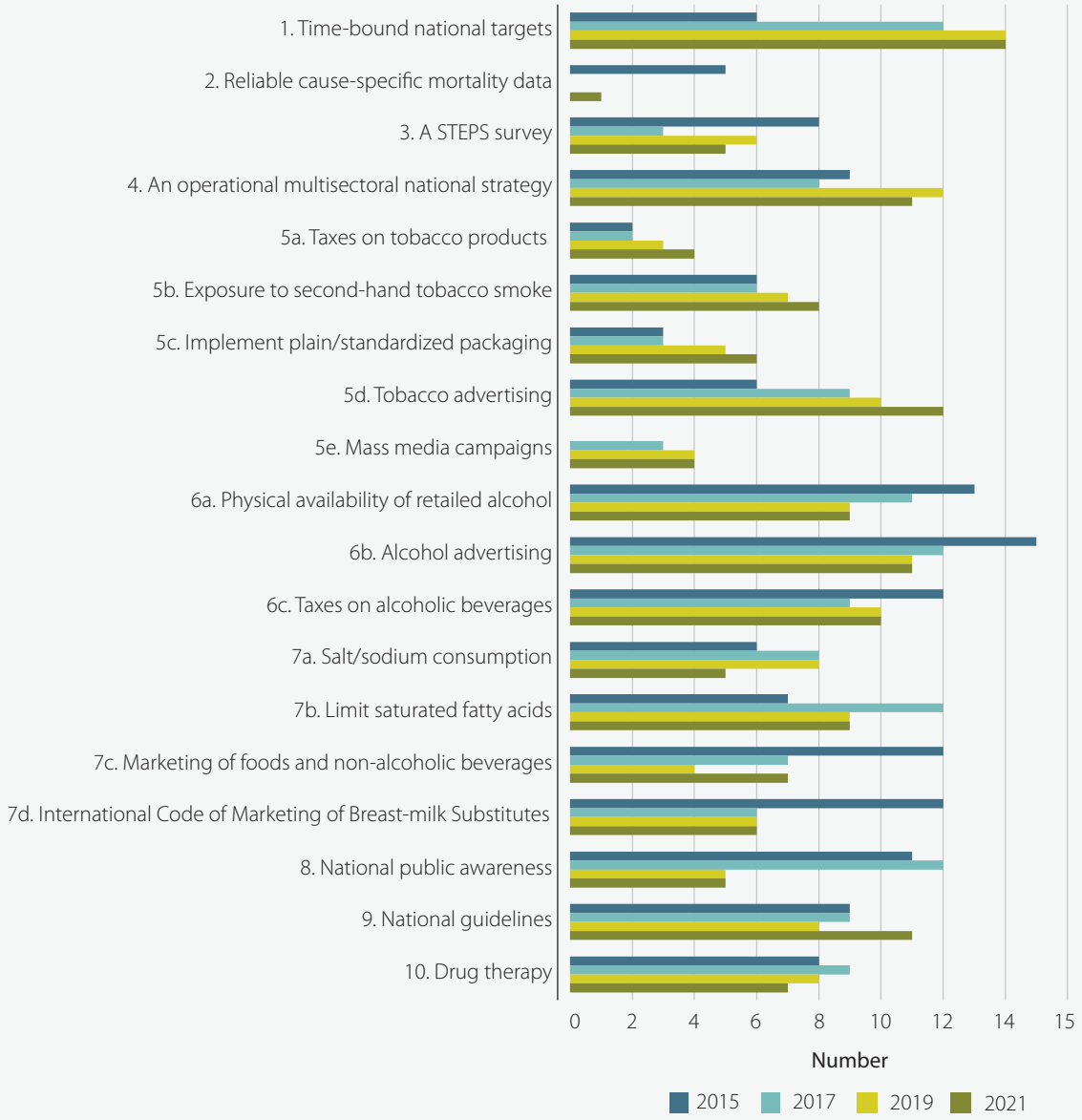


Table 6.

Progress indicator 1: achievement by country/territory and country group

Country group		Indicator 1 Member State has set time-bound national targets based on WHO guidance		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain			√
	Kuwait			√
	Oman			√
	Qatar			√
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**0**	**0**	**6**
		0%	**0%**	**100%**
Group 2	Egypt			√
	Iran (Islamic Republic of)			√
	Iraq			√
	Jordan			√
	Lebanon	√		
	Libya	√		
	Morocco			√
	Occupied Palestinian territory			√
	Syrian Arab Republic	√		
	Tunisia			√
	Total	**3**	**0**	**7**
		30%	**0%**	**70%**
Group 3	Afghanistan			√
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan	√		
	Yemen	√		
	Total	**5**	**0**	**1**
		83%	**0%**	**17%**
Eastern Mediterranean Region		8	0	14
		36%	**0%**	**63%**

Table 7.

Progress indicator 2: achievement by country/territory and country group

Country group		Indicator 2 Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain		√	
	Kuwait			√
	Oman		√	
	Qatar		√	
	Saudi Arabia		√	
	United Arab Emirates		√	
	Total	**0**	**5**	**1**
		0%	**83%**	**17%**
Group 2	Egypt		√	
	Iran (Islamic Republic of)		√	
	Iraq		√	
	Jordan		√	
	Lebanon		√	
	Libya		√	
	Morocco		√	
	Occupied Palestinian territory		√	
	Syrian Arab Republic		√	
	Tunisia		√	
	Total	**0**	**10**	**0**
		0%	**100%**	**0%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan	√		
	Yemen	√		
	Total	**6**	**0**	**0**
		100%	**0%**	**0%**
Eastern Mediterranean Region		**6**	**15**	**1**
		27%	**68%**	**5%**

Table 8.

Progress indicator 3: achievement by country/territory and country group

Country group		Indicator 3 Member State has a STEPS survey or a comprehensive health examination survey every 5 years		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain		√	
	Kuwait		√	
	Oman		√	
	Qatar		√	
	Saudi Arabia		√	
	United Arab Emirates			√
	Total	**0**	**5**	**1**
		0%	**83%**	**17%**
Group 2	Egypt			√
	Iran (Islamic Republic of)			√
	Iraq		√	
	Jordan		√	
	Lebanon		√	
	Libya	√		
	Morocco			√
	Occupied Palestinian territory	√		
	Syrian Arab Republic	√		
	Tunisia		√	
	Total	**3**	**4**	**3**
		30%	**40%**	**30%**
Group 3	Afghanistan		√	
	Djibouti	√		
	Pakistan		√	
	Somalia		√	
	Sudan			√
	Yemen	√		
	Total	**2**	**3**	**1**
		33%	**50%**	**17%**
Eastern Mediterranean Region		**5**	**12**	**5**
		23%	**55%**	**23%**

Table 9.

Progress indicator 4: achievement by country/territory and country group

Country group		Indicator 4 Member State has an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain			√
	Kuwait			√
	Oman			√
	Qatar			√
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**0**	**0**	**6**
		0%	**0%**	**100%**
Group 2	Egypt			√
	Iran (Islamic Republic of)			√
	Iraq			√
	Jordan	√		
	Lebanon		√	
	Libya	√		
	Morocco			√
	Occupied Palestinian territory		√	
	Syrian Arab Republic	√		
	Tunisia			√
	Total	**3**	**2**	**5**
		30%	**20%**	**50%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan	√		
	Yemen	√		
	Total	**6**	**0**	**0**
		100%	**0%**	**0%**
Eastern Mediterranean Region		**9**	**2**	**11**
		41%	**9%**	**50%**

Table 10.

Progress sub-indicator 5a: achievement by country/territory and country group

Country group		Indicator 5a Member State has implemented the following demand-reduction measure of the WHO FCTC at the highest level of achievement: Reduce affordability by increasing excise taxes and prices on tobacco products		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain		√	
	Kuwait	√		
	Oman		√	
	Qatar		√	
	Saudi Arabia		√	
	United Arab Emirates		√	
	Total	**1**	**5**	**0**
		17%	**83%**	**0%**
Group 2	Egypt			√
	Iran (Islamic Republic of)	√		
	Iraq	√		
	Jordan			√
	Lebanon	√		
	Libya	√		
	Morocco			√
	Occupied Palestinian territory			√
	Syrian Arab Republic	√		
	Tunisia		√	
	Total	**5**	**1**	**4**
		50%	**10%**	**40%**
Group 3	Afghanistan	√		
	Djibouti*			
	Pakistan		√	
	Somalia	√		
	Sudan		√	
	Yemen		√	
	Total	**2**	**3**	**0**
		33%	**50%**	**0%**
Eastern Mediterranean Region		**8**	**9**	**4**
		36%	**41%**	**18%**

* Data missing.

Table 11.

Progress sub-indicator 5b: achievement by country/territory and country group

Country group		Indicator 5b Member State has implemented the following demand-reduction measure of the WHO FCTC at the highest level of achievement: Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places and public transport		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain	√		
	Kuwait		√	
	Oman	√		
	Qatar	√		
	Saudi Arabia		√	
	United Arab Emirates		√	
	Total	**3**	**3**	**0**
		50%	**50%**	**0%**
Group 2	Egypt			√
	Iran (Islamic Republic of)			√
	Iraq		√	
	Jordan			√
	Lebanon			√
	Libya			√
	Morocco		√	
	Occupied Palestinian territory			√
	Syrian Arab Republic		√	
	Tunisia	√		
	Total	**1**	**3**	**6**
		10%	**30%**	**60%**
Group 3	Afghanistan			√
	Djibouti		√	
	Pakistan			√
	Somalia	√		
	Sudan	√		
	Yemen		√	
	Total	**2**	**2**	**2**
		33%	**33%**	**33%**
Eastern Mediterranean Region		**6**	**8**	**8**
		27%	**36%**	**36%**

Table 12.

Progress sub-indicator 5c: achievement by country/territory and country group

Country group		Indicator 5c Member State has implemented the following demand-reduction measure of the WHO FCTC at the highest level of achievement: Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain		√	
	Kuwait		√	
	Oman		√	
	Qatar			√
	Saudi Arabia			√
	United Arab Emirates		√	
	Total	**0**	**4**	**2**
		0%	**67%**	**33%**
Group 2	Egypt			√
	Iran (Islamic Republic of)			√
	Iraq		√	
	Jordan		√	
	Lebanon		√	
	Libya	√		
	Morocco	√		
	Occupied Palestinian territory	√		
	Syrian Arab Republic	√		
	Tunisia		√	
	Total	**4**	**4**	**2**
		40%	**40%**	**20%**
Group 3	Afghanistan	√		
	Djibouti			√
	Pakistan			√
	Somalia	√		
	Sudan	√		
	Yemen		√	
	Total	**3**	**1**	**2**
		50%	**17%**	**33%**
Eastern Mediterranean Region		**7**	**9**	**6**
		32%	**41%**	**27%**

Table 13.

Progress sub-indicator 5d: achievement by country/territory and country group

Country group		Indicator 5d Member State has implemented the following demand-reduction measure of the WHO FCTC at the highest level of achievement: Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain			√
	Kuwait			√
	Oman		√	
	Qatar			√
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**0**	**1**	**5**
		0%	**17%**	**83%**
Group 2	Egypt		√	
	Iran (Islamic Republic of)			√
	Iraq			√
	Jordan			√
	Lebanon		√	
	Libya			√
	Morocco		√	
	Occupied Palestinian territory		√	
	Syrian Arab Republic		√	
	Tunisia		√	
	Total	**0**	**6**	**4**
		0%	**60%**	**40%**
Group 3	Afghanistan			√
	Djibouti			√
	Pakistan		√	
	Somalia	√		
	Sudan		√	
	Yemen			√
	Total	**1**	**2**	**3**
		17%	**33%**	**50%**
Eastern Mediterranean Region		**1**	**9**	**12**
		5%	**41%**	**55%**

Table 14.

Progress sub-indicator 5e: achievement by country/territory and country group

Country group		Indicator 5e Member State has implemented the following demand-reduction measure of the WHO FCTC at the highest level of achievement: Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain		√	
	Kuwait		√	
	Oman	√		
	Qatar			√
	Saudi Arabia			√
	United Arab Emirates		√	
	Total	**1**	**3**	**2**
		17%	**50%**	**33%**
Group 2	Egypt		√	
	Iran (Islamic Republic of)		√	
	Iraq		√	
	Jordan		√	
	Lebanon	√		
	Libya	√		
	Morocco			√
	Occupied Palestinian territory		√	
	Syrian Arab Republic	√		
	Tunisia			√
	Total	**3**	**5**	**2**
		30%	**50%**	**20%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan		√	
	Somalia	√		
	Sudan	√		
	Yemen		√	
	Total	**4**	**2**	
		67%	**33%**	**0%**
Eastern Mediterranean Region		**8**	**10**	**4**
		36%	**46%**	**18%**

Table 15.

Progress sub-indicator 6a: achievement by country/territory and country group

Country group		Indicator 6a Member State has implemented, as appropriate according to national circumstances, the following measure to reduce the harmful use of alcohol as per the WHO Global strategy to reduce the harmful use of alcohol: Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain	√		
	Kuwait*			
	Oman	√		
	Qatar		√	
	Saudi Arabia		√	
	United Arab Emirates	√		
	Total	**3**	**2**	**0**
		50%	**33%**	**0%**
Group 2	Egypt	√		
	Iran (Islamic Republic of)		√	
	Iraq	√		
	Jordan	√		
	Lebanon	√		
	Libya		√	
	Morocco	√		
	Occupied Palestinian territory	√		
	Syrian Arab Republic	√		
	Tunisia	√		
	Total	**8**	**2**	**0**
		80%	**20%**	**0%**
Group 3	Afghanistan		√	
	Djibouti	√		
	Pakistan		√	
	Somalia		√	
	Sudan		√	
	Yemen		√	
	Total	**1**	**5**	**0**
		17%	**83%**	**0%**
Eastern Mediterranean Region		**12**	**9**	**0**
		55%	**41%**	**0%**

* Data missing.

Table 16.

Progress sub-indicator 6b: achievement by country/territory and country group

Country group		Indicator 6b Member State has implemented, as appropriate according to national circumstances, the following measure to reduce the harmful use of alcohol as per the WHO Global strategy to reduce the harmful use of alcohol: Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain	√		
	Kuwait*			
	Oman		√	
	Qatar	√		
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**2**	**1**	**2**
		33%	**17%**	**33%**
Group 2	Egypt			√
	Iran (Islamic Republic of)			√
	Iraq*			
	Jordan			√
	Lebanon	√		
	Libya			√
	Morocco		√	
	Occupied Palestinian territory	√		
	Syrian Arab Republic	√		
	Tunisia*			
	Total	**3**	**1**	**4**
		30%	**10%**	**40%**
Group 3	Afghanistan			√
	Djibouti			√
	Pakistan		√	
	Somalia			√
	Sudan			√
	Yemen			√
	Total	**0**	**1**	**5**
		0%	**17%**	**83%**
Eastern Mediterranean Region		**5**	**3**	**11**
		23%	**14%**	**50%**

* Data missing.

Table 17.

Progress sub-indicator 6c: achievement by country/territory and country group

Country group		Indicator 6c Member State has implemented, as appropriate according to national circumstances, the following measure to reduce the harmful use of alcohol as per the WHO Global strategy to reduce the harmful use of alcohol: Increase excise taxes on alcoholic beverages		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain		√	
	Kuwait*			
	Oman		√	
	Qatar	√		
	Saudi Arabia			√
	United Arab Emirates	√		
	Total	**2**	**2**	**1**
		33%	**33%**	**17%**
Group 2	Egypt			√
	Iran (Islamic Republic of)			√
	Iraq		√	
	Jordan		√	
	Lebanon	√		
	Libya			√
	Morocco		√	
	Occupied Palestinian territory	√		
	Syrian Arab Republic		√	
	Tunisia	√		
	Total	**3**	**4**	**3**
		30%	**40%**	**30%**
Group 3	Afghanistan			√
	Djibouti			√
	Pakistan			√
	Somalia			√
	Sudan			√
	Yemen			√
	Total	**0**	**0**	**6**
		0%	**0%**	**100%**
Eastern Mediterranean Region		**5**	**6**	**10**
		23%	**27%**	**46%**

* Data missing.

Table 18.

Progress sub-indicator 7a: achievement by country/territory and country group

Country group		Indicator 7a Member State has implemented the following measure to reduce unhealthy diets: Adopt national policies to reduce population salt/sodium consumption		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain		√	
	Kuwait		√	
	Oman		√	
	Qatar		√	
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**0**	**4**	**2**
		0%	**67%**	**33%**
Group 2	Egypt	√		
	Iran (Islamic Republic of)			√
	Iraq		√	
	Jordan		√	
	Lebanon	√		
	Libya	√		
	Morocco		√	
	Occupied Palestinian territory			√
	Syrian Arab Republic	√		
	Tunisia			√
	Total	**4**	**3**	**3**
		40%	**30%**	**30%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan	√		
	Yemen	√		
	Total	**6**	**0**	**0**
		100%	**0%**	**0%**
Eastern Mediterranean Region		**10**	**7**	**5**
		46%	**32%**	**23%**

Table 19.

Progress sub-indicator 7b: achievement by country/territory and country group

Country group		Indicator 7b Member State has implemented the following measure to reduce unhealthy diets: Adopt national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain			√
	Kuwait			√
	Oman			√
	Qatar			√
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**0**	**0**	**6**
		0%	**0%**	**100%**
Group 2	Egypt	√		
	Iran (Islamic Republic of)			√
	Iraq		√	
	Jordan		√	
	Lebanon	√		
	Libya	√		
	Morocco			√
	Occupied Palestinian territory	√		
	Syrian Arab Republic	√		
	Tunisia			√
	Total	**5**	**2**	**3**
		50%	**20%**	**30%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan	√		
	Yemen	√		
	Total	**6**	**0**	**0**
		100%	**0%**	**0%**
Eastern Mediterranean Region		**11**	**2**	**9**
		50%	**9%**	**41%**

Table 20.

Progress sub-indicator 7c: achievement by country/territory and country group

Country group		Indicator 7c Member State has implemented the following measure to reduce unhealthy diets: WHO set of recommendations on marketing of foods and non-alcoholic beverages to children		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain			√
	Kuwait			√
	Oman			√
	Qatar	√		
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**1**	**0**	**5**
		17%	**0%**	**83%**
Group 2	Egypt	√		
	Iran (Islamic Republic of)			√
	Iraq	√		
	Jordan	√		
	Lebanon	√		
	Libya	√		
	Morocco			√
	Occupied Palestinian territory	√		
	Syrian Arab Republic	√		
	Tunisia	√		
	Total	**8**	**0**	**2**
		80%	**0%**	**20%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan	√		
	Yemen	√		
	Total	**6**	**0**	**0**
		100%	**0%**	**0%**
Eastern Mediterranean Region		**15**	**0**	**7**
		68%	**0%**	**32%**

Table 21.

Progress sub-indicator 7d: achievement by country/territory and country group

Country group		Indicator 7d Member State has implemented the following measure to reduce unhealthy diets: Legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain			√
	Kuwait			√
	Oman		√	
	Qatar	√		
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**1**	**1**	**4**
		17%	**17%**	**67%**
Group 2	Egypt		√	
	Iran (Islamic Republic of)		√	
	Iraq		√	
	Jordan		√	
	Lebanon			√
	Libya	√		
	Morocco	√		
	Occupied Palestinian territory*			
	Syrian Arab Republic		√	
	Tunisia		√	
	Total	**2**	**6**	**1**
		20%	**60%**	**10%**
Group 3	Afghanistan			√
	Djibouti		√	
	Pakistan		√	
	Somalia	√		
	Sudan		√	
	Yemen		√	
	Total	**1**	**4**	**1**
		17%	**67%**	**17%**
Eastern Mediterranean Region		**4**	**11**	**6**
		18%	**50%**	**27%**

* Data missing.

Table 22.

Progress indicator 8: achievement by country/territory and country group

Country group		Indicator 8 Member State has implemented at least one recent national public awareness and motivational communication for physical activity, including mass media campaigns for physical activity behavioural change		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain		√	
	Kuwait			√
	Oman			√
	Qatar			√
	Saudi Arabia		√	
	United Arab Emirates			√
	Total	**0**	**2**	**4**
		0%	**33%**	**67%**
Group 2	Egypt	√		
	Iran (Islamic Republic of)	√		
	Iraq			√
	Jordan	√		
	Lebanon	√		
	Libya	√		
	Morocco	√		
	Occupied Palestinian territory	√		
	Syrian Arab Republic	√		
	Tunisia	√		
	Total	**9**	**0**	**1**
		90%	**0%**	**10%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan	√		
	Yemen*			
	Total	**5**	**0**	**0**
		83%	**0%**	**0%**
Eastern Mediterranean Region		**14**	**2**	**5**
		64%	**9%**	**23%**

* Data missing.

Table 23.

Progress indicator 9: achievement by country/territory and country group

Country group		Indicator 9 Member State has evidence-based national guidelines/ protocols/standards for the management of major NCDs through a primary care approach, recognized/approved by government or competent authorities		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain			√
	Kuwait			√
	Oman			√
	Qatar			√
	Saudi Arabia			√
	United Arab Emirates			√
	Total	**0**	**0**	**6**
		0%	**0%**	**100%**
Group 2	Egypt			√
	Iran (Islamic Republic of)			√
	Iraq		√	
	Jordan		√	
	Lebanon			√
	Libya		√	
	Morocco		√	
	Occupied Palestinian territory		√	
	Syrian Arab Republic			√
	Tunisia		√	
	Total	**0**	**6**	**4**
		0%	**60%**	**40%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan			√
	Yemen	√		
	Total	**5**	**0**	**1**
		83%	**0%**	**17%**
Eastern Mediterranean Region		**5**	**6**	**11**
		23%	**27%**	**50%**

Table 24.

Progress indicator 10: achievement by country/territory and country group

Country group		Indicator 10 Member State has provision of drug therapy, including glycaemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level		
		Not achieved	Partially achieved	Fully achieved
Group 1	Bahrain			√
	Kuwait			√
	Oman			√
	Qatar	√		
	Saudi Arabia		√	
	United Arab Emirates			√
	Total	**1**	**1**	**4**
		17%	**17%**	**67%**
Group 2	Egypt*			
	Iran (Islamic Republic of)			√
	Iraq		√	
	Jordan	√		
	Lebanon			√
	Libya	√		
	Morocco	√		
	Occupied Palestinian territory			√
	Syrian Arab Republic		√	
	Tunisia	√		
	Total	**4**	**2**	**3**
		40%	**20%**	**30%**
Group 3	Afghanistan	√		
	Djibouti	√		
	Pakistan	√		
	Somalia	√		
	Sudan	√		
	Yemen	√		
	Total	**6**	**0**	**0**
		100%	**0%**	**0%**
Eastern Mediterranean Region		**11**	**3**	**7**
		50%	**14%**	**32%**

* Data missing.

Status of strategic interventions of the regional framework for action to implement the United Nations Political Declaration on NCDs

This section assesses the progress made on the strategic interventions of the regional framework for action to implement the United Nations Political Declaration on NCDs *(15)*. Survey results are assessed under the four key areas of the regional framework for action, with a fifth section on COVID-19-related NCD service disruptions, and presented in Tables 25–80 and Figs. 11–64.

Infrastructure, governance and financing

Unit, branch or department responsible for NCDs

In 2021, all countries and territories in the Region except Lebanon reported the availability of a unit, branch or department within the ministry of health for NCDs and NCD risk factors, with the presence of at least one full-time technical/professional member of staff. In the 2019 survey, neither Yemen nor Lebanon reported a dedicated NCD unit at the ministry of health (Table 25, Fig. 11).

In 2021, the majority of countries and territories indicated the presence of full-time technical/professional staff in the health ministry NCD unit (Table 25). The majority of the countries and territories (20, or 91%) reported NCD unit staff dedicating a significant proportion of their time to cancer, while 18 (82%) reported staff dedicated to tobacco harm, cardiovascular diseases, chronic respiratory diseases and diabetes. The fewest number of countries had staff dedicated to alcohol harm and ear health (six and 11 countries, or 27% and 50%, respectively). There were significant differences between country groups, with a larger proportion of Group 1 countries having staff dedicating time to NCDs and their risk factors than those in Group 2 and Group 3 (Table 26).

Fig. 11.

Presence (%) of NCD unit/branch/department at the ministry of health or equivalent, by country group, 2013–2021

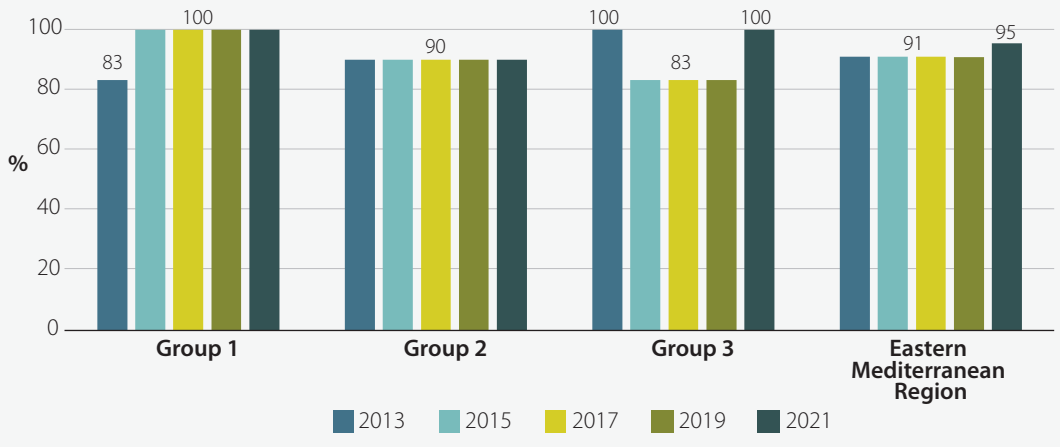


Table 25.

Countries/territories with a unit/branch/department at the ministry of health responsible for NCDs

Country group	Country/territory	Unit/branch/ department present	Number of full-time technical/professional members of staff in the NCD unit
Group 1	Bahrain	√	2 to 5
	Kuwait	√	11 or more
	Oman	√	11 or more
	Qatar	√	11 or more
	Saudi Arabia	√	11 or more
	United Arab Emirates	√	6 to 10
	Total	**6**	
		100%	
Group 2	Egypt	√	6 to 10
	Iran (Islamic Republic of)	√	11 or more
	Iraq	√	11 or more
	Jordan	√	11 or more
	Lebanon		
	Libya	√	11 or more
	Morocco	√	11 or more
	Occupied Palestinian territory	√	2 to 5
	Syrian Arab Republic	√	2 to 5
	Tunisia	√	2 to 5
	Total	**9**	
		90%	
Group 3	Afghanistan	√	2 to 5
	Djibouti	√	2 to 5
	Pakistan	√	2 to 5
	Somalia	√	1
	Sudan	√	2 to 5
	Yemen	√	2 to 5
	Total	**6**	
		100%	
Eastern Mediterranean Region		21	
		96%	

Table 26.

Countries/territories with technical/professional staff in the unit/branch/department dedicating a significant proportion of their time to the following NCDs and their key risk factors

Country group	Country/territory	Technical/professional staff in the unit/branch/department dedicating a significant proportion of their time to											NCD unit at subnational/ state/regional level*
		Harmful use of alcohol	Unhealthy diet	Physical inactivity	Tobacco use	Cancer	CVD	CRD	Diabetes	Oral diseases	Ear health*	Eye health*	
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√	√	√
	Kuwait	√	√	√	√	√	√	√	√	√	√	√	√
	Oman		√	√	√	√	√	√	√	√	√	√	√
	Qatar		√	√	√	√	√	√	√	√		√	
	Saudi Arabia		√	√	√	√	√	√	√	√	√	√	√
	United Arab Emirates		√	√	√	√	√	√	√	√	√	√	√
	Total	**2**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**5**	**6**	**5**
		33%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**83%**	**100%**	**83%**
Group 2	Egypt		√	√	√	√	√	√	√	√	√	√	√
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	√	√	√	√
	Iraq		√	√	√	√	√	√	√	√	√	√	√
	Jordan	√	√	√	√	√	√	√	√	√	√	√	√
	Lebanon												
	Libya		√		√	√	√	√	√	√		√	√
	Morocco	√	√	√	√	√	√	√	√	√	√	√	√
	Occupied Palestinian territory		√	√	√	√	√	√	√	√		√	√
	Syrian Arab Republic				√	√	√	√	√				√
	Tunisia		√	√	√	√	√	√	√	√		√	√
	Total	**3**	**8**	**7**	**9**	**9**	**9**	**9**	**9**	**8**	**5**	**8**	**9**
		30%	**80%**	**70%**	**90%**	**90%**	**90%**	**90%**	**90%**	**80%**	**50%**	**80%**	**90%**

Table 26.

Countries/territories with technical/professional staff in the unit/branch/department dedicating a significant proportion of their time to the following NCDs and their key risk factors *(concluded)*

Country group	Country/territory	Technical/professional staff in the unit/branch/department dedicating a significant proportion of their time to											NCD unit at subnational/ state/regional level*
		Harmful use of alcohol	Unhealthy diet	Physical inactivity	Tobacco use	Cancer	CVD	CRD	Diabetes	Oral diseases	Ear health*	Eye health*	
Group 3	Afghanistan					√				√		√	
	Djibouti												
	Pakistan	√	√	√	√	√	√	√	√		√	√	√
	Somalia				√	√							√
	Sudan		√	√	√	√	√	√	√				√
	Yemen		√			√	√	√	√				
	Total	**1**	**3**	**2**	**3**	**5**	**3**	**3**	**3**	**1**	**1**	**2**	**3**
		17%	**50%**	**33%**	**50%**	**83%**	**50%**	**50%**	**50%**	**17%**	**17%**	**33%**	**50%**
Eastern Mediterranean Region		6	17	15	18	20	18	18	18	15	11	16	17
		27%	**77%**	**68%**	**82%**	**91%**	**82%**	**82%**	**82%**	**68%**	**50%**	**73%**	**77%**

CVD: cardiovascular diseases; CRD: chronic respiratory diseases.
*New question in 2021 survey.

Funding mechanisms

Countries and territories were questioned on the availability of funding in the government budget for nine key NCD-related activities or functions such as primary prevention, early detection/screening, and health care and treatment. The most commonly funded areas were health care and treatment and capacity-building (82% of all countries in both areas), followed by primary prevention, health promotion and early detection/screening (68% of all countries in the three areas). The least funded areas were rehabilitation, research and palliative care (50%, 55% and 62%, respectively). The average number of the areas funded was highest in Group 1 countries (all countries funded all nine areas), followed by Group 2 (an average of 6.7 out of nine areas) and then Group 3 (an average of 2.2 out of nine areas). Overall, an average of 6.1 areas of the nine were funded in government budgets of countries/territories of the Region (Table 27).

Ten countries reported government revenues as the largest source of regular funding for activities related to NCDs and their risk factors. There were, however, some differences between the country groups in terms of the relative size of funding from different sources, including government revenues. All six countries in Group 1, four out of the 10 in Group 2 and none of the countries in Group 3 reported government revenues as the largest source of regular funding for NCDs and NCD risk factors. International donors and health insurance were also noted as significant sources of funding in some countries (Table 28).

Table 27.

Funding allocated in the government budget for NCDs and risk factor-related activities/functions

Country group		Primary prevention	Health promotion	Early detection/ screening	Health care and treatment	Surveillance, monitoring and evaluation	Capacity-building	Palliative care	Research	Rehabilitation*	Total areas funded out of 9 areas evaluated
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	9
	Kuwait	√	√	√	√	√	√	√	√	√	9
	Oman	√	√	√	√	√	√	√	√	√	9
	Qatar	√	√	√	√	√	√	√	√	√	9
	Saudi Arabia	√	√	√	√	√	√	√	√	√	9
	United Arab Emirates	√	√	√	√	√	√	√	√	√	9
	Total	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**9****
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	
Group 2	Egypt	√	√	√	√	√	√		√		7
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	√	9
	Iraq	√	√	√	√	√	√		√		7
	Jordan				√	√	√			√	4
	Lebanon	√	√	√	√	√	√	√			7
	Libya				√		√				2
	Morocco	√	√	√	√	√	√	√	√		8
	Occupied Palestinian territory	√	√	√	√	√	√	√			7
	Syrian Arab Republic	√	√	√	√	√	√	√			7
	Tunisia	√	√	√	√	√	√	√	√	√	9
	Total	**8**	**8**	**8**	**10**	**9**	**10**	**6**	**5**	**3**	**6.7****
		80%	**80%**	**80%**	**100%**	**90%**	**100%**	**60%**	**50%**	**30%**	
Group 3	Afghanistan							√		√	2
	Djibouti										0
	Pakistan	√	√	√	√	√	√		√		7
	Somalia										0
	Sudan				√		√	√		√	4
	Yemen										0
	Total	**1**	**1**	**1**	**2**	**1**	**2**	**2**	**1**	**2**	**2.2****
		17%	**17%**	**17%**	**33%**	**17%**	**33%**	**33%**	**17%**	**33%**	
Eastern Mediterranean Region		15	15	15	18	16	18	14	12	11	6.1**
		68%	**68%**	**68%**	**82%**	**73%**	**82%**	**64%**	**55%**	**50%**	

* New question in 2021.
** Average of items.

Table 28.

Major regular sources of funding for NCDs and their risk factors

Country group		Government revenues	Health insurance	International donors	National donors	Earmarked taxes on alcohol, tobacco, etc.	Other sources of funding
Group 1	Bahrain	100%					
	Kuwait	100%					
	Oman*						
	Qatar	100%					
	Saudi Arabia	100%					
	United Arab Emirates	57%	32%	11%			Out of pocket
Group 2	Egypt	90%		10%			
	Iran (Islamic Republic of)*						
	Iraq	90%		10%			
	Jordan*						
	Lebanon						Ministry of Public Health Trust Fund/ external donor funding
	Libya	> 90%		<5%			
	Morocco						All sources
	Occupied Palestinian territory						Government, national donors, health insurance and earmarked taxes
	Syrian Arab Republic*						
	Tunisia	50%	50%				
Group 3	Afghanistan						Out of pocket
	Djibouti*						
	Pakistan						Government and partners
	Somalia*						
	Sudan*						
	Yemen*						

* Data not provided.

Fiscal interventions

Taxation on tobacco was the most commonly reported health-related fiscal intervention in the Region, with 91% of countries and territories – all except Djibouti and Sudan – implementing such a tax (Table 29). The next most common types of fiscal interventions were alcohol taxation and taxation on sugar-sweetened beverages, which were both reported by nearly half of the countries and territories (10 out of 22, or 46%). These were followed by taxation on foods high in fats, sugars or salt (implemented in Afghanistan and Tunisia) and price subsidies for healthy foods (implemented in Kuwait). None of the countries/territories had implemented taxation incentives to promote physical activity. Furthermore, only four countries and territories reported earmarking funds for health promotion or health service provision (Islamic Republic of Iran, Qatar, Saudi Arabia and Tunisia), compared to five in 2019 (Islamic Republic of Iran, Morocco, Qatar, Saudi Arabia and Yemen).

Table 29.

Fiscal interventions for health, by source

Country group		Taxation on:						Other interventions	Funds earmarked for health promotion or health service provision
		Alcohol	Tobacco	Sugar-sweetened beverages	Foods high in fat, sugars or salt	Price subsidies for healthy foods	Taxation incentives to promote physical activity		
Group 1	Bahrain		√	√					
	Kuwait		√			√			
	Oman	√	√	√					
	Qatar	√	√	√				Excise tax on energy drinks 100% and soft drinks 50%	√
	Saudi Arabia		√	√				Tax on energy drinks	√
	United Arab Emirates	√	√	√				100% tax on energy drinks	
	Total	**3**	**6**	**5**	**0**	**1**	**0**		**2**
		50%	**100%**	**83%**	**0%**	**17%**	**0%**		**33%**
Group 2	Egypt	√	√						
	Iran (Islamic Republic of)		√	√				The rate of value-added tax is 9%, of which 1% is allocated to the family physician programme (including NCDs) at the Ministry of Health and Medical Education	√
	Iraq		√						
	Jordan	√	√						
	Lebanon	√	√						
	Libya		√						
	Morocco	√	√	√					
	Occupied Palestinian territory		√						
	Syrian Arab Republic	√	√						
	Tunisia	√	√	√	√				√
	Total	**6**	**10**	**3**	**1**	**0**	**0**		**2**
		60%	**100%**	**30%**	**10%**	**0%**	**0%**		**20%**
Group 3	Afghanistan		√	√	√				
	Djibouti								
	Pakistan	√	√	√					
	Somalia		√						
	Sudan								
	Yemen		√						
	Total	**1**	**4**	**2**	**1**	**0**	**0**		**0**
		17%	**67%**	**33%**	**17%**	**0%**	**0%**		**0%**
Eastern Mediterranean Region		10	20	10	2	1	0		4
		46%	**91%**	**46%**	**9%**	**5%**	**0%**		**18%**

Multisectoral commission, agency or mechanism

The presence of a national multisectoral commission, agency or mechanism to oversee NCD engagement, policy coherence and accountability of sectors beyond health was reported by 15 of the 22 countries and territories in the Region (68%); however, only 13 (59%) confirmed that this was operational (Table 30). The most common members of the national multisectoral commission were other non-health government ministries and academia (12 countries reported having both types), followed by nongovernmental organizations/civil society (11 countries, or 50%) and the private sector (seven countries, or 32%). The tobacco industry was excluded from the multisectoral commission in six countries and territories (27%). The presence of a multisectoral commission was correlated with the country group, with Group 3 countries the least likely to have one. The proportion of countries and territories reporting the existence of such a national multisectoral body and its operational status were largely unchanged from the 2019 survey (Fig. 12).

Fig. 12.

Trend (%) in the availability of a national multisectoral commission, agency or mechanism to oversee NCD engagement, policy coherence and accountability of sectors beyond health, 2015–2021

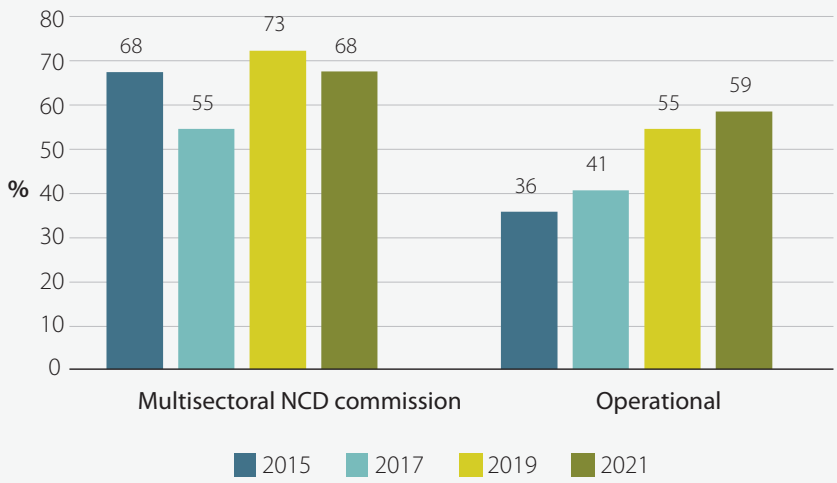


Table 30.

Presence of a national multisectoral commission, agency or mechanism to oversee NCDs engagement, policy coherence and accountability of sectors beyond health, and industry involvement

Country group		Multisectoral NCD commission	Stage		Year	Members					Participation of industry in decision-making process excluded from the commission*			
			Operational	Under development/ not in effect		Other government ministries	Academia	UN agencies	NGOs/civil society	Private sector	Tobacco excluded	Food excluded	Sugar-sweetened beverages excluded	Alcohol excluded
Group 1	Bahrain	√	√		2011	√	√		√	√	√	√	√	√
	Kuwait	√	√		2012	√	√		√					
	Oman	√	√		2012	√	√	√	√					
	Qatar	√	√		2016	√	√							
	Saudi Arabia	√	√		2014		√		√	√	√			
	United Arab Emirates	√	√		2016	√	√		√	√	√	√	√	√
	Total	**6**	**6**	**0**		**5**	**6**	**1**	**5**	**3**	**3**	**2**	**2**	**2**
		100%	**100%**	**0%**		**83%**	**100%**	**17%**	**83%**	**50%**	**50%**	**33%**	**33%**	**33%**
Group 2	Egypt	√	√		2018	√	√	√	√	√	√	√	√	√
	Iran (Islamic Republic of)	√	√		2004	√	√		√					
	Iraq	√	√		2015	√	√							
	Jordan	√		Not in effect										
	Lebanon													
	Libya													
	Morocco	√	√		2019	√			√	√	√			
	Occupied Palestinian territory	√	√		Not available	√	√	√	√					
	Syrian Arab Republic													
	Tunisia	√	√		2021	√	√		√	√	√	√	√	√
	Total	**7**	**6**	**0**		**6**	**5**	**2**	**5**	**3**	**3**	**2**	**2**	**2**
		70%	**60%**	**0%**		**60%**	**50%**	**20%**	**50%**	**30%**	**30%**	**20%**	**20%**	**20%**

Table 30.

Presence of a national multisectoral commission, agency or mechanism to oversee NCDs engagement, policy coherence and accountability of sectors beyond health, and industry involvement *(concluded)*

Country group		Multisectoral NCD commission	Stage		Year	Members					Participation of industry in decision-making process excluded from the commission*			
			Operational	Under development/ not in effect		Other government ministries	Academia	UN agencies	NGOs/civil society	Private sector	Tobacco excluded	Food excluded	Sugar-sweetened beverages excluded	Alcohol excluded
Group 3	Afghanistan	√		Under development	2020	√	√	√	√	√				
	Djibouti													
	Pakistan	√	√		Not available									
	Somalia													
	Sudan													
	Yemen													
	Total	**2**	**1**	**1**		**1**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
		33%	**17%**	**17%**		**17%**	**17%**	**17%**	**17%**	**17%**	**0%**	**0%**	**0%**	**0%**
Eastern Mediterranean Region		15	13	1		12	12	4	11	7	6	4	4	4
		68%	**59%**	**5%**		**55%**	**55%**	**18%**	**50%**	**32%**	**27%**	**18%**	**18%**	**18%**

NGOs: nongovernmental organizations.
*New question in 2021.

Policies, strategies and action plans

National health plans and targets

Similar to the 2019 survey, all but two of the 22 countries and territories in the Region (91%) reported the inclusion of NCD prevention and control in their national health plans. By country group, 100% of Group 1 countries, 90% of Group 2 and 83% of Group 3 reported the inclusion (Table 31). Almost as many reported that NCDs were included in the outcomes or outputs of the current national development agenda (82%). Three quarters of the countries and territories (77%) reported that NCD services were included in their national essential package of health services or universal health coverage-priority benefits package, with the lowest proportion (67%) reported by Group 3 countries.

Countries and territories were also asked if they had set any time-bound national targets for NCDs based on the nine voluntary global targets of the WHO Global Monitoring Framework *(6)*, and whether they had indicators for those targets. Region-wide, 64% of countries and territories reported putting in place some targets, as well as setting indicators for those targets (Table 31, Fig. 13).

Fig. 13.

Trend in proportion (%) of countries with time-bound national targets for NCDs and indicators for these targets based on the WHO Global Monitoring Framework, 2015–2021

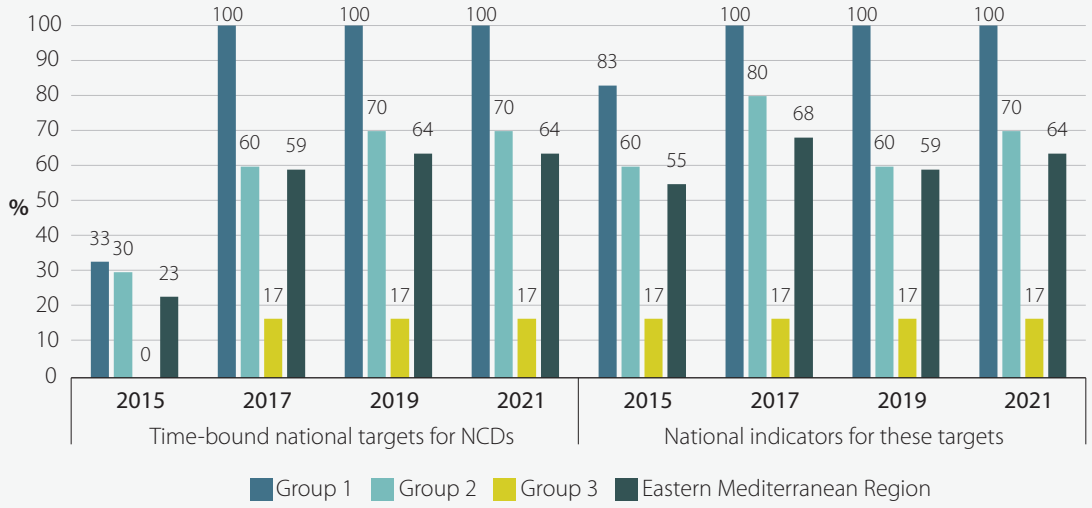


Table 31.

National-level commitment and planning on NCDs

Country group		NCDs included in the outcomes or outputs of current national health plan	NCDs included in the outcomes or outputs of current national development agenda	NCD services included in your national essential package of health services or universal health coverage-priority benefits package	A set of time-bound national targets for NCDs based on the 9 voluntary global targets	A set of national indicators for these targets
Group 1	Bahrain	√	√	√	√	√
	Kuwait	√	√	√	√	√
	Oman	√	√	√	√	√
	Qatar	√	√		√	√
	Saudi Arabia	√	√	√	√	√
	United Arab Emirates	√	√	√	√	√
	Total	**6**	**6**	**5**	**6**	**6**
		100%	**100%**	**83%**	**100%**	**100%**
Group 2	Egypt	√	√	√	√	√
	Iran (Islamic Republic of)	√	√	√	√	√
	Iraq	√	√	√	√	√
	Jordan	√	√	√	√	√
	Lebanon	√		√		
	Libya					
	Morocco	√	√	√	√	√
	Occupied Palestinian territory	√	√		√	√
	Syrian Arab Republic	√	√	√		
	Tunisia	√	√	√	√	√
	Total	**9**	**8**	**8**	**7**	**7**
		90%	**80%**	**80%**	**70%**	**70%**
Group 3	Afghanistan	√	√	√	√	√
	Djibouti		√			
	Pakistan	√	√	√		
	Somalia	√	√	√		
	Sudan	√		√		
	Yemen	√				
	Total	**5**	**4**	**4**	**1**	**1**
		83%	**67%**	**67%**	**17%**	**17%**
Eastern Mediterranean Region		20	18	17	14	14
		91%	**82%**	**77%**	**64%**	**64%**

Policies addressing the major NCDs and their risk factors

In the 2021 survey, countries and territories were asked about the availability of an operational, multisectoral integrated policy, strategy or action plan covering the four main NCDs (cardiovascular diseases, diabetes, cancer, chronic respiratory diseases) and their four main associated risk factors (tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol).

More than two thirds of the countries and territories in the Region (17, or 77%) had policies, strategies or action plans that integrated several NCDs and their risk factors that were multisectoral and multi-stakeholder. The countries that lacked policies and plans were Djibouti, Pakistan, Somalia, Syrian Arab Republic and Yemen. A lower proportion (59%) of the countries and territories reported that their policies, strategies or action plans were operational (Table 32).

Seventeen countries and territories (77%) also reported the availability of a multisectoral integrated policy, strategy or action plan that includes unhealthy diet, physical activity and tobacco. A slightly lower proportion reported the inclusion of diabetes (16 countries, or 73%), cancer (15 countries, or 68%), cardiovascular disease (15 countries, or 68%) and chronic respiratory diseases (13 countries, or 59%). Over half of the countries and territories (12 countries, or 55%) reported the inclusion of palliative care in their multisectoral integrated policy, strategy or action plan and 10 reported that rehabilitative care was included (46%). Only one third (seven countries, or 32%) reported including harmful use of alcohol (Table 33).

The regional average of the four main NCDs and their risk factors included in an operational, multisectoral integrated policy, strategy or action plan was five out of a total eight, similar to the average in the 2019 survey. There were clear differences in the averages of the three country groups: the highest average was reported in Group 1 (seven out of the eight diseases and risk factors included), followed by Group 2 (six out of eight) and lastly Group 3 (three out of eight) (Table 33, Fig. 14). The trend in the proportion of countries/territories that reported the inclusion of the main NCDs and risk factors in their integrated national NCD policy, strategy or action plan in the years 2015, 2017, 2019 and 2021 is shown in Fig. 15.

Table 32.

Integration of multiple NCDs and their risk factors in national policies, strategies and action plans

Country group		National NCDs policy, strategy or action plan which integrates several NCDs and their risk factors			
		Present	Multisectoral	Multi-stakeholder	Operational
Group 1	Bahrain	√	√	√	√
	Kuwait	√	√	√	√
	Oman	√	√	√	√
	Qatar	√	√	√	√
	Saudi Arabia	√	√	√	√
	United Arab Emirates	√	√	√	√
	Total	**6**	**6**	**6**	**6**
		100%	**100%**	**100%**	**100%**
Group 2	Egypt	√	√	√	√
	Iran (Islamic Republic of)	√	√	√	√
	Iraq	√	√	√	√
	Jordan	√	√	√	
	Lebanon	√	√	√	√
	Libya	√	√	√	
	Morocco	√	√	√	√
	Occupied Palestinian territory	√	√	√	√
	Syrian Arab Republic				
	Tunisia	√	√	√	√
	Total	**9**	**9**	**9**	**7**
		90%	**90%**	**90%**	**70%**
Group 3	Afghanistan	√	√	√	
	Djibouti				
	Pakistan				
	Somalia				
	Sudan	√	√	√	
	Yemen				
	Total	**2**	**2**	**2**	**0**
		33%	**33%**	**33%**	**0%**
Eastern Mediterranean Region		17	17	17	13
		77%	**77%**	**77%**	**59%**

Table 33.

Inclusion of the four main NCDs and their risk factors in national integrated policies, strategies or action plans

Country group		Harmful use of alcohol	Unhealthy diet	Physical activity	Tobacco	Cancer	Cardiovascular diseases	Chronic respiratory diseases	Diabetes	Sum of 8 items	Palliative care	Rehabilitative care*	Sum of 10 items
Group 1	Bahrain	√	√	√	√	√	√	√	√	8	√		9
	Kuwait	√	√	√	√	√				5	√	√	7
	Oman		√	√	√	√	√	√	√	7	√	√	9
	Qatar		√	√	√	√	√	√	√	7	√	√	9
	Saudi Arabia		√	√	√	√	√	√	√	7	√	√	9
	United Arab Emirates		√	√	√	√	√	√	√	7	√		8
	Total	**2**	**6**	**6**	**6**	**6**	**5**	**5**	**5**	**7****	**6**	**4**	**9****
		33%	**100%**	**100%**	**100%**	**100%**	**83%**	**83%**	**83%**		**100%**	**67%**	
Group 2	Egypt	√	√	√	√	√	√	√	√	8	√		9
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	8		√	9
	Iraq		√	√	√	√	√	√	√	7			7
	Jordan		√	√	√		√		√	5		√	6
	Lebanon		√	√	√	√			√	5			5
	Libya		√	√	√	√	√	√	√	7	√	√	9
	Morocco	√	√	√	√	√	√	√	√	8	√		9
	Occupied Palestinian territory		√	√	√		√		√	5	√		6
	Syrian Arab Republic									0			0
	Tunisia	√	√	√	√	√	√	√	√	8	√	√	10
	Total	**4**	**9**	**9**	**9**	**7**	**8**	**6**	**9**	**6****	**5**	**4**	**7****
		40%	**90%**	**90%**	**90%**	**70%**	**80%**	**60%**	**90%**		**50%**	**40%**	
Group 3	Afghanistan	√	√	√	√	√	√	√	√	8	√	√	10
	Djibouti									0			0
	Pakistan									0			0
	Somalia									0			0
	Sudan		√	√	√	√	√	√	√	7		√	8
	Yemen									0			0
	Total	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3****	**1**	**2**	**3****
		17%	**33%**	**33%**	**33%**	**33%**	**33%**	**33%**	**33%**		**17%**	**33%**	
Eastern Mediterranean Region		7	17	17	17	15	15	13	16	5**	12	10	6**
		32%	**77%**	**77%**	**77%**	**68%**	**68%**	**59%**	**73%**		**55%**	**46%**	

*New question in 2021.
**Average of items.

Fig. 14.

Comparison of the sum score of NCDs and risk factors included in national NCD policies, strategies or action plans, and average scores for country groups, 2019 and 2021

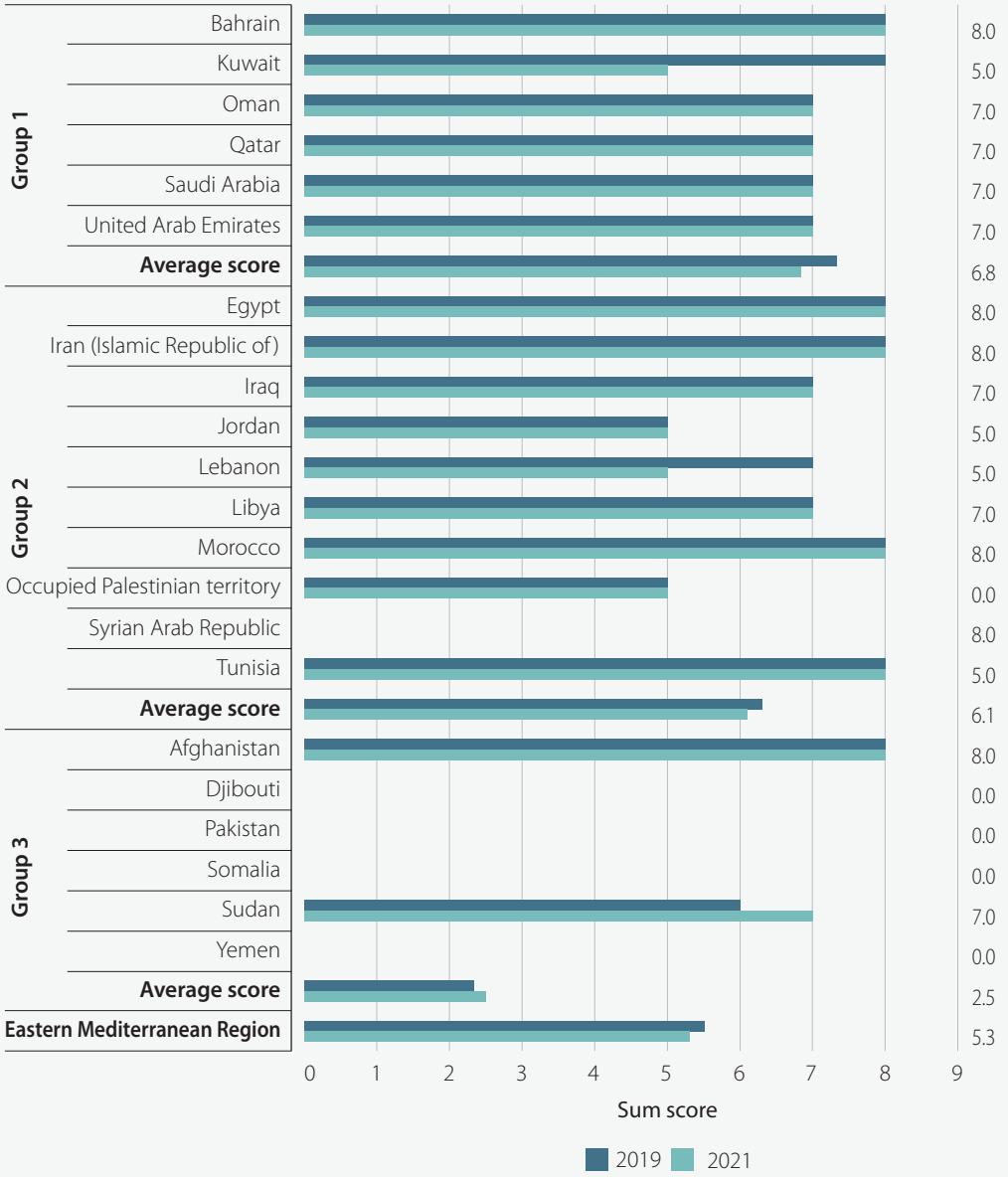
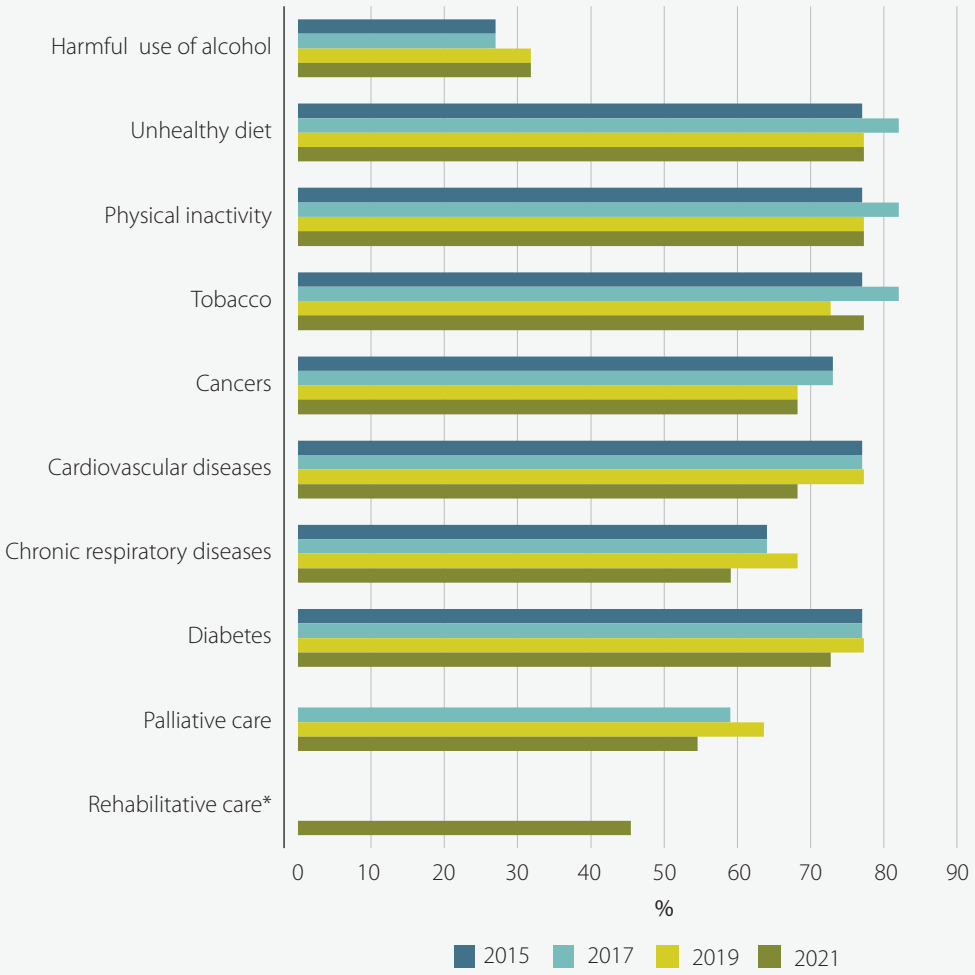


Fig. 15.

Inclusion (%) of the four main NCDs and their risk factors in integrated national NCD policies, strategies or action plans, 2015–2021



*New question in 2021.

Disease-specific policies, strategies and action plans

In addition to the set of questions on integrated policies, strategies and plans, the countries/territories were requested to report on the availability of specific policies and plans for key NCDs and their risk factors. Table 34 shows that cancer programmes were the most common vertical programmes addressing the main NCDs, reported by over half of the countries and territories in the Region (55%). Among all NCDs, the most common vertical programmes were those addressing oral health (present in 64% of countries/territories) and eye health (55%). The least available vertical programmes were for those addressing chronic respiratory diseases (32%) and hearing health (36%).

The availability of vertical programmes addressing NCDs varied between the different country groups: Group 3 countries were less likely to report the availability of such programmes than Group 1 and Group 2 countries/territories (Fig. 16). The average number of vertical programmes addressing the four main NCDs was higher in Group 1 countries (three NCDs out of four) than in Group 2 (two out of four) and Group 3 (0.3 out of four).

The percentage of countries/territories in the Region that reported availability of vertical policies, strategies and action plans addressing the main NCDs are compared for 2015–2021 in Fig. 17.

The availability of vertical programmes for the five key risk factors was also assessed. The risk factors most commonly addressed by vertical programmes were tobacco use (77% of countries/territories) and unhealthy diet (68%), followed by overweight/obesity (59%). Nearly one third of the countries/territories (seven, or 32%) addressed the harmful use of alcohol through vertical programmes, the majority of which (five out of seven) were in Group 2 (Table 35 and Fig. 18). The regional average of the number of vertical programmes addressing NCD risk factors was three (out of five risk factors), with the highest average achieved by Group 1 (four) and the lowest average achieved by Group 3 (one).

The trend across the Region in the availability of vertical policies, strategies and action plans addressing NCD risk factors from 2015 to 2021 is depicted in Fig. 19. While the availability of such policies, strategies and plans is generally increasing over time, there is a consistent decline in the number which address physical inactivity.

Fig. 16.

Comparison (%) of the availability of vertical policies, strategies or action plans addressing NCDs, by country group

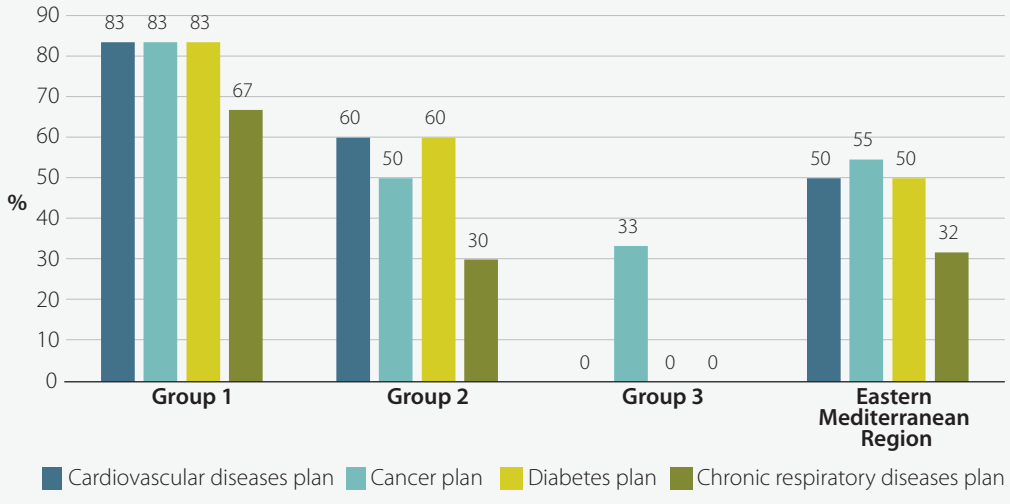


Table 34.

Vertical policies, strategies or action plans addressing NCDs

Country group		Cardiovascular disease plan	Cancer plan	Diabetes plan	CRD plan	Total number of main NCDs addressed (out of 4)	Oral health plan	Eye health plan*	Hearing health plan*	Other NCD plans	Specify
Group 1	Bahrain		√			1	√				
	Kuwait	√	√	√	√	4	√	√	√	√	Mental health, dyslipidaemia, hypothyroidism, osteoporosis
	Oman	√	√	√	√	4	√	√	√	√	Road traffic accidents
	Qatar	√	√	√		3	√	√		√	Mental health
	Saudi Arabia	√	√	√	√	4	√	√		√	Osteoporosis
	United Arab Emirates	√		√	√	3	√	√	√	√	Mental health
	Total	**5**	**5**	**5**	**4**	**3****	**6**	**5**	**3**	**5**	
		83%	**83%**	**83%**	**67%**	**Increased from 2019**	**100%**	**83%**	**50%**	**83%**	
Group 2	Egypt		√			1					
	Iran (Islamic Republic of)	√		√	√	3	√	√	√	√	National newborn screening, congenital hypothyroidism, phenylketonuria, Down syndrome, inherent metabolic diseases, thalassaemia
	Iraq	√		√	√	3	√	√	√	√	Osteoporosis
	Jordan	√	√	√		3	√	√			
	Lebanon			√		1				√	Mental health and substance use
	Libya	√				1	√	√			
	Morocco	√	√	√		3	√	√	√	√	Addiction-related
	Occupied Palestinian territory		√			1					
	Syrian Arab Republic		√			1	√	√	√		
	Tunisia	√		√	√	3	√	√	√	√	Obesity-related
	Total	**6**	**5**	**6**	**3**	**2****	**7**	**7**	**5**	**5**	
		60%	**50%**	**60%**	**30%**	**Same as 2019**	**70%**	**70%**	**50%**	**50%**	
Group 3	Afghanistan		√			1					
	Djibouti					0					
	Pakistan					0					
	Somalia					0					
	Sudan		√			1	√			√	Rheumatic heart disease
	Yemen					0					
	Total		**2**			**0.33****	**1**			**1**	
		0%	**33%**	**0%**	**0%**	**Same as 2019**	**16%**	**0%**	**0%**	**17%**	
Eastern Mediterranean Region		11	12	11	7	2**	14	12	8	11	
		50%	**55%**	**50%**	**32%**	**Increased from 2019**	**64%**	**55%**	**36%**	**50%**	

*New question in 2021.
**Average of items.

Fig. 17.

Trend (%) in the availability of vertical policies, strategies or action plans addressing the four main NCDs, 2015–2021

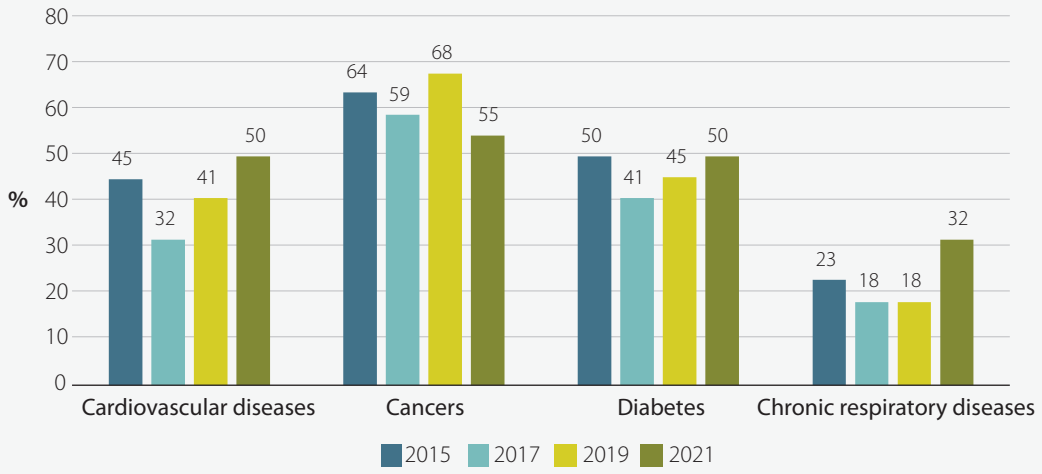


Fig. 18.

Comparison (%) of the availability of vertical policies, strategies or action plans addressing NCD risk factors, by country group

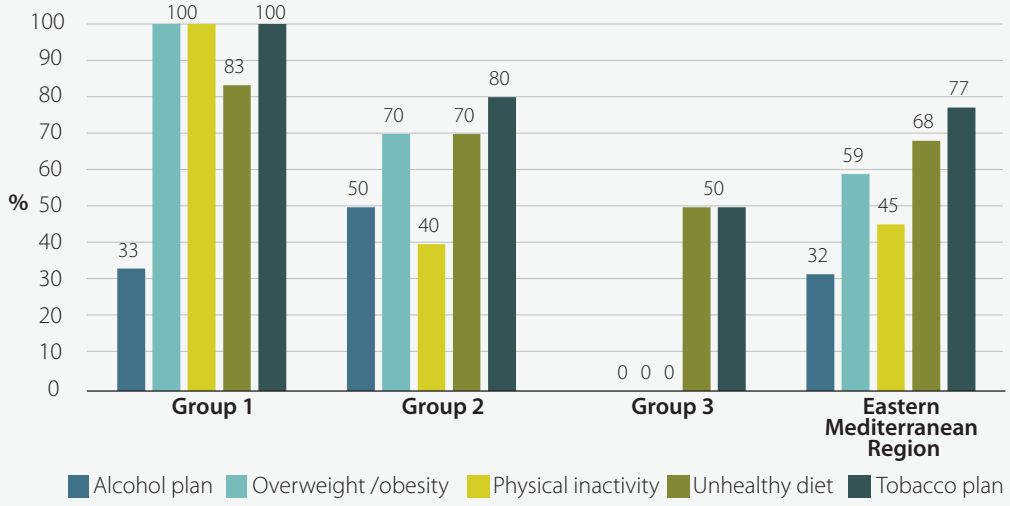


Table 35.

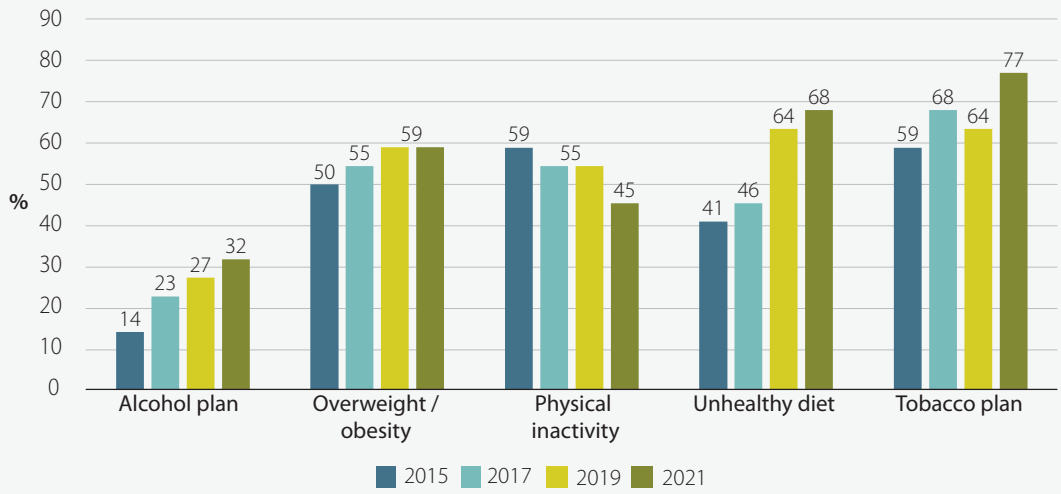
Vertical policies, strategies or action plans addressing major NCD-related risk factors

Country group		Alcohol plan	Overweight/ obesity	Physical inactivity	Unhealthy diet	Tobacco plan	Total number of risk factors addressed (out of 5)
Group 1	Bahrain	√	√	√	√	√	5
	Kuwait	√	√	√		√	4
	Oman		√	√	√	√	4
	Qatar		√	√	√	√	4
	Saudi Arabia		√	√	√	√	4
	United Arab Emirates		√	√	√	√	4
	Total	**2**	**6**	**6**	**5**	**6**	**4***
		33%	**100%**	**100%**	**83%**	**100%**	
Group 2	Egypt					√	1
	Iran (Islamic Republic of)	√	√	√	√	√	5
	Iraq	√	√	√	√	√	5
	Jordan		√	√	√	√	4
	Lebanon	√	√		√	√	4
	Libya						0
	Morocco	√	√		√	√	4
	Occupied Palestinian territory		√		√		2
	Syrian Arab Republic					√	1
	Tunisia	√	√	√	√	√	5
	Total	**5**	**7**	**4**	**7**	**8**	**3***
		50%	**70%**	**40%**	**70%**	**80%**	
Group 3	Afghanistan				√	√	2
	Djibouti				√		1
	Pakistan				√	√	2
	Somalia						0
	Sudan					√	1
	Yemen						0
	Total				**3**	**3**	**1***
		0%	**0%**	**0%**	**50%**	**50%**	
Eastern Mediterranean Region		7	13	10	15	17	3*
		32%	**59%**	**46%**	**68%**	**77%**	

*Average of items.

Fig. 19.

Trend (%) in the regional availability of vertical policies, strategies or action plans addressing NCD risk factors, 2015–2021



Physical activity and dietary guidelines

The availability of national guidelines on recommended levels of physical activity for the population, or for a specific segment of the population, was also assessed. Only 10 of the 22 countries and territories (46%) reported having guidelines for physical activity. Six of these were in Group 1 and four were in Group 2 (Table 36). Of the 10 countries/territories with guidelines available, nine had guidelines for older adults and adults, while all 10 had guidelines for children and adolescents (aged 5–19 years). Guidelines for children aged under five were available in five of the countries/territories.

A slightly higher proportion of the countries and territories in the Region (12, or 55%) reported the availability of dietary guidelines in 2021 compared to 2019, half of which were Group 1 countries (Table 36 and Fig. 20).

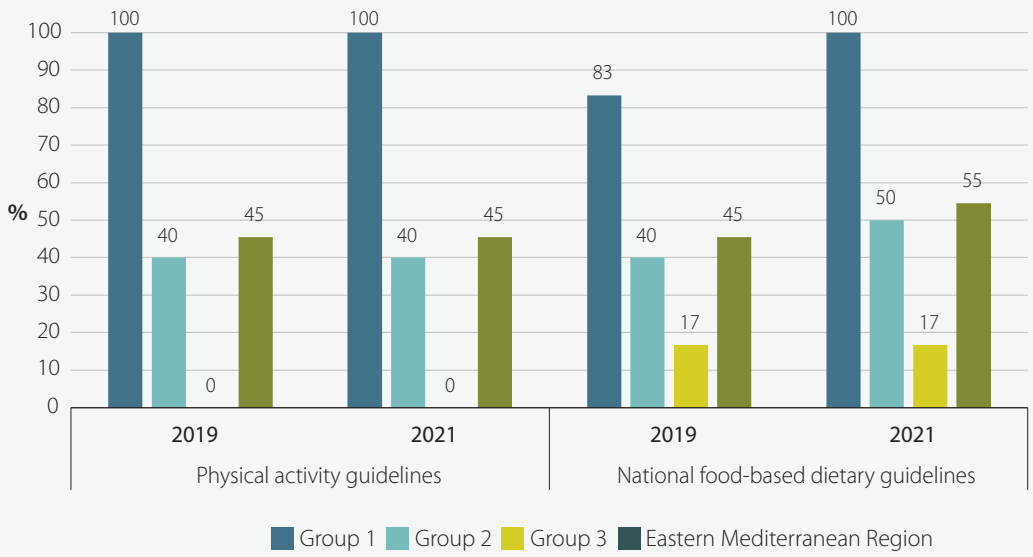
Table 36.

Availability of guidelines addressing physical activity and diet

Country group		Physical activity guidelines					National food-based dietary guidelines
		Yes	Under 5	5–19 years	Adults	Older adults	
Group 1	Bahrain	√		√	√	√	√
	Kuwait	√	√	√	√	√	√
	Oman	√		√	√	√	√
	Qatar	√		√	√		√
	Saudi Arabia	√	√	√	√	√	√
	United Arab Emirates	√		√	√	√	√
	Total	**6**	**2**	**6**	**6**	**5**	**6**
		100%	**33%**	**100%**	**100%**	**83%**	**100%**
Group 2	Egypt						
	Iran (Islamic Republic of)	√	√	√	√	√	√
	Iraq	√		√		√	√
	Jordan	√	√	√	√	√	√
	Lebanon						√
	Libya						
	Morocco						
	Occupied Palestinian territory						
	Syrian Arab Republic						
	Tunisia	√	√	√	√	√	√
	Total	**4**	**3**	**4**	**3**	**4**	**5**
		40%	**30%**	**40%**	**30%**	**40%**	**50%**
Group 3	Afghanistan						1
	Djibouti						
	Pakistan						
	Somalia						
	Sudan						
	Yemen						
	Total	**0**	**0**	**0**	**0**	**0**	**1**
		0%	**0%**	**0%**	**0%**	**0%**	**17%**
Eastern Mediterranean Region		10	5	10	9	9	12
		46%	**23%**	**46%**	**41%**	**41%**	**55%**

Fig. 20.

Comparison (%) of availability of physical activity and dietary guidelines, by country group, 2019 and 2021



NCD-related research

An NCD-related research policy or plan that includes community-based research and an evaluation of the impact of interventions and policies was reported by 11 of the 22 countries and territories in the Region (Table 37). Such policies were available in all six countries/territories of Group 1 and in half of Group 2, but in none of the Group 3 countries. All countries in Group 1 reported that their NCD-related policies/plans were operational, but this was the case for only two countries from Group 2 (Islamic Republic of Iran and Tunisia).

With regard to the presence of national networks for NCD-related research, including community-based research and evaluation of the impact of interventions and policies, less than a third of the countries/territories (27%) had such a network in place, and half of those (three out of six) were in Group 1 (Table 37). The proportion of countries with policies on NCD-related research in 2019 and 2021 is compared in Fig. 21.

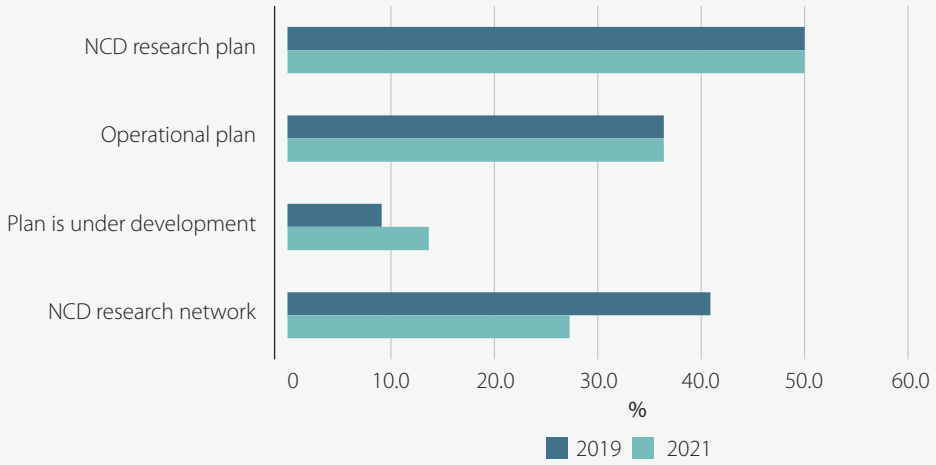
Table 37.

Implementation of policies on NCD-related research including community-based research and evaluation of the impact of interventions and policies

Country group		NCD research plan	Stage		NCD research network
			Operational	Under development	
Group 1	Bahrain	√	√		√
	Kuwait	√	√		√
	Oman	√	√		
	Qatar	√	√		√
	Saudi Arabia	√	√		
	United Arab Emirates	√	√		
	Total	**6**	**6**	**0**	**3**
		100%	**100%**	**0%**	**50%**
Group 2	Egypt				√
	Iran (Islamic Republic of)	√	√		√
	Iraq	√		√	
	Jordan				
	Lebanon				
	Libya				
	Morocco				
	Occupied Palestinian territory	√		√	
	Syrian Arab Republic	√		√	
	Tunisia	√	√		√
	Total	**5**	**2**	**3**	**3**
		50%	**20%**	**30%**	**30%**
Group 3	Afghanistan				
	Djibouti				
	Pakistan				
	Somalia				
	Sudan				
	Yemen				
	Total	**0**	**0**	**0**	**0**
		0%	**0%**	**0%**	**0%**
Eastern Mediterranean Region		11	8	3	6
		50%	**36%**	**14%**	**27%**

Fig. 21.

Comparison (%) of countries/territories with policies on NCD-related research, 2019 and 2021



Marketing to children

A set of survey questions aimed to assess the implementation of restrictions on the marketing of unhealthy foods to children. In 2021, only seven countries and territories (32%) have such marketing policies in place: all countries in Group 1 except for Qatar (five out of six) and two in Group 2 (Islamic Republic of Iran and Morocco) (Table 38). No countries in Group 3 have implemented such policies.

Half of the countries/territories with policies on marketing to children reported that the policies are mandatory. Only Bahrain and Kuwait have taken steps to address the effects of cross-border marketing of food and non-alcoholic beverages on children (Table 38).

There was an increase of the number of countries imposing restrictions on the marketing of unhealthy foods to children in the 2021 survey (32%) compared to 2019 (18%); the increase was in Group 1 (five countries in 2021, up from two countries in 2019) (Fig. 22).

Table 38.

Implementation of policies to reduce the impact of marketing to children of foods and non-alcoholic beverages high in saturated fats, trans-fatty acids, free sugars or salt, and steps taken to address the effects of cross-border marketing of food and non-alcoholic beverages on children

Country group		Policies to reduce the impact on children of marketing of foods and non-alcoholic beverages high in saturated fatty acids, trans-fatty acids, free sugars or salt						Steps taken to address the effects of cross-border marketing	Details
		Present	Enforcement type		Agency responsible for overseeing enforcement and complaints				
			Mandatory	Voluntary	Government	Industry	Other		
Group 1	Bahrain	√	√		√			√	Informed the traders to communicate to producers and manufacturers about the recommendations
	Kuwait	√		√	√			√	Shared policies with GCC countries
	Oman	√	√		√	√			
	Qatar								
	Saudi Arabia	√			√				
	United Arab Emirates	√		√	√				
	Total	**5**	**2**	**2**	**5**	**1**	**0**	**2**	
		83%	**33%**	**33%**	**83%**	**17%**	**0%**	**33%**	
Group 2	Egypt								
	Iran (Islamic Republic of)	√	√		√		Ministry of Education in cooperation with Ministry of Health and Medical Education		
	Iraq								
	Jordan								
	Lebanon								
	Libya								
	Morocco	√		√	√				
	Occupied Palestinian territory								
	Syrian Arab Republic								
	Tunisia								
	Total	**2**	**1**	**1**	**2**	**0**	**0**	**0**	
		20%	**10%**	**10%**	**0%**	**0%**	**0%**	**0%**	

Table 38.

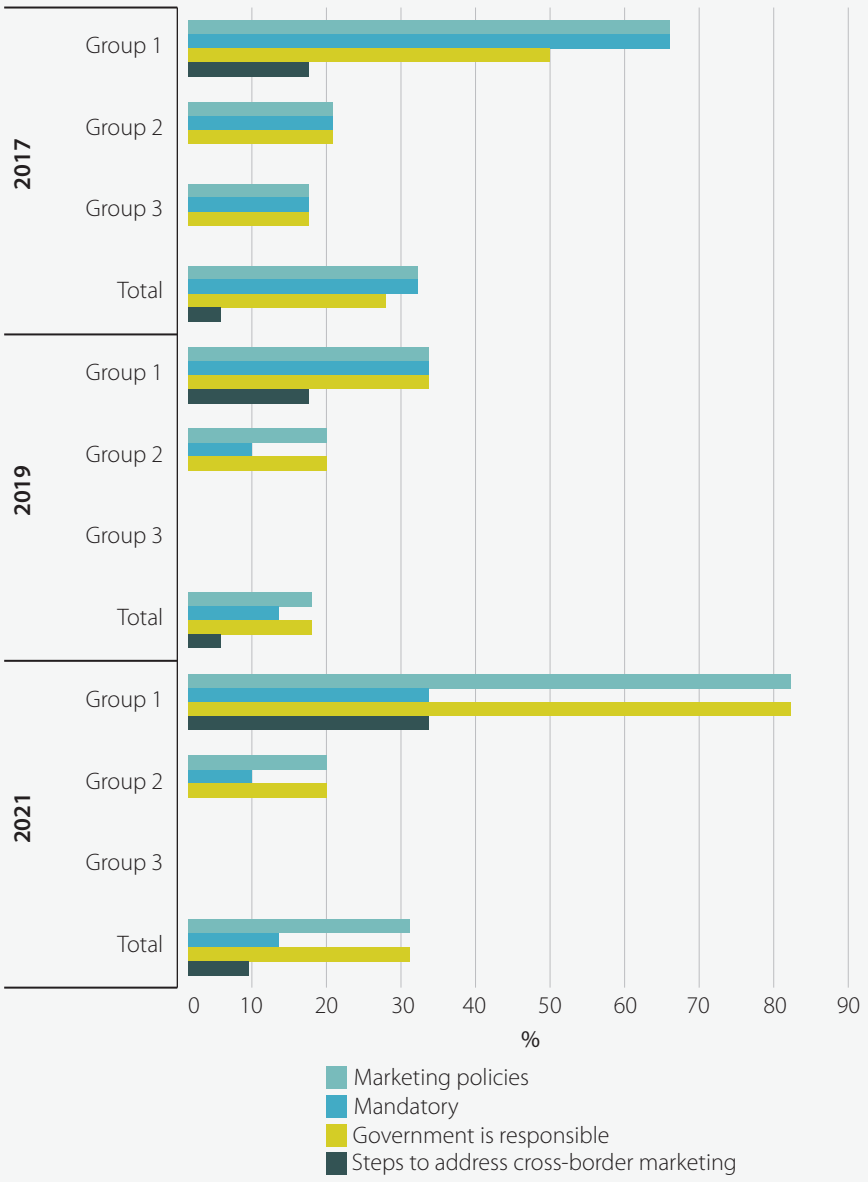
Implementation of policies to reduce the impact of marketing to children of foods and non-alcoholic beverages high in saturated fats, trans-fatty acids, free sugars or salt, and steps taken to address the effects of cross-border marketing of food and non-alcoholic beverages on children *(concluded)*

Country group		Policies to reduce the impact on children of marketing of foods and non-alcoholic beverages high in saturated fatty acids, trans-fatty acids, free sugars or salt						Steps taken to address the effects of cross-border marketing	Details
		Present	Enforcement type		Agency responsible for overseeing enforcement and complaints				
			Mandatory	Voluntary	Government	Industry	Other		
Group 3	Afghanistan								
	Djibouti								
	Pakistan								
	Somalia								
	Sudan								
	Yemen								
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
		0%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	
Eastern Mediterranean Region		7	3	3	7	1	0	2	
		32%	**14%**	**14%**	**32%**	**5%**	**0%**	**9%**	

GCC: Gulf Cooperation Council.

Fig. 22.

Trend (%) in implementing policies to reduce the impact of marketing to children of foods and non-alcoholic beverages high in saturated fats, trans-fatty acids, free sugars or salt, and steps taken to address the effects of cross-border marketing of food and non-alcoholic beverages on children, by country group, 2017–2021



Food regulation and policy

The NCD country capacity survey poses a set of questions on the availability and implementation of policies to reduce population consumption of salt and fat, including front-of-pack labelling. In the 2021 survey, 10 countries and territories in the Region (46%) reported policies on nutrition labelling to identify foods high in saturated fatty acids, trans-fatty acids, free sugars or salt, compared to only six (27%) in 2019. The nutrition labelling policies in all 10 countries/territories included the list of ingredients, while a nutrition declaration and front-of-pack labelling were required in eight (Table 39). Of the 10 countries/territories, six were in Group 1 and four were in Group 2.

Similarly, nearly half of the countries and territories (46%) had policies in place to limit saturated fatty acids in the food supply, with six countries having mandatory policies. Policies to virtually eliminate trans-fatty acids from the food supply were reported by 10 countries/territories and the policies were mandatory in six. Of these 10 countries/territories, six were in Group 1 and four were in Group 2 (Table 40).

Policies to reduce salt consumption were reported by 13 countries and territories (59%) in the Region, unchanged from the 2019 survey. The prevalence of salt policies correlated to country group: such policies were reported by 100% of Group 1 countries/territories, 70% of Group 2 and none of Group 3. Interventions relevant to salt reduction policies detailed in the survey included product reformulation; regulation of salt content in specific settings, such as schools and hospitals; public awareness programmes; and front-of-pack nutrition labelling. These interventions were mandatory in 36%, 27%, 46% and 14% of the countries and territories in the Region, respectively (Table 41).

A comparison of the adoption of food regulations and policies on a voluntary or mandatory basis is presented in Fig. 23. The proportion of countries and territories adopting food regulations and policies by country group in 2019 and 2021 is compared in Fig. 24.

Table 39.

Implementation of national policies on nutrition labelling to identify foods high in saturated fatty acids, trans-fatty acids, free sugars or salt

Country group		Policies on nutrition labelling to identify foods high in saturated fatty acids, trans-fatty acids, free sugars or salt	Types of nutrition labelling		
			List of ingredients	Nutrient declaration	Front-of-pack labelling
Group 1	Bahrain	√	√	√	√
	Kuwait	√	√	√	
	Oman	√	√	√	√
	Qatar	√	√	√	
	Saudi Arabia	√	√	√	√
	United Arab Emirates	√	√		√
	Total	**6**	**6**	**5**	**4**
		100%	**100%**	**83%**	**67%**
Group 2	Egypt				
	Iran (Islamic Republic of)	√	√	√	√
	Iraq				
	Jordan	√	√		√
	Lebanon				
	Libya				
	Morocco	√	√	√	√
	Occupied Palestinian territory				
	Syrian Arab Republic				
	Tunisia	√	√	√	√
	Total	**4**	**4**	**3**	**4**
		40%	**40%**	**30%**	**40%**
Group 3	Afghanistan				
	Djibouti				
	Pakistan				
	Somalia				
	Sudan				
	Yemen				
	Total	**0**	**0**	**0**	**0**
		0%	**0%**	**0%**	**0%**
Eastern Mediterranean Region		10	10	8	8
		46%	**46%**	**36%**	**36%**

Table 40.

Implementation of national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply

Country group		Saturated fatty acid policy	Saturated fatty acid policy: enforcement		Trans-fatty acids policy	Indicate which policies are being implemented		
			Mandatory	Voluntary		Mandatory ban	Mandatory limit	Don't know
Group 1	Bahrain	√	√		√		√	
	Kuwait	√	√		√		√	
	Oman	√		√	√		√	
	Qatar	√		√	√			
	Saudi Arabia	√	√		√	√		
	United Arab Emirates	√		√	√			√
	Total	**6**	**3**	**3**	**6**	**1**	**3**	**1**
		100%	**50%**	**50%**	**100%**	**17%**	**50%**	**17%**
Group 2	Egypt							
	Iran (Islamic Republic of)	√	√		√	√		
	Iraq	√	√					
	Jordan				√	√		
	Lebanon							
	Libya							
	Morocco	√	√		√			√
	Occupied Palestinian territory							
	Syrian Arab Republic							
	Tunisia	√		√	√			
	Total	**4**	**3**	**1**	**4**	**2**	**0**	**1**
		40%	**30%**	**10%**	**40%**	**20%**	**0%**	**10%**
Group 3	Afghanistan							
	Djibouti							
	Pakistan							
	Somalia							
	Sudan							
	Yemen							
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		0%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Eastern Mediterranean Region		10	6	4	10	3	3	2
		46%	**27%**	**18%**	**46%**	**14%**	**146%**	**9%**

Table 41.

Implementation of national policies to reduce population salt consumption

Country group			Product reformulation by industry across the food supply		Regulation of salt content of food served in specific settings		Public awareness programme	Front-of-pack nutrition labelling	
		Salt policy	Mandatory	Voluntary	Mandatory	Voluntary		Mandatory	Voluntary
Group 1	Bahrain	√	√			√	√		
	Kuwait	√		√	√				
	Oman	√	√				√		
	Qatar	√	√			√	√		
	Saudi Arabia	√	√		√		√	√	
	United Arab Emirates	√			√		√		√
	Total	**6**	**4**	**1**	**3**	**2**	**5**	**1**	**1**
		100%	**67%**	**17%**	**50%**	**33%**	**83%**	**17%**	**17%**
Group 2	Egypt	√							
	Iran (Islamic Republic of)	√	√		√		√	√	
	Iraq	√	√				√		
	Jordan	√	√		√				
	Lebanon								
	Libya								
	Morocco	√		√			√		
	Occupied Palestinian territory	√	√		√		√	√	
	Syrian Arab Republic								
	Tunisia	√		√		√	√		√
	Total	**7**	**4**	**2**	**3**	**1**	**5**	**2**	**1**
		70%	**40%**	**20%**	**30%**	**100%**	**50%**	**20%**	**10%**
Group 3	Afghanistan								
	Djibouti								
	Pakistan								
	Somalia								
	Sudan								
	Yemen								
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		0%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Eastern Mediterranean Region		13	8	3	6	3	10	3	2
		59%	**36%**	**14%**	**27%**	**14%**	**46%**	**14%**	**9%**

Fig. 23.

Comparison of the number of countries/territories with food regulations and policies, mandatory versus voluntary, by country group

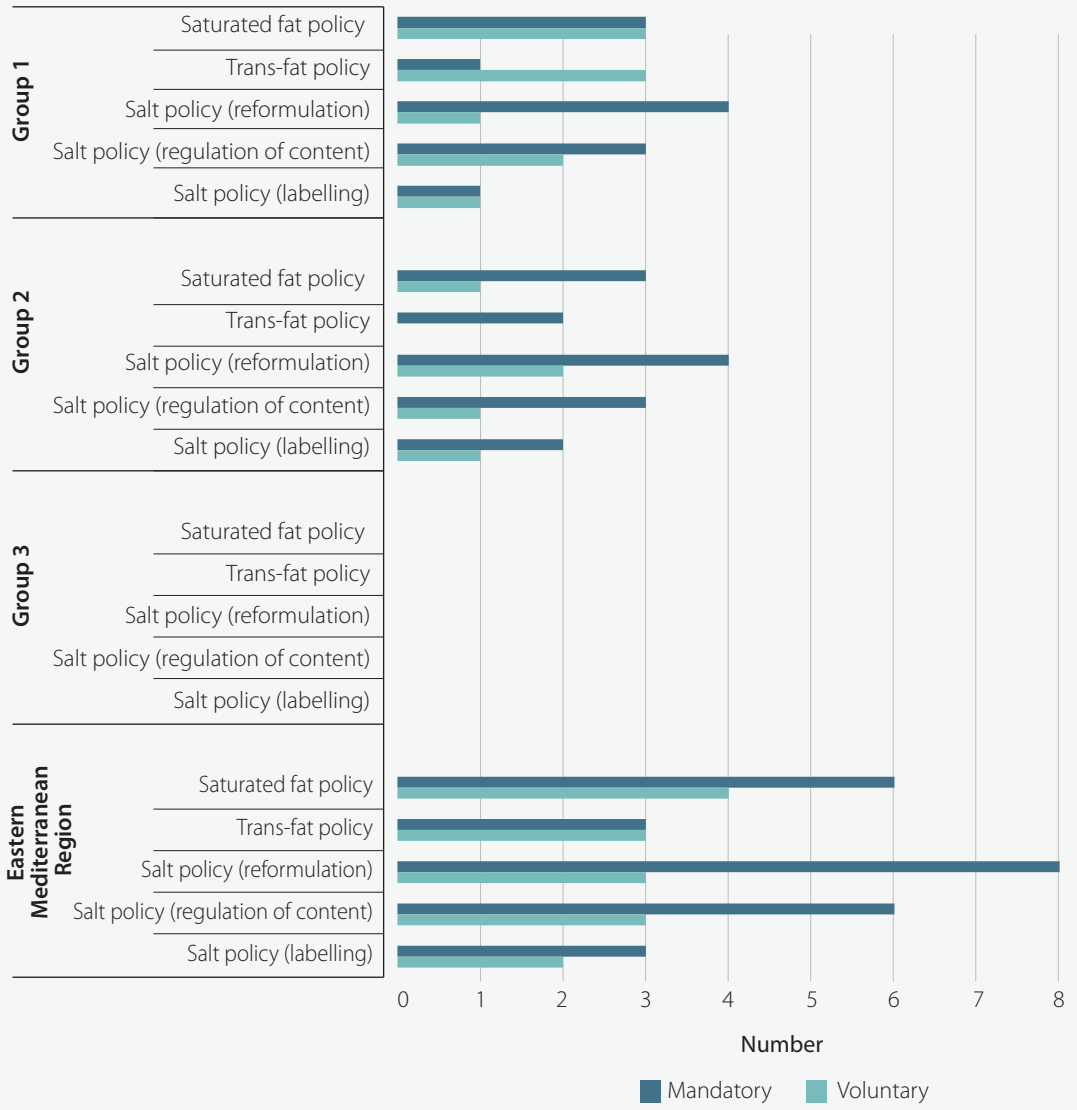
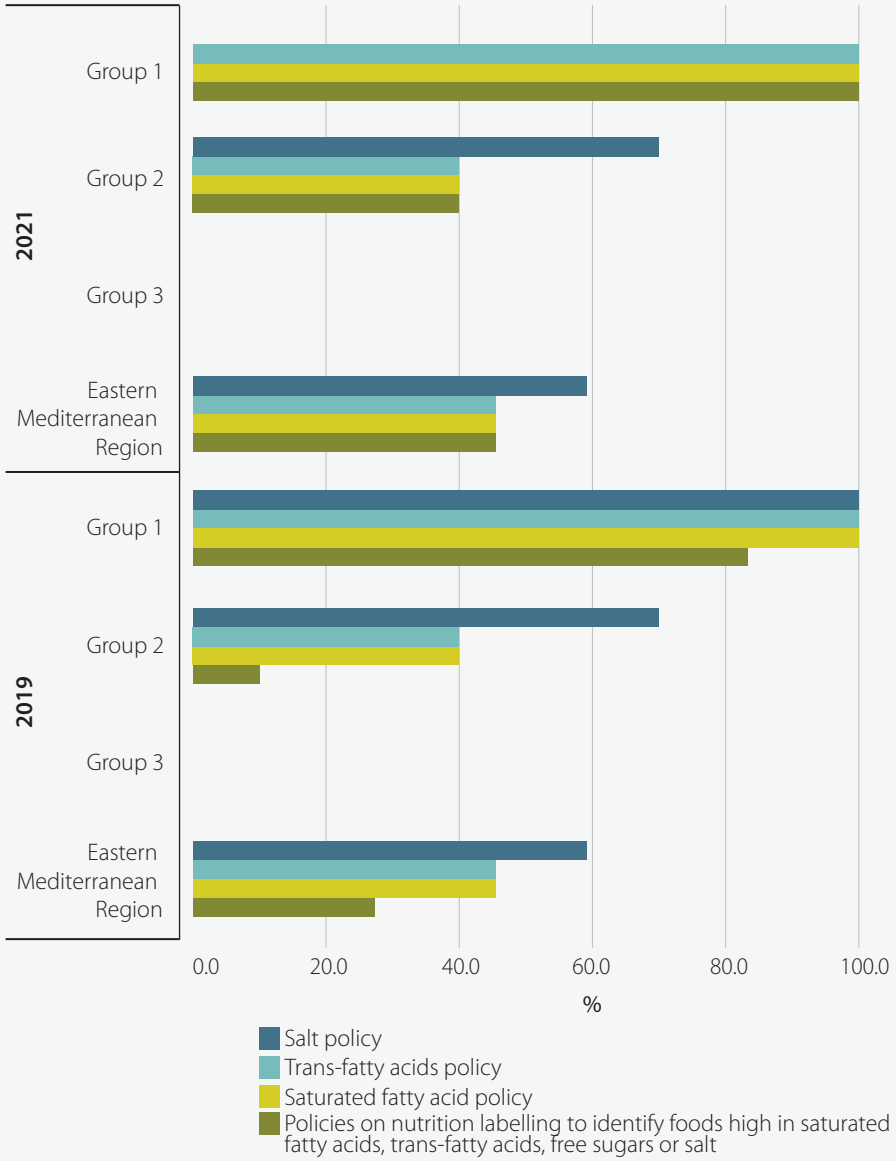


Fig. 24.

Comparison of the proportion (%) of countries/territories adopting food regulations and policies, by country group, 2019 and 2021



Public awareness campaigns and mass participation events

Countries and territories were asked about the implementation of national public education and awareness campaigns on diet and campaigns on physical activity in the past two years. As displayed in Table 42, fewer than half of the 22 countries and territories in the Region had implemented either type of campaign during the time period (10 and nine countries, respectively). The table also presents findings on the integration of national policies and campaigns promoting diet and physical activity across different country groups in the Region. Group 1 countries demonstrate the highest integration rates (67–83%), Group 2 shows moderate rates (20–50%) and Group 3 lacks integration except for public open spaces (17%).

A strong correlation was evident between country group and the likelihood of either type of campaign being implemented. None of the countries in Group 3 had implemented any campaigns on diet or physical activity, whereas 83% of the countries in Group 1 had implemented diet campaigns, and all of Group 1 had implemented campaigns on physical activity (Table 42).

Countries and territories were also requested to report on whether any national or subnational mass participation events had been organized during the past two years. Only seven of the countries/territories (32%) reported having implemented at least one mass participation event during this time period, down from 10 in the 2019 survey.

Table 42.

Implementation of national policies to promote physical activity, public awareness campaigns on diet and physical activity, and national/subnational mass participation events in past two years

Country group		National policies to promote population physical activity*							Physical activity campaign					Mass participation events
		Dietary campaign	Walking	Workplace	Active ageing	Community-based	Public open spaces	Childcare	Present	Integrated with community-based programmes	Supported by any environmental changes	Address social, environmental and economic benefits	
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√	√	√
	Kuwait	√	√	√	√	√	√	√	√	√	√	√	√
	Oman								√	√	√	√	√
	Qatar	√	√	√	√	√	√		√	√	√	√	√
	Saudi Arabia	√	√	√	√	√	√	√	√	√	√	√	√
	United Arab Emirates	√			√	√		√	√	√		√	√
	Total	**5**	**4**	**4**	**5**	**5**	**4**	**4**	**6**	**6**	**5**	**6**	**6**
		83%	**67%**	**67%**	**83%**	**83%**	**67%**	**67%**	**100%**	**100%**	**83%**	**100%**	**100%**
Group 2	Egypt												
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	√	√	√	
	Iraq	√	√			√	√		√		√		
	Jordan	√	√			√	√						
	Lebanon												
	Libya												
	Morocco	√	√	√	√	√	√	√					
	Occupied Palestinian territory												
	Syrian Arab Republic												
	Tunisia	√	√	√	√	√	√		√	√	√	√	
	Total	**5**	**5**	**3**	**3**	**5**	**5**	**2**	**3**	**2**	**3**	**2**	**0**
		50%	**50%**	**30%**	**30%**	**50%**	**50%**	**20%**	**30%**	**20%**	**30%**	**20%**	**0%**
Group 3	Afghanistan						√						
	Djibouti												
	Pakistan												
	Somalia												
	Sudan												√
	Yemen												
	Total	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**
		0%	**0%**	**0%**	**0%**	**0%**	**17%**	**0%**	**0%**	**0%**	**0%**	**0%**	**17%**
Eastern Mediterranean Region		10	9	7	8	10	10	6	9	8	8	8	7
		46%	**41%**	**32%**	**36%**	**46%**	**46%**	**27%**	**41%**	**36%**	**36%**	**36%**	**32%**

*New question in 2021.

Mobile health (mHealth) initiatives

Countries and territories were requested to report on any NCD-related mHealth initiatives that had been implemented during the past two years. These are programmes that utilize mobile and wireless technologies to support the achievement of health objectives, such as for tobacco cessation or cervical cancer screening awareness.

Nearly half of the countries and territories in the Region (46%) reported that they had implemented mHealth initiatives recently, with clear disparities between country groups. Of the 10 countries and territories that had mHealth initiatives in place, four were in Group 1 (Bahrain, Kuwait, Saudi Arabia and United Arab Emirates), five were in Group 2 (Islamic Republic of Iran, Lebanon, Libya, Syrian Arab Republic and Tunisia) and one was in Group 3 (Sudan) (Table 43). A comparison of the adoption of mHealth initiatives in the Region, by country group, in 2019 and 2021 is given in Fig. 25.

Fig. 25.

Comparison (%) of the availability of mHealth initiatives in the Region, by country group, 2019 and 2021

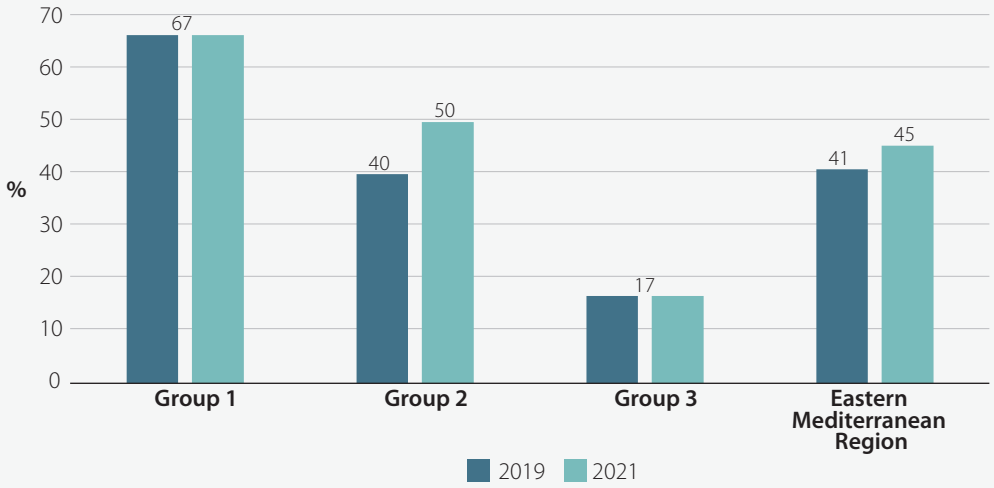


Table 43.

Implementation of national, NCD-related mHealth initiatives, such as tobacco cessation, hypertension management, cervical cancer screening awareness and promotion of physical activity, within the past two years*

Country group		Health initiatives	Details
Group 1	Bahrain	√	Ministry of Health is committed to providing multiple channels, in cooperation with the Information and eGovernment Authority: Ministry of Health website: www.health.gov.bh; eGovernment portal: https://www.bahrain.bh; smart device apps; national contact centre; service centres and eGovernment kiosk; SMS services.
	Kuwait	√	Dasman Diabetes Institute implemented two mHealth initiatives: diabetes awareness and prevention; and awareness and healthy lifestyle education for pre-diabetics. Health promotion department, under the national programme for tobacco control, conducted first smoking awareness campaign: "Commit to quit". Protocol for early detection of NCDs and cancer.
	Saudi Arabia	√	«Sehhaty» Platform: https://www.moh.gov.sa/en/eServices/Sehhaty/Pages/default.aspx «Sehhaty» is an app providing various health services for all individuals in the country. Services include testing for COVID-19, appointment booking, health messages on physical activities, healthy diets, medicines search, medicines list, sick leave, e-prescription, infection prevention and control, dependents service, biomarkers and school screening.
	United Arab Emirates	√	An electronic link for patients to assess their risk factors. Indicates periodic screening test required for age group category and accordingly directs people to the nearest health centre for clinical assessment.
	Total	**4**	
		67%	
Group 2	Iran (Islamic Republic of)	√	
	Lebanon	√	Khoutweh Khoutweh (Step-by-Step), an electronic mental health intervention offering 15 minutes per week of remote (phone or message) guidance by a trained non-specialist "e-helper". The mHealth application underwent adaptation to the Lebanese context, feasibility testing and randomized controlled trial. It is currently undergoing implementation research to expand its reach.
	Libya	√	Initiating a free-of-charge mobile phone service, with voluntary subscription, for the public to receive mHealth SMS aiming to increase risk awareness using WHO best buys approach; achieve behavioural changes towards healthier diets, enhanced physical activity and reduced smoking/tobacco use, especially in rural areas where mobile phone use is growing exponentially and transportation to seek medical advice or guidance is a barrier; improve diabetes management and blood pressure control, especially among those living in remote areas and rural districts.
	Syrian Arab Republic	√	Tobacco cessation clinics at governorate level; a total of 24 clinics are operating. Tobacco-free initiatives at schools and universities.
	Tunisia	√	Telephone health promotion projects: m-cessation mobile project for smoking cessation assistance since 2017, mRamadan project in 2018 and mDiabetes.
	Total	**5**	
		50%	

Table 43.

Implementation of national, NCD-related mHealth initiatives, such as tobacco cessation, hypertension management, cervical cancer screening awareness and promotion of physical activity, within the past two years* *(concluded)*

Country group		Health initiatives	Details
Group 3	Sudan	√	Sudan has implemented mDiabetes and mRamadan initiatives. mHajj module has been developed but not implemented, due to Hajj restrictions as part of COVID-19 control measures.
	Total	**1**	
		17%	
Eastern Mediterranean Region		10	
		46%	

* No mHealth initiatives were reported by Afghanistan, Djibouti, Egypt, Iraq, Jordan, Morocco, occupied Palestinian territory, Oman, Pakistan, Qatar, Somalia and Yemen.

NCD and risk factor surveillance

Surveillance responsibility

Half of the countries and territories in the Region reported that the responsibility for the surveillance of NCDs and their risk factors in their health ministry is carried out by a department or administrative division within the ministry of health exclusively dedicated to NCD surveillance (11 out of 22), two more than the 2019 survey. A further seven countries and territories reported that responsibility for the surveillance of NCDs and their risk factors was shared across several offices/departments/administrative divisions within the ministry of health (32%). Only Somalia reported lacking any form of national surveillance structure for NCDs and their risk factors in the 2021 survey, whereas in 2019, both Somalia and Yemen were missing this (Table 44, Fig. 26).

Fig. 26.

Comparison (%) of bodies in health ministry responsible for surveillance of NCDs and their risk factors, 2019 and 2021

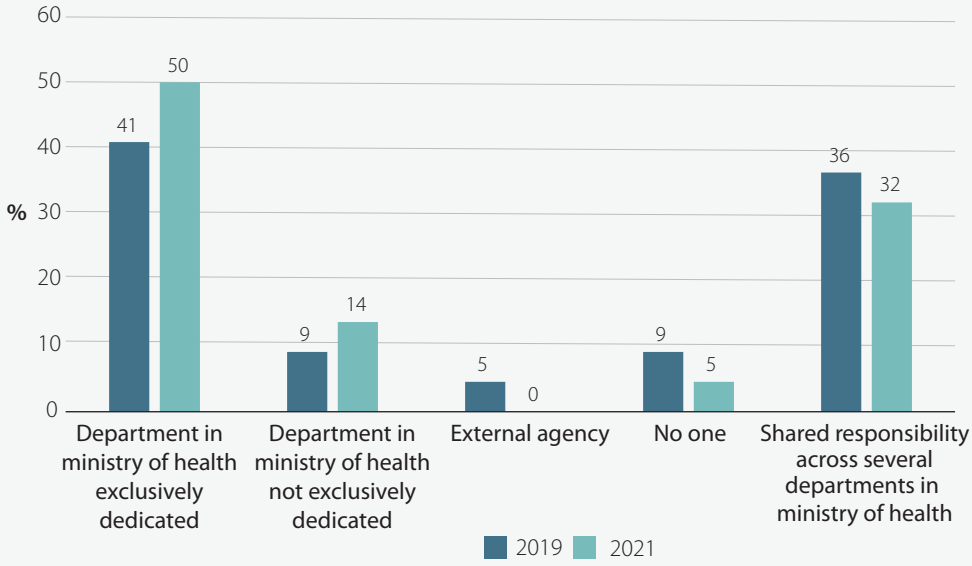


Table 44.

Body in health ministry responsible for surveillance of NCDs and their risk factors

Country group		NCD surveillance responsibility			
		Department in ministry exclusively dedicated	Department in ministry not exclusively dedicated	None	Shared responsibility across several departments in ministry
Group 1	Bahrain				√
	Kuwait				√
	Oman	√			
	Qatar	√			
	Saudi Arabia	√			
	United Arab Emirates		√		
	Total	**3**	**1**	**0**	**2**
		50%	**17%**	**0%**	**33%**
Group 2	Egypt	√			
	Iran (Islamic Republic of)	√			
	Iraq	√			
	Jordan	√			
	Lebanon				√
	Libya				√
	Morocco	√			
	Occupied Palestinian territory		√		
	Syrian Arab Republic	√			
	Tunisia				√
	Total	**6**	**1**	**0**	**3**
		60%	**10%**	**0%**	**30%**
Group 3	Afghanistan		√		
	Djibouti	√			
	Pakistan				√
	Somalia			√	
	Sudan				√
	Yemen	√			
	Total	**2**	**1**	**1**	**2**
		33%	**17%**	**17%**	**33%**
Eastern Mediterranean Region		11	3	1	7
		50%	**14%**	**5%**	**32%**

Data included in the national health information system

Cancer registries

The vast majority of the Region (20 countries/territories, or 91%) reported the availability of a cancer registry. Registries were available in all Group 1 and Group 2 countries/territories and two thirds of Group 3 (Afghanistan, Pakistan, Sudan and Yemen). However, population-based cancer registries were less widespread (available in 15 countries/territories, or 68%).

Regarding the coverage of cancer registries, over half of the countries and territories (55%) reported that coverage was national: 83% of Group 1 (Bahrain, Kuwait, Oman, Qatar and United Arab Emirates), 60% of Group 2 Iraq, Islamic Republic of Iran, Jordan, Lebanon, Syrian Arab Republic and Tunisia), and 17% of Group 3 (Sudan) (Table 45).

The data presented in Fig. 27 show the evolution of cancer registry availability and characteristics from 2013 to 2021. Over this period, the overall availability of cancer registries has gradually increased, reaching 91% in 2019 and remaining consistent in 2021. However, the types of cancer registries available have shown fluctuation. Population-based registries declined from 68% in 2013 to 45% in 2015, but returned to 68% in 2017 and have remained stable since. Hospital-based registries, on the other hand, saw an increase from 14% in 2013 to 36% in 2015, only to decline to 9% in 2017 with a slight rebound to 18% in 2019. National-level cancer registries had a steady presence at around 50%, until a significant drop to 27% in 2019 before reaching 55% again in 2021. Subnational registries have displayed fluctuations, increasing from 27% in 2013 to 64% in 2019, before declining to 32% in 2021.

Fig. 27.

Comparison of (%) regional availability and characteristics of cancer registries, 2013–2021

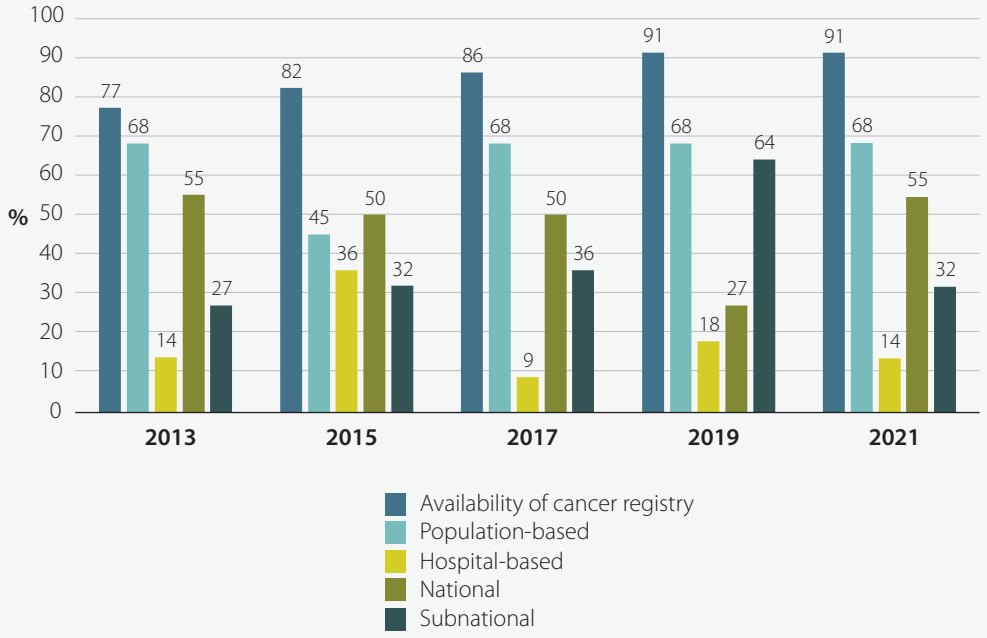


Table 45.

Availability and characteristics of cancer registries

Country group		Cancer registry	Coverage		Data type (population versus hospital)			Latest data (year)
			National	Subnational	Population-based	Hospital-based	Other	
Group 1	Bahrain	√	√		√			2018
	Kuwait	√	√		√			2016
	Oman	√	√		√			2017
	Qatar	√	√		√			2015
	Saudi Arabia	√		√	√			2016
	United Arab Emirates	√	√		√			2018
	Total	**6**	**5**	**1**	**6**	**0**	**0**	
		100%	**83%**	**17%**	**100%**	**0%**	**0%**	
Group 2	Egypt	√		√	√			2019
	Iran (Islamic Republic of)	√	√		√			2017
	Iraq	√	√		√			2019
	Jordan	√	√		√			2017
	Lebanon	√	√		√			2016
	Libya	√		√		√		2020
	Morocco	√		√	√			2008–2012, 2016 edition
	Occupied Palestinian territory	√		√		√		2016
	Syrian Arab Republic	√	√			√		2019
	Tunisia	√	√		√			2014
	Total	**10**	**6**	**4**	**7**	**3**	**0**	
		100%	**60%**	**40%**	**70%**	**30%**	**0%**	
Group 3	Afghanistan	√		√	√			
	Djibouti							
	Pakistan	√		√			√	2020
	Somalia							
	Sudan	√	√		√			2013
	Yemen	√						2011
	Total	**4**	**1**	**2**	**2**	**0**	**1**	
		67%	**17%**	**33%**	**33%**	**0%**	**17%**	
Eastern Mediterranean Region		20	12	7	15	3	1	
		91%	**55%**	**32%**	**68%**	**14%**	**5%**	

Diabetes registries

Over half of the countries and territories in the Region (13, or 59%) reported having a diabetes registry, some of which were hospital-based (six, or 27%) (Table 46). Across country groups, diabetes registries were most prevalent in Group 1 (all six countries), and least prevalent in Group 3 (one country out of six, or 17%).

Only four of the 13 countries/territories with diabetes registries reported national coverage (Kuwait, Iraq, Islamic Republic of Iran, Jordan and Syrian Arab Republic), with subnational coverage in the remainder (Table 46). The trend in the availability of diabetes registries across the Region from 2013 to 2021 is depicted in Fig. 28. The data show that availability of registries remained at 41% from 2015 to 2017, but then experienced significant growth to reach 59% in 2019 and 2021.

Fig. 28.

Trend (%) in regional availability of diabetes registries, 2013–2021

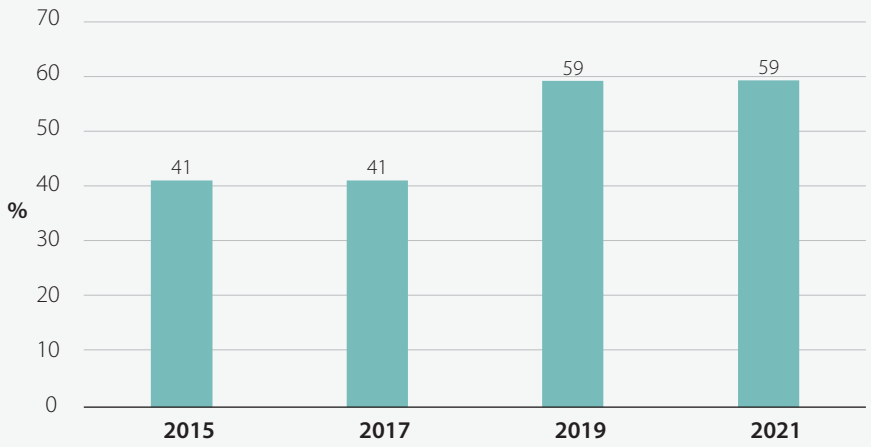


Table 46.

Availability and characteristics of diabetes registries

Country group		Diabetes registry	Coverage		Data type			Data on chronic complications	Latest data (year)
			National	Subnational	Population-based	Hospital-based	Other		
Group 1	Bahrain	√		√			√	√	2019
	Kuwait	√	√			√		√	2020
	Oman	√		√			√	√	2019
	Qatar	√		√		√		√	2017
	Saudi Arabia	√		√		√		√	
	United Arab Emirates	√		√	√			√	Under way
	Total	**6**	**1**	**5**	**1**	**3**	**2**	**6**	
		100%	**17%**	**83%**	**17%**	**50%**	**33%**	**100%**	
Group 2	Egypt	√			√			√	2020
	Iran (Islamic Republic of)	√	√				√		2019
	Iraq	√	√				√		2020
	Jordan								
	Lebanon								
	Libya	√		√		√			2020
	Morocco								
	Occupied Palestinian territory	√		√		√		√	2016
	Syrian Arab Republic	√	√			√		√	2020
	Tunisia								
	Total	**6**	**3**	**2**	**1**	**3**	**2**	**3**	
		60%	**30%**	**20%**	**10%**	**30%**	**20%**	**30%**	
Group 3	Afghanistan								
	Djibouti								
	Pakistan	√		√			√		2020
	Somalia								
	Sudan								
	Yemen								
	Total	**1**	**0**	**1**	**0**	**0**	**1**	**0**	
		17%	**0%**	**17%**	**0%**	**0%**	**17%**	**0%**	
Eastern Mediterranean Region		13	4	8	2	6	5	9	
		59%	**18%**	**36%**	**9%**	**27%**	**23%**	**41%**	

Myocardial infarction registries

In the 2021 survey, new questions were introduced on the availability and characteristics of myocardial infarction/coronary events registries and cerebrovascular accident/stroke registries. Less than a third of the countries and territories in the Region (seven countries, or 27%) reported the availability of a myocardial infarction/coronary events registry and that coverage was subnational: 50% of Group 1 countries (Bahrain, Saudi Arabia and United Arab Emirates), 30% of Group 2 (Iraq, Morocco and Tunisia) and no Group 3 countries. Only United Arab Emirates reported the data to be population-based (Table 47).

Table 47.

Availability and characteristics of myocardial infarction/coronary events registries*

Country group		Myocardial infarction registry	Coverage	Data type			Latest data (year)
			Subnational	Population-based	Hospital-based	Other	
Group 1	Bahrain	√	√		√		2020
	Kuwait						
	Oman						
	Qatar						
	Saudi Arabia	√	√		√		
	United Arab Emirates	√	√	√			Under way
	Total	**3**	**3**	**1**	**2**	**0**	
		50%	**50%**	**17%**	**33%**	**0%**	
Group 2	Egypt						
	Iran (Islamic Republic of)						
	Iraq	√	√		√		2020
	Jordan						
	Lebanon						
	Libya						
	Morocco	√	√			√	2018
	Occupied Palestinian territory						
	Syrian Arab Republic						
	Tunisia	√	√		√		
	Total	**3**	**3**	**0**	**2**	**1**	
		30%	**30%**	**0%**	**20%**	**10%**	
Group 3	Afghanistan						
	Djibouti						
	Pakistan						
	Somalia						
	Sudan						
	Yemen						
	Total	**0**	**0**	**0**	**0**	**0**	
		0%	**0%**	**0%**	**0%**	**0%**	
Eastern Mediterranean Region		6	6	1	4	1	
		27%	**27%**	**5%**	**18%**	**5%**	

*New question in 2021.

Cerebrovascular accident registries

A slightly lower proportion of the countries and territories in the Region (five countries, or 23%) reported the availability of a cerebrovascular accident/stroke registry. All five reported subnational coverage: 50% of Group 1 countries (Bahrain, Saudi Arabia and United Arab Emirates), 20% of Group 2 (Iraq and Morocco) and none of the Group 3 countries. Only United Arab Emirates reported the data to be population-based (Table 48).

Table 48.

Availability and characteristics of cerebrovascular accident/stroke registries*

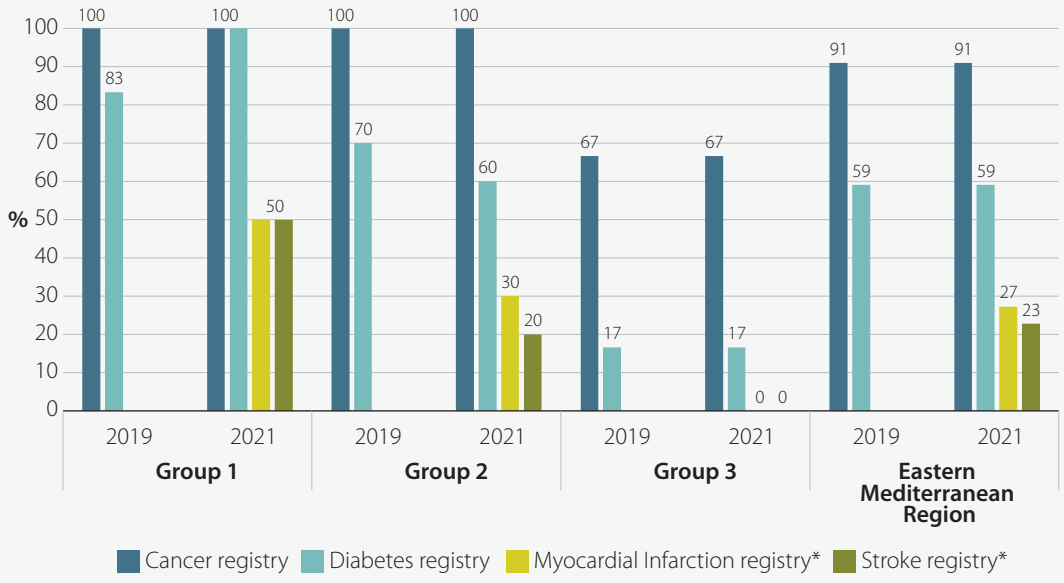
Country group		Stroke registry	Coverage	Data type			Latest data (year)
			Subnational	Population-based	Hospital-based	Other	
Group 1	Bahrain	√	√		√		2018
	Kuwait						
	Oman						
	Qatar						
	Saudi Arabia	√	√		√		
	United Arab Emirates	√	√	√			Underway
	Total	**3**	**3**	**1**	**2**	**0**	
		50%	**50%**	**17%**	**33%**	**0%**	
Group 2	Egypt						
	Iran (Islamic Republic of)						
	Iraq	√	√		√		2020
	Jordan						
	Lebanon						
	Libya						
	Morocco	√	√			√	2018
	Occupied Palestinian territory						
	Syrian Arab Republic						
	Tunisia						
	Total	**2**	**2**	**0**	**1**	**1**	
		20%	**20%**	**0%**	**10%**	**10%**	
Group 3	Afghanistan						
	Djibouti						
	Pakistan						
	Somalia						
	Sudan						
	Yemen						
	Total	**0**	**0**	**0**	**0**	**0**	
		0%	**0%**	**0%**	**0%**	**0%**	
Eastern Mediterranean Region		5	5	1	3	1	
		23%	**23%**	**5%**	**14%**	**5%**	

*New question in 2021.

A comparison of the availability of registries for major NCDs in 2019 and 2021, by country group, is shown in Fig. 29. There has been significant progress in the implementation of cancer registries, with all countries/territories in Group 1 and Group 2 reaching 100% coverage in 2019 and 2021. Group 3 countries have also made commendable strides, with cancer registry availability stabilizing at 67% over the same period. However, the data on diabetes registries reveal varying degrees of development across the groups, with Group 1 countries achieving 100% coverage in 2021 and Group 2 showing fluctuations, with a decrease in diabetes registry availability from 70% in 2019 to 60% in 2021. Group 3 countries are at the lower end of the spectrum, stagnating at 17% coverage. Moreover, the data highlight disparities in the establishment of myocardial infarction and stroke registries, with Group 1 and, to a lesser extent, Group 2 countries and territories demonstrating progress in these areas.

Fig. 29.

CRegionparison (%) of the availability of registries for major NCDs, by country group, 2019 and 2021



*New question in 2021.

Patient information systems

Fifteen out of 22 countries and territories in the Region (68%) reported having a patient information system in primary health care centres. These included all of the countries/territories in Group 1, eight of the 10 in Group 2, but only one in Group 3. Of the 15 countries and territories, 12 indicated that the information system is national, eight reported that it is electronic and nine stated that it covers over 75% of the population (Table 49).

A similar number of countries and territories (15, or 68%) reported the availability of a system for recording patient information at hospitals. These included all of the countries/territories in Group 1, seven of the 10 in Group 2, and two countries (Pakistan and Sudan) in Group 3. Among the 15 countries with hospital information systems, 11 indicated that the system was national, eight reported an electronic system, and nine stated that the system covered over 75% of the population (Table 50).

Table 49.

Availability and characteristics of patient information systems in primary health care centres*

Country group		Primary health care centre patient information system	Scope		Type			Coverage			NCDs and related risk factors covered
			National	Subnational	Electronic	Other	Paper-based	25–50%	51–75%	>75%	
Group 1	Bahrain	√	√		√					√	All NCD risk factors are covered
	Kuwait	√	√		√					√	All
	Oman	√	√		√					√	All chronic diseases, diabetes, cancer, hypertension, chronic respiratory diseases, thyroid disease, hyperlipidaemia
	Qatar	√	√		√					√	Diabetes, cardiovascular diseases, tobacco, eye problems, oral health, hypertension, cancer, accidents
	Saudi Arabia	√	√		√				√		Cardiovascular diseases
	United Arab Emirates	√		√	√					√	Cancer, cardiovascular diseases, diabetes
	Total	**6**	**5**	**1**	**6**	**0**	**0**	**0**	**1**	**5**	
		100%	**83%**	**17%**	**100%**	**0%**	**0%**	**0%**	**17%**	**83%**	
Group 2	Egypt	√	√			√			√		
	Iran (Islamic Republic of)	√	√		√					√	Cardiovascular diseases
	Iraq	√	√			√				√	Cardiovascular diseases, diabetes, chronic respiratory diseases, tobacco, obesity
	Jordan	√		√	√			√			Hypertension, diabetes tobacco, overweight/obesity, physical inactivity
	Lebanon	√		√		√				√	Diabetes, hypertension, cardiovascular diseases, dyslipidaemia, tobacco, diet, physical activity
	Libya										
	Morocco	√	√				√			√	Diabetes, hypertension, mental disorders, oral diseases, cancers
	Occupied Palestinian territory										
	Syrian Arab Republic	√	√			√			√		Cardiovascular diseases, diabetes, chronic respiratory diseases, cancer
	Tunisia	√	√				√		√		Hypertension, diabetes, cancers, risk factors: obesity, tobacco, physical inactivity
	Total	**8**	**6**	**2**	**2**	**4**	**2**	**1**	**3**	**4**	
		80%	**60%**	**20%**	**20%**	**40%**	**20%**	**10%**	**30%**	**40%**	

Table 49.

Availability and characteristics of patient information systems in primary health care centres* *(concluded)*

Country group		Primary health care centre patient information system	Scope		Type			Coverage			NCDs and related risk factors covered
			National	Subnational	Electronic	Other	Paper-based	25–50%	51–75%	>75%	
Group 3	Afghanistan										
	Djibouti										
	Pakistan										
	Somalia	√	√			√					Diagnosis and management of diabetic and hypertensive patients
	Sudan										
	Yemen										
	Total	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	
		17%	**17%**	**0%**	**0%**	**17%**	**0%**	**0%**	**0%**	**0%**	
Eastern Mediterranean Region		15	12	3	8	5	2	1	4	9	
		68%	**55%**	**14%**	**36%**	**23%**	**9%**	**5%**	**18%**	**41%**	

*New question in 2021

Table 50.

Availability and characteristics of patient information systems in hospitals*

Country group		Hospital patient information system	Scope		Type			Coverage			NCDs and related risk factors are covered
			National	Subnational	Electronic	Other	Paper-based	25–50%	51–75%	>75%	
Group 1	Bahrain	√	√		√					√	All NCD risk factors are covered
	Kuwait	√	√		√					√	All
	Oman	√	√		√					√	All chronic diseases, diabetes, cancer, hypertension, respiratory diseases, thyroid diseases, hyperlipidaemia
	Qatar	√	√		√					√	Diabetes, cardiovascular diseases, tobacco, eye problems, oral health, hypertension, cancer, accidents
	Saudi Arabia	√	√		√				√		Cardiovascular diseases
	United Arab Emirates	√		√	√					√	Cancer, cardiovascular diseases, diabetes
	Total	**6**	**5**	**1**	**6**	**0**	**0**	**0**	**1**	**5**	
		100%	**83%**	**17%**	**100%**	**0%**	**0%**	**0%**	**17%**	**83%**	
Group 2	Egypt	√	√			√			√		
	Iran (Islamic Republic of)	√	√		√					√	Cardiovascular diseases
	Iraq	√	√				√			√	Cardiovascular diseases, diabetes, chronic respiratory diseases, tobacco, obesity
	Jordan	√		√	√			√			Hypertension, diabetes, tobacco, overweight/obesity, physical inactivity
	Lebanon	√		√		√		√			Diabetes, hypertension, cardiovascular diseases, dyslipidaemia, tobacco, diet, physical activity
	Libya										
	Morocco										Diabetes, hypertension, mental disorders, oral diseases, cancers
	Occupied Palestinian territory										
	Syrian Arab Republic	√	√			√				√	Cardiovascular diseases, diabetes, chronic respiratory diseases, cancer
	Tunisia	√	√				√			√	Hypertension, diabetes, cancers, risk factors: obesity, tobacco, physical inactivity
	Total	**7**	**5**	**2**	**2**	**3**	**2**	**2**	**1**	**4**	
		70%	**50%**	**20%**	**20%**	**30%**	**20%**	**20%**	**10%**	**40%**	

Table 50.

Availability and characteristics of patient information systems in hospitals* *(concluded)*

Country group		Hospital patient information system	Scope		Type			Coverage			NCDs and related risk factors are covered
			National	Subnational	Electronic	Other	Paper-based	25–50%	51–75%	>75%	
Group 3	Afghanistan										
	Djibouti										
	Pakistan	√		√			√				
	Somalia										
	Sudan	√	√			√			√		
	Yemen										
	Total	**2**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**0**	
		33%	**17%**	**17%**	**0%**	**17%**	**17%**	**0%**	**17%**	**0%**	
Eastern Mediterranean Region		15	11	4	8	4	3	2	3	9	
		68%	**50%**	**18%**	**36%**	**18%**	**14%**	**9%**	**14%**	**41%**	

*New question in 2021.

Risk factor surveys

Adult surveys

The WHO STEPS is the most common adult survey conducted in the Region. It covers up to nine NCD risk factors: harmful alcohol use, unhealthy diet, physical inactivity, tobacco use, raised blood glucose, raised cholesterol, raised blood pressure, body mass index (BMI) and sodium/salt intake.

In 2021, adult surveys were used to gather data on an average of eight of the nine risk factors in Group 1 and Group 2 countries and territories; and on average five of the nine risk factors in Group 3 countries. The most surveyed risk factors in the Region were unhealthy diet, physical inactivity, tobacco use, overweight/obesity and raised blood pressure, each one of which was surveyed by 20 of the countries and territories (91%). The least surveyed risk factor was salt intake, which was included by 14 countries and territories (64%) (Table 51).

Fig. 30 shows the number of countries and territories covering 0–9 NCD risk factors in recent, national adult risk factor surveys. In 2021, two countries in Group 3 had not covered any risk factors, whereas the majority of countries in Group 1 and Group 2 had covered 8–9 risk factors. Compared with 2019, there were no significant changes in the overall distribution of risk factors within each group.

Fig. 31 depicts the percentage of countries/territories with NCD surveys among adults collecting independent data on various risk factors from 2015 to 2021. Overall, a relatively high proportion of countries in the Region have conducted risk factor surveys over the years. A high proportion of countries consistently conduct surveys on unhealthy diet, physical inactivity, tobacco use, raised blood pressure and BMI, reaching up to 91% in both 2019 and 2021.

Fig. 32 displays the average number of adult NCD risk factors surveyed over the years 2015 to 2021, across the three country groups and in the Eastern Mediterranean Region. The average number of risk factors surveyed increased between 2015 and 2019 and remained constant across 2019 and 2021.

Fig. 30.

Number of countries/territories covering 0–9 risk factors in recent national adult surveys, by country group, 2019 and 2021

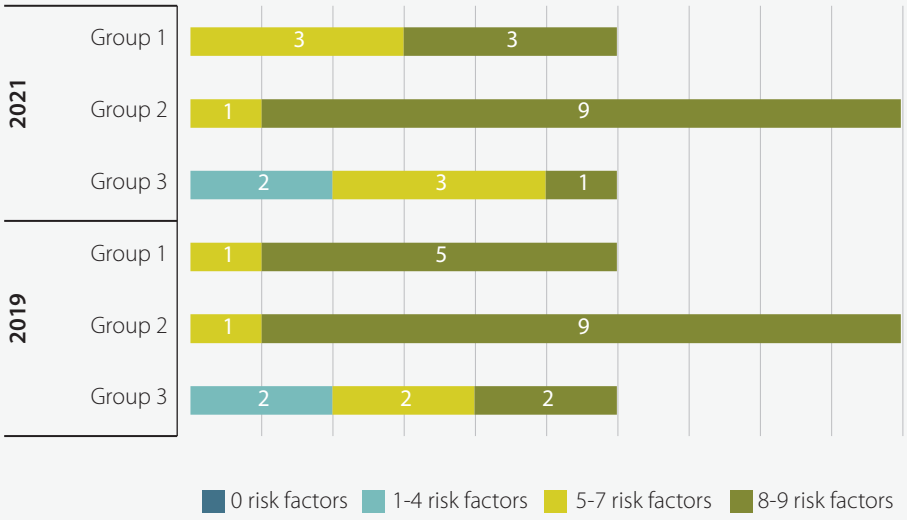


Table 51.

Surveys of NCD risk factors conducted among adults

Country group		Harmful use of alcohol	Unhealthy diet	Physical inactivity	Tobacco use	Glucose	Cholesterol	Blood pressure	BMI	Salt	Total number of risk factors (out of 9)
Group 1	Bahrain		√	√	√	√	√	√	√		7
	Kuwait	√	√	√	√	√	√	√	√	√	9
	Oman	√	√	√	√	√	√	√	√	√	9
	Qatar		√	√	√	√	√	√	√	√	8
	Saudi Arabia		√	√	√	√	√	√	√	√	8
	United Arab Emirates	√	√	√	√	√	√	√	√	√	9
	Total	**3**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**5**	**8***
		50%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**83%**	
Group 2	Egypt	√	√	√	√	√	√	√	√	√	9
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	√	9
	Iraq	√	√	√	√	√	√	√	√	√	9
	Jordan	√	√	√	√	√	√	√	√	√	9
	Lebanon	√	√	√	√	√	√	√	√	√	9
	Libya	√	√	√	√	√	√	√	√		8
	Morocco	√	√	√	√	√	√	√	√	√	9
	Occupied Palestinian territory		√	√	√	√	√	√	√		7
	Syrian Arab Republic	√	√	√	√	√	√	√	√		8
	Tunisia	√	√	√	√	√	√	√	√	√	9
	Total	**9**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**7**	**9***
		90%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**70%**	
Group 3	Afghanistan		√	√	√	√	√	√	√	√	8
	Djibouti										0
	Pakistan		√	√	√	√		√	√		6
	Somalia	√	√	√	√			√	√		6
	Sudan	√	√	√	√	√	√	√	√	√	9
	Yemen										0
	Total	**2**	**4**	**4**	**4**	**3**	**2**	**4**	**4**	**2**	**5***
		33%	**67%**	**67%**	**67%**	**50%**	**33%**	**67%**	**67%**	**33%**	
Eastern Mediterranean Region		14	20	20	20	19	18	20	20	14	8*
		64%	**91%**	**91%**	**91%**	**87%**	**82%**	**91%**	**91%**	**64%**	

*Average of items.

Fig. 31.

Comparison (%) of NCD surveys among adults collecting independent data on risk factors in countries/territories, 2015–2021

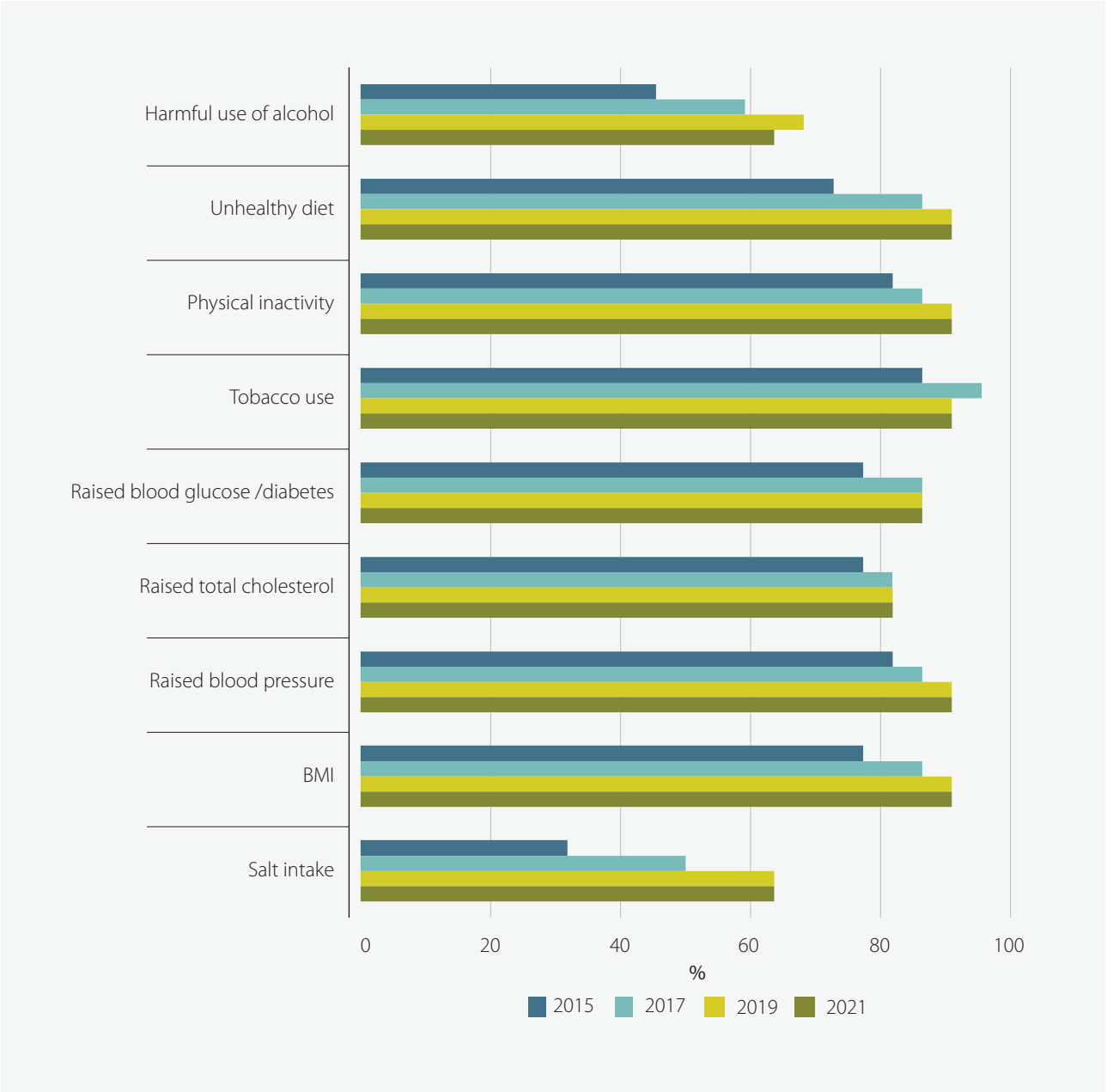
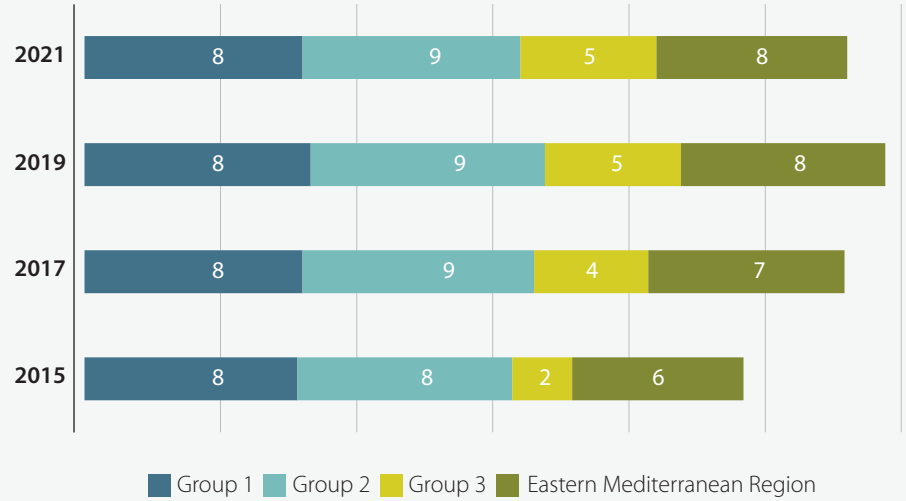


Fig. 32.

Comparison of the average number of adult NCD risk factors surveyed in countries/territories, by country group, 2015–2021



Adolescent surveys

Adolescent surveys address up to five key risk factors for NCDs: harmful use of alcohol, unhealthy diet, physical inactivity, tobacco use, and overweight and obesity. In 2021, the average number of risk factors on which data were collected was four in all country groups (Table 52).

Surveys on adolescent tobacco use were conducted by all countries and territories of the Region. The vast majority also conducted surveys on unhealthy diet and physical inactivity (20 countries/territories, or 91%). A slightly lower proportion surveyed overweight and obesity among adolescents (19, or 86%). Only four countries and territories (18%) reported collection of data on the harmful use of alcohol in adolescent surveys: Qatar in Group 1, and Lebanon, Morocco and Syrian Arab Republic in Group 2 (Table 52).

The number of countries/territories covering between zero and five risk factors in recent national adolescent NCD surveys for 2019 and 2021, by country group, is illustrated in Fig. 33. In 2021, Group 1 had six countries that reported covering 4–5 risk factors. In Group 2, nine countries/territories reported covering 4–5 risk factors, while in Group 3, five countries reported covering 4–5 risk factors. The data for 2019 displayed comparable patterns in the distribution of risk factors among the country groups.

Fig. 34 shows the trend from 2015 to 2021 in the proportion of countries and territories conducting adolescent NCD risk factor surveys, by risk factor. Lastly, Fig. 35 presents a comparison of the average number of five adolescent NCD risk factors surveyed in countries and territories of the Region from 2015 to 2021. In Group 1, the average number of risk factors surveyed remained constant at four throughout the time period. In Group 2, the average number of risk factors surveyed was three in 2015, four in 2017 and 2021, with a high of five in 2019. In Group 3, the average number of risk factors surveyed was one in 2015 and four in 2017, 2019 and 2021. Overall, the total average number of risk factors surveyed in the Region remained constant at four from 2017 to 2021.

Table 52.

Surveys of NCD risk factors conducted among adolescents

Country group		Harmful use of alcohol	Unhealthy diet	Physical inactivity	Tobacco use	BMI	Total number of risk factors (out of 5)
Group 1	Bahrain		√	√	√	√	4
	Kuwait		√	√	√	√	4
	Oman		√	√	√	√	4
	Qatar	√	√	√	√	√	5
	Saudi Arabia				√		1
	United Arab Emirates		√	√	√	√	4
	Total	**1**	**5**	**5**	**6**	**5**	**4**
		17%	**83%**	**83%**	**100%**	**83%**	
Group 2	Egypt		√	√	√	√	4
	Iran (Islamic Republic of)		√	√	√	√	4
	Iraq		√	√	√	√	4
	Jordan		√	√	√	√	4
	Lebanon	√	√	√	√	√	5
	Libya		√	√	√	√	4
	Morocco	√	√	√	√	√	5
	Occupied Palestinian territory		√	√	√	√	4
	Syrian Arab Republic	√	√	√	√	√	5
	Tunisia		√	√	√		3
	Total	**3**	**10**	**10**	**10**	**9**	**4**
		30%	**100%**	**100%**	**100%**	**90%**	
Group 3	Afghanistan		√	√	√	√	4
	Djibouti		√	√	√	√	4
	Pakistan		√	√	√	√	4
	Somalia				√		1
	Sudan		√	√	√	√	4
	Yemen		√	√	√	√	4
	Total	**0**	**5**	**5**	**6**	**5**	**4**
		0%	**83%**	**83%**	**100%**	**83%**	
Eastern Mediterranean Region		4	20	20	22	19	4
		18%	**91%**	**91%**	**100%**	**87%**	

Fig. 33.

Number of countries/territories covering 0–5 risk factors in recent national adolescent NCD surveys, by country group, 2019 and 2021

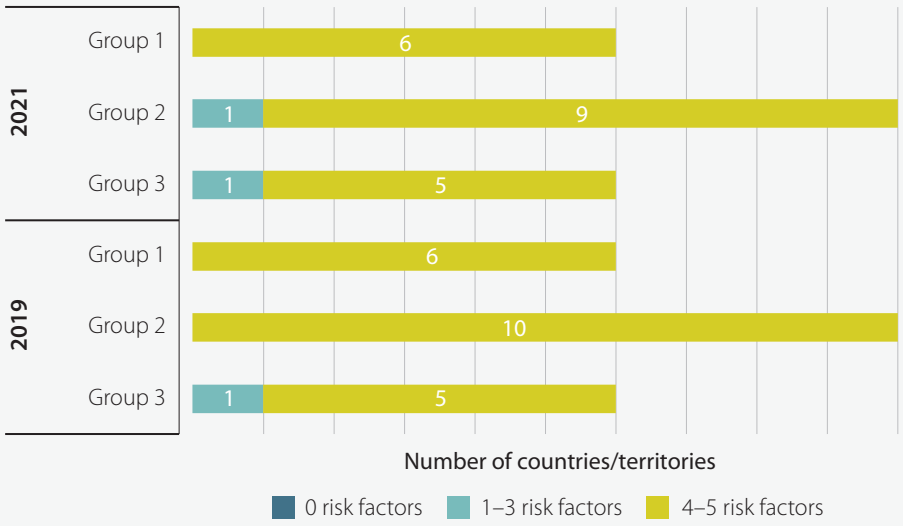


Fig. 34.

Trend in proportion (%) of countries/territories conducting NCD risk factor surveys among adolescents, by risk factor, 2015–2021

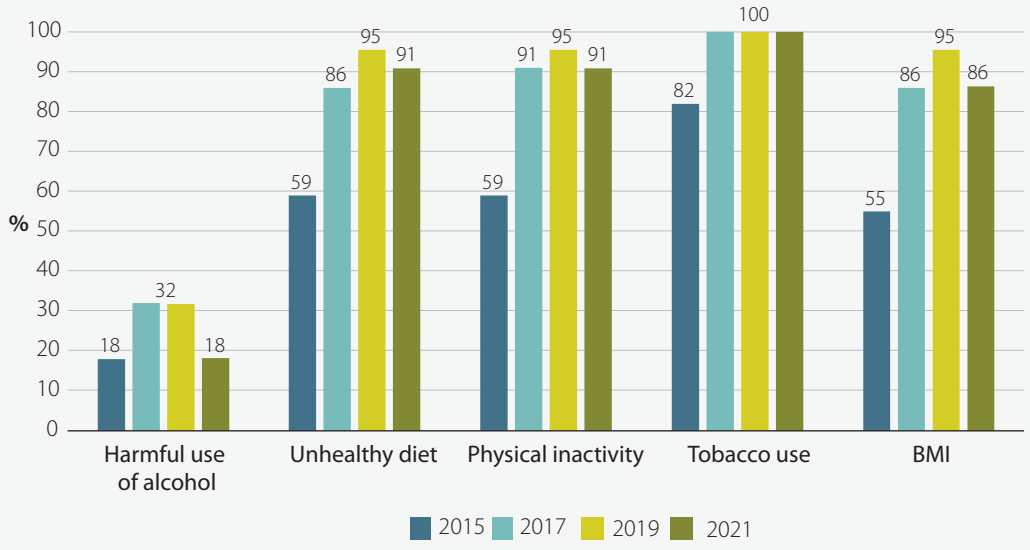
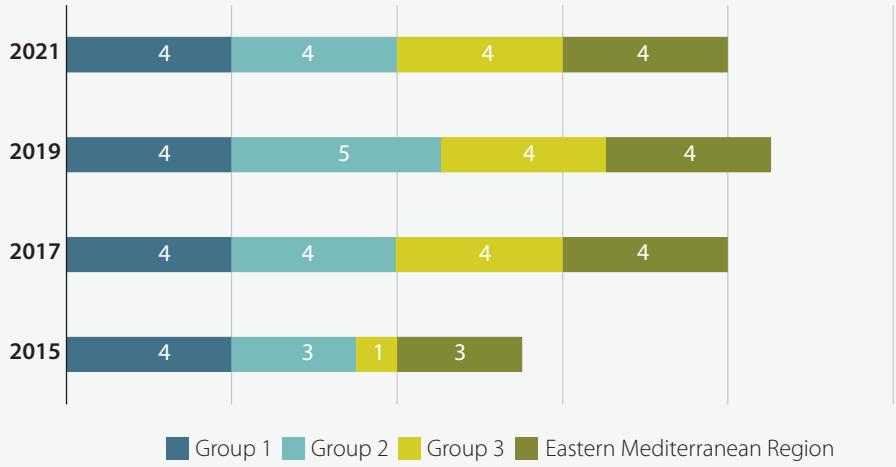


Fig. 35.

Comparison of the average number of adolescent NCD risk factors surveyed in countries/territories, by country group, 2015–2021



Surveys of children

Countries and territories were requested to report on any surveillance they had conducted on physical inactivity and overweight and obesity among children.

In 2021, over a third of the countries and territories in the Region (eight, or 36%) had conducted recent national surveys on overweight and obesity in children (Table 53).

There was a marked disparity among the country groups: all Group 3 countries lacked a recent national survey on these risk factors.

None of the 22 countries and territories in the Region had conducted a recent national survey on physical inactivity among children.

Table 53.

Surveys of NCD risk factors among children

Country group		Physical activity	BMI
Group 1	Bahrain		√
	Kuwait		√
	Oman		√
	Qatar		√
	Saudi Arabia		
	United Arab Emirates		√
	Total	**0**	**5**
		0%	**83%**
Group 2	Egypt		√
	Iran (Islamic Republic of)		√
	Iraq		√
	Jordan		
	Lebanon		
	Libya		
	Morocco		
	Occupied Palestinian territory		
	Syrian Arab Republic		
	Tunisia		
	Total	**0**	**3**
		0%	**30%**
Group 3	Afghanistan		
	Djibouti		
	Pakistan		
	Somalia		
	Sudan		
	Yemen		
	Total	**0**	**0**
		0%	**0%**
Eastern Mediterranean Region		0	8
		0%	**36%**

Health system capacity

NCD guidelines

Countries and territories reported on the availability of evidence-based national guidelines (protocols or standards) for the management of each of the four main NCDs, as well as whether they were used in at least 50% of health care facilities and whether referral criteria were included.

Regionally, more than two thirds of the countries and territories reported having guidelines for each of the four NCDs. Guidelines for the management of cardiovascular diseases and diabetes were the most common (17 countries, or 77%), while guidelines for cancer and chronic respiratory diseases were slightly less common (15 countries, or 68%). The guidelines existed in all Group 1 countries, the majority of Group 2 and in less than a third of Group 3. Guidelines for all four NCDs were utilized in at least 50% of health care facilities in over half of the countries and territories (50–64%). However, no Group 3 countries reported any guidelines being utilized in 50% or more of health care facilities (Table 54).

Countries and territories were also asked if the guidelines include criteria for the referral of patients from primary care to a higher level of care. Referral criteria were reported in 77% of the countries and territories for cardiovascular diseases and diabetes and in 68% for cancer and chronic respiratory diseases (Table 54).

Fig. 36 compares the availability of evidence-based national guidelines for the management of the four main NCDs through a primary health care approach, recognized/approved by government or competent authority, by country group, in 2019 and 2021.

Fig. 37 shows that there has been clear progress in the number of countries and territories reporting the availability of evidence-based national guidelines since 2013.

Fig. 36.

Comparison of the availability of evidence-based national guidelines/protocols/standards for the management of the four main NCDs through a primary care approach, recognized/approved by government or competent authorities, by country group, 2019 and 2021

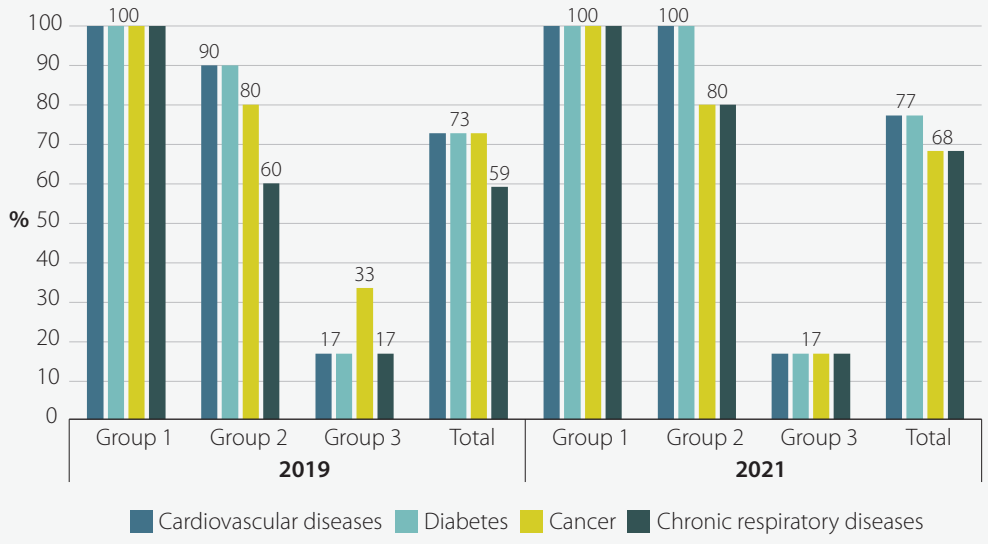


Table 54.

Availability of evidence-based national guidelines/protocols/standards for the management (diagnosis and treatment) of the four main NCDs through a primary care approach, recognized/approved by government or competent authorities

Country group		Management guidelines				Drug-specific protocols				Guidelines: utilized in 50% of facilities				Guidelines: including referral criteria			
		CVD	Diabetes	Cancer	CRD	CVD	Diabetes	Cancer	CRD	CVD	Diabetes	Cancer	CRD	CVD	Diabetes	Cancer	CRD
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Kuwait	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Oman	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Qatar	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Saudi Arabia	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√
	United Arab Emirates	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√
	Total	**6**	**6**	**6**	**6**	**6**	**6**	**4**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**67%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Group 2	Egypt	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√
	Iraq	√	√	√	√					√	√	√		√	√	√	√
	Jordan	√	√	√										√	√		
	Lebanon	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Libya	√	√		√									√	√		√
	Morocco	√	√	√		√	√	√	√	√	√	√		√	√	√	
	Occupied Palestinian territory	√	√		√					√	√		√	√	√	√	√
	Syrian Arab Republic	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Tunisia	√	√	√	√	√	√	√	√		√		√	√	√	√	√
	Total	**10**	**10**	**8**	**8**	**6**	**6**	**6**	**6**	**7**	**8**	**6**	**5**	**10**	**10**	**8**	**8**
		100%	**100%**	**80%**	**80%**	**60%**	**60%**	**60%**	**60%**	**70%**	**80%**	**60%**	**50%**	**100%**	**100%**	**80%**	**80%**

Table 54.

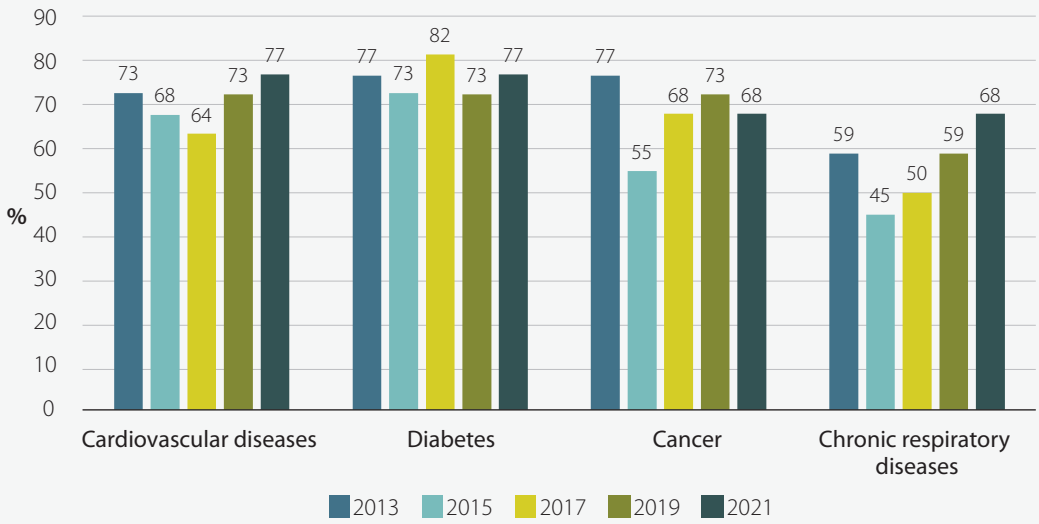
Availability of evidence-based national guidelines/protocols/standards for the management (diagnosis and treatment) of the four main NCDs through a primary care approach, recognized/approved by government or competent authorities *(concluded)*

Country group		Management guidelines				Drug-specific protocols				Guidelines: utilized in 50% of facilities				Guidelines: including referral criteria			
		CVD	Diabetes	Cancer	CRD	CVD	Diabetes	Cancer	CRD	CVD	Diabetes	Cancer	CRD	CVD	Diabetes	Cancer	CRD
Group 3	Afghanistan																
	Djibouti																
	Pakistan																
	Somalia																
	Sudan	√	√	√	√	√	√	√	√					√	√	√	√
	Yemen																
	Total	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**
		17%	**17%**	**17%**	**17%**	**17%**	**17%**	**17%**	**17%**	**0%**	**0%**	**0%**	**0%**	**17%**	**17%**	**17%**	**17%**
Eastern Mediterranean Region		17	17	15	15	13	13	11	13	13	14	12	11	17	17	15	15
		77%	**77%**	**68%**	**68%**	**59%**	**59%**	**50%**	**59%**	**59%**	**64%**	**55%**	**50%**	**77%**	**77%**	**68%**	**68%**

CRD: chronic respiratory diseases; CVD: cardiovascular diseases.

Fig. 37.

Trend (%) in availability of evidence-based national guidelines/protocols/standards for the management of the four main NCDs through a primary care approach, recognized/approved by government or competent authorities, 2013–2021



NCD risk factor guidelines

Countries and territories were surveyed on the availability of guidelines for management of the four major risk factors for NCDs (alcohol dependence, tobacco dependence, overweight/obesity and physical inactivity), as well as whether the guidelines were utilized in at least 50% of health care facilities and whether they included referral criteria.

Guidelines for the management of tobacco dependence and overweight and obesity were the most widely reported in the 22 countries and territories of the Region (10 and 12 countries, respectively), followed by physical inactivity management guidelines (eight countries, or 36%) and then guidelines for the management of alcohol dependence (five countries, 23%) (Table 55).

A similar pattern of responses was identified relating to the utilization of guidelines: tobacco and obesity guidelines were the most likely to be utilized in at least 50% of health care facilities (in 46% and 36% of countries/territories, respectively), while alcohol dependence guidelines were the least likely to be utilized (14%).

Obesity guidelines were the most likely to include referral criteria (46% of countries and territories), while alcohol guidelines were the least likely to include referral criteria (14%) (Table 55).

A notable increase in the number of countries/territories with guidelines for the management of the four major risk factors for NCDs can be seen between the 2019 and 2021 surveys, as shown in Fig. 38.

Fig. 38.

Comparison (%) of availability of evidence-based national guidelines/protocols/standards for the management (diagnosis and treatment) of NCD risk factors through a primary care approach, recognized/approved by government or competent authorities, by country group, 2019 and 2021

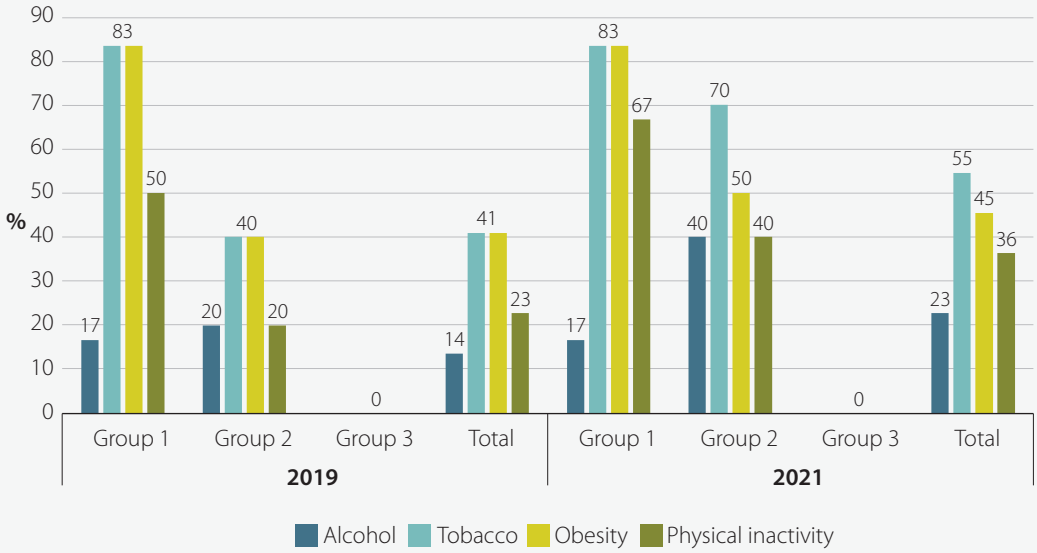


Table 55.

Availability of evidence-based national guidelines/protocols/standards for the management (diagnosis and treatment) of NCD risk factors through a primary care approach, recognized/approved by government or competent authorities

Country group		Management guidelines				Guidelines: utilized in 50% of facilities				Guidelines: including referral criteria			
		Alcohol	Tobacco	Obesity	Physical inactivity	Alcohol	Tobacco	Obesity	Physical inactivity	Alcohol	Tobacco	Obesity	Physical inactivity
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√	√	√
	Kuwait		√	√	√		√	√			√	√	
	Oman												
	Qatar		√	√	√		√	√	√		√	√	
	Saudi Arabia		√	√	√		√	√	√		√	√	√
	United Arab Emirates		√	√			√	√			√	√	
	Total	**1**	**5**	**5**	**4**	**1**	**5**	**5**	**3**	**1**	**5**	**5**	**2**
		17%	**83%**	**83%**	**67%**	**17%**	**83%**	**83%**	**50%**	**17%**	**83%**	**83%**	**33%**
Group 2	Egypt		√										
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	√	√	√	√
	Iraq	√	√	√	√		√					√	
	Jordan		√	√	√		√	√	√			√	√
	Lebanon	√		√								√	
	Libya												
	Morocco	√	√			√	√			√	√		
	Occupied Palestinian territory												
	Syrian Arab Republic		√				√				√		
	Tunisia		√	√	√			√				√	√
	Total	**4**	**7**	**5**	**4**	**2**	**5**	**3**	**2**	**2**	**3**	**5**	**3**
		40%	**70%**	**50%**	**40%**	**20%**	**50%**	**30%**	**20%**	**20%**	**30%**	**50%**	**30%**

Table 55.

Availability of evidence-based national guidelines/protocols/standards for the management (diagnosis and treatment) of NCD risk factors through a primary care approach, recognized/approved by government or competent authorities *(concluded)*

Country group		Management guidelines				Guidelines: utilized in 50% of facilities				Guidelines: including referral criteria			
		Alcohol	Tobacco	Obesity	Physical inactivity	Alcohol	Tobacco	Obesity	Physical inactivity	Alcohol	Tobacco	Obesity	Physical inactivity
Group 3	Afghanistan												
	Djibouti												
	Pakistan												
	Somalia												
	Sudan												
	Yemen												
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		0%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Eastern Mediterranean Region		5	12	10	8	3	10	8	5	3	8	10	5
		23%	**55%**	**46%**	**36%**	**14%**	**46%**	**36%**	**23%**	**14%**	**36%**	**46%**	**23%**

Availability of basic technologies for early detection, diagnosis and monitoring of NCDs

The availability of basic tests and procedures for early detection, diagnosis and monitoring of NCDs was assessed in the countries and territories of the Region. An additional test, peak flow measurement, was added to the 2021 survey. Most of the 13 tests and procedures were reported as being "generally available" (provided in 50% or more of primary health care facilities in public and private sectors) by the majority of the countries and territories (Tables 56 and 57).

Weight, height, blood glucose and blood pressure measurements were generally available in the vast majority of countries and territories (91–96%). More than 60% reported the availability of urine strips for glucose measurement and total cholesterol measurement, and exactly half had oral glucose tolerance (OGT) testing, HbA1c testing (for average blood sugars), urine strips for albumin assay and peak flow measurement in primary health care facilities of the public sector. The least available technologies in the Region were spirometry and foot vibration (27% and 36%, respectively) (Table 56).

The availability of tests and procedures for early detection, diagnosis and monitoring of NCDs in public primary care facilities varied greatly between country groups, with substantially lower availability in Group 3 countries than in Group 1 and Group 2. The average number of the basic technologies available was highest in Group 1 countries (12.5 out of 13 technologies) compared to Group 2 (6.9 technologies) and Group 3 (4.2 technologies) (Table 56). A similar pattern was observed when analysing the availability of basic tests and procedures for early detection, diagnosis and monitoring of NCDs in primary care facilities within the private sector (Table 57). Fig. 39 shows the availability of the 13 technologies in the public and private sectors of countries/territories. For Group 1 countries, the availability of the technologies was high in both sectors, while in Group 2 and Group 3 their availability was higher in the private sector in almost all countries/territories.

Fig. 40 compares the availability of basic technologies for the early detection, diagnosis and monitoring of NCDs at primary health care facilities in the public and private sectors in 2019 and 2021, by country group. In Group 1 countries, the availability of technologies had increased slightly in both sectors in 2021 compared with 2019. In Group 2 and Group 3 countries/territories, a slight decrease was seen in public sector availability of technologies in 2021 compared to 2019, while an increase was seen in the private sector.

Table 56.

Availability of the 13 basic technologies for the early detection, diagnosis and monitoring of NCDs in primary health care facilities in the public sector

Country group		Weight	Height	Blood glucose	OGT test	HbA1c test	Dilated fundus	Foot vibration	Urine strips for glucose	Blood pressure	Total cholesterol	Urine strips for albumin assay	Peak flow*	Spirometry	Number of basic technologies available
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	Kuwait	√	√	√	√	√	√	√	√	√	√	√	√		12
	Oman	√	√	√	√	√	√	√	√	√	√	√	√		12
	Qatar	√	√	√	√	√	√	√	√	√	√	√	√		12
	Saudi Arabia	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	United Arab Emirates	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	Total	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**3**	**12.5****
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**50%**	
Group 2	Egypt	√	√	√	√	√			√	√	√	√			9
	Iran (Islamic Republic of)	√	√	√	√	√				√	√				7
	Iraq	√	√	√						√	√		√		6
	Jordan	√	√	√					√	√			√	√	7
	Lebanon	√	√	√			√	√		√					6
	Libya	√	√	√					√	√					5
	Morocco	√	√	√	√	√	√			√	√	√	√		10
	Occupied Palestinian territory	√	√	√	√	√				√	√				7
	Syrian Arab Republic	√	√	√	√		√	√	√	√	√	√	√		11
	Tunisia	√	√	√		√	√		√	√	√	√	√	√	11
	Total	**10**	**10**	**10**	**5**	**5**	**4**	**2**	**5**	**10**	**7**	**4**	**5**	**2**	**6.9****
		100%	**100%**	**100%**	**50%**	**50%**	**40%**	**20%**	**50%**	**100%**	**70%**	**40%**	**50%**	**20%**	

Table 56.

Availability of the 13 basic technologies for the early detection, diagnosis and monitoring of NCDs in primary health care facilities in the public sector *(concluded)*

Country group		Weight	Height	Blood glucose	OGT test	HbA1c test	Dilated fundus	Foot vibration	Urine strips for glucose	Blood pressure	Total cholesterol	Urine strips for albumin assay	Peak flow*	Spirometry	Number of basic technologies available
Group 3	Afghanistan	√	√	√					√	√	√	√			7
	Djibouti	√	√	√					√					√	5
	Pakistan	√	√	√						√					4
	Somalia	√	√	√					√	√					5
	Sudan	√		√					√	√					4
	Yemen														0
	Total	**5**	**4**	**5**	**0**	**0**	**0**	**0**	**4**	**4**	**1**	**1**	**0**	**1**	**4.2****
		83%	**67%**	**83%**	**0%**	**0%**	**0%**	**0%**	**67%**	**67%**	**17%**	**17%**	**0%**	**17%**	
Eastern Mediterranean Region		21	20	21	11	11	10	8	15	20	14	11	11	6	8.1**
		96%	**91%**	**96%**	**50%**	**50%**	**46%**	**36%**	**68%**	**91%**	**64%**	**50%**	**50%**	**27%**	

*New question in 2021.
**Average of items.

Table 57.

Availability of the 13 basic technologies for the early detection, diagnosis and monitoring of NCDs in primary health care facilities in the private sector

Country group		Weight	Height	Blood glucose	OGT test	HbA1c test	Dilated fundus	Foot vibration	Urine strips for glucose	Blood pressure	Total cholesterol	Urine strips for albumin assay	Peak flow*	Spirometry	Number of basic technologies available
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	Kuwait	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	Oman	√	√	√	√	√	√	√	√	√	√	√	√		12
	Qatar	√	√	√	√	√	√	√	√	√	√	√	√		12
	Saudi Arabia	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	United Arab Emirates	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	Total	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**4**	**12.7****
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**67%**	
Group 2	Egypt	√	√	√	√	√			√	√	√	√			9
	Iran (Islamic Republic of)	√	√	√	√	√	√			√	√	√			9
	Iraq	√	√	√		√	√	√	√	√	√	√			10
	Jordan	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	Lebanon	√	√	√			√	√		√					6
	Libya	√	√	√		√	√	√	√	√	√	√	√		11
	Morocco	√	√	√	√	√	√	√	√	√	√	√	√	√	13
	Occupied Palestinian territory	√	√	√	√	√				√	√				
	Syrian Arab Republic	√	√	√	√	√	√	√	√	√	√	√	√		12
	Tunisia	√	√	√		√	√		√	√	√	√	√	√	11
	Total	**10**	**10**	**10**	**6**	**9**	**8**	**6**	**7**	**10**	**9**	**8**	**5**	**3**	**10.1****
		100%	**100%**	**100%**	**60%**	**90%**	**80%**	**60%**	**70%**	**100%**	**90%**	**80%**	**50%**	**30%**	

Table 57.

Availability of the 13 basic technologies for the early detection, diagnosis and monitoring of NCDs in primary health care facilities in the private sector *concluded*

Country group		Weight	Height	Blood glucose	OGT test	HbA1c test	Dilated fundus	Foot vibration	Urine strips for glucose	Blood pressure	Total cholesterol	Urine strips for albumin assay	Peak flow*	Spirometry	Number of basic technologies available
Group 3	Afghanistan	√	√	√		√			√	√	√	√			8
	Djibouti	√	√	√	√				√	√					6
	Pakistan	√	√	√						√	√	√			6
	Somalia	√	√	√	√	√	√	√	√	√	√	√			11
	Sudan	√		√		√		√	√	√	√	√			8
	Yemen														0
	Total	**5**	**4**	**5**	**2**	**3**	**1**	**2**	**4**	**5**	**4**	**4**	**0**	**0**	**6.5****
		83%	**67%**	**83%**	**33%**	**50%**	**17%**	**33%**	**67%**	**83%**	**67%**	**67%**	**0%**	**0%**	
Eastern Mediterranean Region		21	20	21	14	18	15	14	17	21	19	18	11	7	9.8**
		96%	**91%**	**96%**	**64%**	**82%**	**68%**	**64%**	**77%**	**96%**	**87%**	**82%**	**50%**	**32%**	

*New question in 2021.
**Average of items.

Fig. 39.

Comparison of availability of the 13 basic technologies for early detection, diagnosis and monitoring of NCDs at primary health care facilities in the public and private sectors

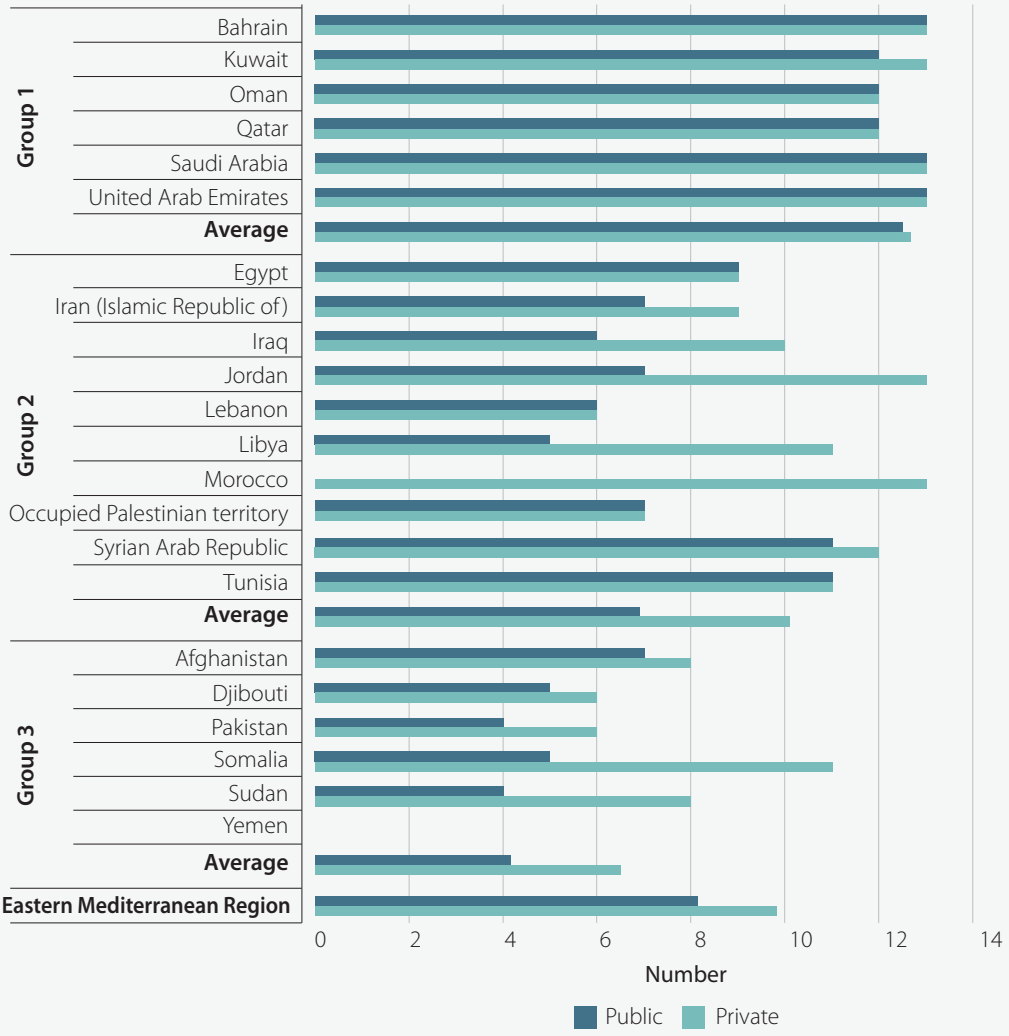
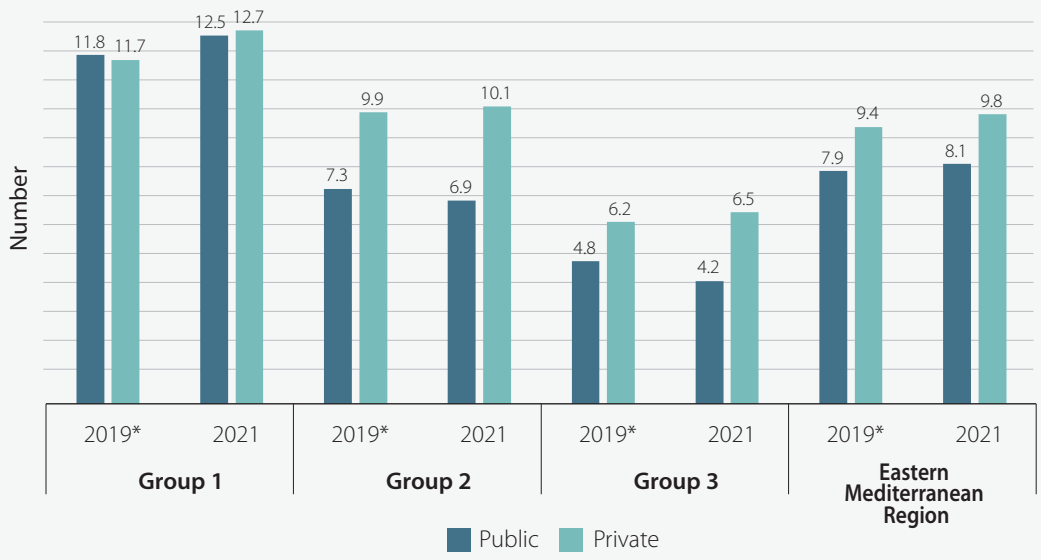


Fig. 40.

Comparison of availability of the 13 basic technologies for early detection, diagnosis and monitoring of NCDs at primary health care facilities in the public and private sectors, by country group, 2019 and 2021



*12 technologies were assessed in 2019.

Cancer screening programmes

Breast cancer screening

Nearly two thirds of the countries and territories (64%) reported the availability of breast cancer screening programmes. Such programmes were reported by all countries in Group 1, 80% in Group 2, but by none in Group 3 (Table 58, Fig. 41). Breast cancer screening programmes were reported to be organized and population-based in six countries and territories (27%) and as opportunistic in a further six. Clinical breast examination and mammography were the most common methods of screening, reported by nearly a third of the countries and territories (seven, or 31%) for each of the methods. Only one country (Lebanon) reported breast cancer screening programme coverage of the highest category (more than 50% but less than 70% of the target population) (Table 58).

Fig. 42 illustrates the proportion of countries/territories implementing different breast cancer screening methods in 2017, 2019 and 2021. The percentage of countries conducting breast cancer screening remained constant at 77% in both 2017 and 2019, but declined to 64% in 2021. Clinical breast exams were consistently utilized in 32% of countries throughout the entire period. Mammography was employed in 41% of countries in 2017, which increased to 45% in 2019, but subsequently decreased to 32% in 2021. Opportunistic screening was reported by 32% of countries in 2017, then decreased to 27% in 2019 and maintained the same level in 2021. Organized population-based screening also experienced a decline, from 41% in 2017 to 36% in 2021.

Fig. 41.

Comparison (%) of availability of national screening programmes for breast cancer, by country group

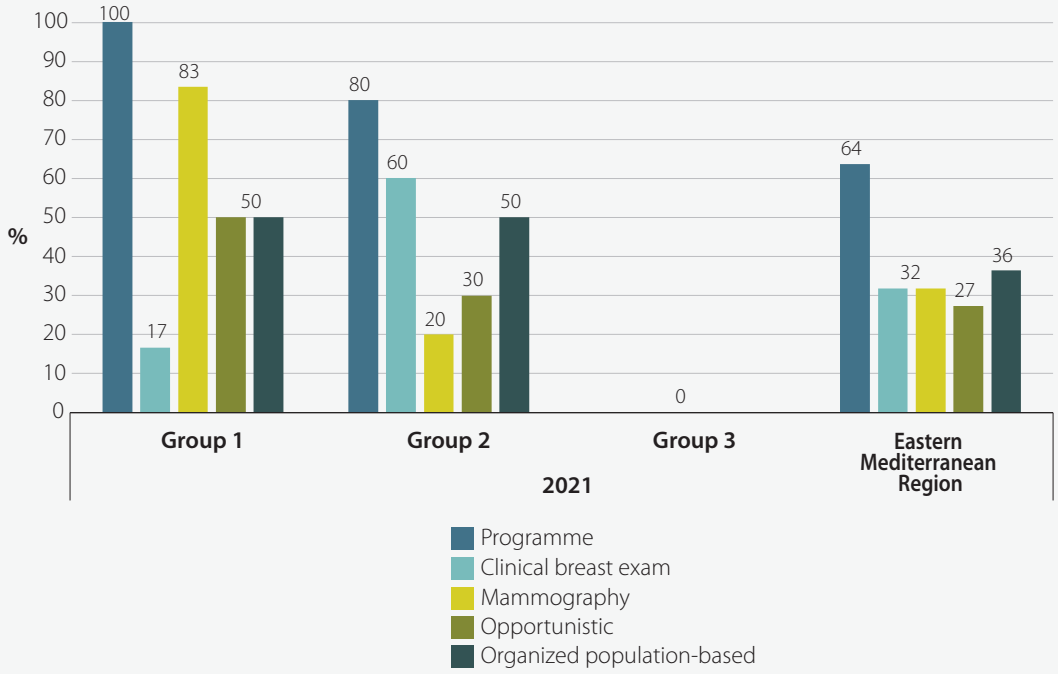


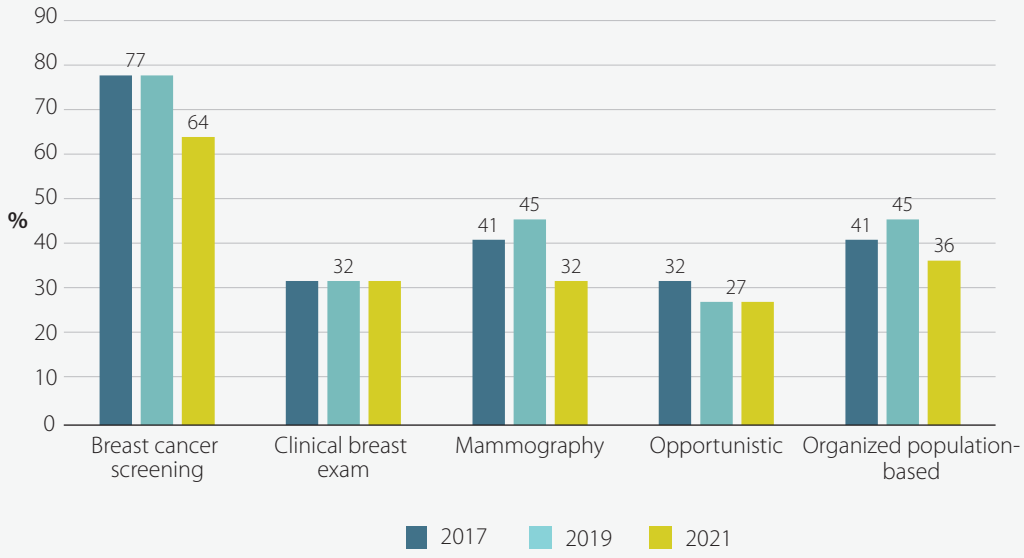
Table 58.

Availability of national screening programmes for breast cancer

Country group		Programme	Method		Type		Coverage		
			Clinical breast exam	Mammography	Opportunistic	Organized population-based	<10%	10–50%	>50% and <70%
Group 1	Bahrain	√		√		√	√		
	Kuwait	√		√	√	√	√		
	Oman	√	√			√	√		
	Qatar	√		√				√	
	Saudi Arabia	√		√	√	√	√		
	United Arab Emirates	√		√	√			√	
	Total	**6**	**1**	**5**	**3**	**4**	**4**	**2**	**0**
		100%	**17%**	**83%**	**50%**	**67%**	**67%**	**33%**	**0%**
Group 2	Egypt								
	Iran (Islamic Republic of)	√	√			√	√		
	Iraq	√	√					√	
	Jordan	√	√		√	√	√		
	Lebanon	√		√					√
	Libya								
	Morocco	√	√					√	
	Occupied Palestinian territory	√	√		√			√	
	Syrian Arab Republic	√		√	√				
	Tunisia	√	√					√	
	Total	**8**	**6**	**2**	**3**	**2**	**2**	**4**	**1**
		80%	**60%**	**20%**	**30%**	**20%**	**20%**	**40%**	**10%**
Group 3	Afghanistan								
	Djibouti								
	Pakistan								
	Somalia								
	Sudan								
	Yemen								
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		0%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Eastern Mediterranean Region		14	7	7	6	6	6	6	1
		64%	**32%**	**32%**	**27%**	**27%**	**27%**	**27%**	**5%**

Fig. 42.

Trend (%) in availability of national screening programmes for breast cancer, 2017–2021



Cervical cancer screening

Over a third of the 22 countries and territories (eight, or 36%) reported having a national screening programme for cervical cancer. Most of these were organized population-based programmes (five of the eight countries) which had coverage of less than 10%.

At the country group level, 50% of countries and territories in Group 1 and Group 2 had cervical cancer screening programmes, but Group 3 had none (Table 59, Fig. 43). The most common method of screening was a Pap smear, used by 27% of the countries and territories in the Region (Table 59).

The trend in the availability of national screening programmes for cervical cancer over the 2017–2021 period is illustrated in Fig. 44. The availability of cervical cancer screening programmes in countries and territories increased from 41% in 2017 to 45% in 2019, but declined to 36% in 2021. Meanwhile, the proportion of countries offering human papillomavirus (HPV) tests and Pap smears for cervical screening remained relatively constant at 5% and 27%, respectively, throughout the period. Visual inspection was available in 9% of countries and territories in 2017, but decreased to 5% in 2019 and 2021. Opportunistic screening remained steady at 14% across all years, while organized population-based screening decreased from 27% in 2017 to 23% in 2021.

Fig. 43.

Comparison (%) of availability of national screening programmes for cervical cancer, by country group

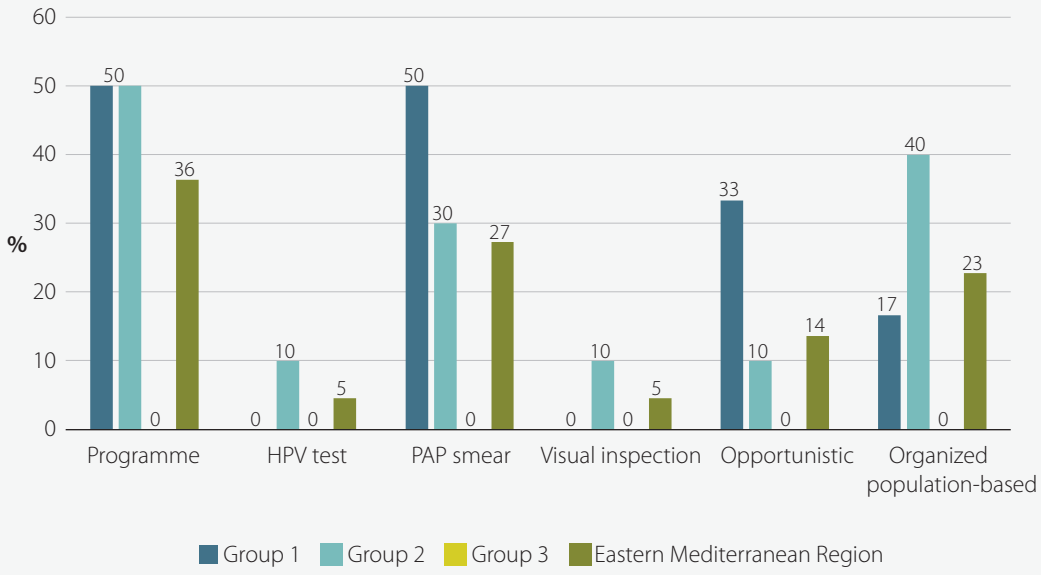


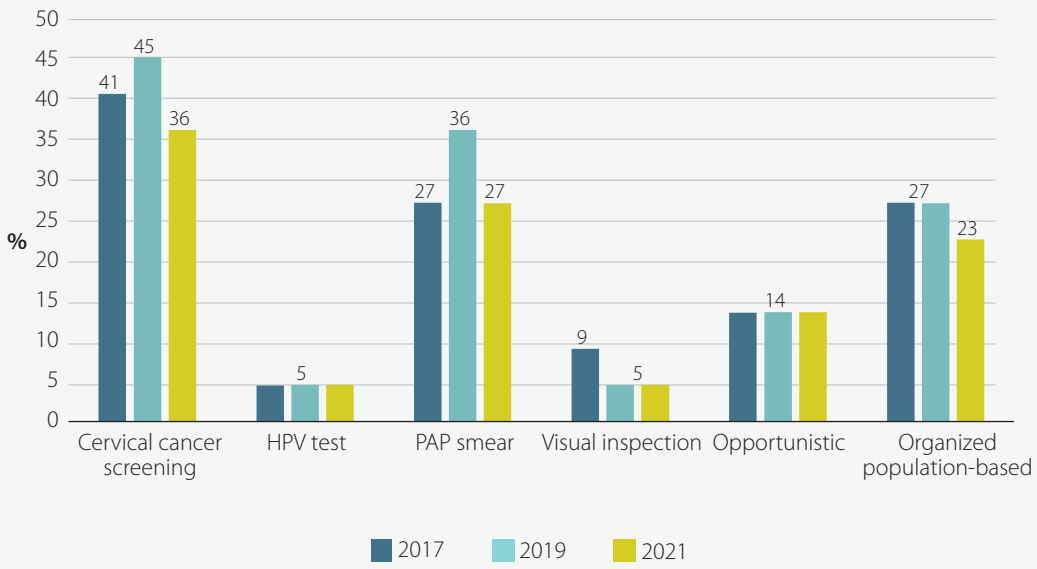
Table 59.

Availability of national screening programmes for cervical cancer

Country group		Programme	Method			Type		Coverage		
			HPV test	Pap smear	Visual inspection	Opportunistic	Organized population-based	<10%	10–50%	>50% and <70%
Group 1	Bahrain	√		√		√		√		
	Kuwait									
	Oman									
	Qatar	√		√			√	√		
	Saudi Arabia									
	United Arab Emirates	√		√		√		√		
	Total	**3**	**0**	**3**	**0**	**2**	**1**	**3**	**0**	**0**
		50%	**0%**	**50%**	**0%**	**33%**	**17%**	**50%**	**0%**	**0%**
Group 2	Egypt									
	Iran (Islamic Republic of)	√	√				√	√		
	Iraq									
	Jordan									
	Lebanon	√		√		√				√
	Libya									
	Morocco	√			√		√	√		
	Occupied Palestinian territory									
	Syrian Arab Republic	√		√			√			
	Tunisia	√		√			√		√	
	Total	**5**	**1**	**3**	**1**	**1**	**4**	**2**	**1**	**1**
		50%	**10%**	**30%**	**10%**	**10%**	**40%**	**20%**	**10%**	**10%**
Group 3	Afghanistan									
	Djibouti									
	Pakistan									
	Somalia									
	Sudan									
	Yemen									
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		0%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Eastern Mediterranean Region		8	1	6	1	3	5	5	1	1
		36%	**5%**	**27%**	**5%**	**14%**	**23%**	**23%**	**5%**	**5%**

Fig. 44.

Trend (%) in the availability national screening programmes for cervical cancer, 2017–2021



Colon cancer screening

The availability of a national colon cancer screening programme was reported by 41% of the 22 countries and territories (nine), including 100% of Group 1 countries, but only 30% of Group 2 countries/territories and no Group 3 countries (Table 60, Fig. 45). Organized, population-based screening programmes and opportunistic programmes were almost equally prevalent, present in four and five countries, respectively. Five countries (23%) reported programme coverage of less than 10% of the target population (Table 60).

The trend in the proportion of countries and territories with national cancer screening programmes for colon cancer in 2017–2021 is illustrated in Fig. 46. The data show the proportion with national screening programmes for colon cancer was 27% in 2017, which increased to 45% in 2019 but slightly decreased to 41% in 2021.

Table 60.

Availability of national screening programme for colon cancer

Country group		Programme	Method		Type		Coverage	
			Colonoscopy/ Sigmoidoscopy	Faecal test	Opportunistic	Organized population-based	<10%	10–50%
Group 1	Bahrain	√		√		√		
	Kuwait	√	√		√			√
	Oman	√		√	√		√	
	Qatar	√	√			√	√	
	Saudi Arabia	√		√	√		√	
	United Arab Emirates	√		√	√		√	
	Total	**6**	**2**	**4**	**4**	**2**	**4**	**1**
		100%	**33%**	**67%**	**67%**	**33%**	**67%**	**17%**
Group 2	Egypt							
	Iran (Islamic Republic of)	√		√		√	√	
	Iraq							
	Jordan							
	Lebanon	√		√	√			√
	Libya							
	Morocco							
	Occupied Palestinian territory							
	Syrian Arab Republic							
	Tunisia	√		√		√		√
	Total	**3**	**0**	**3**	**1**	**2**	**1**	**2**
		30%	**0%**	**30%**	**10%**	**20%**	**10%**	**20%**
Group 3	Afghanistan							
	Djibouti							
	Pakistan							
	Somalia							
	Sudan							
	Yemen							
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		0%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Eastern Mediterranean Region		9	2	7	5	4	5	3
		41%	**9%**	**32%**	**23%**	**18%**	**23%**	**14%**

Fig. 45.

Comparison (%) of availability of national screening programmes for colon cancer, by country group

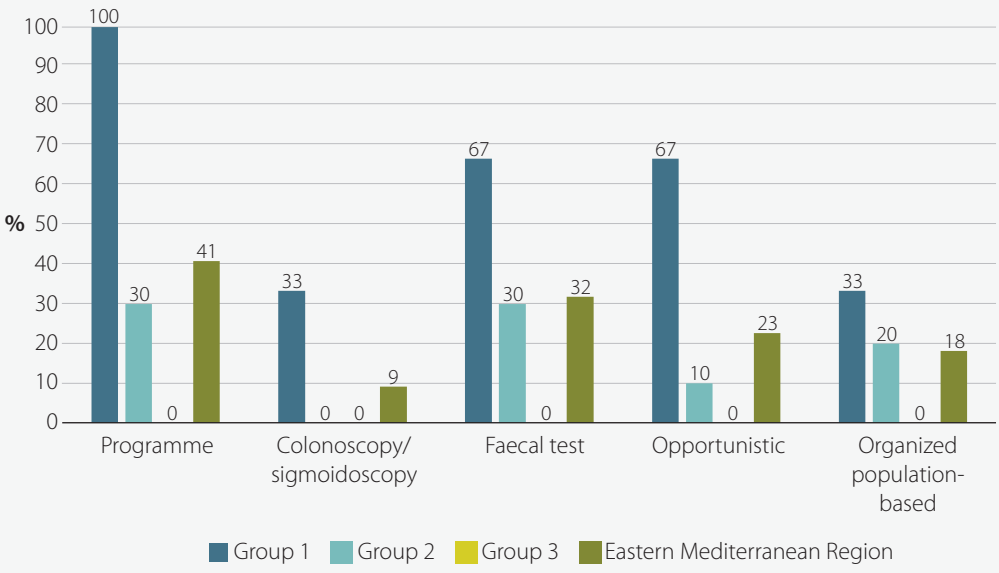
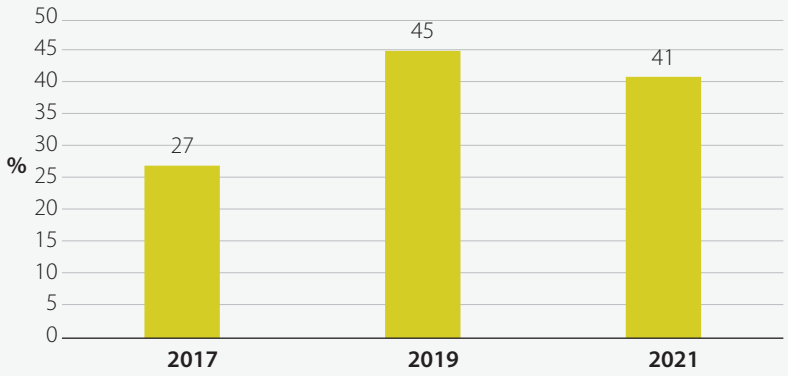


Fig. 46.

Trend in the availability of national screening programmes for colon cancer, 2017–2021



Early detection of cancers

Early detection of breast cancer was integrated into primary health care services in a significant proportion of the 22 countries and territories in the Region (15, or 68%), more than for cervix (10, or 46%), colon (nine, or 41%) and childhood cancers (one, or 5%). The picture was similar when it came to having a clearly defined referral system from primary care to secondary and tertiary care for each type of cancer: 14 countries/territories (64%) reported referral systems for breast cancer, 10 (46%) for cervical cancer, 10 (46%) for colon cancer, and four countries/territories (18%) for childhood cancers. In general, early detection programmes/guidelines for all cancer types and the presence of clearly defined referral systems were correlated with country groups: breast cancer guidelines, for example, were available in all Group 1 countries/territories, in 80% of Group 2, and in only 17% of Group 3 (Table 61). The trend in primary health care service integration of early detection of cancers (breast, cervix and colon) in the Region for 2017–2021 is illustrated in Fig. 47.

Meanwhile, national programmes for HPV vaccination were reported to be absent in almost all of the countries and territories, with the exception of Libya, Qatar and United Arab Emirates (Table 62). Fig. 48 portrays the inclusion of HPV in the national immunization schedule and HPV vaccine coverage in the Region, in 2019 and 2021.

Fig. 47.

Trend (%) in primary health care service integration of early detection of cancers (breast, cervix and colon), 2017–2021

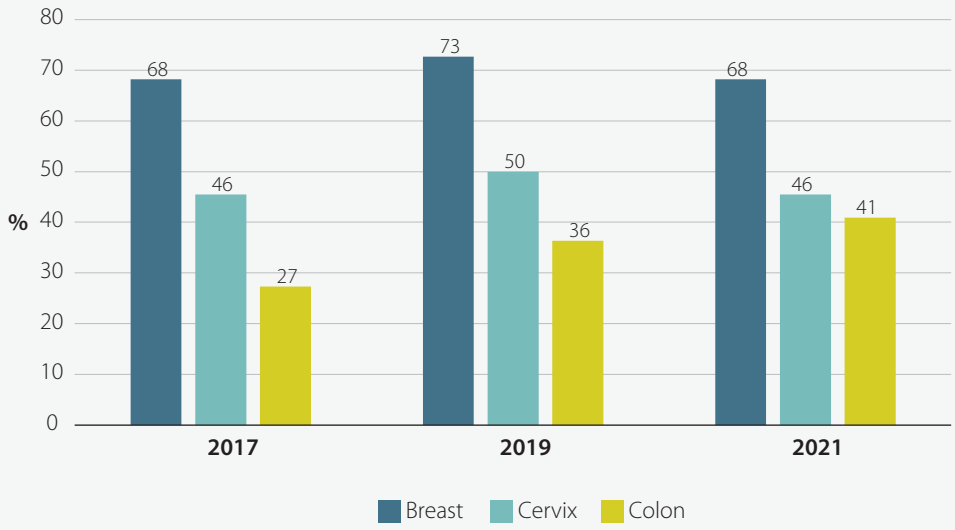


Table 61.

Primary health care service integration of early detection of cancers by means of rapid identification of first symptoms

Country group		Early detection of cancers					Defined referral systems				
		Breast	Cervix	Colon	Other	Childhood cancers	Breast	Cervix	Colon	Other	Childhood cancers
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√
	Kuwait	√	√	√			√	√	√		
	Oman	√					√		√		
	Qatar	√	√	√			√	√	√	√	√
	Saudi Arabia	√		√			√		√		
	United Arab Emirates	√	√	√	√		√	√	√	√	
	Total	**6**	**4**	**5**	**2**	**1**	**6**	**4**	**6**	**3**	**2**
		100%	**67%**	**83%**	**33%**	**17%**	**100%**	**67%**	**100%**	**50%**	**33%**
Group 2	Egypt										
	Iran (Islamic Republic of)	√	√	√			√	√	√		
	Iraq	√					√				
	Jordan	√									
	Lebanon	√	√	√			√	√	√		
	Libya										
	Morocco	√	√				√	√			√
	Occupied Palestinian territory	√					√				
	Syrian Arab Republic	√	√				√	√			
	Tunisia	√	√	√			√	√	√	√	√
	Total	**8**	**5**	**3**	**0**	**0**	**7**	**5**	**3**	**1**	**2**
		80%	**50%**	**30%**	**0%**	**0%**	**70%**	**50%**	**30%**	**10%**	**20%**
Group 3	Afghanistan										
	Djibouti										
	Pakistan										
	Somalia										
	Sudan	√	√	√	√		√	√	√		
	Yemen										
	Total	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**0**	**0**
		17%	**17%**	**17%**	**17%**	**0%**	**17%**	**17%**	**17%**	**0%**	**0%**
Eastern Mediterranean Region		15	10	9	3	1	14	10	10	4	4
		68%	**46%**	**41%**	**14%**	**5%**	**64%**	**46%**	**46%**	**18%**	**18%**

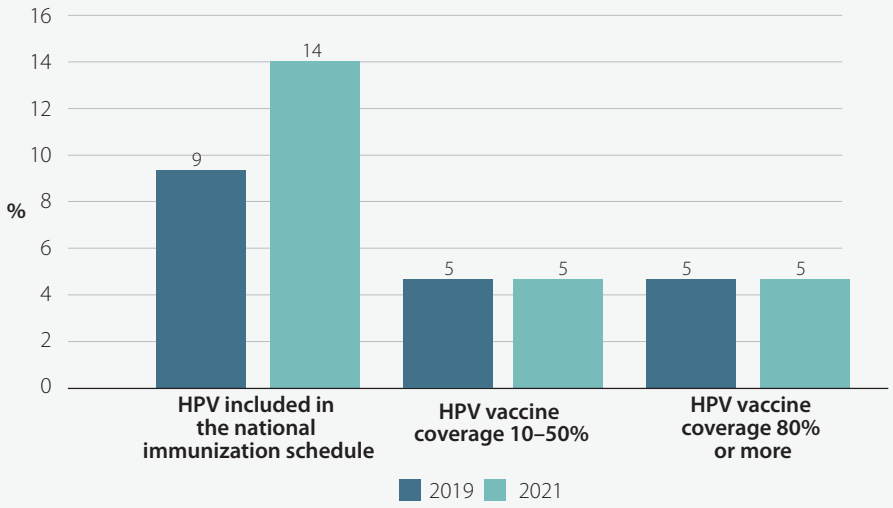
Table 62.

Implementation of national HPV vaccination programmes

Country group		HPV included in the national immunization schedule	Coverage	
			10–50%	80% or more
Group 1	Bahrain			
	Kuwait			
	Oman			
	Qatar	√		
	Saudi Arabia			
	United Arab Emirates	√		√
	Total	**2**	**0**	**1**
		33%	**0%**	**17%**
Group 2	Egypt			
	Iran (Islamic Republic of)			
	Iraq			
	Jordan			
	Lebanon			
	Libya	√	√	
	Morocco			
	Occupied Palestinian territory			
	Syrian Arab Republic			
	Tunisia			
	Total	**1**	**1**	**0**
		10%	**10%**	**0%**
Group 3	Afghanistan			
	Djibouti			
	Pakistan			
	Somalia			
	Sudan			
	Yemen			
	Total	**0**	**0**	**0**
		0%	**0%**	**0%**
Eastern Mediterranean Region		3	1	1
		14%	**5%**	**5%**

Fig. 48

HPV inclusion in the national immunization schedule and HPV vaccine coverage 80% or more, 2019 and 2021



Availability of 20 essential medicines in the public health sector

Countries and territories were requested to report on the availability of 20 essential NCD medicines in the public health sector in the 2021 survey, five more than the 2019 survey. The general availability of the medicines (available in 50% or more pharmacies in public sector primary health care facilities) is shown in Table 63. The most widely available essential NCD medicines were aspirin, metformin, calcium channel blockers and bronchodilators (available in 18–19 countries/territories, or 82–86%). The least available medicines were fixed-dose combinations (lisinopril + amlodipine; lisinopril + hydrochlorothiazide; telmisartan + amlodipine; and telmisartan + hydrochlorothiazide), each of which were reported by only five countries and territories (23%).

Disparities in the availability of the 20 essential NCD medicines in the public sector at primary health care level across the three country groups were evident: the average number of essential medicines that were available was highest in Group 1 countries/territories (18 medicines), followed by Group 2 (12 medicines), and lowest in Group 3 (six medicines). The trend in the availability of essential NCD medicines at public primary health care facilities in the Region from 2017 to 2021 is shown in Fig. 49.

Fig. 49.

Trend (%) in the availability of essential NCD medicines in public primary health care facilities, 2017–2021

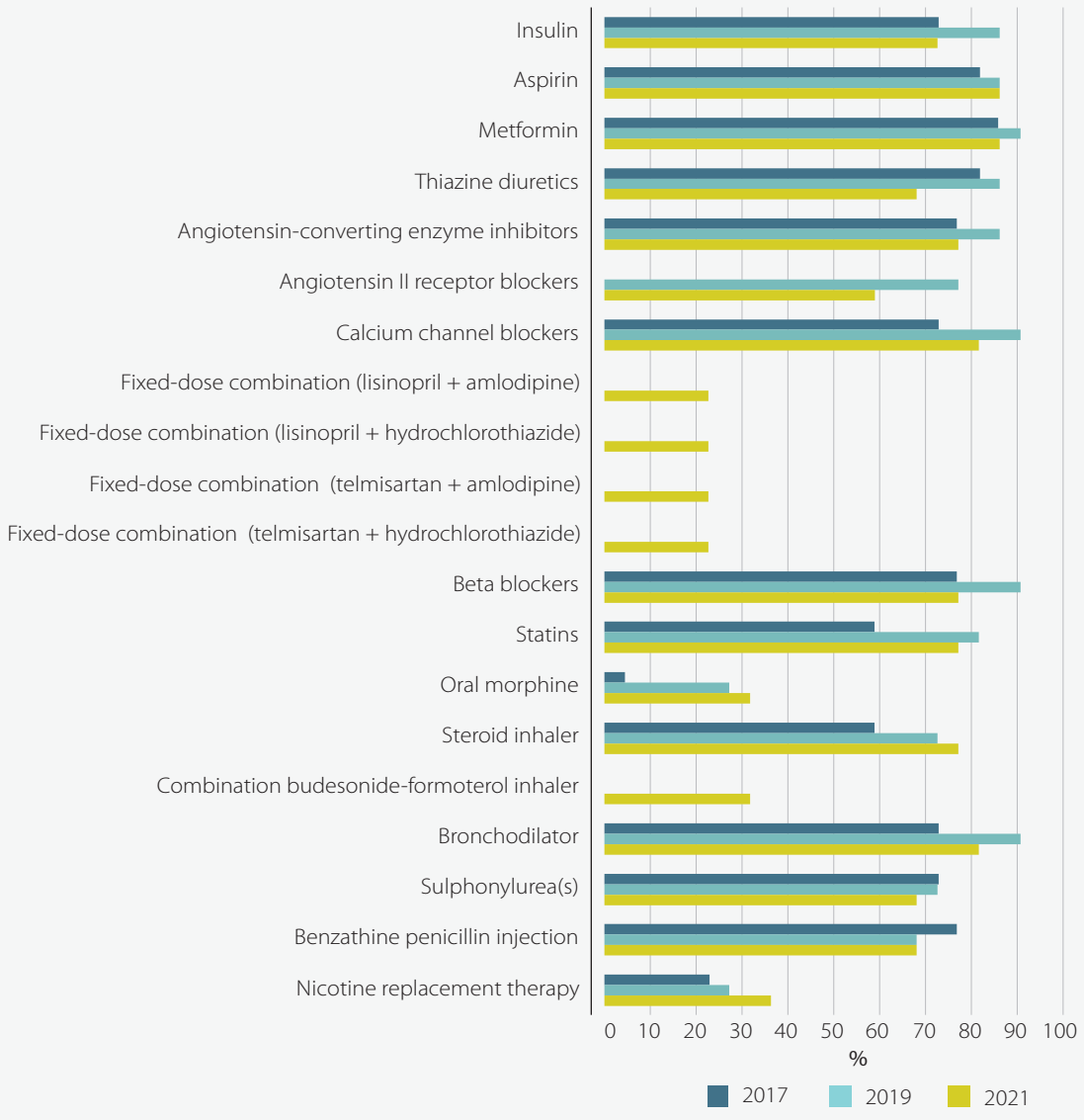


Table 63.

Availability of 20 essential NCD medicines at primary health care facilities in the public sector

	Country group	Insulin	Aspirin	Metformin	Thiazide diuretics	Angiotensin-converting enzyme inhibitors	Angiotensin II receptor blockers (ARBs)	Calcium channel blockers	Fixed-dose combination (lisinopril + amlodipine)*	Fixed-dose combination (lisinopril + hydrochlorothiazide)*	Fixed-dose combination (telmisartan + amlodipine)*	Fixed-dose combination (telmisartan + hydrochlorothiazide)*	Beta blockers	Statins	Oral morphine	Steroid inhaler	Combination budesonide-formoterol inhaler*	Bronchodilator	Sulphonylurea (s)	Benzathine penicillin injection	Nicotine replacement therapy	Total number of medicines available (out of 20)
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	20
	Kuwait	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	20
	Oman	√	√	√	√	√	√	√					√	√		√	√	√	√	√		14
	Qatar	√	√	√	√	√	√	√					√	√	√	√		√	√	√	√	15
	Saudi Arabia	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	20
	United Arab Emirates	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	19
	Total	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**4**	**4**	**4**	**4**	**6**	**6**	**4**	**6**	**5**	**6**	**6**	**6**	**5**	**18****
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**67%**	**67%**	**67%**	**67%**	**100%**	**100%**	**67%**	**100%**	**83%**	**100%**	**100%**	**100%**	**83%**	
Group 2	Egypt																					0
	Iran (Islamic Republic of)	√	√	√	√	√	√	√					√	√		√	√	√	√	√		14
	Iraq	√	√	√	√	√	√	√					√	√		√		√	√	√		13
	Jordan	√	√	√	√	√	√	√					√	√		√	√	√	√	√	√	15
	Lebanon	√	√	√	√	√	√	√					√	√		√		√	√			12
	Libya	√	√	√		√		√					√	√		√		√	√			10
	Morocco	√	√	√	√	√	√	√	√	√				√	√	√		√		√		14
	Occupied Palestinian territory	√	√	√	√	√	√	√					√	√	√	√		√	√	√		14
	Syrian Arab Republic	√	√	√	√	√	√	√					√	√		√		√	√	√		13
	Tunisia	√	√	√	√	√		√					√	√		√		√		√	√	12
	Total	**9**	**9**	**9**	**8**	**9**	**7**	**9**	**1**	**1**	**0**	**0**	**8**	**9**	**2**	**9**	**2**	**9**	**7**	**7**	**2**	**12****
		90%	**90%**	**90%**	**80%**	**90%**	**70%**	**90%**	**10%**	**10%**	**0%**	**0%**	**80%**	**90%**	**20%**	**90%**	**20%**	**90%**	**70%**	**70%**	**20%**	

Table 63.

Availability of 20 essential NCD medicines at primary health care facilities in the public sector *(concluded)*

Country group		Insulin	Aspirin	Metformin	Thiazide diuretics	Angiotensin-converting enzyme inhibitors	Angiotensin II receptor blockers (ARBs)	Calcium channel blockers	Fixed-dose combination (lisinopril + amlodipine)*	Fixed-dose combination (lisinopril + hydrochlorothiazide)*	Fixed-dose combination (telmisartan + amlodipine)*	Fixed-dose combination (telmisartan + hydrochlorothiazide)*	Beta blockers	Statins	Oral morphine	Steroid inhaler	Combination budesonide-formoterol inhaler*	Bronchodilator	Sulphonylurea (s)	Benzathine penicillin injection	Nicotine replacement therapy	Total number of medicines available (out of 20)
Group 3	Afghanistan		√	√		√		√					√	√		√		√				8
	Djibouti		√	√							√	√	√			√		√	√	√	√	10
	Pakistan																					0
	Somalia		√	√				√														3
	Sudan	√	√	√	√	√		√					√	√				√	√	√		11
	Yemen														√							1
	Total	**1**	**4**	**4**	**1**	**2**	**0**	**3**	**0**	**0**	**1**	**1**	**3**	**2**	**1**	**2**	**0**	**3**	**2**	**2**	**1**	**6****
		17%	**67%**	**67%**	**17%**	**33%**	**0%**	**50%**	**0%**	**0%**	**17%**	**17%**	**50%**	**33%**	**17%**	**33%**	**0%**	**50%**	**33%**	**33%**	**17%**	
Eastern Mediterranean Region		16	19	19	15	17	13	18	5	5	5	5	17	17	7	17	7	18	15	15	8	12**
		73%	**87%**	**87%**	**68%**	**77%**	**59%**	**82%**	**23%**	**23%**	**23%**	**23%**	**77%**	**77%**	**32%**	**77%**	**32%**	**82%**	**68%**	**68%**	**36%**	

*New question in 2021.
**Average of items.

Procedures for treating NCDs

Countries and territories were requested to report on the availability of the same seven key procedures for treating NCDs in the publicly funded health system as in 2019, with the addition of two new procedures in the 2021 survey (Table 64). Here, "generally available" is defined as reaching at least 50% of patients in need.

Thrombolytic therapy, coronary bypass and coronary stenting were the most available procedures for treating NCDs in publicly funded health systems (reported by 16–18 countries/territories, or 73–82%). Bone marrow transplantation and alteplase for acute stroke management were the least available procedures in the Region (available in 41% and 45% of countries and territories, respectively). Disparities in the availability of key procedures for treating NCDs across the three country groups were evident. The average number of available procedures was highest in Group 1 countries (nine, or 41%), followed by Group 2 (six, or 27%) and lowest in Group 3 (two, or 9%) (Table 64). The trend in availability of these procedures in public health systems across the Region from 2017 to 2021 is shown in Fig. 50.

A new question was introduced in the 2021 survey regarding the availability of procedures for managing and treating oral diseases in the publicly funded health system. The vast majority of the countries and territories (18, or 82%) reported the availability of emergency oral care and oral pain relief. A slightly lower proportion (16 countries/territories, or 73%) stated that oral health screening for early detection of oral diseases and basic restorative dental procedures to treat existing dental decay were available (Table 65). The oral health procedures were available in all countries of Group 1, 70–80% of Group 2 and 50–67% of Group 3 countries (Table 65).

Fig. 50.

Trend (%) in the availability of procedures for managing and treating NCDs in the publicly funded health system, 2017–2021

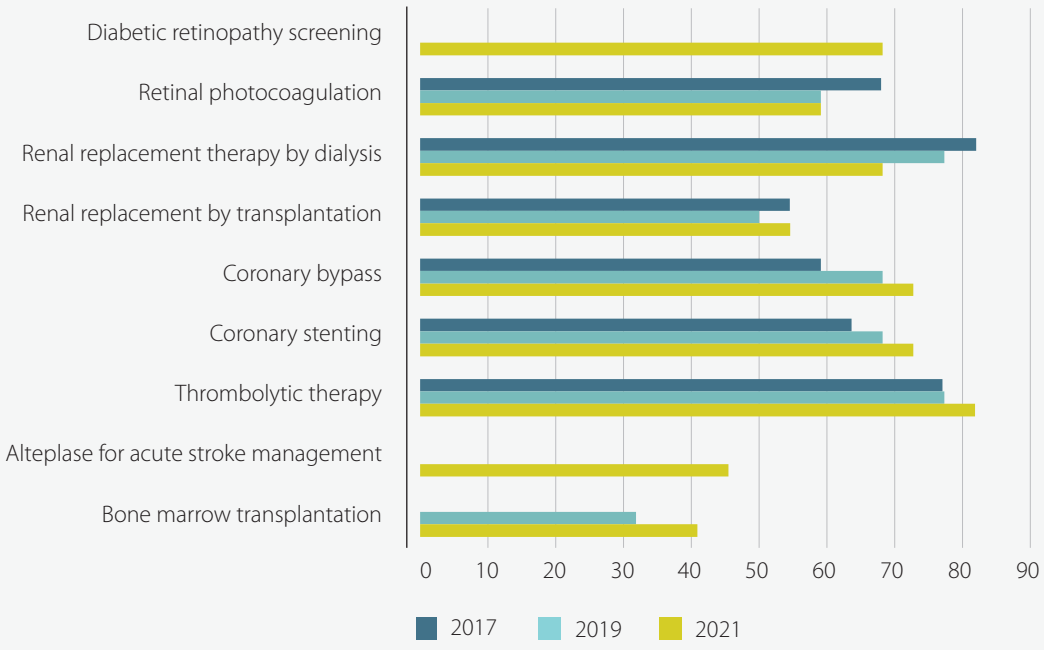


Table 64.

Availability of procedures for managing and treating NCDs in the publicly funded health system

Country group		Diabetic retinopathy screening*	Retinal photocoagulation	Renal replacement therapy by dialysis	Renal replacement by transplantation	Coronary bypass	Coronary stenting	Thrombolytic therapy (streptokinase)	Alteplase for acute stroke management*	Bone marrow transplantation	Total number of procedures available (out of 9)
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	9
	Kuwait	√	√	√	√	√	√	√	√	√	9
	Oman	√	√	√	√	√	√	√	√	√	9
	Qatar	√	√	√	√	√	√	√			7
	Saudi Arabia	√	√	√	√	√	√	√	√	√	9
	United Arab Emirates	√	√	√	√	√	√	√	√		8
	Total	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**5**	**4**	**9****
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**83%**	**67%**	
Group 2	Egypt										0
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	√	9
	Iraq	√	√			√	√	√			5
	Jordan			√	√	√	√	√	√	√	7
	Lebanon			√		√	√	√			4
	Libya	√	√	√		√	√	√			6
	Morocco	√	√	√	√	√	√	√	√	√	9
	Occupied Palestinian territory	√	√	√	√	√	√	√			7
	Syrian Arab Republic	√	√	√	√	√	√	√	√		8
	Tunisia	√	√	√	√	√	√	√		√	8
	Total	**7**	**7**	**8**	**6**	**9**	**9**	**9**	**4**	**4**	**6****
		70%	**70%**	**80%**	**60%**	**90%**	**90%**	**90%**	**40%**	**40%**	
Group 3	Afghanistan	√					√	√			3
	Djibouti	√		√		√		√	√		5
	Pakistan							√			1
	Somalia										0
	Sudan										0
	Yemen									√	1
	Total	**2**	**0**	**1**	**0**	**1**	**1**	**3**	**1**	**1**	**2****
		33%	**0%**	**17%**	**0%**	**17%**	**17%**	**50%**	**17%**	**17%**	
Eastern Mediterranean Region		15	13	15	12	16	16	18	10	9	6**
		68%	**59%**	**68%**	**55%**	**73%**	**73%**	**82%**	**46%**	**41%**	

*New question in 2021.
**Average of items.

Table 65.

Availability of procedures for managing and treating oral diseases in the publicly funded health system*

Country group		Oral health screening for early detection of oral diseases	Emergency oral care and oral pain relief	Basic restorative dental procedures to treat existing dental decay
Group 1	Bahrain	√	√	√
	Kuwait	√	√	√
	Oman	√	√	√
	Qatar	√	√	√
	Saudi Arabia	√	√	√
	United Arab Emirates	√	√	√
	Total	**6**	**6**	**6**
		100%	**100%**	**100%**
Group 2	Egypt			
	Iran (Islamic Republic of)	√	√	√
	Iraq	√	√	√
	Jordan		√	√
	Lebanon		√	
	Libya	√	√	√
	Morocco	√	√	√
	Occupied Palestinian territory	√		
	Syrian Arab Republic	√	√	√
	Tunisia	√	√	√
	Total	**7**	**8**	**7**
		70%	**80%**	**70%**
Group 3	Afghanistan	√	√	√
	Djibouti	√	√	√
	Pakistan	√	√	√
	Somalia			
	Sudan		√	
	Yemen			
	Total	**3**	**4**	**3**
		50%	**67%**	**50%**
Eastern Mediterranean Region		16	18	16
		73%	**82%**	**73%**

*New question in 2021.

Cancer diagnosis and treatment

Public sector availability of cancer centres at the tertiary level, pathology services (laboratories), cancer surgery, chemotherapy and radiotherapy were among the cancer diagnosis and treatment services that countries were requested to report on.

Pathology services and cancer surgery were the most widely available cancer diagnosis and treatment services (in 19 countries/territories out of 22, or 86%). Cancer centres at a tertiary level, cancer surgery and chemotherapy were also commonly available in the public health sector, with 18 countries and territories (82%) reporting these as being generally available (reaching 50% or more of those in need). Radiotherapy was the least available cancer treatment service, reported as available in 13 countries (59%) (Table 66). All cancer diagnosis and treatment services were reported as being generally available in 100% of Group 1 countries, in 60–90% of Group 2 and in 17–67% of Group 3 (Table 66). The trend in the availability of these cancer diagnosis and treatment services in the Region from 2017 to 2021 is shown in Fig. 51.

Fig. 51.

Trend (%) in the availability of cancer diagnosis and treatment services in the public sector, 2017–2021

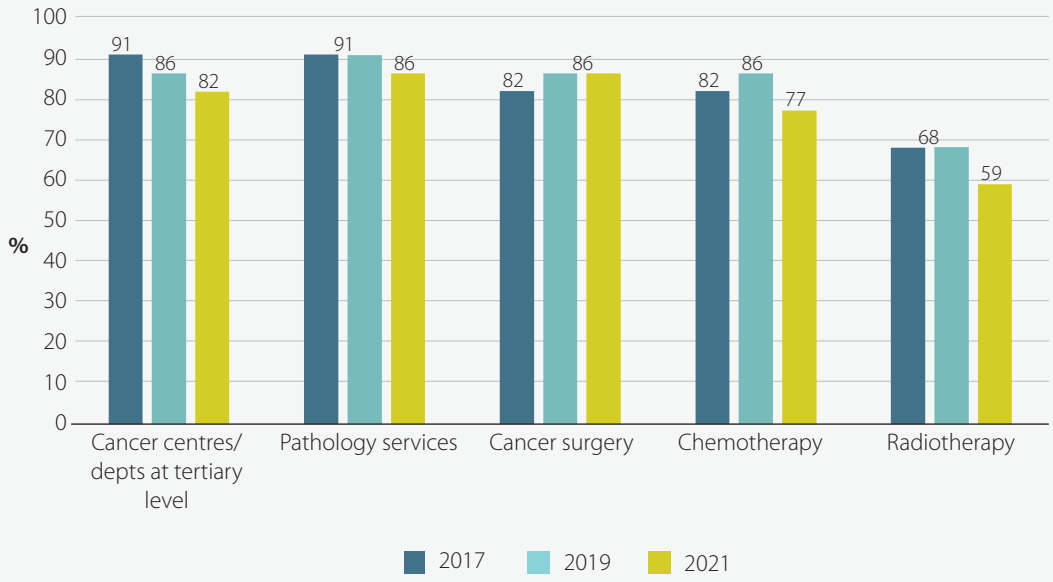


Table 66.

Availability of cancer diagnosis and treatment services in the public sector

Country group		Cancer centres at tertiary level	Pathology services	Cancer surgery	Chemotherapy	Radiotherapy
Group 1	Bahrain	√	√	√	√	√
	Kuwait	√	√	√	√	√
	Oman	√	√	√	√	√
	Qatar	√	√	√	√	√
	Saudi Arabia	√	√	√	√	√
	United Arab Emirates	√	√	√	√	√
	Total	**6**	**6**	**6**	**6**	**6**
		100%	**100%**	**100%**	**100%**	**100%**
Group 2	Egypt					
	Iran (Islamic Republic of)	√	√	√	√	√
	Iraq	√	√	√	√	√
	Jordan	√	√	√	√	√
	Lebanon	√	√	√	√	
	Libya	√	√	√	√	√
	Morocco	√	√	√	√	√
	Occupied Palestinian territory	√	√	√	√	
	Syrian Arab Republic	√	√	√		
	Tunisia	√	√	√	√	√
	Total	**9**	**9**	**9**	**8**	**6**
		90%	**90%**	**90%**	**80%**	**60%**
Group 3	Afghanistan	√	√	√	√	√
	Djibouti		√	√		
	Pakistan	√	√	√	√	
	Somalia					
	Sudan	√	√	√	√	
	Yemen					
	Total	**3**	**4**	**4**	**3**	**1**
		50%	**67%**	**67%**	**50%**	**17%**
Eastern Mediterranean Region		18	19	19	17	13
		82%	**87%**	**87%**	**77%**	**59%**

Rehabilitative care

A new question on the availability of rehabilitative care for NCD patients in the public sector was introduced in 2021. This includes rehabilitative services for cancer, stroke, acute myocardial infarction and musculoskeletal conditions at the inpatient and outpatient levels of care.

Rehabilitative services were available at the inpatient and outpatient levels of care in more than half of the countries and territories in the Region. Generally, inpatient rehabilitative services were more available than outpatient services. Inpatient rehabilitative services for myocardial infarction were the most available (16 countries/territories, or 73%), followed by inpatient musculoskeletal conditions (14 countries/territories, or 64%) (Table 67).

Table 67.

Availability of rehabilitative care for NCD patients in the public sector*

Country group		Cancer		Stroke		Acute myocardial infarction		Chronic respiratory diseases		Musculoskeletal conditions	
		Inpatient care availability	Outpatient care availability	Inpatient care availability	Outpatient care availability	Inpatient care availability	Outpatient care availability	Inpatient care availability	Outpatient care availability	Inpatient care availability	Outpatient care availability
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	√
	Kuwait	√	√	√	√	√	√	√	√	√	√
	Oman	√	√	√	√	√	√	√	√	√	√
	Qatar	√	√	√	√	√	√	√	√	√	√
	Saudi Arabia	√	√	√	√	√	√	√	√	√	√
	United Arab Emirates	√	√	√	√	√	√	√	√	√	√
	Total	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Group 2	Egypt										
	Iran (Islamic Republic of)	√	√	√	√	√	√	√	√	√	√
	Iraq					√					
	Jordan	√	√	√		√		√		√	
	Lebanon										
	Libya	√		√		√		√		√	
	Morocco	√				√				√	
	Occupied Palestinian territory										
	Syrian Arab Republic	√	√	√	√	√	√	√	√	√	√
	Tunisia	√	√	√	√	√	√				
	Total	**6**	**4**	**5**	**3**	**7**	**3**	**4**	**2**	**5**	**2**
		60%	**40%**	**50%**	**30%**	**70%**	**30%**	**40%**	**20%**	**50%**	**20%**
Group 3	Afghanistan			√	√	√	√	√	√	√	√
	Djibouti	√		√	√	√	√	√	√	√	√
	Pakistan		√		√	√	√	√	√	√	√
	Somalia										
	Sudan										
	Yemen										
	Total	**1**	**1**	**2**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
		17%	**17%**	**33%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
Eastern Mediterranean Region		13	11	13	12	16	12	13	11	14	11
		59%	**50%**	**59%**	**55%**	**73%**	**55%**	**59%**	**50%**	**64%**	**50%**

*New question in 2021.

Palliative care

Palliative care for individuals with NCDs is not extensively offered by public health systems in the Region. Such care was found to be available in primary health care settings in only a third of the 22 countries/territories (36%): Bahrain, Oman and United Arab Emirates in Group 1, Morocco, Syrian Arab Republic and Tunisia in Group 2, Avoid splitting over two lines and Sudan and Yemen in Group 3 (Table 68). End-of-life care was more widely accessible in primary health care settings (eight countries/territories, or 36%) than in community or home-based settings (six countries/territories, or 27%) (Table 68).

Since the 2015 survey, there has been a substantial increase in the availability of palliative care both in primary health care and in community or home-based care settings in the public sector (Fig. 52).

Fig. 52.

Trend (%) in the availability of palliative care for patients with NCDs in public health systems, 2015–2021

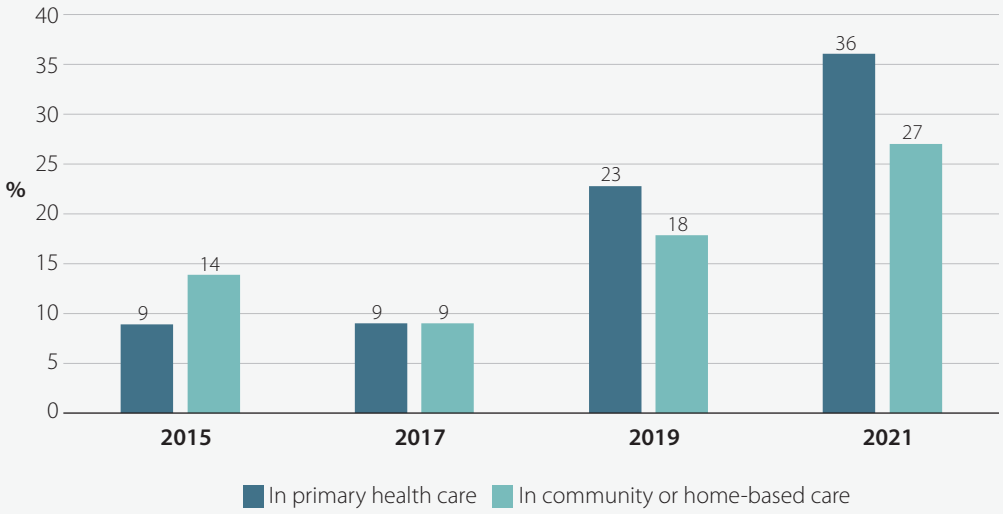


Table 68.

Availability of palliative care for patients with NCDs in public health systems

Country group		Palliative care availability in primary health care	Palliative care availability in community/home-based care
Group 1	Bahrain	√	√
	Kuwait		
	Oman	√	√
	Qatar		
	Saudi Arabia		√
	United Arab Emirates	√	√
	Total	**3**	**4**
		50%	**67%**
Group 2	Egypt		
	Iran (Islamic Republic of)		
	Iraq		
	Jordan		
	Lebanon		
	Libya		
	Morocco	√	√
	Occupied Palestinian territory		
	Syrian Arab Republic	√	
	Tunisia	√	
	Total	**3**	**1**
		30%	**10%**
Group 3	Afghanistan		
	Djibouti		
	Pakistan		
	Somalia		
	Sudan	√	√
	Yemen	√	
	Total	**2**	**1**
		33%	**17%**
Eastern Mediterranean Region		8	6
		36%	**27%**

Cardiovascular risk stratification

Cardiovascular risk stratification in primary health care facilities was reported in nearly three quarters of the countries and territories (16, or 73%); however, the availability reported within countries varied greatly. While nearly half of the 16 countries/territories (seven, or 44%) reported that risk stratification was available at more than 50% of health care facilities, five out of 16 (31%) reported that it was available at fewer than 25% of facilities, and the remaining four countries/territories (18%) reported that it was available at 25–50% of facilities (Table 69).

Among the seven countries and territories which reported that risk stratification was available at over 50% of health care facilities, four were in Group 1 (67%), three were in Group 2 (30%) and none were in Group 3 (Table 69). Nearly two thirds of the countries and territories (15, or 68%) reported the availability of care for acute stroke patients. These included all countries in Group 1, 70% of Group 2 and 33% of countries in Group 3. Only four countries and territories (18%) reported the availability of a register of patients who have had rheumatic fever and rheumatic heart disease, and only three of those four countries/territories had systems for follow-up/recall to deliver long-term penicillin prophylaxis (Table 69). The trend in the availability of these services in countries and territories of the Region in 2017 and 2021 is shown in Fig. 53.

Fig. 53.

Trend (%) in primary health care facilities offering cardiovascular risk stratification for the management of high-risk patients to prevent heart attacks and strokes, 2017–2021

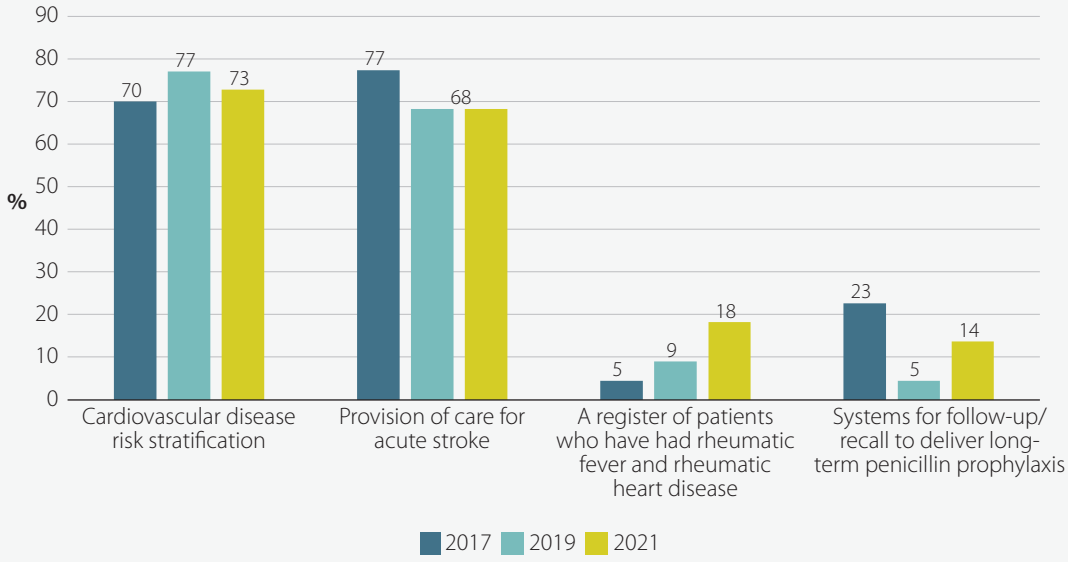


Table 69.

Availability of services in public health systems for high-risk patients to prevent heart attacks and strokes

Country group		Proportion of primary health care facilities offering cardiovascular disease risk stratification				Provision of care for acute stroke in the public health system	Availability of a register of patients who have had rheumatic fever and rheumatic heart disease	Systems for follow-up/recall to deliver long-term penicillin prophylaxis
		None	<25%	25–50%	>50%			
Group 1	Bahrain				√	√	√	√
	Kuwait				√	√	√	
	Oman				√	√		
	Qatar		√			√	√	√
	Saudi Arabia			√		√		
	United Arab Emirates				√	√	√	√
	Total	**0**	**1**	**1**	**4**	**6**	**4**	**3**
		0%	**17%**	**17%**	**67%**	**100%**	**67%**	**50%**
Group 2	Egypt							
	Iran (Islamic Republic of)				√	√		
	Iraq			√				
	Jordan	√				√		
	Lebanon				√	√		
	Libya		√			√		
	Morocco		√			√		
	Occupied Palestinian territory				√			
	Syrian Arab Republic			√		√		
	Tunisia			√		√		
	Total	**1**	**2**	**3**	**3**	**7**	**0**	**0**
		10%	**20%**	**30%**	**30%**	**70%**	**0%**	**0%**
Group 3	Afghanistan		√					
	Djibouti	√				√		
	Pakistan	√						
	Somalia							
	Sudan		√			√		
	Yemen							
	Total	**2**	**2**	**0**	**0**	**2**	**0**	**0**
		33%	**33%**	**0%**	**0%**	**33%**	**0%**	**0%**
Eastern Mediterranean Region		3	5	4	7	15	4	3
		14%	**23%**	**18%**	**32%**	**68%**	**18%**	**14%**

NCD service disruptions during the COVID-19 pandemic

All the 22 countries and territories responded to questions on disruptions to NCD-related services during the COVID-19 pandemic for the 2021 survey – more than the 19 countries (86%) that responded to the rapid assessment of service delivery for NCDs during the pandemic conducted in May 2020.

Infrastructure, governance and financing

The vast majority of countries and territories (20, or 91%) reported that some or all NCD staff in the ministry of health or equivalent had been supporting COVID-19 efforts, either full-time or part-time (Table 70). For the 2020 assessment, 18 out of the 19 countries and territories which responded reported that some or all NCD staff were supporting COVID-19 efforts (Fig. 54)

Countries and territories were also asked to report on the proportion of government (or ministry of health) NCD funds that had been reassigned to non-NCD services due to COVID-19 response efforts during the previous 3 months. Seven out of the 22 countries/territories stated that none of the NCD funds had been reassigned to non-NCD services in 2021, compared to 10 out of 19 countries and territories that reported managing to keep their NCD funds intact in the 2020 assessment (Fig. 55).

Fig. 54.

Comparison (%) of health ministry (or equivalent) staff with responsibility for NCDs/risk factors assigned/ deployed to help with COVID-19 response, 2020 and 2021

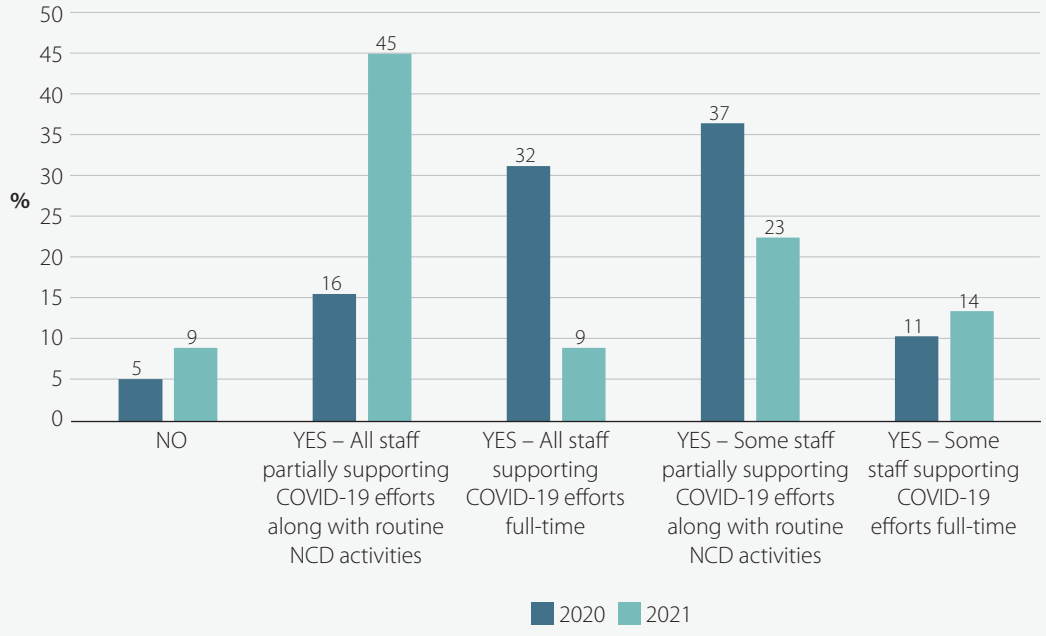


Table 70.

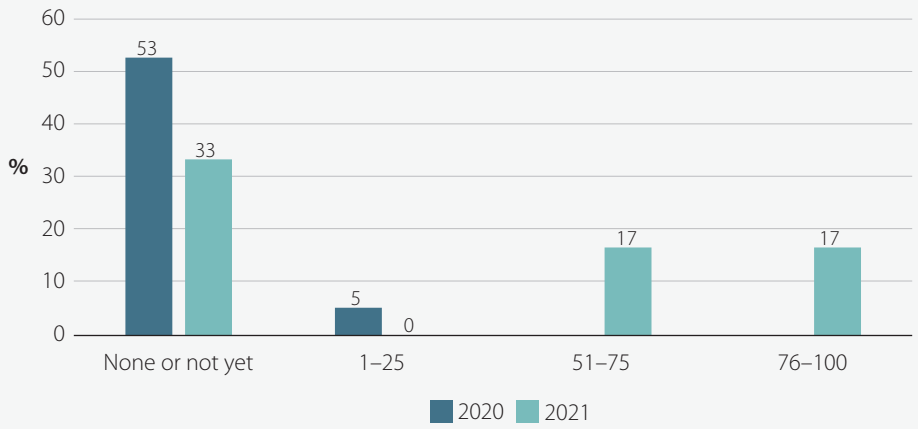
Health ministry (or equivalent) staff with responsibility for NCDs and their risk factors reassigned/deployed to COVID-19 response, and proportion of NCD funds reassigned to non-NCD services during previous 3 months

Country group		Health ministry (or equivalent institutes) staff with responsibility for NCDs and their risk factors have been reassigned/deployed to help with overall COVID-19 response during the previous 3 months					Proportion of the government (or health ministry) NCD funds that have been reassigned to non-NCD services due to COVID-19 response efforts during the previous 3 months			
		No	Yes – all staff partially supporting COVID-19	Yes – all staff supporting COVID-19 full-time	Yes – some staff partially supporting COVID-19	Yes – some staff supporting COVID-19 full-time	None or not yet	1–25%	51–75%	76–100%
Group 1	Bahrain		√				√			
	Kuwait					√				
	Oman				√					
	Qatar		√						√	
	Saudi Arabia				√		√			
	United Arab Emirates		√							√
	Total	**0**	**3**	**0**	**2**	**1**	**2**	**0**	**1**	**1**
		0%	**50%**	**0%**	**33%**	**17%**	**33%**	**0%**	**17%**	**17%**
Group 2	Egypt		√						√	
	Iran (Islamic Republic of)		√							
	Iraq		√					√		
	Jordan		√							
	Lebanon				√					
	Libya					√				
	Morocco					√				
	Occupied Palestinian territory			√						
	Syrian Arab Republic				√					
	Tunisia				√		√			
	Total	**0**	**4**	**1**	**3**	**2**	**1**	**1**	**1**	**0**
		0%	**40%**	**10%**	**30%**	**20%**	**10%**	**10%**	**10%**	**0%**
Group 3	Afghanistan		√					√		
	Djibouti		√				√			
	Pakistan		√				√			
	Somalia			√			√			
	Sudan	√								
	Yemen	√					√			
	Total	**2**	**3**	**1**	**0**	**0**	**4**	**1**	**0**	**0**
		33%	**50%**	**17%**	**0%**	**0%**	**67%**	**17%**	**0%**	**0%**
Eastern Mediterranean Region		2	10	2	5	3	7	2	2	1
		9%	**46%**	**9%**	**23%**	**14%**	**32%**	**9%**	**9%**	**5%**

Note: No responses were received in the 26–50% range.

Fig. 55.

Comparison (%) of proportion of government (or health ministry) NCD funds reassigned to non-NCD services due to COVID-19 response efforts during the previous 3 months, 2020* and 2021



* Eight out of 19 countries/territories (or 42%) in 2020 responded "Don't know".

Policies and plans

Two thirds of responding countries and territories (14, or 64%) reported that they had defined a national essential health services package prior to the COVID-19 pandemic. A slightly higher proportion (15 countries/territories, or 68%) reported that a core set of essential health services had been identified to be maintained during the pandemic (Table 71).

More than half of the countries and territories (13 out of 22, or 59%) reported that NCD services were included in the list of essential health services in the country's COVID-19 response plan. Cardiovascular disease, cancer and diabetes services were the most likely to be included (12 countries/territories, or 55%, for each of such services), followed by chronic respiratory disease services (11 countries/territories, or 50%) and lastly rehabilitation services, which were included in the list of essential services in less than a third of the countries and territories (six, or 27%) (Table 72).

Figs. 56 and 57 show comparisons of the number of countries/territories reporting inclusion of NCD services in the list of essential health services in COVID-19 response plans, by country group and by disease category, for 2020 and 2021. The number of countries and territories reporting allocation of additional funding for NCDs in the government budget for COVID-19 response during the previous 3 months, for 2020 and 2021, are shown in Fig. 58.

The number of countries and territories reporting that ministry of health NCD activities planned for the year were postponed because of COVID-19 is depicted by country group for 2020 and 2021 in Fig. 59. The activities most commonly postponed were mass communication surveys (nine out of 22 countries/territories, or 41%), followed by implementation of NCD surveys and public screening programmes (eight countries/territories, or 36%, for each of these activities) (Table 73).

Fig. 56.

Comparison of the number of countries/territories including NCD services in list of essential health services in COVID-19 response plans, by country group, 2020 and 2021

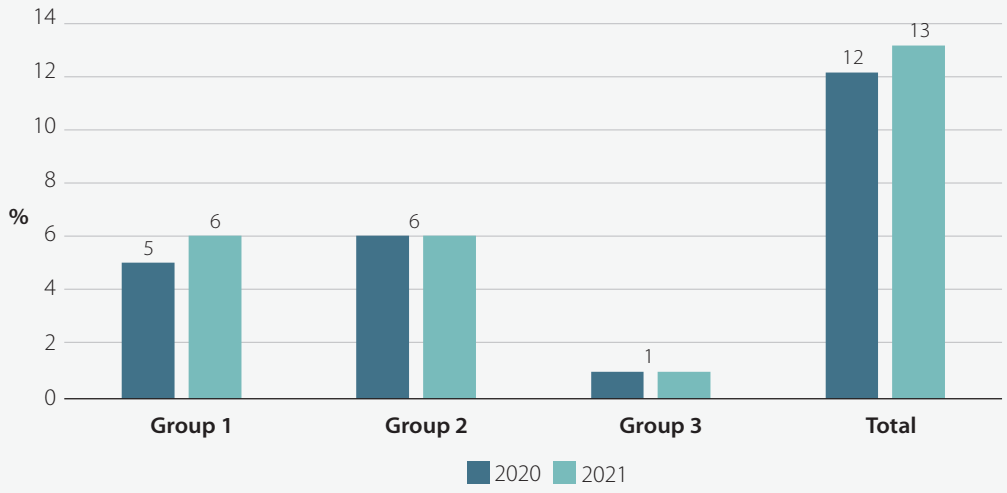


Table 71.

Availability of national essential health services packages prior to COVID-19 pandemic and identification of core set of essential health services to be maintained during pandemic

Country group		Availability of a defined national essential health services package prior to the COVID-19 pandemic	A core set of essential health services identified to be maintained during the COVID-19 pandemic
Group 1	Bahrain	√	√
	Kuwait	√	√
	Oman	√	√
	Qatar		√
	Saudi Arabia	√	√
	United Arab Emirates	√	√
	Total	**5**	**6**
		83%	**100%**
Group 2	Egypt	√	√
	Iran (Islamic Republic of)	√	√
	Iraq	√	√
	Jordan		√
	Lebanon	√	
	Libya		
	Morocco	√	√
	Occupied Palestinian territory		
	Syrian Arab Republic	√	
	Tunisia		√
	Total	**6**	**6**
		60%	**60%**
Group 3	Afghanistan		
	Djibouti		√
	Pakistan	√	√
	Somalia	√	
	Sudan		
	Yemen	√	√
	Total	**3**	**3**
		50%	**50%**
Eastern Mediterranean Region		14	15
		64%	**68%**

Table 72.

NCD services included in list of essential health services in national COVID-19 response plans

Country group		NCD services included in the list of essential health services in country's COVID-19 response plan	Cardiovascular disease services	Cancer services	Diabetes services	Chronic respiratory disease services	Chronic kidney disease	Dental services	Rehabilitation services	Tobacco cessation services	Other
Group 1	Bahrain	√	√	√	√	√	√	√	√	√	
	Kuwait	√	√	√	√	√	√	√	√	√	
	Oman	√	√	√	√	√	√				
	Qatar	√	√	√	√	√	√	√	√	√	
	Saudi Arabia	√	√	√	√	√	√	√	√	√	
	United Arab Emirates	√	√	√	√	√	√	√	√	√	√ Virtual community, patient and family awareness
	Total	**6**	**6**	**6**	**6**	**6**	**6**	**5**	**5**	**5**	**1**
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**83%**	**83%**	**83%**	**17%**
Group 2	Egypt	√	√	√	√	√	√				
	Iran (Islamic Republic of)	√	√	√	√	√		√			√ Newborn screening services
	Iraq	√	√	√	√						√ Mental health and elderly health services
	Jordan	√	√	√	√	√	√	√			
	Lebanon									√	
	Libya									√	
	Morocco	√	√	√	√	√	√				√ Mental health and rare diseases
	Occupied Palestinian territory										
	Syrian Arab Republic										
	Tunisia	√	√	√	√	√	√	√	√		
	Total	**6**	**6**	**6**	**6**	**5**	**4**	**3**	**1**	**2**	**3**
		60%	**60%**	**60%**	**60%**	**50%**	**40%**	**30%**	**10%**	**20%**	**30%**
Group 3	Afghanistan										
	Djibouti										
	Pakistan	√									
	Somalia										
	Sudan										
	Yemen										
	Total	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		17%	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Eastern Mediterranean Region		13	12	12	12	11	10	8	6	7	4
		59%	**55%**	**55%**	**55%**	**50%**	**46%**	**36%**	**27%**	**32%**	**18%**

Fig. 57.

Comparison of the number of countries/territories including NCD services in list of essential health services in COVID-19 response plans, by disease category, 2020 and 2021

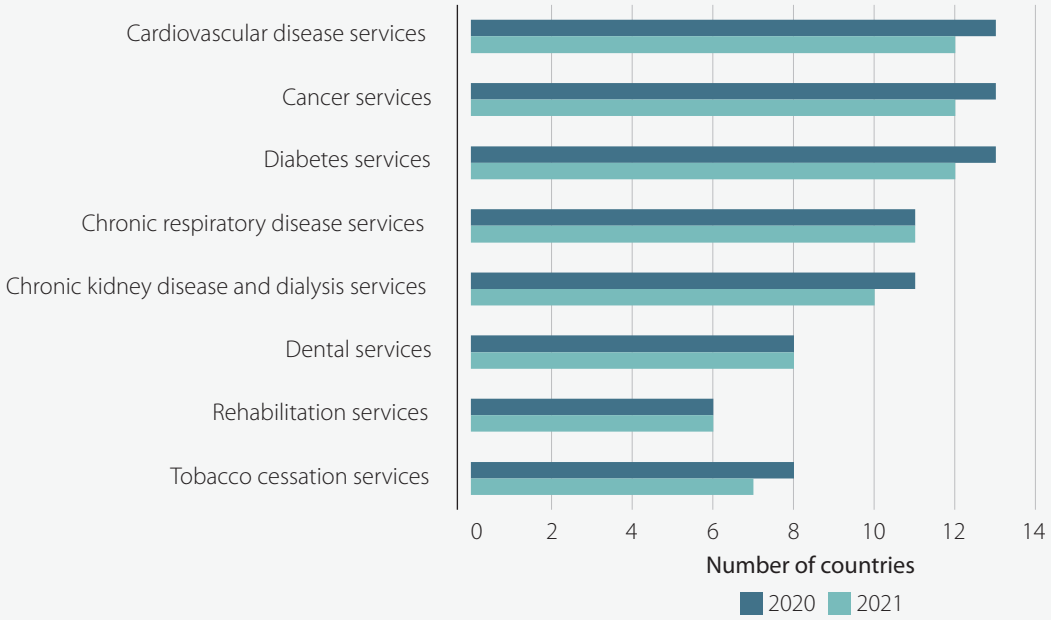


Fig. 58.

Comparison of the number of countries/territories allocating additional funding for NCDs in government budget for COVID-19 response during the previous 3 months, 2020 and 2021

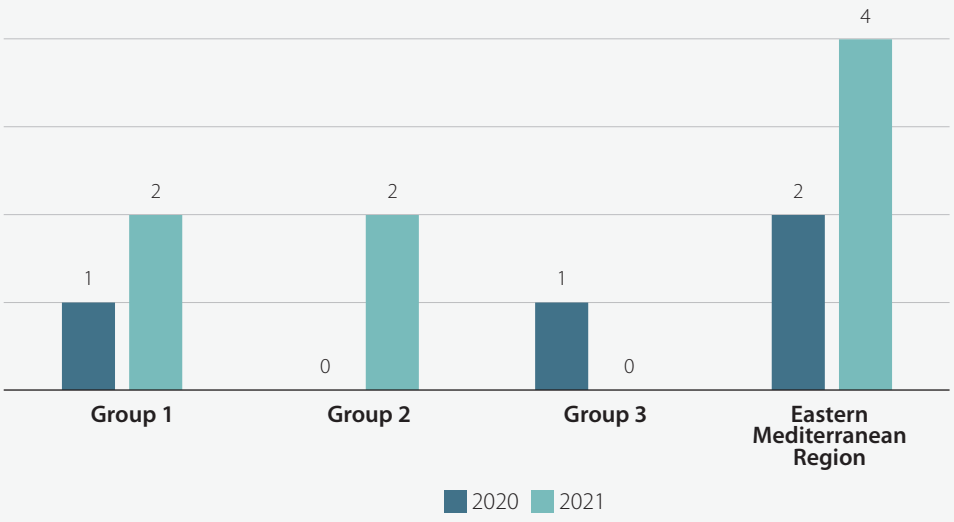


Table 73.

Planned activities on NCDs postponed by ministries of health due to COVID-19 pandemic

Country group		During the previous 3 months, which of the following health ministry NCD activities planned for this year have been postponed because of COVID-19?						
		None	Implementation of NCD surveys	Public screening programmes for NCDs	WHO package of essential noncommunicable (PEN) disease interventions for primary health care	WHO HEARTS technical package	Mass communication campaigns	Other
Group 1	Bahrain			√				
	Kuwait		√	√			√	
	Oman			√				
	Qatar		√	√				√ School health awareness campaigns
	Saudi Arabia	√						
	United Arab Emirates						√	
	Total	**1**	**2**	**4**	**0**	**0**	**2**	**1**
		17%	**33%**	**67%**	**0%**	**0%**	**33%**	**17%**
Group 2	Egypt	√						
	Iran (Islamic Republic of)	√						
	Iraq		√		√		√	
	Jordan			√	√	√		
	Lebanon		√	√			√	√ Data analysis for national cancer registry
	Libya		√	√	√	√	√	
	Morocco				√	√		√ Organization of therapeutic education sessions
	Occupied Palestinian territory		√	√	√		√	
	Syrian Arab Republic		√		√	√	√	√ WHO mission to prepare for STEPS survey
	Tunisia	√						
	Total	**3**	**5**	**4**	**6**	**4**	**5**	**3**
		30%	**50%**	**40%**	**60%**	**40%**	**50%**	**30%**

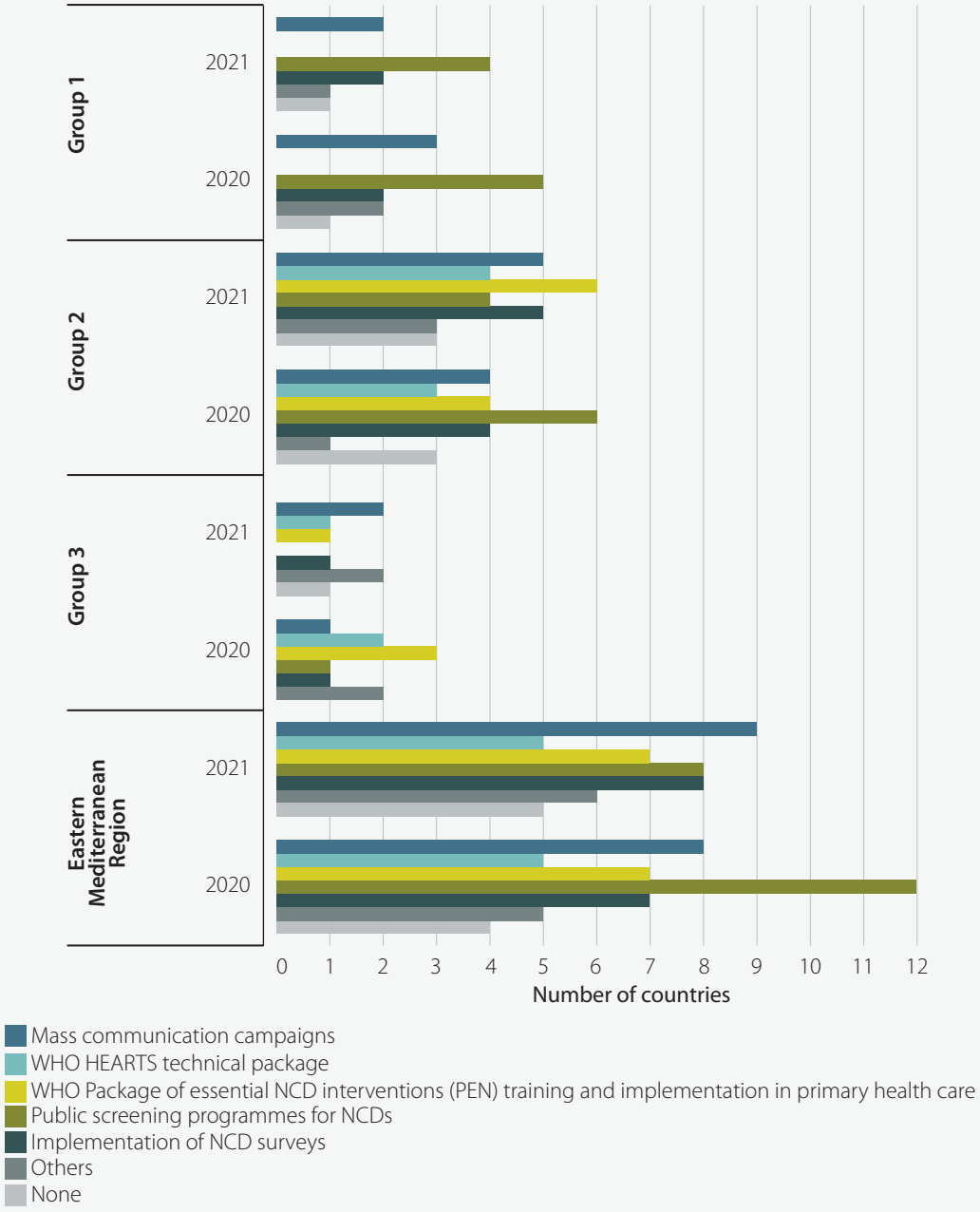
Table 73.

Planned activities on NCDs postponed by ministries of health due to COVID-19 pandemic *(concluded)*

Country group		During the previous 3 months, which of the following health ministry NCD activities planned for this year have been postponed because of COVID-19?						
		None	Implementation of NCD surveys	Public screening programmes for NCDs	WHO package of essential noncommunicable (PEN) disease interventions for primary health care	WHO HEARTS technical package	Mass communication campaigns	Other
Group 3	Afghanistan							
	Djibouti		√				√	
	Pakistan				√	√	√	√ Development of national strategic framework for NCDs and mental health
	Somalia							
	Sudan							√ State coordinators review meeting, diabetes guidelines endorsement, cancer strategy update
	Yemen	√						
	Total	**1**	**1**	**0**	**1**	**1**	**2**	**2**
		17%	**17%**	**0%**	**17%**	**17%**	**33%**	**33%**
Eastern Mediterranean Region		5	8	8	7	5	9	6
		23%	**36%**	**36%**	**32%**	**23%**	**41%**	**27%**

Fig. 59.

Comparison of the number of countries/territories postponing their planned NCD activities due to COVID-19, by country group, 2020 and 2021



NCD-related health services

Countries and territories in the Region were asked to report whether pandemic-related government policies and directives had impacted the level of access to NCD service delivery platforms, including outpatient services, inpatient services, community-based NCD care and mobile NCD clinics. Nearly half of the countries/territories reported limited access for outpatient and inpatient NCD services (50% and 46%, respectively). The services that were most affected by suspension were community-based NCD care and mobile NCD clinics, which were completely halted by several countries and territories (14% and 18% respectively, Table 74). A comparison of the number of countries and territories reporting that pandemic-related government policies and directives had affected the level of access to NCD service delivery platforms in 2020 and 2021 is shown in Fig. 60.

Countries and territories also reported more specifically on disruptions to a number of NCD-related services (Table 75). Health services had been partially or completely disrupted in many countries, and nearly two thirds of the countries/territories (ranging from 59% to 73%) experienced partially disrupted services for hypertension treatment, cardiovascular emergencies, cancer screening, cancer management, diabetes management, asthma services and urgent dental care. The most commonly disrupted services were hypertension management, diabetes management and asthma services, reported by 73% of the countries and territories in the Region (Table 75).

Countries and territories were also asked to report on the main reasons for service disruption in the 3 months prior to the survey. The reasons were categorized as supply-side factors or demand-side factors . The most commonly reported supply-side factors were decrease in inpatient volume due to cancellation of elective care (41%), insufficient availability of personal protective equipment (PPE) for health care providers (36%) and changes in treatment policies for care-seeking behaviour (e.g. stay-at-home policies) (32%) (Table 76). A larger percentage reported community fear/mistrust in seeking health care (64%) and decrease in outpatient volume due to patients not presenting (46%) as the main demand-side factors for NCD service disruption (Table 77).

Figs. 61 and 62 portray the number of countries and territories reporting disruption of NCD services due to COVID-19 and the main causes of disruption in 2020 and 2021. In response to the disruptions, countries and territories are putting in place a range of alternative strategies by adapting service delivery platforms. The survey findings reveal that alternative strategies have been established in most countries and territories to allow the populations at highest risk to continue receiving treatment for NCDs. Over half of the countries/territories (59%) reported community communication and self-care interventions being adopted to overcome NCD service disruptions due to COVID-19. Additional approaches reported were redirection of patients to alternative care sites/reorientation of referral pathways (50%), triaging to identify priorities (50%), telemedicine to replace in-person consultations (46%) and provision of home-based care where appropriate (46%) (Table 78). Adoption of alternative strategies to overcome NCD service disruptions due to COVID-19 were more common in Group 1 countries than Group 2 and Group 3 (Fig. 63). Furthermore, these approaches were reported by a larger number of countries and territories in 2021 than in the 2020 assessment (Fig. 64). Finally, plans to reinstate suspended NCD services reported by countries and territories are summarized in Table 79.

Table 74.

Countries/territories reporting that government pandemic policies and directives affected the level of access to NCD service delivery platforms

Country group		Outpatient NCD services		Inpatient NCD services		Community-based NCD care				Mobile NCD clinics			
		Functioning as normal	Limited access	Functioning as normal	Limited access	Functioning as normal	Limited access	Suspended	Not applicable	Functioning as normal	Limited access	Suspended	Not applicable
Group 1	Bahrain		√	√			√				√		
	Kuwait		√	√			√						√
	Oman		√		√	√				√			
	Qatar		√	√		√				√			
	Saudi Arabia	√			√		√				√		
	United Arab Emirates	√		√			√			√			
	Total	**2**	**4**	**4**	**2**	**2**	**4**	**0**	**0**	**3**	**2**	**0**	**1**
		33%	**67%**	**67%**	**33%**	**33%**	**67%**	**0%**	**0%**	**50%**	**33%**	**0%**	**17%**
Group 2	Egypt	√		√		√				√			
	Iran (Islamic Republic of)		√		√		√				√		
	Iraq		√		√								
	Jordan	√		√					√				√
	Lebanon		√		√		√				√		
	Libya		√		√			√				√	
	Morocco	√		√		√						√	
	Occupied Palestinian territory		√		√			√				√	
	Syrian Arab Republic	√		√		√				√			
	Tunisia	√		√			√				√		
	Total	**5**	**5**	**5**	**5**	**3**	**3**	**2**	**1**	**2**	**3**	**3**	**1**
		50%	**50%**	**50%**	**50%**	**30%**	**30%**	**20%**	**10%**	**20%**	**30%**	**30%**	**10%**
Group 3	Afghanistan	√		√		√				√			
	Djibouti	√		√		√				√			
	Pakistan	√			√		√						
	Somalia		√		√			√				√	
	Sudan	√		√		√				√			
	Yemen		√		√		√				√		
	Total	**4**	**2**	**3**	**3**	**3**	**2**	**1**	**0**	**3**	**1**	**1**	**0**
		67%	**33%**	**50%**	**50%**	**50%**	**33%**	**17%**	**0%**	**50%**	**17%**	**17%**	**0%**
Eastern Mediterranean Region		11	11	12	10	8	9	3	1	8	6	4	2
		50%	**50%**	**55%**	**46%**	**36%**	**41%**	**14%**	**5%**	**36%**	**27%**	**18%**	**9%**

Fig. 60.

Comparison of the number of countries/territories reporting that government pandemic policies and directives affected the level of access to NCD service delivery platforms, 2020 and 2021

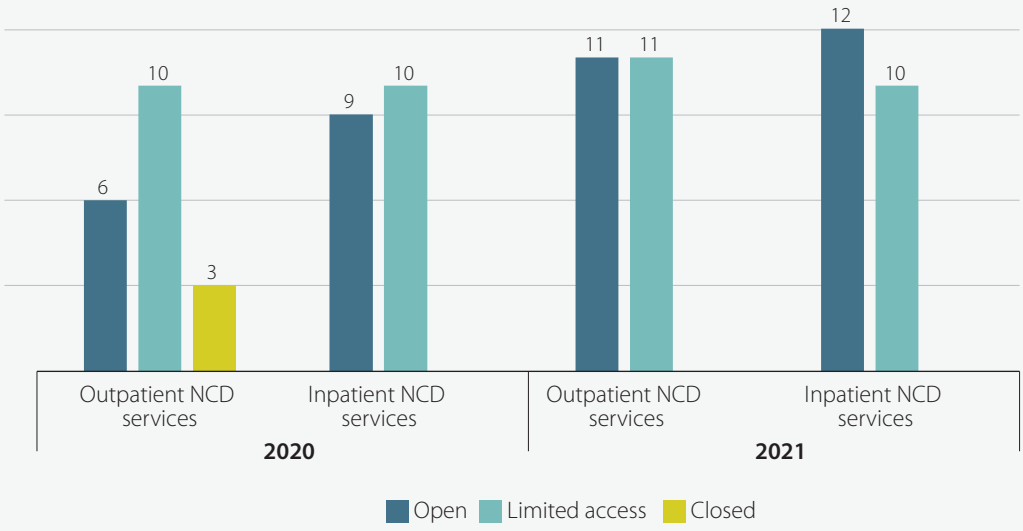


Fig. 61.

Comparison of the number of countries/territories reporting NCD service disruptions due to COVID-19, 2020 and 2021

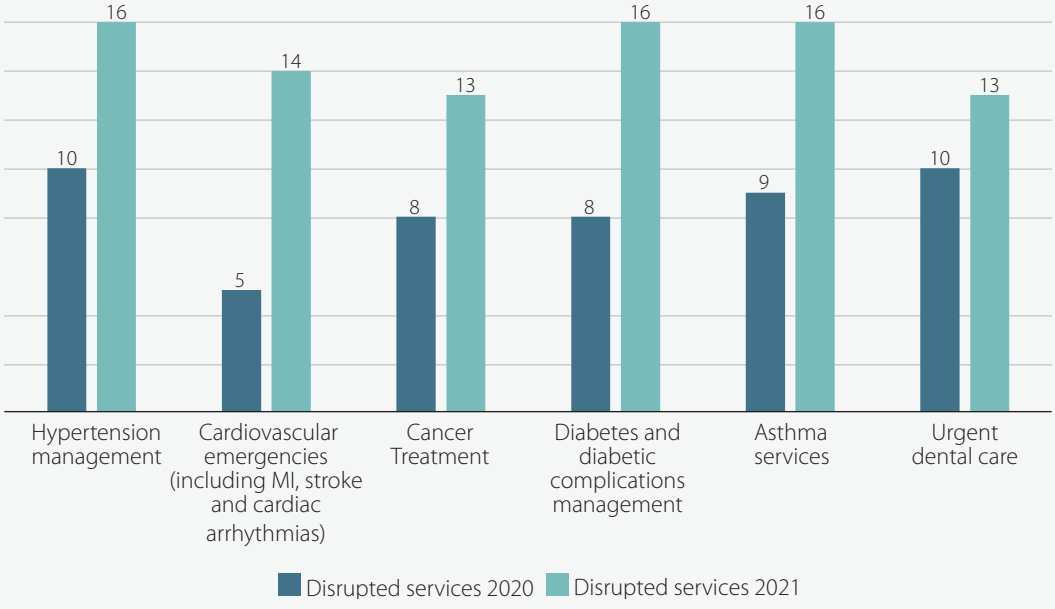


Table 75.

Disruption to specific NCD services due to COVID-19

Country group		Hypertension management			Cardiovascular emergencies		Cancer screening				Cancer treatment				Diabetes management			Asthma services			Urgent dental care		
		None	<50%	>50%	None	<50%	None	<50%	>50%	NA	None	<50%	>50%	NA	None	<50%	>50%	None	<50%	>50%	None	<50%	>50%
Group 1	Bahrain		√			√		√				√				√			√			√	
	Kuwait		√			√		√				√				√			√				√
	Oman		√			√				√						√			√			√	
	Qatar		√		√				√		√					√			√		√		
	Saudi Arabia		√			√		√				√				√			√			√	
	United Arab Emirates		√		√			√			√					√			√			√	
	Total	**0**	**6**	**0**	**2**	**4**	**0**	**4**	**1**	**1**	**2**	**3**	**0**	**0**	**0**	**6**	**0**	**0**	**6**	**0**	**1**	**4**	**1**
		0%	**100%**	**0%**	**33%**	**67%**	**0%**	**67%**	**17%**	**17%**	**33%**	**50%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**100%**	**0%**	**17%**	**67%**	**17%**
Group 2	Egypt			√		√			√				√				√			√				
	Iran (Islamic Republic of)		√			√		√				√				√			√				
	Iraq		√			√		√				√				√				√		√	
	Jordan	√			√					√	√				√			√			√		
	Lebanon					√		√				√				√			√				
	Libya		√			√				√		√				√			√			√	
	Morocco		√		√				√			√			√			√				√	
	Occupied Palestinian territory																						
	Syrian Arab Republic		√			√		√				√				√			√			√	
	Tunisia	√			√			√			√				√			√			√		
	Total	**2**	**5**	**1**	**3**	**6**	**0**	**5**	**2**	**2**	**2**	**6**	**1**	**0**	**3**	**5**	**1**	**3**	**4**	**2**	**2**	**4**	**0**
		20%	**50%**	**10%**	**30%**	**60%**	**0%**	**50%**	**20%**	**20%**	**20%**	**60%**	**10%**	**0%**	**30%**	**50%**	**10%**	**30%**	**40%**	**20%**	**20%**	**40%**	**0%**

Table 75.

Disruption to specific NCD services due to COVID-19 *(concluded)*

Country group		Hypertension management			Cardiovascular emergencies		Cancer screening				Cancer treatment				Diabetes management			Asthma services			Urgent dental care		
		None	<50%	>50%	None	<50%	None	<50%	>50%	NA	None	<50%	>50%	NA	None	<50%	>50%	None	<50%	>50%	None	<50%	>50%
Group 3	Afghanistan	√			√		√				√				√			√			√		
	Djibouti		√			√		√				√				√			√			√	
	Pakistan		√			√		√				√				√			√			√	
	Somalia		√			√				√				√		√			√			√	
	Sudan									√													
	Yemen		√			√		√				√				√			√			√	
	Total	**1**	**4**	**0**	**1**	**4**	**1**	**3**	**0**	**2**	**1**	**3**	**0**	**1**	**1**	**4**	**0**	**1**	**4**	**0**	**1**	**4**	**0**
		17%	**67%**	**0%**	**17%**	**67%**	**17%**	**50%**	**0%**	**33%**	**17%**	**50%**	**0%**	**17%**	**17%**	**67%**	**0%**	**17%**	**67%**	**0%**	**17%**	**67%**	**0%**
Eastern Mediterranean Region		3	15	1	6	14	1	12	3	5	5	12	1	1	4	15	1	4	14	2	4	12	1
		14%	**68%**	**5%**	**27%**	**64%**	**5%**	**55%**	**14%**	**23%**	**23%**	**55%**	**5%**	**5%**	**18%**	**68%**	**5%**	**18%**	**64%**	**9%**	**18%**	**55%**	**5%**

Table 76.

Supply-side factors disrupting NCD services during the COVID-19 pandemic

Country group		Closure of outpatient services as per government directive	Closure of outpatient disease-specific consultation clinics	Closure of population-level screening programmes	Decrease in inpatient volume due to cancellation of elective care	Inpatient services/ hospital beds not available	Insufficient staff to provide services	Related clinical staff deployed to provide COVID-19 relief	Insufficient PPE available for health care providers	Unavailability/ stockout of essential medicines, medical diagnostics or other health products	Changes in treatment policies for care-seeking behaviour (e.g. stay-at-home policies)
Group 1	Bahrain			√							
	Kuwait				√				√		
	Oman		√	√	√		√	√	√		
	Qatar	√		√					√		
	Saudi Arabia				√						√
	United Arab Emirates			√							√
	Total	**1**	**1**	**4**	**3**	**0**	**1**	**1**	**3**	**0**	**2**
		17%	**17%**	**67%**	**50%**	**0%**	**17%**	**17%**	**50%**	**0%**	**33%**
Group 2	Egypt							√			√
	Iran (Islamic Republic of)	√	√		√				√		√
	Iraq							√	√		
	Jordan										
	Lebanon		√		√	√	√	√	√	√	√
	Libya				√						√
	Morocco			√							
	Occupied Palestinian territory										
	Syrian Arab Republic	√	√		√		√				
	Tunisia					√					
	Total	**2**	**3**	**1**	**4**	**2**	**2**	**3**	**3**	**1**	**4**
		20%	**30%**	**10%**	**40%**	**20%**	**20%**	**30%**	**30%**	**10%**	**40%**
Group 3	Afghanistan										
	Djibouti							√	√		
	Pakistan				√			√	√		√
	Somalia		√		√	√	√	√		√	
	Sudan										
	Yemen	√								√	
	Total	**1**	**1**	**0**	**2**	**1**	**1**	**3**	**2**	**2**	**1**
		17%	**17%**	**0%**	**33%**	**17%**	**17%**	**50%**	**33%**	**33%**	**17%**
Eastern Mediterranean Region		4	5	5	9	3	4	7	8	3	7
		18%	**23%**	**23%**	**41%**	**14%**	**18%**	**32%**	**36%**	**14%**	**32%**

Table 77.

Demand-side factors disrupting NCD services during the COVID-19 pandemic

Country group		Decrease in outpatient volume due to patients not presenting	Community fear/mistrust in seeking health care	Travel restrictions hindering access to the health facilities	Financial difficulties during outbreak/ lockdown
Group 1	Bahrain				
	Kuwait	√			
	Oman	√	√		
	Qatar				
	Saudi Arabia				
	United Arab Emirates	√	√		
	Total	**3**	**2**	**0**	**0**
		50%	**33%**	**0%**	**0%**
Group 2	Egypt	√	√		
	Iran (Islamic Republic of)	√	√		
	Iraq		√	√	√
	Jordan				
	Lebanon	√	√		√
	Libya		√		
	Morocco		√		
	Occupied Palestinian territory				
	Syrian Arab Republic	√	√	√	√
	Tunisia	√	√	√	√
	Total	**5**	**8**	**3**	**4**
		50%	**80%**	**30%**	**40%**
Group 3	Afghanistan				
	Djibouti		√		
	Pakistan	√	√		√
	Somalia	√	√	√	√
	Sudan				
	Yemen		√	√	√
	Total	**2**	**4**	**2**	**3**
		33%	**67%**	**33%**	**50%**
Eastern Mediterranean Region		10	14	5	7
		46%	**64%**	**23%**	**32%**

Fig. 62.

Comparison of the number of countries/territories reporting main causes of NCD service disruption due to COVID-19, 2020 and 2021

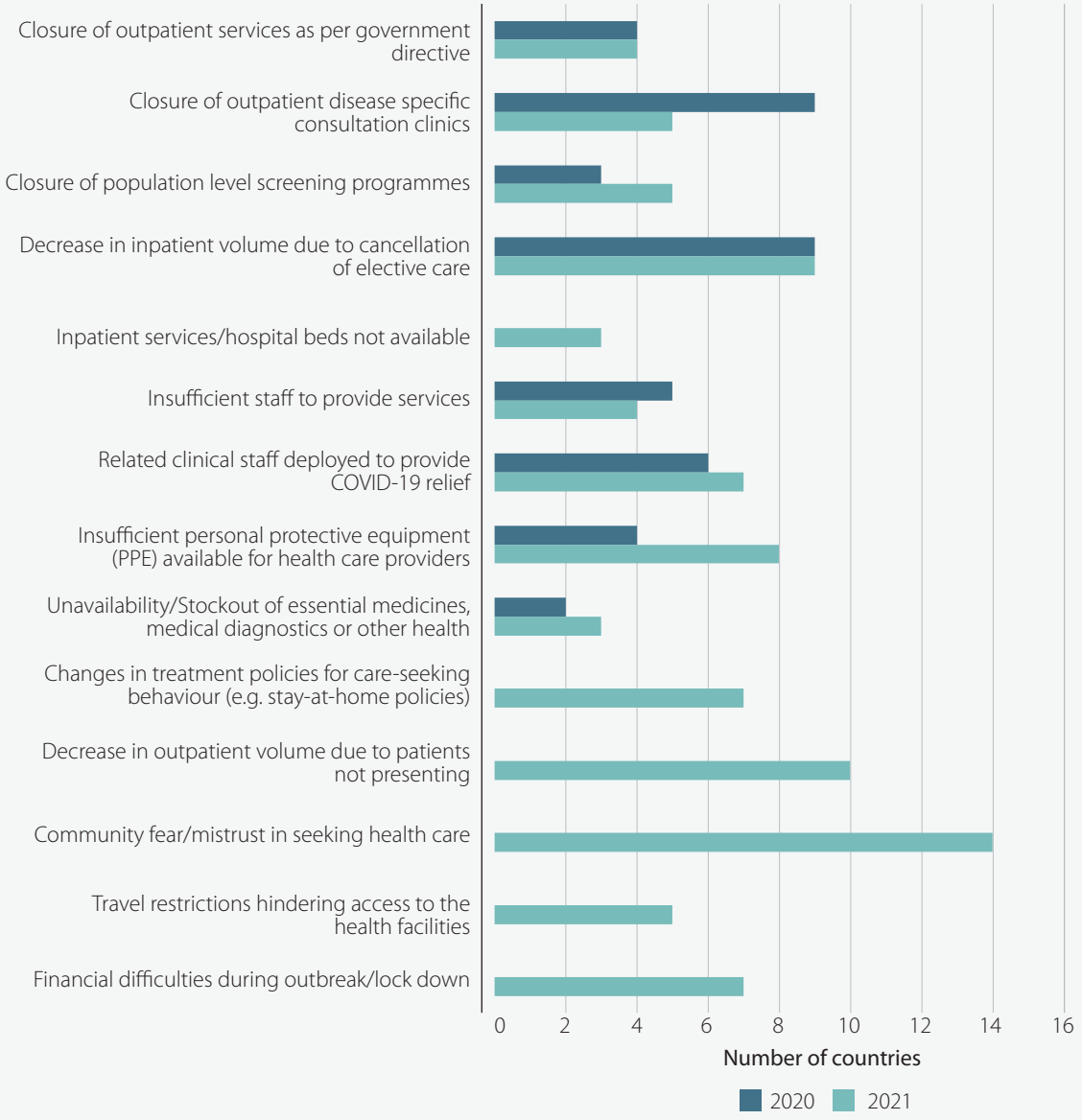


Table 78.

Approaches to overcome NCD service disruptions due to COVID-19

Country group		Approaches to overcome service disruptions							
		Triaging to identify priorities	Redirection of patients to alternate care sites/reorientation of referral pathways	Telemedicine deployment to replace in-person consults	Integration of several services into single visit	Recruitment of additional staff	Self-care interventions where appropriate	Provision of home-based care where appropriate	Catch-up campaigns for missed appointments
Group 1	Bahrain	√	√	√	√	√	√	√	√
	Kuwait	√	√	√		√		√	√
	Oman	√	√	√			√	√	√
	Qatar		√	√		√	√	√	
	Saudi Arabia	√	√	√		√	√	√	
	United Arab Emirates	√		√	√	√	√	√	√
	Total	**5**	**5**	**6**	**2**	**5**	**5**	**6**	**4**
		83%	**83%**	**100%**	**33%**	**83%**	**83%**	**100%**	**67%**
Group 2	Egypt				√	√		√	
	Iran (Islamic Republic of)	√	√	√			√		
	Iraq	√			√				
	Jordan								
	Lebanon			√	√	√	√		
	Libya			√			√		
	Morocco	√	√			√			
	Occupied Palestinian territory								
	Syrian Arab Republic	√	√		√		√		
	Tunisia						√	√	
	Total	**4**	**3**	**3**	**4**	**3**	**5**	**2**	**0**
		40%	**30%**	**30%**	**40%**	**30%**	**50%**	**20%**	**0%**
Group 3	Afghanistan								
	Djibouti								√
	Pakistan	√	√	√			√	√	√
	Somalia	√	√			√	√		
	Sudan								
	Yemen		√				√	√	
	Total	**2**	**3**	**1**	**0**	**1**	**3**	**2**	**2**
		33%	**50%**	**17%**	**0%**	**17%**	**50%**	**33%**	**33%**
Eastern Mediterranean Region		11	11	10	6	9	13	10	6
		50%	**50%**	**46%**	**27%**	**41%**	**59%**	**46%**	**27%**

Table 78.

Approaches to overcome NCD service disruptions due to COVID-19 *(concluded)*

Country group		Approaches to overcome service disruptions						
		Task shifting / role delegation	Expanding facility hours	Novel supply chain management and logistics approaches	Novel dispensing approaches for medicines	Novel prescribing approaches (e.g. tele-prescription)	Community communications	Government removal of user fees
Group 1	Bahrain	√	√	√	√	√	√	√
	Kuwait		√	√	√	√	√	√
	Oman			√	√	√	√	
	Qatar				√	√	√	
	Saudi Arabia	√	√	√	√	√	√	
	United Arab Emirates			√	√	√	√	√
	Total	**2**	**3**	**5**	**6**	**6**	**6**	**3**
		33%	**50%**	**83%**	**100%**	**100%**	**100%**	**50%**
Group 2	Egypt		√	√				√
	Iran (Islamic Republic of)	√	√	√	√		√	
	Iraq	√					√	
	Jordan							
	Lebanon	√			√		√	
	Libya							
	Morocco		√			√		
	Occupied Palestinian territory							
	Syrian Arab Republic	√		√		√	√	
	Tunisia				√	√		
	Total	**4**	**3**	**3**	**3**	**3**	**4**	**1**
		40%	**30%**	**30%**	**30%**	**30%**	**40%**	**10%**
Group 3	Afghanistan							
	Djibouti	√						
	Pakistan			√		√	√	
	Somalia						√	
	Sudan							
	Yemen			√			√	
	Total	**1**	**0**	**2**	**0**	**1**	**3**	**0**
		17%	**0%**	**33%**	**0%**	**17%**	**50%**	**0%**
Eastern Mediterranean Region		7	6	10	9	10	13	4
		32%	**27%**	**46%**	**41%**	**46%**	**59%**	**18%**

Fig. 63.

Use of approaches (%) to overcome NCD service disruptions due to COVID-19, by country group

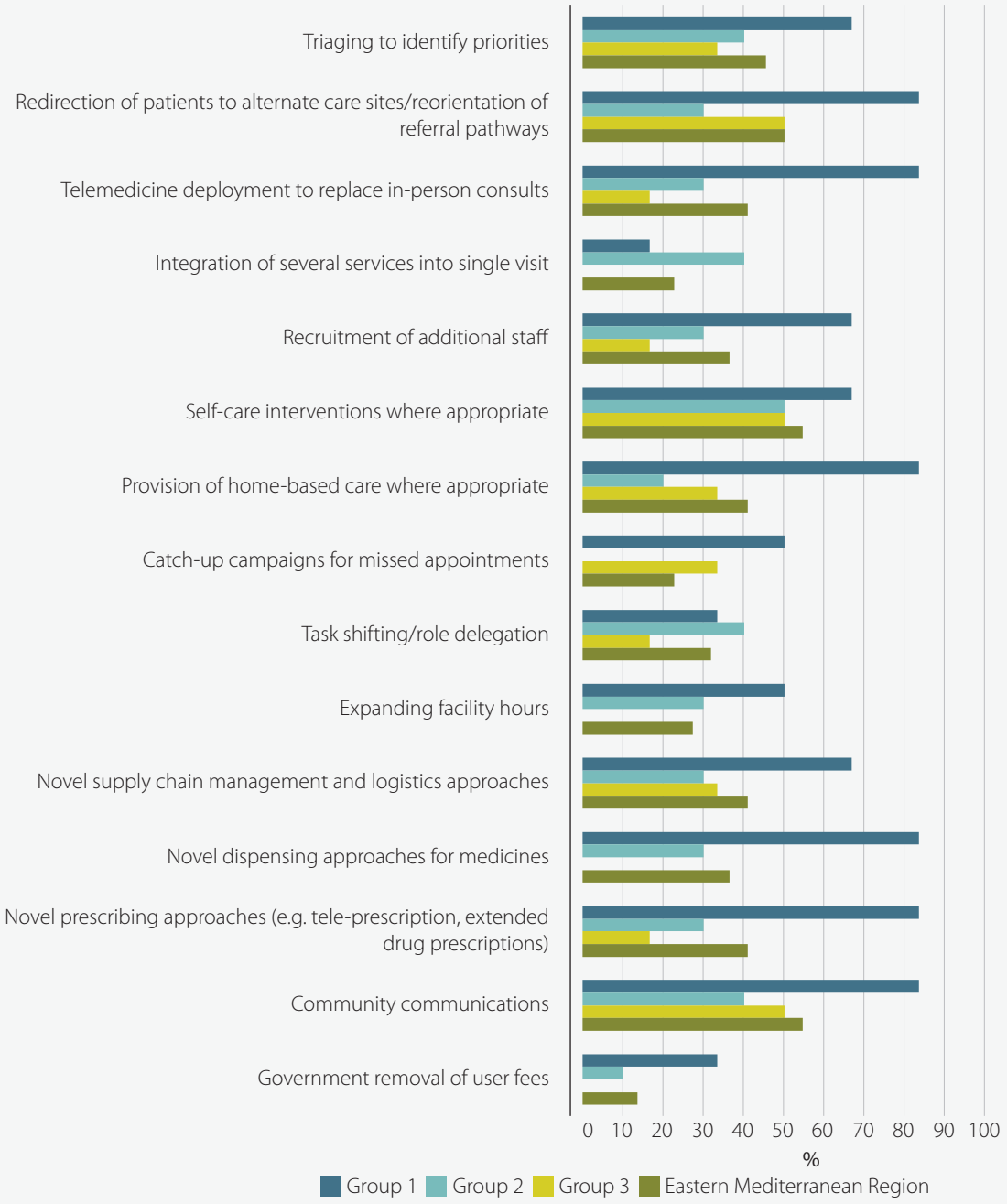


Fig. 64.

Comparison of the number of countries/territories using approaches to overcome NCD service disruptions due to COVID-19, 2020 and 2021

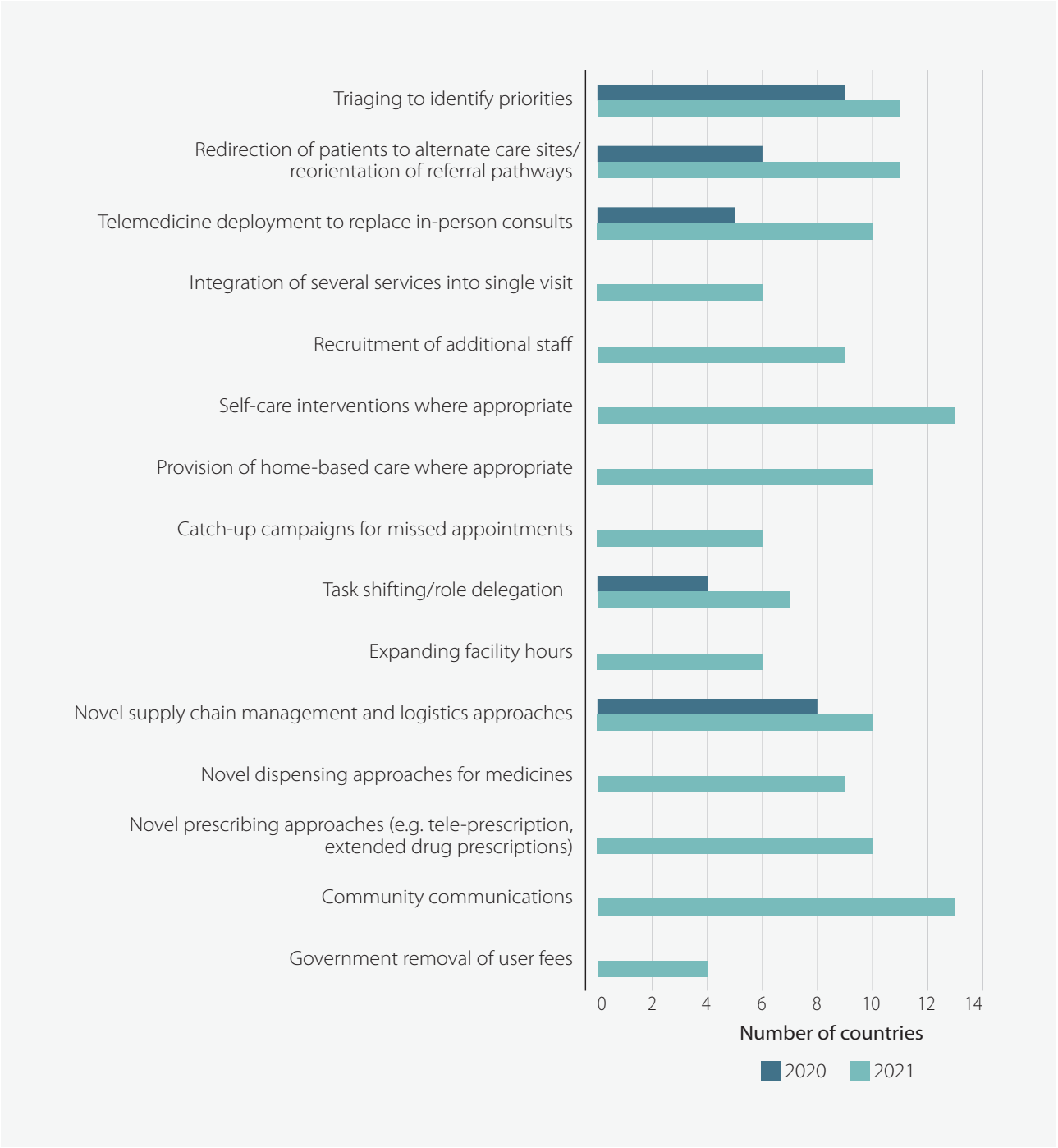


Table 79.

Country plans to reinstate any suspended NCD services

Country group		Plans to reinstate suspended NCD services
Group 1	Bahrain	No significant disruption in NCD services during the pandemic due to priority given to this high-risk group through testing, evaluation, referral, vaccination, home services and admission.
	Oman	NCD services gradually resuming, depending on the prevalence of COVID-19 cases in governorates. Incorporating telemedicine clinics into regular care.
	Qatar	Use of alternative methods for NCD consultations; use of new digital technologies; activating use of health sector social media platform; use of digital platforms to provide health information; use of Ministry of Public Health website.
	Saudi Arabia	Currently, NCD services run as planned, with the suspension of some community interventions. The programme overcame training problems through virtual training and webinars, and community interventions were made through a virtual campaign and smart applications.
	United Arab Emirates	No services were suspended; all were sustained under precautionary measures. Cancer screening decreased because patient recruitment was difficult during the pandemic, but patients did attend for medical follow-up and consultation. Screening services restarted in November 2020 as most health care facilities were declared COVID-19-free; COVID-19 clinics/hospitals were recognized and publicized to the community; on-site waiting areas were restructured and strict precautionary measures applied. Staff and community PCR testing continued, and cost-free COVID-19 vaccination programme maintained.
Group 2	Iran (Islamic Republic of)	Providing active care according to the level of COVID-19 transmission.
	Iraq	Plan of action for primary health care for NCDs in response to the COVID-19 pandemic.
	Jordan	Delivering NCD medicines to patients in home settings.
	Lebanon	The Primary Health Care Department, Ministry of Public Health, launched a 4-year project entitled "Bridging the gap: advancing an integrated NCD-humanitarian response for refugees and host communities in Lebanon 2021–2024", which aims at reducing the burden of NCDs among vulnerable Lebanese communities, refugees and migrant populations (including youth, young adults, adults and the elderly). The project is funded by a grant from the World Diabetes Foundation and Novo Nordisk Foundation. The grant will be managed by the Office of Grants and Contracts at the American University of Beirut (AUB) and implemented jointly by AUB and the Primary Health Care Department starting June 2021.
	Libya	The majority of NCD services have resumed. Primary health care centres are open, but with some restrictions related to COVID-19 prevention measures. In addition to regular follow-up appointments, telemedicine services are provided by a few centres. Dispensing of medicines and laboratory test services are delivered as normal. Tripoli University Hospital has initiated a post-COVID-19 cardiovascular clinic for close monitoring of cardiovascular disease patients who recovered from COVID-19 infection.
	Morocco	Strengthening the supply of health services, including telemedicine.
	Syrian Arab Republic	No NCD services were suspended at primary care level in all functioning public health centres affiliated to Ministry of Health. All NCD services were delivered on a daily basis with full medical staff; however, the number of visitors declined during the first 1–2 months of COVID-19 due to fear of infection (April to May 2020), then normal levels resumed. NCD surveys were suspended due to other priorities at the Ministry of Health. The WHO Country Office in coordination with Ministry counterparts will resume coordination with the Regional Office to prepare for STEPS survey and develop NCD multisectoral action plan. Strengthening the capacity of national nongovernmental organizations providing NCD services has been implemented by Ministry of Health and is to be expanded.
Group 3	Afghanistan	NCDs are not part of essential services at primary health care level thus far, so health management information system does not have any data on NCDs.
	Pakistan	Development of tobacco strategic framework; development of national strategic framework for NCDs and mental health.
	Somalia	Finalize the WHO STEPS data analysis and submit report; develop national NCD policy and strategy; advocacy and fundraising; integrate NCD component to essential package of health services.
	Sudan	In general, NCD services have improved compared to the first wave of COVID-19. Exact figures are not available yet. The plan is to continue and expand virtual consultation for NCDs to mitigate the effect on NCD services and as preparedness for a third wave.

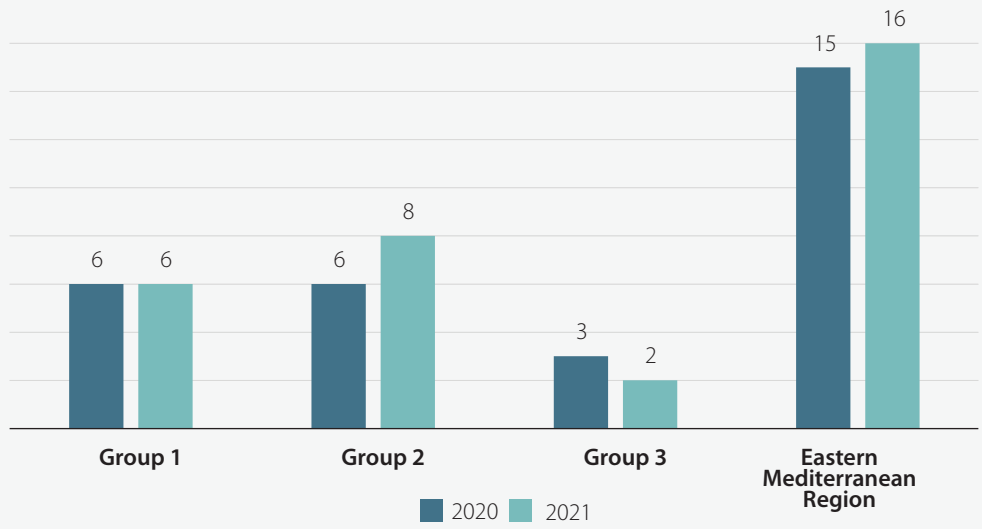
Note: Djibouti, Egypt, Kuwait, occupied Palestinian territory, Tunisia and Yemen did not report any plans.

Surveillance of NCD-related comorbidities in COVID-19 patients

Nearly three quarters (73%) of the countries and territories in the Region reported collecting data on the number of COVID-19 patients who also had NCDs, including all countries in Group 1, 80% of Group 2 and only 33% of Group 3 countries. The number of countries and territories reporting that they are collecting or collating data on NCD-related comorbidities in COVID-19 patients in 2020 and 2021 is compared by country group in Fig. 65.

Fig. 65.

Comparison of the number of countries/territories collecting or collating data on NCD-related comorbidities in COVID-19 patients, by country group, 2020 and 2021



Suggestions for technical support

Countries and territories were invited to provide suggestions for tools or technical guidance that WHO could develop related to NCDs during the COVID-19 pandemic. This question was open-ended and responses were numerous, as summarized in Table 80.

Table 80.

Suggested technical guidance or tools that WHO could develop related to NCDs during the COVID-19 pandemic

Country group		Technical guidance or tools that WHO could develop
Group 1	Bahrain	Guidance on management of patients with NCDs and COVID-19, and on vaccine recommendations and boosters. Share more updates on NCD and COVID-19-related research.
	Kuwait	Survey on impact of the pandemic on NCD patients (collateral damage). Post-COVID-19 NCD patient management and follow-up. Global research of the impacts of COVID-19 on NCD patients.
	Oman	Guidance on assessing the impact of the pandemic on people living with NCDs.
	Qatar	Technical guidance in implementing NCD surveillance activities (e.g. STEPS). Virtual trainings for health care professionals to provide NCD services.
	United Arab Emirates	Guidance on sustaining integration of NCDs, mental health and tobacco cessation into primary care, through making health system more resilient to future catastrophes and by innovation and strengthening of surveillance.
Group 2	Iran (Islamic Republic of)	Complete integration of NCD prevention and control programmes in the primary health care system. Execution of digital health programmes for the prevention and control of NCDs.
	Iraq	Development of a training manual on telemedicine.
	Libya	Field epidemiology training. Digital health tools for managing NCDs.
	Morocco	Integration of telemedicine for remote follow-up of people with chronic diseases. Acceleration of the operation of compulsory health insurance, in particular for chronic diseases. Strengthening self-management of NCDs through therapeutic education to ensure the quality of day-to-day management. Strengthening of home care programmes.
	Tunisia	Guidelines for NCD care in situations of health disasters.
Group 3	Djibouti	Online training and communication module for health care providers and community health workers.
	Pakistan	Further guidance on obesity and related risk factors and awareness-raising among youth.
	Somalia	Diabetic case management for COVID-19 patients. Management of heart failure patients with COVID-19.
	Sudan	Guidelines and tools for telemedicine. Guidelines and standard data-collection tools to assess the effect of COVID-19 on NCD services and COVID-19-related mortality among NCD patients.
	Yemen	Technical package or guidelines for home care for NCDs.

Note: No suggestions were made by Afghanistan, Egypt, Jordan, Lebanon, occupied Palestinian territory, Saudi Arabia and Syrian Arab Republic.

Discussion

Key findings

Infrastructure, governance and financing

The vast majority of the countries and territories (21 out of 22) in the Region reported the availability of a unit, branch or department within the ministry of health for NCDs and NCD risk factors, as well as the presence of full-time technical/professional members of staff in the NCD unit. Staffing for specific NCDs or NCD risk factors within the NCD department was widely available. However, a general trend to have dedicated staff working on specific diseases rather than the underlying risk factors was noted.

In order to advance towards universal health coverage, it is crucial to provide an acceptable level of public financing for health systems *(16)*. Less than half of the countries and territories in the Region (10 of 22) reported government revenues as the largest source of regular funding for activities related to NCDs and their risk factors, and consistent disparities across the country income groups were observed. Taxation on tobacco was the most common health-related fiscal intervention (20 out of 22 countries/territories). Regionally, the most commonly funded areas were health care/treatment and capacity-building followed by primary prevention, health promotion and early detection/screening. The least-funded areas were rehabilitation, research and palliative care. These findings are consistent with those of the 2019 survey, highlighting that funding for palliative care and research still lags behind other NCD activities while funding for health care and treatment remains most prevalent overall. This allocative inefficiency remains a key challenge in health system financing in the Region, with more resources allocated to curative care and fewer to health promotion and disease prevention services.

The 2021 survey found that multisectoral commissions, agencies or mechanisms to oversee NCD engagement, policy coherence and accountability of sectors beyond health were instituted by 15 countries and territories in the Region. A commission was operational in 13 countries and territories in 2021 compared to 12 in the 2019 survey. Fourteen countries and territories reported putting in place time-bound national targets for NCDs based on the nine voluntary targets of the WHO Global Monitoring Framework, as well as setting indicators for those targets; this is comparable to the 2019 survey findings.

Policies, strategies and plans

Despite the fact that over half of the countries and territories in the Region had operational, integrated NCD plans, many of these plans failed to meet the standards outlined in progress monitoring indicator 4, which states that such plans should not only be multisectoral but also cover the management of the four main NCDs and the main risk factors. The operational, integrated NCD plans most frequently fell short in the identification, treatment and care of the four main NCDs, especially chronic respiratory disorders.

Of the four main NCDs and their risk factors, cancer, tobacco use, unhealthy diet and overweight/obesity were the most commonly addressed by vertical operational policies, strategies or action plans. Among all NCDs, the most common vertical programmes were those addressing oral health and eye health and the least common were those addressing chronic respiratory diseases and hearing health. Chronic respiratory diseases remained the least likely of the four main NCDs to be addressed by an operational policy, although notable progress has been made, with seven countries reporting an operational policy in 2021 compared to four in 2019 and 2017.

Only 10 of the 22 countries and territories reported having guidelines for physical activity. A slightly higher proportion (12 countries/territories) reported the availability of dietary guidelines in 2021 compared to 2019. An operational NCD-related research policy or plan that included community-based research and an evaluation of the impact of interventions and policies was reported by half of the 22 countries and territories.

Seven countries and territories had implemented policies on the marketing of unhealthy foods to children in 2021 compared to only four in 2019, the majority of which were in Group 1. Furthermore, in the 2021 survey, 10 countries and territories had policies on nutrition labelling to identify foods high in saturated fatty acids, trans-fatty acids, free sugars or salt, compared to only six countries in 2019. However, a similar number of countries and territories in 2019 and 2021 reported the existence of policies to limit saturated fatty acids in the food supply and policies to reduce salt consumption (10 and 13, respectively).

Comparable to the 2019 findings, less than half of the countries and territories of the Region have implemented national public awareness campaigns on diet and physical activity, and fewer still any national or subnational mass participation events in past two years (10 and nine countries, respectively). Finally, 10 countries reported that they had implemented mHealth initiatives recently.

NCD and risk factor surveillance

In 2021, a slightly higher number of countries/territories reported the presence of a dedicated department within the health ministry for surveillance of NCDs and their risk factors compared to 2019 (11 countries/territories, up from nine). The vast majority of the countries

and territories (20) reported the availability of a cancer registry, although population-based cancer registries were less widespread (15 countries), a situation unchanged since 2019. However, the number of countries reporting that coverage is national has doubled since 2019 (12, up from six). Comparable to 2019, more than half of the 22 countries and territories in the Region (13) reported having a diabetes registry, six of which were hospital-based.

The 2021 survey introduced new questions requesting countries to report on the availability and characteristics of myocardial infarction/coronary events registries and cerebrovascular accident/stroke registries. Less than a third of the countries and territories (seven) reported the availability of a myocardial infarction/coronary events registry. A slightly lower proportion (five countries) reported the availability of a cerebrovascular accident/stroke registry. In addition, 15 out of 22 countries and territories (68%) reported having a patient information system in place in primary health care centres.

In 2021, adult surveys were used to gather data on an average of eight of nine risk factors in Group 1 and Group 2 countries, and on five of nine in Group 3, which is similar to the status in 2019. A similar pattern was found with adolescent surveys, although a higher proportion of countries and territories overall reported carrying out such surveys: over 90% had conducted surveys addressing unhealthy diet, physical inactivity and tobacco use in adolescents. No countries/territories reported the implementation of surveys on physical inactivity among children in 2021, down from three in 2019. A comparable number of countries and territories reported implementation of surveys on BMI among children in 2021 to 2019 (eight countries, down from nine). The majority of surveys among children were conducted by high-income countries (five out of the eight countries were in Group 1).

Health system capacity

More than two thirds of the countries and territories reported having guidelines for each of the four main NCDs. Guidelines for the management of cardiovascular diseases and diabetes were more common (17 countries/territories) than guidelines for cancer and chronic respiratory diseases (15 countries/territories). Guidelines were more likely to be available in Group 1 than in Group 2 and Group 3 countries/territories, similar to 2019 survey findings.

There was a modest improvement in the availability of national evidence-based management guidelines for each of the main NCD risk factors in 2021 compared to 2019. Guidelines for the management of tobacco dependence and overweight/obesity were most widely reported (by 10 and 12 countries/territories, respectively), followed by physical inactivity guidelines (eight countries/territories) and guidelines for the management of alcohol dependence (five countries/territories).

Of the basic tests and procedures for early detection, diagnosis and monitoring of NCDs, the majority were as widely available as reported in 2019. Weight, height, blood glucose and blood pressure measurements were generally available (in at least half of health care facilities) in the vast majority of countries and territories (91–96%). The availability of such tests and procedures varied greatly between country groups, however, with substantially lower availability in Group 3 countries than in Groups 1 and 2.

There was a slight decrease in the number of countries and territories reporting the availability of screening programmes for breast, cervical and colon cancers in 2021 compared to 2019. Fourteen countries and territories reported the availability of breast cancer screening programmes in 2021, compared to 17 in 2019. Similarly, eight countries/territories reported a national screening programme for cervical cancer and nine for colon cancer in 2021, compared to 10 for both in 2019. In general, cancer screening programmes are covering only a minority of the target population. Similar to the 2019 survey findings, early detection of breast cancer was integrated into primary health care services in a significant proportion of the 22 countries and territories of the Region in 2021 (15 countries/territories), but less so for cervical (10), colon (nine) and childhood cancers (one).

Stark disparities were also seen in the availability of essential medicines in the public health sector, with little change evident since 2019. The most widely available essential medicines in the public health sector were aspirin, metformin, calcium channel blockers and bronchodilators (available in 18–19 countries/territories). The addition of questions on fixed-dose combinations in the 2021 survey revealed these treatments also had limited availability: only 23% of countries reported fixed-dose combinations as being available in the public health sector.

There was slight progress regarding the availability of seven key procedures for treating NCDs in 2021 compared to 2019. The most available procedures were thrombolytic therapy, coronary bypass and coronary stenting, which were reported by 16–18 countries/territories in 2021 compared to 15–17 in 2019. Disparities in the availability of key procedures for treating NCDs across the three country groups were evident. A new question was introduced in the 2021 survey regarding the availability of procedures for managing and treating oral diseases in the public health system. The vast majority of countries and territories (18) reported the availability of emergency oral care and oral pain relief.

Similar to 2019 survey findings, pathology services and cancer surgery were the most widely available cancer diagnosis and treatment services (19 countries/territories). Rehabilitative services were included for the first time in the 2021 survey and were found to be available at the inpatient and outpatient levels of care in over half of the countries and territories in the Region. Palliative care for individuals with NCDs was not extensively offered by public health systems in the Region. End-of-life care was found to be provided in primary health care facilities in nearly a third of the countries and territories (eight in 2021, up from five in 2019). Cardiovascular risk stratification in primary health care facilities was reported by nearly three quarters of the 22 countries and territories in the Region; however, the availability within these countries varied greatly.

NCD-related disruptions during the COVID-19 pandemic

Disruption of NCD-related services during the COVID-19 pandemic was assessed in the 2021 survey, and compared to the results of the rapid assessment carried out in May 2020. The vast majority of countries and territories in the Region reported that some or all NCD staff have been supporting COVID-19 efforts, either full-time or part-time. However, only seven out of 22 countries/territories stated that none of the NCD funds had been reassigned to non-NCD services in 2021, compared to 10 out of 19 countries and territories in 2020.

Fourteen countries and territories reported that they had defined a national essential health services package prior to the COVID-19 pandemic. Almost as many (13 out of 22) reported the inclusion of NCD services in the list of essential health services under their COVID-19 response plan, one more than in 2020. Cardiovascular disease, cancer and diabetes services were the most commonly included (12 countries/territories for each), followed by chronic respiratory disease services (11 countries/territories) and, lastly, rehabilitation services (in only six countries/territories).

The NCD activities most commonly postponed due to the COVID-19 pandemic were mass communication surveys (nine out of 22 countries/territories), followed by NCD surveys and public screening programmes (eight countries/territories for each). Nearly half of the countries and territories in the Region reported that they had limited access for outpatient and inpatient NCD services (50% and 46%, respectively). Services that were completely suspended in more than 10% of countries and territories were community-based NCD care and mobile NCD clinics (14% and 18%, respectively). Generally, more countries and territories reported disruption of NCD services in 2021 than in May 2020. Nearly two thirds surveyed (ranging from 59% to 73%) reported partial disruption to hypertension treatment, cardiovascular emergency services, cancer screening, cancer management, diabetes management, asthma services and urgent dental care. The most commonly disrupted services were hypertension management, diabetes management and asthma services, reported by 16 countries and territories in 2021 for each of the three services compared to 10, eight and nine countries, respectively, in 2020.

The main reasons for service disruption were categorized into supply-side factors and demand-side factors. The most commonly reported supply-side factors were a decrease in inpatient volume due to cancellation of elective care (41%), insufficient PPE available for health care providers (36%) and changes in treatment policies (e.g. stay-at-home policies) (32%). A larger percentage of countries and territories reported community fear/mistrust in seeking health care (64%) and decrease in outpatient volume due to patients not presenting (46%) as the main demand-side factors in NCD service disruption.

To overcome NCD service disruptions due to COVID-19, over half of the countries and territories in the Region (55%) reported using community communication and self-care interventions. Additional approaches reported were redirection of patients to alternate care sites/reorientation of referral pathways (50%), triaging (46%), deploying telemedicine to replace in-person consultations (41%) and provision of home-based care where appropriate (41%).

Finally, three quarters of the countries and territories in the Region reported collecting data on the number of COVID-19 patients who also had NCDs, including all countries in Group 1 and 80% in Group 2, but only 33% of Group 3 countries.

At the national level, infrastructure for NCD prevention and control is well developed in the majority of countries and territories of the Eastern Mediterranean Region,

Conclusion

with one or more staff members dedicated to NCDs in ministries of health. A general trend to have staff dedicating more of their time to specific NCDs than on the underlying risk factors was noted. However, the vast majority of countries and territories reported that some or all NCD staff members have been supporting COVID-19 efforts, either full-time or part-time. The NCD epidemic and concurrent COVID-19 pandemic have jeopardized already overloaded public health systems, requiring innovative solutions to overcome shortages in health care staff. These include task-sharing and shifting NCD-related health care delivery to non-physician health care workers, especially nursing personnel and grassroots-level health professionals *(17)*.

The financial and social burden of NCDs is immense, and yet government investments to alleviate the burden on patients, families and carers is comparatively small. In the Region, public financing for NCD-related health services remains low and wide disparities are seen between the country income groups. Allocative inefficiency remains a key challenge in health system financing across the Region, as more resources are allocated to curative care and fewer to health promotion and disease prevention efforts. The need to invest in the area of NCDs prevention and control is significant, and the cost of inaction is much higher than the necessary expenditure *(18)*. Taxes on alcohol, tobacco and sugar-sweetened beverages are a potent fiscal tool available to governments. The large number of countries that have introduced such taxes testifies to their effectiveness, increasingly making these the norm rather than the exception *(18)*.

NCDs have effects on a wide range of sectors both inside and outside of government. The establishment of multisectoral coordination mechanisms that provide a synergistic response to these diseases and the associated risk factors is required of Member States *(19)*. Regionally, slight progress has been made on instituting multisectoral commissions to oversee NCD engagement, policy coherence and accountability of sectors beyond health compared to 2019.

A national, multisectoral operational NCD action plan is a priority blueprint for key stakeholders to ensure effective prevention and control of NCDs. This is crucial to improving health and well-being, two fundamental rights of citizens. Despite the fact that over half of the countries and territories in the Region had operational, integrated NCD plans, these plans most frequently fell short in the identification, treatment and care of the four major NCDs, especially chronic respiratory diseases. Chronic respiratory diseases remained the least likely of the four main NCDs to be addressed by an operational policy Region-wide, although notable progress can been seen in 2021 compared to the 2019 and 2017 surveys. Additionally, fewer than half of the countries reported having guidelines for physical activity or healthy diets, unchanged since 2019.

Obesity and overweight are a major public health challenge affecting almost half of adults, over a quarter of adolescents and nearly 6% of children aged under-5 in the Region. However, only a few countries and territories have implemented nutrition-related regulations, such as prohibiting the marketing of unhealthy foods to children and mandating nutrition labelling, although the number doing so has increased since 2019. Countries and territories need to make greater efforts to improve their food systems and adopt policies and regulations to safeguard children from unhealthy foods and beverages in the light of rising trends in obesity and diet-related NCDs *(20)*. These steps are crucial to building healthier and more resilient populations that are better prepared to deal with future health emergencies such as COVID-19.

Disease surveillance aims to systematically collect, interpret and disseminate data to target and monitor interventions to reduce morbidity and mortality. Without good data, evidence-based decision-making and interventions for health cannot be made. Recent reviews of approaches to data gathering for NCDs in low- and middle-income countries have found limited capacities and weak health information systems. Clear disparities can be seen between countries/territories of the Region in the implementation of surveys to gather information on the nine NCDs risk factors, with Group 1 countries more likely to have conducted such surveys. Adolescent surveys were conducted by a higher proportion of countries and territories overall than adult surveys. However, improvement in NCD surveillance was reported by countries and territories in some aspects. For instance, the number of countries reporting national disease registry coverage has doubled since 2019. In a newly explored area of the 2021 survey, myocardial infarction/coronary events registries and cerebrovascular accident/stroke registries, very few countries and territories have these registries in place. Much more effort is needed to enhance both the quality and coverage of surveillance for NCDs, which is vital to inform interventions for the WHO *Global action plan for the prevention and control of noncommunicable diseases 2013–2030*.

Patients with NCDs, or those with a predisposition to develop one, need personalized, proactive and sustainable long-term care. Primary health care centres can organize and provide care strategies to detect disease at an early stage and manage NCDs in the community *(21)*. Evidence-based national management guidelines for each of the four main NCDs were present in over a half of the countries and territories in the Region, and there was a modest improvement in the availability of evidence-based national management guidelines for NCD risk factors in 2021 compared to 2019. However, guidelines still need to be more readily available, especially for cancers and chronic respiratory diseases.

Of the basic tests and procedures for early detection, diagnosis and monitoring of NCDs, the majority were still as widely available in 2021 as in 2019. The availability of such tests and procedures is highly correlated to country income groups. There was a slight decrease in the number of countries and territories reporting the availability of screening programmes for breast, cervical and colon cancers in 2021 compared to 2019, and generally low coverage for all types of cancer screening. Stark disparities were also seen in the availability of essential medicines in the public health sector, with little change evident since the 2019 survey. However, there was some progress regarding the availability of seven key procedures for treating NCDs in 2021. It is necessary to make basic NCD detection technology more widely accessible, especially in low-income countries. Programmes for cancer screening need to be better organized and cover more of the target populations. Interestingly, a significant proportion of countries and territories reported the availability of procedures for managing and treating oral diseases in the public health system, a new question added in the 2021 survey. Rehabilitative services were another addition to the 2021 survey: it was found they were available at the inpatient and outpatient levels of care in over half of the countries and territories in the Region.

The COVID-19 pandemic has impacted the ability of countries to address and respond to NCDs both in the Region and globally. The implications of COVID-19 for health, development and humanitarian issues are amplified by NCDs and their risk factors, and in turn COVID-19 has increased the burden of NCDs, especially on already underprivileged populations *(21)*. The pandemic has disrupted NCD services and will likely aggravate morbidity and mortality attributed to both NCDs and COVID-19. Generally, a larger number of countries and territories in the Region reported NCD service disruption in 2021 than in the May 2020 rapid assessment. Many NCD services were suspended due to the pandemic. The most commonly reported reasons for service disruption were decreased inpatient volumes due to cancellation of elective care, insufficient PPE for health care providers and changes in treatment policies (e.g. stay-at-home policies) affecting health care-seeking behaviour. Interventions were adopted by fewer than half of the countries and territories in the Region to overcome these service disruptions. Strong action on NCDs must be an integral part of the COVID-19 response, recovery and building back better to achieve the 2030 Agenda for Sustainable Development *(21)*.

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Annexes

Annex 1. Questionnaire

2021

Country profile of capacity and response to noncommunicable diseases (NCDs)

Modules:

I Public health infrastructure, partnerships and multisectoral collaboration for NCDs and their risk factors

II Status of NCD-relevant policies, strategies and action plans

III Health information systems, monitoring, surveillance and surveys for NCDs and their risk factors

IV Capacity for NCD early detection, treatment and care within the health system

V NCD-related disruptions during the COVID-19 pandemic

Purpose

- The purpose of this survey is to gauge your country's capacity for responding to NCDs. It will guide Member States, WHO regional offices and WHO headquarters in planning future actions and technical assistance required to address NCDs and their risk factors. This is also the basis for ongoing assessment of changes in country capacity and response. Responses to the survey enable reporting against NCD Global Action Plan progress indicators and United Nations High-Level Meeting national commitment progress indicators.
- The information collected through this survey will also be used to produce some of the indicators that Member States have agreed to monitor and will be held accountable to the United Nations General Assembly and World Health Assembly.
- Use of standardized questions allows comparisons of country capacities and responses. We have divided this survey into four modules, assessing key aspects of NCD prevention and control. In 2021, a fifth module was added to assess the disruption of NCD services during the COVID-19 pandemic.
- The four main types of NCDs are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes. The survey also captures information on policies related to other NCDs of importance to countries such as oral health, diseases of eyes or ears and sensory impairments, including hearing or vision impairment.
- The main risk factors for NCDs are harmful use of alcohol, tobacco use, unhealthy diet and physical inactivity. Capacity assessment related to some specific risk factors is also captured in other topic-specific assessments such as tobacco, alcohol and nutrition, which may be used to cross-validate some survey items.

Process

- The survey is intended to assess national-level capacity and response to NCDs. If responsibility for health is decentralized to subnational levels, it can also be applied at subnational levels.
- A focal point or survey coordinator will need to be identified to coordinate and ensure survey completion. However, in order to provide a complete response, a group of respondents with expertise in the topics covered in the modules will be needed. Please use the table provided to indicate the names and titles of all of those who have completed the survey and which sections they have completed. Please also add any additional information on other sources you may have consulted in developing your response.
- Please note that while there is space to indicate "Don't know" for most questions, there should be very few of these. If someone is filling in numerous "Don't knows", another person who is more aware of this information should be found to complete this section.
- In order to validate responses, documentation will be requested for affirmative responses throughout the questionnaire. Please make every effort to provide electronic copies of the requested documentation. If documentation has been provided previously and is available in the NCD Document Repository (https://extranet.who.int/ncdccs/documents/), please indicate this. If you are unable to provide electronic copies through the provided links, please ask your regional focal point for an alternative means to submit documentation.

Information on those who completed the survey

Who is the focal point for completion of this survey?

Name:

Position:

Contact information:

Sections completed:

Name and contact information of others completing survey	Sections completed

Additional information sources consulted:

I. Public health infrastructure, partnerships and multisectoral collaboration for NCDs and their risk factors

This module includes questions related to the presence of a unit or division in the ministry of health dedicated to NCDs and risk factors, staff and funding. It also includes an assessment of the existence of fiscal interventions as incentives to influence health behaviour and/or to raise funds for health-related activities. Finally, it assesses the existence of a formal multisectoral mechanism to coordinate NCD-related activities in sectors outside of health.

1) Is there a unit/branch/department in the ministry of health or equivalent with responsibility for NCDs and their risk factors?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 2

Please indicate the number of full-time-equivalent technical/professional staff in the unit/branch/department.

◯ 0
◯ 1
◯ 2–5
◯ 6–10
◯ 11 or more
◯ Don't know

1a) Please indicate the number of full-time-equivalent technical/professional staff in the unit/branch/department.

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 2

1b) Are there technical/professional staff in the unit/branch/department dedicating a significant proportion of their time to:

i.	Harmful use of alcohol	◯ Yes	◯ No	◯ Don't know
ii.	Unhealthy diet	◯ Yes	◯ No	◯ Don't know
iii.	Physical inactivity	◯ Yes	◯ No	◯ Don't know
iv.	Tobacco use	◯ Yes	◯ No	◯ Don't know
v.	Cancer	◯ Yes	◯ No	◯ Don't know
vi.	Cardiovascular diseases	◯ Yes	◯ No	◯ Don't know
vii.	Chronic respiratory diseases	◯ Yes	◯ No	◯ Don't know
viii.	Diabetes	◯ Yes	◯ No	◯ Don't know
ix.	Oral diseases	◯ Yes	◯ No	◯ Don't know

x.	Ear diseases/hearing impairment	◯ Yes	◯ No	◯ Don't know
xi.	Eye diseases/vision impairment	◯ Yes	◯ No	◯ Don't know

1c) Are there units/branches/departments with responsibility for NCDs and their risk factors at the subnational/state/regional level?

◯ Yes ◯ No ◯ Don't know

2) Is there dedicated funding allocated in the government budget for the following NCD and risk factor activities/functions?

i.	Primary prevention	◯ Yes	◯ No	◯ Don't know
ii.	Health promotion	◯ Yes	◯ No	◯ Don't know
iii.	Early detection/screening	◯ Yes	◯ No	◯ Don't know
iv.	Health care and treatment	◯ Yes	◯ No	◯ Don't know
v.	Surveillance, monitoring and evaluation	◯ Yes	◯ No	◯ Don't know
vi.	Capacity-building	◯ Yes	◯ No	◯ Don't know
vii.	Palliative care	◯ Yes	◯ No	◯ Don't know
viii.	Research	◯ Yes	◯ No	◯ Don't know
ix.	Rehabilitation	◯ Yes	◯ No	◯ Don't know

If at least one Yes to above questions:

2a) What percentage of regular funding for NCDs and their risk factors come from each of the following sources?

_____ General government revenues

_____ Health insurance

_____ International/national donors

_____ Earmarked taxes on alcohol, tobacco, etc.

◯ Other (specify) .....

◯ Don't know

3) Is your country implementing any of the following fiscal interventions? (for taxes, please respond "Yes" only if excise taxes and/or special VAT/sales tax rates are applied)

Taxation on alcohol	◯ Yes	◯ No	◯ Don't know
Taxation on tobacco (excise and non-excise taxes)	◯ Yes	◯ No	◯ Don't know
Taxation on sugar sweetened beverages	◯ Yes	◯ No	◯ Don't know
Taxation on foods high in fat, sugar or salt	◯ Yes	◯ No	◯ Don't know
Price subsidies for healthy foods	◯ Yes	◯ No	◯ Don't know
Taxation incentives to promote physical activity	◯ Yes	◯ No	◯ Don't know
Others (specify)	◯ Yes	◯ No	◯ Don't know

If Yes to at least one of the above, other than price subsidies:

3a) Are any of these funds earmarked for health promotion or health service provision?

◯ Yes ◯ No ◯ Don't know

4) Is there a national multisectoral commission, agency or mechanism to oversee NCD engagement, policy coherence and accountability of sectors beyond health?

◯ Yes ◯ No ◯ Don't know

IF no: Go to MODULE II

4a) Indicate its stage:

◯ Operational
◯ Under development
◯ Not in effect
◯ Don't know

If "operational" or "under development":

4b) Please provide name: .....

4c) Please provide year of establishment: .....

4d) Who leads or chairs the commission/agency/mechanisms (provide name):

.....

4e) Which of the following are members?

(Check all that apply)

◯ Other Government ministries (non-health, e.g. ministry of sport, ministry of education)
◯ United Nations agencies
◯ Other international institutions
◯ Academia (including research centres)
◯ Nongovernmental organizations/community-based organizations/civil society
◯ Private sector
◯ Other (specify) .....
◯ Don't know

IF "private sector" is one of the members:

4f) Is the participation of industry (i.e. tobacco, food, beverage) in the consultations and decision-making process excluded from the national multisectoral commission?

◯ Yes ◯ No ◯ Don't know

If yes, please indicate which industries:

Tobacco	◯ Yes	◯ No	◯ Don't know
Food	◯ Yes	◯ No	◯ Don't know
Sugar-sweetened beverages	◯ Yes	◯ No	◯ Don't know
Alcohol	◯ Yes	◯ No	◯ Don't know

Other (specify) .....

II. Status of NCD-relevant policies, strategies and action plans

This module includes questions relating to the presence of policies, strategies or action plans. The questions differentiate between integrated policies/strategies/action plans that address several risk factors or diseases and policies/strategies/action plans that address a specific disease or risk factor. Additional questions address the existence of specific policies related to cost-effective interventions for NCDs.

1a) Are NCDs included in the outcomes or outputs of your current national health plan?

◯ Yes ◯ No ◯ Don't know

1b) Are NCDs included in the outcomes or outputs of your current national development agenda?

◯ Yes ◯ No ◯ Don't know

1c) Are NCD services included in your national essential package of health services or universal health coverage-priority benefits package?

◯ Yes ◯ No ◯ Don't know

1c-i) If yes, please specify the scale of implementation:

.....

2) Is there a set of time-bound national targets for NCDs based on the 9 voluntary global targets from the WHO Global Monitoring Framework for NCDs?

◯ Yes ◯ No ◯ Don't know

If yes:

2a) Is there a set of national indicators for these targets based on the indicators from the WHO Global Monitoring Framework for NCDs?

◯ Yes ◯ No ◯ Don't know

II A. Integrated policies, strategies and action plans

3) Does your country have a national NCD policy, strategy or action plan which integrates several NCDs and their risk factors?

Please note that this may be a stand-alone NCD policy, strategy or action plan, or a national health policy, strategy or action plan where NCDs comprise a significant proportion of the document. Also note that disease- and risk factor-specific policies, strategies and action plans will be reported in other questions later in this module.

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 4

If yes:

Is it multisectoral?	◯ Yes	◯ No	◯ Don't know
Is it multi-stakeholder?	◯ Yes	◯ No	◯ Don't know

Please provide the following information about the policy, strategy or action plan:

3a) Title: .....

3b) Does it address one or more of the following major risk factors?

Harmful use of alcohol	◯ Yes	◯ No	◯ Don't know
Unhealthy diet	◯ Yes	◯ No	◯ Don't know
Physical inactivity	◯ Yes	◯ No	◯ Don't know
Tobacco	◯ Yes	◯ No	◯ Don't know

3c) Does it include early detection, treatment and care for:

Cancer	◯ Yes	◯ No	◯ Don't know
Cardiovascular diseases	◯ Yes	◯ No	◯ Don't know
Chronic respiratory diseases	◯ Yes	◯ No	◯ Don't know
Diabetes	◯ Yes	◯ No	◯ Don't know

3d) Does it include palliative care for patients with NCDs?

◯ Yes ◯ No ◯ Don't know

3e) Does it include rehabilitative care for patients with NCDs?

◯ Yes ◯ No ◯ Don't know

3f) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

If operational:

3f-i) What was the first year of implementation? .....

3f-ii) What year will it expire? .....

II B. Policies, strategies and action plans for specific key NCDs

The questions in this subsection only refer to policies, strategies and action plans that are specific to key NCDs. If your integrated policy, strategy or action plan addresses the NCD, you do not need to re-enter that information.

4) Is there a policy, strategy or action plan for cardiovascular diseases in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 5

If yes:

4a) Write the title .....

4b) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

If "operational":

4b-i) What was the first year of implementation? .....

4b-ii) What year will it expire? .....

5) Is there a policy, strategy or action plan for cancer or some particular cancer types in your country?

- ◯ Yes for all cancers or cancer in general
- ◯ Yes but only for specific cancers (specify: .....)
- ◯ No
- ◯ Don't know

IF no: Go to Question 6

If yes, provide the following for the general cancer policy/strategy/action plan or, if there isn't one, for the most important specific cancer policy/strategy/action plan:

5a) Write the title .....

5b) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

If "operational":

5b-i) What was the first year of implementation? .....

5b-ii) What year will it expire? .....

6) Is there a policy, strategy or action plan for diabetes in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 7

If yes:

6a) Write the title .....

6b) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

If "operational":

6b-i) What was the first year of implementation? .....

6b-ii) What year will it expire? .....

7) Is there a policy, strategy or action plan for chronic respiratory diseases in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 8

If yes:

7a) Write the title .....

7b) Indicate its stage:

◯ Operational
◯ Under development
◯ Not in effect
◯ Don't know

If "operational":

7b-i) What was the first year of implementation? .....

7b-ii) What year will it expire? .....

8) Is there a policy, strategy or action plan for oral health in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 9

If yes:

8a) Write the title .....

8b) Indicate its stage:

◯ Operational
◯ Under development
◯ Not in effect
◯ Don't know

If "operational":

8b-i) What was the first year of implementation? .....

8b-ii) What year will it expire? .....

9) Is there a policy, strategy or action plan for eye health in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 10

If yes:

Please provide the following information about the policy/strategy/action plan. If there is more than one, please provide the information for the most recent one.

Please specify which NCD: .....

9a) Write the title .....

9b) Indicate its stage:

◯ Operational
◯ Under development
◯ Not in effect
◯ Don't know

If "operational":

9b-i) What was the first year of implementation? .....

9b-ii) What year will it expire? .....

10) Is there a policy, strategy or action plan for hearing health in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 11

If yes:

10a) Write the title .....

10b) Indicate its stage:

◯ Operational
◯ Under development
◯ Not in effect
◯ Don't know

If "operational":

10b-i) What was the first year of implementation? .....

10b-ii) What year will it expire? .....

11) Is there a policy, strategy or action plan for another noncommunicable disease of importance in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 12

If yes:

Please provide the following information about the policy/strategy/action plan. If there is more than one, please provide the information for the most recent one.

Please specify which NCD: _____

11a) Write the title _____

11b) Indicate its stage:

◯ Operational
◯ Under development
◯ Not in effect
◯ Don't know

If "operational":

11b-i) What was the first year of implementation? .....

11b-ii) What year will it expire? .....

II C. Policies, strategies and action plans for NCD risk factors

The questions in this subsection only refer to policies, strategies and action plans that are specific to an NCD risk factor. If your integrated policy, strategy or action plan addresses the risk factor, you do not need to re-enter that information.

12) Is there a policy, strategy or action plan for reducing the harmful use of alcohol in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 13

If yes:

12a) Write the title .....

12b) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

If "operational":

12b-i) What was the first year of implementation? .....

12b-ii) What year will it expire? .....

13) Is there a policy, strategy or action plan for reducing overweight/obesity in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 14

If yes:

13a) Write the title _____

13b) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

If "operational":

13b-i) What was the first year of implementation? .....

13b-ii) What year will it expire? .....

14) Is there a policy, strategy or action plan for reducing physical inactivity and/or promoting physical activity in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 15

If yes:

14a) Write the title .....

14b) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

If "operational":

14b-i) What was the first year of implementation? .....

14b-ii) What year will it expire? .....

15) Are there national guidelines which provide recommended levels of physical activity for the population or a specific segment of the population?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 16

If yes:

15a) Are there guidelines specifically addressing any of the following age groups:

Children under 5 years	◯ Yes	◯ No	◯ Don't know
Children and adolescents (ages 5–19)	◯ Yes	◯ No	◯ Don't know
Adults	◯ Yes	◯ No	◯ Don't know
Older adults	◯ Yes	◯ No	◯ Don't know

16) Is there a policy, strategy or action plan for reducing unhealthy diet related to NCD and/or promoting a healthy diet in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 17

If yes:

16a) Write the title .....

16b) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

If "operational":

16b-i) What was the first year of implementation? .....

16b-ii) What year will it expire? .....

17) Are there national food-based dietary guidelines for the population or a specific segment of the population?

◯ Yes ◯ No ◯ Don't know

18) Is there a policy, strategy or action plan to decrease tobacco use in your country?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 13

If yes:

18a) Write the title .....

18b) Indicate its stage:

◯ Operational
◯ Under development
◯ Not in effect
◯ Don't know

If "operational":

18b-i) What was the first year of implementation? .....

18b-ii) What year will it expire? .....

II D. Selected cost-effective policies for NCDs and related risk factors

NB: Only selected policies are captured here as information on some policy measures, e.g. for tobacco and alcohol, are included in other assessment tools.

19) Is there a policy and/or plan on NCD-related research including community-based research and evaluation of the impact of interventions and policies?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 20

If yes:

19a) Indicate its stage:

- ◯ Operational
- ◯ Under development
- ◯ Not in effect
- ◯ Don't know

20) Is there a national network for NCD-related research including community-based research and evaluation of the impact of interventions and policies?

◯ Yes ◯ No ◯ Don't know

21) Is your country implementing any policies to reduce the impact on children of marketing of foods and non-alcoholic beverages high in saturated fatty acids, trans-fatty acids, free sugars or salt?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 22

If yes:

21a) Are the policies:

- ◯ Voluntary
- ◯ Mandatory
- ◯ Don't know

21b) Who is responsible for overseeing enforcement and complaints?

- ◯ Government
- ◯ Food industry
- ◯ Independent regulator
- ◯ Other, please specify: .....

21c) Do they include steps taken to address the effects of cross-border marketing of food and non-alcoholic beverages on children?

◯ Yes ◯ No ◯ Don't know

If yes:

21c-i) Please provide details: _____

22) Is your country implementing any policies on nutrition labelling to identify foods high in saturated fatty acids, trans-fatty acids, free sugars or salt?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 23

If yes, please indicate which types of nutrition labelling are being implemented:

22a) List of ingredients

◯ Yes ◯ No ◯ Don't know

22b) Nutrient declaration (i.e. back-of-pack labelling)

◯ Yes ◯ No ◯ Don't know

22c) Front-of-pack labelling

◯ Yes ◯ No ◯ Don't know

23) Is your country implementing any national policies to reduce population saturated fatty acid intake?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 24

If yes:

23a) Are the policies:

◯ Voluntary
◯ Mandatory
◯ Don't know

24) Is your country implementing any national policies to eliminate industrially produced trans-fatty acids in the food supply?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 25

If yes:

24a) Indicate which policies are being implemented:

(Select all that apply)

◯ Mandatory national ban on the production or use of partially hydrogenated oils (PHO) as an ingredient in all foods

◯ Mandatory national limit of 2g of industrially produced trans-fatty acids per 100g of total fat in all foods

◯ Don't know

25) Is your country implementing any policies to reduce population salt/sodium consumption?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 26

If yes:

25a) Are these targeted at:

Product reformulation by industry across the food supply

◯ Yes, voluntary ◯ Yes, mandatory ◯ No ◯ Don't know

Regulation of salt content of food served in specific settings such as hospitals, schools, workplaces

◯ Yes, voluntary ◯ Yes, mandatory ◯ No ◯ Don't know

Public awareness programme

◯ Yes ◯ No ◯ Don't know

Front-of-pack nutrition labelling

◯ Yes, voluntary ◯ Yes, mandatory ◯ No ◯ Don't know

26) Has your country implemented any national public education and awareness campaign on diet within the past 2 years?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 27

If yes:

26a) Please provide details of the public education and awareness campaign(s):

.....

27) Is your country implementing any national policies in the following areas to promote population physical activity?

This question refers to national policy actions by Ministry of Health or Ministry of Transport or Ministry of Education or Ministry of Sport, Recreation, Leisure, or Ministry of Labour or Ministry of Social Welfare or Ministry of Planning or other related ministries, or municipalities or local authorities. The policy actions taken should be formal and sustained national initiatives or programmes but do NOT include ad hoc events.

Walking and cycling	◯ Yes	◯ No	◯ Don't know
Workplace physical activity initiatives	◯ Yes	◯ No	◯ Don't know
Active ageing	◯ Yes	◯ No	◯ Don't know
Community-based physical activity and sports initiatives	◯ Yes	◯ No	◯ Don't know
Public open spaces (including parks)	◯ Yes	◯ No	◯ Don't know
Childcare settings	◯ Yes	◯ No	◯ Don't know

28) Has your country implemented any national public education and awareness campaign on physical activity within the past 2 years?

Examples of national public education and awareness campaigns include large-scale campaigns targeted at large segments of the population or the whole population, using mass media, and lasting for a longer period of time or repeated throughout the year. Conducting "one-day events" (such as a car-free day, sport days, physical activity day) on their own is not included in the definition of "public education campaign" and should be considered and reported in the following question on mass participation events.

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 29

If yes:

28a) Does the national public education campaign integrate with community-based programmes or initiatives supporting promotion of physical activity?

◯ Yes ◯ No ◯ Don't know

28b) Is the national public education campaign supported by any environmental changes that aim to improve access to facilities that enable physical activity (such as infrastructure for walking or cycling, design or improvements to public open space or other facilities)?

◯ Yes ◯ No ◯ Don't know

28c) Do the national public education campaign "messages" address any of the social, environmental and economic benefits of physical activity, in addition to the mental and physical health benefits?

◯ Yes ◯ No ◯ Don't know

28d) Please provide brief details of the national public education campaign(s), including where possible the primary focus and name of campaign, target audience(s), type of mass media used, duration of campaign, and links to any reports, campaign resources and evaluations:

.....

29) Has your country implemented any national or subnational mass participation events to encourage participation by the general public in free opportunities for physical activity within the past 2 years? Examples of free mass participation events include holding national walk to school or work days; car-free days; national physical activity or sports days, or days celebrating other physical activities providing free participation, such as cycling, yoga, tai chi, dance or sports. Note this does NOT include hosting of major competitive sporting events, nor events such as marathons, which require paid participation, unless there is opportunity for free participation in shorter distances (e.g. 1km, 5km).

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 30

If yes:

29a) Please provide details of the event(s):

.....

30) Has your country implemented any national, NCD-related mHealth initiatives, such as tobacco cessation, hypertension management, cervical cancer screening awareness or promotion of physical activity, within the past 2 years?

◯ Yes ◯ No ◯ Don't know

IF no: Go to MODULE III

If yes:

30a) Please provide details of the mHealth initiative(s):

.....

III. Health information systems, monitoring, surveillance and surveys for NCDs and their risk factors

The questions in this module assess surveillance relating to the NCD morbidity and risk factor reporting systems of each country and whether data were included in their national health reporting systems.

1) In your country, who has responsibility for surveillance of NCDs and their risk factors?

- ◯ An office/department/administrative division within the Ministry of Health exclusively dedicated to NCD surveillance
- ◯ An office/department/administrative division within the Ministry of Health not exclusively dedicated to NCD surveillance
- ◯ Responsibility is shared across several offices/departments/administrative divisions within the Ministry of Health
- ◯ Coordination is by an external agency, such as a nongovernmental organization or statistical organization
- ◯ No one has this responsibility
- ◯ Don't know

III A. Data included in the national health information system

(National health information system refers to the annual or regular reporting system of the National Statistical Office or Ministry of Health)

2) Does your country have a disease registry for:

(Please fill in all columns)

2a) Cancers	2b) Diabetes	2c) Myocardial infarction/ coronary events	2d) Cerebrovascular accident/stroke	2e) Other NCD of importance to your country
◯ Yes ◯ No ◯ Don't know **IF no:** **Skip to next column.** **IF YES, is it:** ◯ National (covers the whole population of the country) ◯ Subnational (covers only the population of a defined region, not the whole country) ◯ Don't know ◯ Population-based ◯ Hospital-based ◯ Other If other, specify: _____ ◯ Don't know iii) What is the latest year for which data are available? _____	◯ Yes ◯ No ◯ Don't know **IF no:** **Skip to next column.** **IF YES, is it:** ◯ National (covers the whole population of the country) ◯ Subnational (covers only the population of a defined region, not the whole country) ◯ Don't know ◯ Population-based ◯ Hospital-based ◯ Other If other, specify: _____ ◯ Don't know Does the registry include data on any chronic complications which are updated as the patient's complications status changes? ◯ Yes ◯ No ◯ Don't know What is the latest year for which data are available? _____	◯ Yes ◯ No ◯ Don't know **IF no:** **Skip to next column.** **IF YES, is it:** ◯ National (covers the whole population of the country) ◯ Subnational (covers only the population of a defined region, not the whole country) ◯ Don't know ◯ Population-based ◯ Hospital-based ◯ Other If other, specify: _____ ◯ Don't know What is the latest year for which data are available? _____	◯ Yes ◯ No ◯ Don't know **IF no:** **Skip to next column.** **IF YES, is it:** ◯ National (covers the whole population of the country) ◯ Subnational (covers only the population of a defined region, not the whole country) ◯ Don't know ii) ◯ Population-based ◯ Hospital-based ◯ Other If other, specify: _____ ◯ Don't know What is the latest year for which data are available? _____	◯ Yes ◯ No ◯ Don't know Specify which NCD(s): _____ **IF no:** **Skip to next question.** **IF YES, is it:** ◯ National (covers the whole population of the country) ◯ Subnational (covers only the population of a defined region, not the whole country) ◯ Don't know ii) ◯ Population-based ◯ Hospital-based ◯ Other If other, specify: _____ ◯ Don't know iii) What is the latest year for which data are available? _____

2f) Are there any other registries that can provide information on NCDs?

◯ Yes ◯ No ◯ Don't know

If yes, please list:

.....

3a) Please indicate the existence of a standardized system for recording patient-level data that includes NCD status and risk factors in the following PUBLIC facilities:

	Primary health care centres	Hospitals
i) Does a standardized system for recording patient-evel data that includes NCD status and risk factors exist?	◯ Yes ◯ No ◯ Don't know **IF no:** **Go to next column.**	◯ Yes ◯ No ◯ Don't know **IF no:** **Go to next question.**
ii) What is the scope of the system?	◯ National (covers the whole population of the country) ◯ Subnational (covers only the population of a defined region or regions or only certain segments of the population) ◯ Don't know	◯ National (covers the whole population of the country) ◯ Subnational (covers only the population of a defined region or regions or only certain segments of the population) ◯ Don't know
iii) What type of system is it?	◯ Paper-based ◯ Electronic ◯ Mixed (please describe_____) ◯ Don't know	◯ Paper-based ◯ Electronic ◯ Mixed (please describe_____) ◯ Don't know
iv) What is the coverage of the system?	◯ Less than 25% of facilities ◯ 25% to 50% of facilities ◯ More than 50% of facilities to 75% of facilities ◯ More than 75% of facilities ◯ Don't know	◯ Less than 25% of facilities ◯ 25% to 50% of facilities ◯ More than 50% of facilities to 75% of facilities ◯ More than 75% of facilities ◯ Don't know
v) Can private facilities access or share data with this system?	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know
vi) Which NCDs and related risk factors are covered?		

If yes to having a patient information system including NCD status and risk factors in both primary health care centres and hospitals:

3b) Are the patient information systems in primary health care centres and hospitals interoperable? (Does one system cover both types of facilities or can information be passed between the two systems?)

◯ Yes ◯ No ◯ Don't know

III B. Risk factor surveillance

4) Have population-based surveys of risk factors (may be a single risk factor or multiple) been conducted in your country for any of the following:

(Please fill in all columns, For the questions on surveys on adolescents or children, please include here only surveys specifically targeting adolescents or children (i.e. do not repeat adult surveys that may have covered part of the adolescent or child age range).

4a) Harmful alcohol use	4b) Unhealthy diet	4c) Physical inactivity	4d) Tobacco use
◯ Yes ◯ No ◯ Don't know **IF NO:** **Go to next column.** **IF YES:** **i) Was there a survey on adolescents?** ◯ Yes ◯ No ◯ Don't know **IF YES:** i-1) Was it: ◯ National ◯ Subnational ◯ Don't know i-2) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know ..... i-3) When was the last survey conducted? (give year) **ii) Was there a survey on adults?** ◯ Yes ◯ No ◯ Don't know **IF YES:** ii-1) Was it: ◯ National ◯ Subnational ◯ Don't know	◯ Yes ◯ No ◯ Don't know **IF NO:** **Go to next column.** **IF YES:** **i) Was there a survey on adolescents?** ◯ Yes ◯ No ◯ Don't know **IF YES:** i-1) Was it: ◯ 24-hour recall ◯ Food frequency ◯ Other ◯ Don't know i-2) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know i-3) Was it: ◯ National ◯ Subnational ◯ Don't know i-4) When was the last survey conducted? (give year) ..... **ii) Was there a survey on adults?** ◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know **IF NO:** **Go to next column.** **IF YES:** **i) Was there a survey on children?** ◯ Yes ◯ No ◯ Don't know **IF YES:** i-1) Was it: ◯ Measured ◯ Self-reported ◯ Don't know i-2) Was it: ◯ National ◯ Subnational ◯ Don't know i-3) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know i-4) When was the last survey conducted? (give year) ..... **ii) Was there a survey on adolescents?** ◯ Yes ◯ No ◯ Don't know **IF YES:** ii-1) Was it: ◯ Measured ◯ Self-reported ◯ Don't know	◯ Yes ◯ No ◯ Don't know **IF NO:** **Go to next column.** **IF YES:** **i) Was there a survey on adolescents?** ◯ Yes ◯ No ◯ Don't know **IF YES:** i-1) Was it: ◯ National ◯ Subnational ◯ Don't know i-2) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know ..... i-3) When was the last survey conducted? (give year) **ii) Was there a survey on adults?** ◯ Yes ◯ No ◯ Don't know **IF YES:** ii-1) Was it: ◯ National ◯ Subnational ◯ Don't know

(continued)

4a) Harmful alcohol use	4b) Unhealthy diet	4c) Physical inactivity	4d) Tobacco use
ii-2) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know ii-3) When was the last survey conducted? (give year)	**IF YES:** ii-1) Was it: ◯ 24-hour recall ◯ Food frequency ◯ Other ◯ Don't know ii-2) Was it: ◯ National ◯ Subnational ◯ Don't know ii-3) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know ii-4) When was the last survey conducted? (give year)	ii-2) Was it: ◯ National ◯ Subinational ◯ Don't know ii-3) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know ii-4) When was the last survey conducted? (give year) ..... **iii) Was there a survey on adults?** ◯ Yes ◯ No ◯ Don't know **IF YES:** iii-1) Was it: ◯ Measured ◯ Self-reported ◯ Don't know iii-2) Did it assess physical activity for work/in the household, for transport and during leisure time? ◯ Yes ◯ No ◯ Don't know iii-3) Was it: ◯ National ◯ Subnational ◯ Don't know iii-4) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know iii-5) When was the last survey conducted? (give year)	ii-2) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know ii-3) When was the last survey conducted? (give year) .....

4e) Raised blood glucose/ diabetes	4f) Raised total cholesterol	4g) Raised blood pressure/ hypertension	4h) Overweight and obesity	4i) Salt/sodium intake
○ Yes ○ No ○ Don't know **IF NO: Go to next column.** **IF YES:** i) Was it: ○ Measured ○ Self-reported ○ Don't know ii) Was it: ○ National ○ Subnational ○ Don't know iii) How often is the survey conducted? ○ Ad hoc ○ Every 1 to 2 years ○ Every 3 to 5 years ○ Other ○ Don't know iv) When was the last survey conducted? (give year)	○ Yes ○ No ○ Don't know **IF NO: Go to next column.** **IF YES:** i) Was it: ○ Measured ○ Self-reported ○ Don't know ii) Was it: ○ National ○ Subnational ○ Don't know iii) How often is the survey conducted? ○ Ad hoc ○ Every 1 to 2 years ○ Every 3 to 5 years ○ Other ○ Don't know iv) When was the last survey conducted? (give year)	○ Yes ○ No ○ Don't know **IF NO: Go to next column.** **IF YES:** i) Was it: ○ Measured ○ Self-reported ○ Don't know ii) Was it: ○ National ○ Subnational ○ Don't know iii) How often is the survey conducted? ○ Ad hoc ○ Every 1 to 2 years ○ Every 3 to 5 years ○ Other ○ Don't know iv) When was the last survey conducted? (give year)	○ Yes ○ No ○ Don't know **IF NO: Go to next column.** **IF YES:** **i) Was there a survey on children?** ○ Yes ○ No ○ Don't know **IF YES:** i-1) Was it: ○ Measured ○ Self-reported ○ Don't know i-2) Was it: ○ National ○ Subnational ○ Don't know i-3) How often is the survey conducted? ○ Ad hoc ○ Every 1 to 2 years ○ Every 3 to 5 years ○ Other ○ Don't know i-4) When was the last survey conducted? (give year) .... **ii) Was there a survey on adolescents?** ○ Yes ○ No ○ Don't know **IF YES:** ii-1) Was it: ○ Measured ○ Self-reported ○ Don't know	○ Yes ○ No ○ Don't know **IF NO: Go to MODULE IV.** **IF YES:** i) Was it: ○ Measured by 24-hr urine collection ○ Measured by 12-hr urine collection ○ Measured by spot urine collection ○ Measured by combination of methods ○ Self-reported ○ Don't know ii) Was it: ○ National ○ Subnational ○ Don't know iii) How often is the survey conducted? ○ Ad hoc ○ Every 1 to 2 years ○ Every 3 to 5 years ○ Other ○ Don't know iv) When was the last survey conducted? (give year) ....

(continued)

4e) Raised blood glucose/ diabetes	4f) Raised total cholesterol	4g) Raised blood pressure/ hypertension	4h) Overweight and obesity	4i) Salt / sodium intake
			ii-3) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know ii-4) When was the last survey conducted? (give year) ..... **iii) Was there a survey on adults?** ◯ Yes ◯ No ◯ Don't know **IF YES:** iii-1) Was it: ◯ Measured ◯ Self-reported ◯ Don't know iii-2) Was it: ◯ National ◯ Subnational ◯ Don't know iii-3) How often is the survey conducted? ◯ Ad hoc ◯ Every 1 to 2 years ◯ Every 3 to 5 years ◯ Other ◯ Don't know iii-4) When was the last survey conducted? (give year)	

IV. Capacity for NCD early detection, treatment and care within the health system

The questions in this module assess the health care system's capacity related to NCD early detection, treatment and care within the health care sector. Specific questions focus on availability of guidelines or protocols to treat major NCDs, and the tests, procedures and equipment related to NCDs within the health care system. They also assess the availability of palliative care services for NCDs.

1a) Please indicate whether evidence-based national guidelines/protocols/standards are available for the management (diagnosis and treatment) of each of the major NCDs through a primary care approach recognized/approved by government or competent authorities. Where guidelines/protocols/standards are available, please indicate their implementation status, when they were last updated and whether they contain standard criteria for the referral of patients from primary care to a higher level of care (secondary/tertiary).

	Cardiovascular disease	Diabetes	Cancer	Chronic respiratory disease
i) Are they available?	◯ Yes (specify topics covered) ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes (specify cancer types) ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know
ii) Do they include drug- and dose-specific protocols?	◯ Yes ◯ No ◯ Don't know If Yes: If there are multiple guidelines, specify for which conditions: _____	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know If Yes: If there are multiple guidelines, specify for which conditions: _____	◯ Yes ◯ No ◯ Don't know If Yes: If there are multiple guidelines, specify for which conditions: _____
iii) Are they being used in at least 50% of health care facilities?	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know
iv) When were they last updated?				
v) Do they include referral criteria?	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know

1b) Please indicate whether evidence-based national guidelines/protocols/standards are available for the management of each of the following NCD risk factors through a primary care approach recognized/approved by government or competent authorities.

	Alcohol dependence	Tobacco dependence	Overweight/ obesity	Physical inactivity
i) Are they available?	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know
ii) Are they being used in at least 50% of health care facilities?	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know
iii) When were they last updated?	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know
iv) Do they include referral criteria?	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know

2) Indicate the availability* of the following basic technologies for early detection, diagnosis/monitoring of NCDs in the primary care facilities of the public and private health sector where: Generally available = 1; Generally not available = 2; Don't know = 3.

** Generally available: available in 50% or more health care facilities; generally not available: in less than 50% of health care facilities.*

	Availability in the primary care facilities of the public health sector (1, 2 or 3)	Availability in the primary care facilities of the private health sector (1, 2 or 3)
Overweight and obesity		
2a) Measuring of weight		
2b) Measuring of height		
Diabetes mellitus		
2c) Blood glucose measurement		
2d) Oral glucose tolerance test		
2e) HbA1c test		
2f) Dilated fundus examination		
2g) Foot vibration perception by tuning fork		
2h) Urine strips for glucose and ketone measurement		
Cardiovascular disease		
2i) Blood pressure measurement		
2j) Total cholesterol measurement		
2k) Urine strips for albumin assay		
Asthma and chronic obstructive pulmonary disease		
2l) Peak flow measurement spirometry		
2m) Spirometry		

3) Please indicate if there is a national screening programme targeting the general population for the following cancers and, if yes, provide details.

Cancers	Initial screening method (indicate only one, the most widely used)	Population targeted by the programme	Type of programme	Screening coverage
Breast ◯ Yes ◯ No ◯ Don't know IF no: Go to next row	◯ Clinical breast exam ◯ Mammography screening ◯ Don't know	Women aged ..... to ..... Other, specify:..... ◯ Don't know	◯ Organized population-based screening ◯ Opportunistic screening ◯ Don't know	◯ Less than 10% ◯ 10% to 50% ◯ More than 50% but less than 70% ◯ 70% or more ◯ Don't know
Cervix ◯ Yes ◯ No ◯ Don't know IF no: Go to next row	◯ Visual inspection ◯ PAP smear ◯ HPV test ◯ Don't know	Women aged ..... to ..... Other, specify:..... ◯ Don't know	◯ Organized population-based screening ◯ Opportunistic screening ◯ Don't know	◯ Less than 10% ◯ 10% to 50% ◯ More than 50% but less than 70% ◯ 70% or more ◯ Don't know
Colon ◯ Yes ◯ No ◯ Don't know IF no: Go to next row	◯ Faecal test ◯ Colonoscopy/ sigmoidoscopy ◯ Don't know	People aged ..... to ..... Other, specify:..... ◯ Don't know	◯ Organized population-based screening ◯ Opportunistic screening ◯ Don't know	◯ Less than 10% ◯ 10% to 50% ◯ More than 50% but less than 70% ◯ 70% or more ◯ Don't know
Other cancer type(s) Specify: :..... ◯ Yes ◯ No ◯ Don't know				

4) Please indicate if early detection of the following cancers by means of rapid identification of the first symptoms is integrated into primary health care services and if there is a clearly defined referral system from primary care to secondary/tertiary care for suspect cases (in low- and middle-income countries this set of measures may be designated as an "early diagnosis" programme).

	Breast	Cervix	Colon	Cancers in children	Other cancer types
Programme/ guidelines to strengthen early diagnosis of first symptoms at primary health care level	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes (please specify types of cancer) _____ ◯ No ◯ Don't know	◯ Yes (please specify types of cancer) _____ ◯ No ◯ Don't know
Clearly defined referral system from primary care to secondary and tertiary care	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know	◯ Yes ◯ No ◯ Don't know

5) Is HPV vaccination included in the national immunization schedule?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 6.

IF yes:

5a) What was the HPV vaccine coverage (last dose) in the last calendar year?

◯ Less than 10%

◯ 10% to 50%

◯ More than 50% but less than 80%

◯ 80% or more

◯ Don't know

6) Indicate the availability* of the medicines below in the primary care facilities of the public health sector, where: Generally available=1; Generally not available = 2; Don't know = 3.

** Generally available: in 50% or more pharmacies*
Generally not available: in less than 50% of pharmacies

Generic drug name	Availability
6a) Insulin	
6b) Aspirin (75/100mg)	
6c) Metformin	
6d) Thiazide diuretics	
6e) ACE inhibitors	
6f) Angiotensin II receptor blockers (ARBs)	
6g) Calcium channel blockers	
6h) Fixed-dose combination (lisinopril + amlodipine)	
6i) Fixed-dose combination (lisinopril + hydrochlorothiazide)	
6j) Fixed-dose combination (telmisartan + amlodipine)	
6k) Fixed-dose combination (telmisartan + hydrochlorothiazide)	
6l) Beta blockers	
6m) Statins	
6n) Oral morphine	
6o) Steroid inhaler	
6p) Combination budesonide-formoterol inhaler	
6q) Bronchodilator inhaler	
6r) Sulphonylurea(s)	
6s) Benzathine penicillin injection	
6t) Nicotine replacement therapy	

7) Indicate the availability* of the following procedures for managing and treating NCDs in the publicly funded health system, where: 1 = Generally available; 2 = Generally not available; 3 = Don't know.

** Generally available: reaches 50% or more patients in need*
Generally not available: reaches less than 50% of patients in need

Procedure name	Availability
7a) Retinal photocoagulation	
7b) Renal replacement therapy by dialysis	
7c) Renal replacement by transplantation	
7d) Coronary bypass	
7e) Coronary stenting	
7f) Thrombolytic therapy (streptokinase) for acute myocardial infarction	
7g) Bone marrow transplantation	

8) Indicate the availability* of the following procedures for detecting, managing and treating oral diseases in the primary care facilities in the public health sector, where: 1 = Generally available; 2 = Generally not available; 3 = Don't know.

** Generally available: reaches 50% or more patients in need*
Generally not available: reaches less than 50% of patients in need

Procedure name	Availabilit8a)
8a) Oral health screening for early detection of oral diseases	
8b) Urgent treatment for providing emergency oral care and oral pain relief	
8c) Basic restorative dental procedures to treat existing dental decay	

9) Indicate the availability* of cancer diagnosis and treatment services in the public sector:

** Generally available: reaches 50% or more patients in need*
Generally not available: reaches less than 50% of patients in need

Service	Availabilit9a)
9a) Cancer centres or cancer departments at tertiary level	
9b) Pathology services (laboratories)	
9c) Cancer surgery	
9d) Chemotherapy	
9e) Radiotherapy	

10) How many dedicated cancer centres are there in the country?

Cancer centres provide coordinated, multidisciplinary care inclusive of all services generally available in the country. This may include, for example, pathology, radiotherapy, surgery and systemic therapy. A facility can count as a "cancer centre" even if other non-oncology services are provided in that facility. If you Don't know the exact number, please give an estimated range.

Number of public laboratories: ◯ Don't know

Number of private laboratories: ◯ Don't know

11) Indicate the availability* of rehabilitative care in the public sector for patients with the following NCDs, where: 1 = Generally available; 2 = Generally not available; 3 = Don't know.

** Generally available: reaches 50% or more patients in need*
Generally not available: reaches less than 50% of patients in need

	Inpatient care availability	Outpatient care availability
11a) Cancer		
11b) Stroke		
11c) Acute myocardial infarction		
11d) Chronic respiratory diseases		
11e) Musculoskeletal conditions		

12) Indicate the availability* of palliative care for patients with NCD in the public health system, where: 1 = Generally available; 2 = Generally not available; 3 = Don't know.

** Generally available: reaches 50% or more patients in need*
Generally not available: reaches less than 50% of patients in need

12a) In primary health care facilities:

◯ Generally available
◯ Generally not available
◯ Don't know

12b) In community or home-based care:

◯ Generally available
◯ Generally not available
◯ Don't know

13) What proportion of primary health care facilities are offering cardiovascular risk stratification for the management of patients at high risk for heart attack and stroke?

- ◯ None
- ◯ Less than 25%
- ◯ 25% to 50%
- ◯ More than 50%
- ◯ Don't know

14) Indicate the availability* of provision of care for acute stroke in the public health system:

** Generally available: reaches 50% or more patients in need*
Generally not available: reaches less than 50% of patients in need

- ◯ Generally available
- ◯ Generally not available
- ◯ Don't know

15) Is there a register of patients who have had rheumatic fever and rheumatic heart disease?

◯ Yes ◯ No ◯ Don't know

If yes:

15a) Are there systems for follow-up/recall to deliver long-term penicillin prophylaxis?

◯ Yes ◯ No ◯ Don't know

V. NCD-related disruptions during the COVID-19 pandemic

The questions in this module assess how NCD essential services and programmes are being impacted in your country by the current COVID-19 pandemic.

Infrastructure

1) During the previous 3 months, have the Ministry of Health (or equivalent institutes) staff with responsibility for NCDs and their risk factors been reassigned/deployed to help with overall COVID-19 response?

- ◯ YES – All staff supporting COVID-19 efforts full-time
- ◯ YES – All staff partially supporting COVID-19 efforts along with routine NCD activities
- ◯ YES – Some staff supporting COVID-19 efforts full-time
- ◯ YES – Some staff partially supporting COVID-19 efforts along with routine NCD activities
- ◯ NO
- ◯ Don't know

2) During the previous 3 months, how much of the government (or Ministry of Health) funds initially allocated for NCDs have been reassigned to non-NCD services due to COVID-19 response efforts?

- ◯ None or not yet
- ◯ 1–25%
- ◯ 26–50%
- ◯ 51–75%
- ◯ 76–100%
- ◯ Don't know

Policies and plans

3) Had your country defined a national essential health services package prior to the COVID-19 pandemic?

◯ Yes ◯ No ◯ Don't know

4) Has your country identified a core set of essential health services to be maintained during the COVID-19 pandemic?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 7

5) Is ensuring continuity of NCD services included in the list of essential health services in your country's COVID-19 response plan?

◯ Yes ◯ No ◯ Don't know

IF no: Go to Question 7

6) Which NCD services are included in the list of essential health services of your country's COVID-19 response plan?

Cardiovascular disease services	◯ Yes	◯ No	◯ Don't know
Cancer services	◯ Yes	◯ No	◯ Don't know
Diabetes services	◯ Yes	◯ No	◯ Don't know
Chronic respiratory disease services	◯ Yes	◯ No	◯ Don't know
Chronic kidney disease and dialysis services	◯ Yes	◯ No	◯ Don't know
Dental services	◯ Yes	◯ No	◯ Don't know
Rehabilitation services	◯ Yes	◯ No	◯ Don't know
Tobacco cessation services	◯ Yes	◯ No	◯ Don't know
Others (specify:_____)	◯ Yes	◯ No	◯ Don't know

7) During the previous 3 months, has additional funding been allocated for NCDs in the government budget for the COVID-19 response?

◯ Yes ◯ No ◯ Don't know

8) During the previous 3 months, which of the following Ministry of Health NCD activities planned for this year have been postponed because of COVID-19?

None	◯ Yes	◯ No	◯ Don't know
Implementation of NCD surveys	◯ Yes	◯ No	◯ Don't know
Public screening programmes for NCDs	◯ Yes	◯ No	◯ Don't know
WHO package of essential noncommunicable (PEN) disease interventions for primary health care	◯ Yes	◯ No	◯ Don't know
WHO HEARTS technical package	◯ Yes	◯ No	◯ Don't know
Mass communication campaigns	◯ Yes	◯ No	◯ Don't know
Others (specify: _____)	◯ Yes	◯ No	◯ Don't know

NCD-related health services

9) During the previous 3 months, how have government policies and directives affected the level of access to the following service delivery platforms?

9a) Outpatient NCD services:

◯ Functioning as normal ◯ Limited access ◯ Suspended ◯ Don't know ◯ Not applicable

9b) Inpatient NCD services:

◯ Functioning as normal ◯ Limited access ◯ Suspended ◯ Don't know ◯ Not applicable

9c) Community-based NCD care (e.g. outreach campaigns, home-based care, care in long-term facilities):

◯ Functioning as normal ◯ Limited access ◯ Suspended ◯ Don't know ◯ Not applicable

9d) Mobile NCD clinics:

◯ Functioning as normal ◯ Limited access ◯ Suspended ◯ Don't know ◯ Not applicable

10) During the previous 3 months, which of the following services have been disrupted due to COVID-19?

Definitions: More than 50% of users not served as usual; 26–50% of users not served as usual; 5–25% of users not served as usual; Less than 5% of users not served as usual; Don't know: Information is not/not yet available; Not applicable: Service/intervention is not usually delivered in country

Service	Level of disruption
i) Hypertension management	◯ More than 50% ◯ 26–50% ◯ 5–25% ◯ Less than 5% ◯ Not disrupted ◯ Don't know ◯ Not applicable
ii) Cardiovascular emergencies (including myocardial infarction, stroke and cardiac arrhythmias)	◯ More than 50% ◯ 26–50% ◯ 5–25% ◯ Less than 5% ◯ Not disrupted ◯ Don't know ◯ Not applicable
iii) Cancer screening	◯ More than 50% ◯ 26–50% ◯ 5–25% ◯ Less than 5% ◯ Not disrupted ◯ Don't know ◯ Not applicable
iv) Cancer treatment	◯ More than 50% ◯ 26–50% ◯ 5–25% ◯ Less than 5% ◯ Not disrupted ◯ Don't know ◯ Not applicable

Service	Level of disruption
v) Diabetes and diabetic complications management	◯ More than 50% ◯ 26–50% ◯ 5–25% ◯ Less than 5% ◯ Not disrupted ◯ Don't know ◯ Not applicable
vi) Asthma services	◯ More than 50% ◯ 26–50% ◯ 5–25% ◯ Less than 5% ◯ Not disrupted ◯ Don't know ◯ Not applicable
vii) Urgent dental care	◯ More than 50% ◯ 26–50% ◯ 5–25% ◯ Less than 5% ◯ Not disrupted ◯ Don't know ◯ Not applicable

IF response to all subquestions is "Not disrupted" or "Don't know" or "Not applicable":

Go to Question 14

11) During the previous 3 months, what have been the main reasons for service disruption(s) and/or change(s) in service utilization? *(check all that apply)*

Supply-side factors:

◯ Closure of outpatient services as per government directive

◯ Closure of outpatient disease-specific consultation clinics

◯ Closure of population-level screening programmes

◯ Decrease in inpatient volume due to cancellation of elective care

◯ Inpatient services/hospital beds not available

◯ Insufficient staff to provide services

◯ Related clinical staff deployed to provide COVID-19 relief

◯ Insufficient personal protective equipment (PPE) available for health care providers to provide services

◯ Unavailability/stockout of essential medicines, medical diagnostics or other health products at health facilities

◯ Changes in treatment policies for care-seeking behaviour (e.g. stay-at-home policies)

◯ Others (please specify what are the other causes of this disruption and/or changes in service utilization): _____

◯ Don't know

Demand-side factors:

◯ Decrease in outpatient volume due to patients not presenting

◯ Community fear/mistrust in seeking health care

◯ Travel restrictions hindering access to the health facilities

◯ Financial difficulties during outbreak/lockdown

◯ Others (please specify what are the other causes of this disruption and/or changes in service utilization): _____

◯ Don't know

12) During the previous 3 months, what approaches have been used to overcome service disruptions to essential health services in public sector health facilities and long-term care facilities? *(check all that apply)*

◯ Triaging to identify priorities

◯ Redirection of patients to alternate care sites/reorientation of referral pathways

◯ Telemedicine deployment to replace in-person consults

◯ Integration of several services into single visit

◯ Self-care interventions where appropriate

◯ Provision of home-based care where appropriate

◯ Catch-up campaigns for missed appointments

◯ Task shifting/role delegation

◯ Recruitment of additional staff

◯ Expanding facility hours

◯ Novel supply chain management and logistics approaches

◯ Novel dispensing approaches for medicines

◯ Novel prescribing approaches (e.g. tele-prescription, extended drug prescriptions)

◯ Community communications (e.g. informing on changes to service delivery, addressing misinformation and community fears of infection)

◯ Government removal of user fees

◯ Others (please describe what other approaches are being used): _____

◯ Don't know

13) What are your country's plans to re-initiate any suspended NCD services?

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14) Is the country collecting or collating data on NCD-related comorbidities in COVID-19 patients?

◯ Yes ◯ No ◯ Don't know ◯ Not applicable

15) Is there any technical guidance or tools that you would suggest WHO to develop related to NCDs during the COVID-19 pandemic?

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Annex 2. Glossary of terms used in the survey

Academia: Refers to educational institutions, especially those for higher education.

Broadcast media: Media which is broadcast to the public through radio and television.

Cancer: A generic term for a large group of diseases that can affect any part of the body. Other terms used are malignant tumours and neoplasms. One defining feature of cancer is the rapid creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other organs.

Cancer registry: A systematic collection of data about cancer cases in a certain region or a certain hospital. The first aim is to count cancer cases to get an idea of the magnitude of the problem. WHO advises national coverage by population-based registry in small countries only.

Capacity-building: The development of knowledge, skills, commitment, structures, systems and leadership to enable effective action.

Cardiovascular diseases: A group of disorders of the heart and blood vessels that includes coronary heart disease, cerebrovascular disease, peripheral arterial disease, rheumatic heart disease, congenital heart disease, deep vein thrombosis and pulmonary embolism.

Cardiovascular risk stratification: Use of risk prediction charts to indicate the risk of a fatal or non-fatal major cardiovascular event in the next 5 to 10 years. Based on the assessment, people can be stratified into different levels of risk, which will help in management and follow-up.

Chronic respiratory diseases: Diseases of the airways and other structures of the lung. Some of the most common are asthma, chronic obstructive pulmonary disease, occupational lung diseases and pulmonary hypertension.

Collaboration: A recognized relationship between different groups with a defined purpose.

Community: A specific group of people, often living in a defined geographical area, who share a common culture, values and norms, and are arranged in a social structure according to relationships which the community has developed over a period of time. Members of a community exhibit some awareness of their identity as a group, and share common needs and a commitment to meeting them.

Cross-border marketing: Marketing originating in one country that crosses national borders through broadcast media and Internet, print media, sponsorship of events and programmes or any other media or communication channel. It includes both in-flowing and out-flowing cross-border marketing.

Diabetes: A disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces.

Early detection/screening: Measures performed in order to identify individuals who have early stages of a disease (with apparent symptoms in the case of early detection and without in the case of screening).

Earmarked taxes: Taxes which are collected and used for a specific purpose.

Electronic health record: An electronic health record is an in-house electronic version of the traditional paper charts that collect, store and display patient information.

Fiscal interventions: Measures taken by the government such as taxes and subsidies.

Free sugars: Monosaccharides and disaccharides added to foods by the manufacturer, cook or consumer, plus sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.

Front-of-pack labelling: Nutrition labelling systems that are presented on the front of food packages (in the principal field of vision) and can be applied across the packaged retail food supply. Front-of-pack labels comprise an underpinning nutrient profile model that considers the overall nutrition quality of the product and/or the nutrients of concern for NCDs; and present simple, often graphic information on the nutrient content and/or nutritional quality of products to complement the more detailed nutrient declarations usually provided on the back of food packages. There are two major categories of front-of-pack labelling: interpretive and non-interpretive systems. Non-interpretive nutrient-based systems provide a summary of nutrient information, but no advice on the overall nutritional value of the food to assist with purchasing decisions. Interpretive systems may provide no nutrient information but only at-a-glance guidance on the relative healthiness of a product.

General government revenue: The money received from taxation, and other sources, such as privatization of government assets, to help finance expenditures.

Health: A state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity. A resource for everyday life which permits people to lead an individually, socially and economically productive life. A positive concept emphasizing social and personal resources as well as physical capabilities.

Health behaviour: Any activity undertaken by an individual, regardless of actual or perceived health status, for the purpose of promoting, protecting or maintaining health, whether or not such behaviour is objectively effective towards that end.

Health care and treatment: The diagnosis and treatment of diseases.

Health care facilities: Facilities which provide health services. They may include mobile clinics, pharmacies, laboratories, primary health care clinics, specialty clinics, and private and faith-based establishments.

Health promotion: The process of enabling people to increase control over and to improve their health.

Healthy diet: A healthy diet throughout the life-course helps prevent malnutrition in all its forms as well as a range of NCDs and conditions. The exact make-up of a healthy, balanced diet will vary depending on the individual's needs (e.g. age, gender, lifestyle, degree of physical activity). For adults, a healthy diet contains fruits, vegetables, legumes, nuts and whole grains and should be limited in free sugars, salt, total fat and saturated fats and free of industrial trans-fats.

International donors: Organizations which extend across national boundaries and which give funds for projects of a development nature.

Intervention: Any measure whose purpose is to improve health or alter the course of disease.

Legislation: A law or laws which have been enacted by the governing bodies in a country.

Long-term care facility: Long-term care facilities may vary by country. Nursing homes, skilled nursing facilities, assisted living facilities, residential facilities and residential long-term care facilities are collectively known as long-term care facilities that provide a variety of services, including medical and assistive care, to people who are unable to live independently in the community.

Marketing: Any form of commercial communication or message that is designed to, or has the effect of, increasing the recognition, appeal and/or consumption of particular products and services. It comprises anything that acts to advertise or otherwise promote a product or service.

mHealth: The use of mobile and wireless technologies to support the achievement of health objectives.

Multisectoral: Involving different sectors, such as health, agriculture, education, finance, infrastructure, transport, trade, etc.

Multisectoral collaboration: A recognized relationship between part or parts of different sectors of society (such as ministries, e.g. health, education, agencies, nongovernmental agencies, private for-profit sector and community representation) which has been formed to take action to achieve health outcomes in a way that is more effective, efficient or sustainable than might be achieved by the health sector acting alone.

Multi-stakeholder: Involving stakeholders from across the public sector, civil society, nongovernmental organizations and the private sector.

Musculoskeletal conditions: More than 150 conditions that affect the locomotor system of individuals. They range from conditions that arise suddenly and are short-lived, such as fractures, sprains and strains, to conditions associated with long-term functional limitations and disability, such as lower back pain and osteoarthritis. Musculoskeletal conditions are typically characterized by pain (often persistent) and limitations in mobility, dexterity and overall level of functioning, reducing people's ability to engage in their regular activities.

National cancer screening programme: A government-endorsed programme where screening is offered. Nongovernmental organization-led programmes or national recommendations to go for screening at one's own cost do not qualify as national screening programmes.

National focal point, unit or department:

National focal point: The person responsible for the prevention and control of chronic diseases in a ministry of health or national institute.

Unit or department: A unit or department with responsibility for NCD disease prevention and control in a ministry of health or national institute.

National health reporting system, survey and surveillance:

National health reporting system: The process by which a ministry of health produces annual health reports that summarize data on, for example, national health human resources, population demographics, health expenditures, and health indicators such as mortality and morbidity. Includes the process of collecting data

from various health information sources, e.g. disease registries, hospital admission or discharge data.

National survey: A fixed or unfixed time interval survey on the main chronic diseases, or major risk factors common to chronic diseases.

Surveillance: The systematic collection of data (through survey or registration) on risk factors, chronic diseases and their determinants for continuous analysis, interpretation and feedback.

National integrated action plan: A concerted approach to addressing a multiplicity of issues within a chronic disease prevention and health promotion framework, targeting the major risk factors common to the main chronic diseases, including the integration of primary, secondary and tertiary prevention, health promotion and diseases prevention programmes across sectors and disciplines.

National policy, strategy and action plan:

Policy: A specific official decision or set of decisions designed to carry out a course of action endorsed by a political body, including a set of goals, priorities and main directions for attaining these goals. The policy document may include a strategy to give effect to the policy.

Strategy: A long-term plan designed to achieve a particular goal.

Action plan: A scheme of course of action, which may correspond to a policy or strategy, with defined activities indicating who does what (type of activities and people responsible for implementation), when (time frame), how and with what resources to accomplish an objective.

National protocols/guidelines/standards for chronic diseases and conditions: A recommended evidence-based course of action to prevent a chronic disease or condition or to treat or manage a chronic disease or condition aiming to prevent complications and improve outcomes and quality of life of patients.

Noncommunicable diseases (NCDs): The four main types of NCDs are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes.

Noncommunicable disease prevention and control: All activities related to surveillance, prevention and management of NCDs.

Not in effect: Any policy, strategy or plan of action which has been previously developed and is no longer under development, but for various reasons is not being implemented.

Nutrient declaration: A standardized statement or listing of the nutrient content of a food.

Nutrition labelling: A description intended to inform consumers of the nutritional properties of food. Nutrition labelling consists of two components: (a) nutrient declaration; (b) supplementary nutrition information (e.g. front-of-pack labelling).

Operational: A policy, strategy or plan of action which is being used and implemented in the country, and has resources and funding available to implement it. Also applies to a multisectoral commission/mechanism which is functional and meets on a regular basis.

Palliative care: An approach that improves the quality of life of patients (adults and children) and their families who are facing problems associated with life-threatening illness. It prevents and relieves suffering through the early identification, correct assessment and treatment of pain and other problems, whether physical, psychosocial or spiritual.

Partnership for health: An agreement between two or more partners to work cooperatively towards a set of shared health outcomes.

Peak flow measurement: A peak flow meter is a simple, hand-held device which measures how well a person can expel air from their lungs. The patient blows quickly and forcefully through a mouthpiece at one end, and a measurement is read from a built-in numbered scale on the device. Peak flow measurement can be done by a patient at home or in a health facility.

Price subsidies: Economic benefit provided by the government, such as a tax allowance or duty rebate, to keep the price of healthy foods low.

Primary health care: Refers to core functions of a nation's health system. Encompassing front-line health service delivery (primary care) as well as health system structure; governance and financing; the intersectoral policy environment; and social determinants of health. Primary health care provides essential health interventions according to a community's needs and expectations.

Primary prevention: Measures directed towards preventing the initial occurrence of a disease or disorder.

Print media: Communicating with the public through printed materials such as magazines, newspapers and billboards.

Product reformulation by industry: Refers to the process of changing the composition of processed foods to be healthier and reduce the salt content.

Public awareness programme: A comprehensive effort that includes multiple components (messaging, grassroots outreach, media relations, government affairs, budget, etc.) to help increase public understanding about the importance of an issue.

Public health sector: Publicly funded health care sector.

Rehabilitation: A set of measures that assist individuals who experience, or are likely to experience, disability to achieve and maintain optimal functioning in interaction with their environments.

Risk factors associated with NCDs: The four main risk factors for NCDs are tobacco use, harmful use of alcohol, unhealthy diet and low levels of physical activity.

Saturated fats: Fats found in animal products, including meat and whole milk dairy products, as well as certain plant oils like palm, palm kernel and coconut oils.

Screening: Measures performed across an apparently healthy population in order to identify individuals who are at high risk or in the early stages of disease, but do not yet have symptoms.

Screening coverage: The proportion of people in the population targeted by the programme who actually received screening in the time frame defined by the programme. (For example, if a country recommends mammography screening every two years for women aged 50 to 60, the screening coverage is the number of women aged 50 to 60 who benefited from mammography thanks to the programme in the past two years, divided by the total number of women aged 50 to 60 in the country.)

Self-regulation: In this context refers to when a group or private sector entity governs or polices itself without outside assistance or influence.

Spirometry: A spirometer is a complex piece of equipment which provides a number of different lung function measurements. The patient makes a prolonged but forceful exhalation into a mouthpiece, connected to a machine which typically produces a graphical output. Spirometry requires a trained technician to oversee the testing and to interpret the results.

Sugar-sweetened beverages: All types of beverages containing free sugars. These include carbonated or non-carbonated soft drinks, fruit/vegetable juices and drinks, liquid and powder concentrates, flavoured water, energy and sports drinks, ready-to-drink tea, ready-to-drink coffee, and flavoured milk drinks. Free sugars include monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.

Target: A specific aim to be achieved that should be time bound and define a "desired", "promised", "minimum" or "aspirational" level of achievement.

Taxation incentives to promote physical activity: These involve removing a tax (or a portion of a tax) in order to promote increased use of goods or services to encourage physical activity.

Trans-fatty acids (trans fats): Unsaturated fatty acids with at least one double carbon–carbon bond in the trans configuration. Trans-fatty acids can be produced industrially by the partial hydrogenation of vegetable and fish oils, but also occur naturally in meat and dairy products from ruminant animals (e.g. cattle, sheep, goats, camels). Industrially produced trans-fatty acids can be found in baked and fried foods, pre-packaged snacks and food, and partially hydrogenated cooking oils and fats, which are often used at home, in restaurants or in the informal food sector (such as street vendors), and are the predominant source of trans-fatty acid intake in many populations.

Under development: Something which is still being developed or finalized and is not yet being implemented in the country.

Universal health coverage-priority benefits package: A set of evidence-informed prioritized health interventions, services and programmes, including intersectoral actions and fiscal policies, defined through a deliberative process that accounts for economic realities and social preferences. A universal health coverage-priority benefits package should be available for all, in good quality, at the appropriate service delivery platform(s), using an integrated people-centred approach, and be covered by relevant financial protection arrangement(s).

Value-added tax (VAT)/sales tax: A "multi-stage" tax on all consumer goods and services applied proportionally to the price the consumer pays for a product. Although manufacturers and wholesalers also participate in the administration and payment of the tax all along the manufacturing/distribution chain, they are all reimbursed through a tax credit system, so that the only entity who pays in the end is the final consumer. Most countries that impose a VAT do so on a base that includes any excise tax and customs duty (for example, a VAT representing 10% of the retail price). Some countries, however, impose sales taxes instead. Unlike VAT, sales taxes are levied at the point of retail on the total value of goods and services purchased.

This regional report provides the results of the 2021 noncommunicable disease (NCD) country capacity survey in the Eastern Mediterranean Region. It offers an overview of the current capacities of the countries of the Region to prevent and control NCDs, particularly in regard to the four key areas of governance; prevention and reduction of risk factors; surveillance, monitoring and evaluation; and health care. The report aims to inform the work of decision-makers in ministries of health and other sectors related to health, as well as NCD managers, physicians, clinicians, researchers, the media and others.