ASSESSING NATIONAL CAPACITY FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

Report of the 2019 Global Survey

World Health Organization

ASSESSING NATIONAL CAPACITY FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

Report of the 2019 Global Survey

World Health Organization

Assessing national capacity for the prevention and control of noncommunicable diseases: report of the 2019 global survey

ISBN 978-92-4-000231-9 (electronic version)
ISBN 978-92-4-000232-6 (print version)

Suggested citation. Assessing national capacity for the prevention and control of noncommunicable diseases: report of the 2019 global survey. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Design and layout: ND-PPK (Annecy)

Printed in Switzerland

CONTENTS

ACKNOWLEDGEMENTS

This report was prepared by the Surveillance, Monitoring and Reporting Unit within the Department of Noncommunicable Diseases (NCDs), World Health Organization, Geneva. Leanne Riley coordinated the work on the NCD country capacity survey, the overall implementation of the survey and the reporting of results; Melanie Cowan oversaw the web-based data collection and validation of results, and performed all data management and statistical analysis needed to prepare the results for the final report.

We wish to thank the NCD focal points in the WHO regional offices for their generous support and assistance in coordinating the NCD country capacity survey during 2019 with their respective Member States, and for undertaking validation and review of completed survey responses: Nivo Ramanandraibe for the WHO Regional Office for Africa; Roberta Caixeta and Carolina Chavez-Cortez for the WHO Regional Office for the Americas; Ivo Ravokac and Natalia Fedkina for the WHO Regional Office for Europe; Heba Fouad for the WHO Office for the Eastern Mediterranean; Naveen Agarwal and Manju Rani for the WHO Regional Office for South-East Asia; and Rick Kim, Saki Narita, Donghee Seo, Hai-Rim Shin, Wendy Snowdon and Nola Vanualailai for the WHO Regional Office for the Western Pacific. Additional thanks to staff in numerous WHO country offices who provided invaluable support in survey-related communication with Member States.

Colleagues from WHO headquarters also provided helpful input and support in the development of the survey questionnaire and review and validation of the completed questionnaires by countries: Fiona Bull, May Cho, Alison Commar, Kaia Engesveen, Alexandra Fleischmann, Sophie Genay-Diliautas, Lawrence Grummer-Strawn, Hebe Gouda, André Ilbawi, Taskeen Khan, Yuka Makino, Doris Ma Fat, Vladimir Poznyak, Dag Rekve, Benoit Varenne, Cherian Varghese, Temo Waqanivalu and Juana Willumsen.

Thanks also to Steve Moore, independent consultant who designed the web-based platform for data collection, and Marie Clem Carlos and Fatima Soltan, who helped with the writing and preparation of this report.

Finally, we thank all Member States that took part in the survey, allowing the assessment and completion of this report.

LIST OF ACRONYMS

AFR	WHO African Region
AMR	WHO Region of the Americas
CCS	Country capacity survey
EMR	WHO Eastern Mediterranean Region
EUR	WHO European Region
FCTC	World Health Organization Framework Convention on Tobacco Control
IARC	International Agency for Research on Cancer
MOH	Ministry of Health
NCD	Noncommunicable disease
SEAR	WHO South-East Asia Region
WHO	World Health Organization
WPR	WHO Western Pacific Region

FOREWORD

In 2018, Member States reached consensus at the UN General Assembly that – and I quote from the 2018 Political Declaration on NCDs: "action to realize the commitments made for the prevention and control of NCDs is inadequate, the level of progress and investment to date is insufficient to meet SDG target 3.4, and that the world has yet to fulfil its promise of implementing measures to reduce the risk of premature death and disability from NCDs." Today, in 2020, this situation remains unchanged.

The risk of dying from the four major NCDs between the ages of 30 and 70 years has continued to decline – from 22% in 2000, to 18% in 2016. This rate of decline is still insufficient, however, to meet SDG target 3.4 on NCDs. At current rates, only 40 countries will reach SDG target 3.4. We estimate that a further 50 countries could also reach the target, if they intensify implementation of the best buys for NCDs during the next two years in such a way that they place themselves on a path to reach the target by 2030.

In 2019, Heads of State and Government committed at the UN General Assembly – and I quote from the 2019 Political Declaration on Universal Health Coverage: "to progressively cover 1 billion additional people by 2023 with quality essential health services and quality, safe, effective, affordable and essential medicines, vaccines, diagnostics and health technologies, with a view to covering all people by 2030." Governments need to prioritize which essential NCD services and medicines will be covered. With only 10 years remaining to reach SDG target 3.4, governments should consider implementing the most effective and feasible best buys first – these include the best buys to reduce tobacco consumption and high blood pressure.

In 2024, WHO will report to the UN General Assembly on the implementation of the commitments made in the Political Declarations on NCDs adopted at the UN General Assembly in 2011, 2014 and 2018. Progress will be analysed against 10 indicators which WHO published in 2015 in response to a request from the WHO Executive Board.

Periodic WHO NCD country capacity surveys provide a measure of the progress made in countries. It is hoped that this report will help to identify the areas for further scaling up and create opportunities for national governments to accelerate the implementation of their commitments before WHO collects data in 2023 and submits a final scorecard to the UN General Assembly in 2024.

Dr Ren Minghui
Assistant Director-General
Universal Health Coverage / Communicable Diseases and Noncommunicable Diseases
World Health Organization

EXECUTIVE SUMMARY

Noncommunicable diseases (NCDs), including cardiovascular diseases, cancer, diabetes and chronic respiratory diseases account for 71% of all deaths worldwide, with the burden falling disproportionately on low- and middle-income countries. In addition to the four main NCDs, other significant conditions like oral diseases, rheumatic fever, rheumatic heart disease, as well as overweight and obesity represent a significant burden on the population. A set of common, modifiable risk factors, including tobacco use, harmful use of alcohol, unhealthy diet, and physical inactivity, underlie these diseases, with socioeconomic factors also having a discernible impact. During the past decade, NCDs have rightly received increasing attention, both politically and in the field of public health. In 2015, in the 2030 Sustainable Development Goals,[1] national leaders committed to actions to reduce premature mortality caused by NCDs, and to reduce the use of alcohol and tobacco.

Periodically since 2001, WHO has implemented a country capacity survey on NCDs as a means of assessing national-level response to the NCD burden. The survey questionnaire is completed by the NCD focal point within each country's Ministry of Health, or similar agency. Since the first survey round, the NCD country capacity survey has been conducted a further six times, the most recent being in 2019. In the survey, countries are requested to report on the following topics relating to NCDs: (i) public health infrastructure, partnerships and multisectoral collaboration; (ii) policies, strategies and action plans; (iii) health information systems and surveillance; and (iv) health-system capacity for detection, treatment and care. The questionnaire was web-based and required supporting documentation wherever possible. In the 2019 round, data were collected from March through May; validation was carried out by WHO regional offices and WHO headquarters for several months thereafter. Country responses to previous rounds of the survey were incorporated into the analysis to assess progress since 2010. Although all 194 Member States responded to the survey, data comparisons were restricted to only the 160 countries that had responded to all rounds of the survey since 2010.

The results of the 2019 survey showed that, as regards NCD infrastructure and resourcing in the national government, 95% of countries had a unit, branch or department responsible for NCDs within their Ministry of Health, with nearly all having at least one full-time technical or professional staff member working within the unit, branch or department. Dedicated staff for each of the NCDs and the major NCD risk factors was reported by most countries for all NCD-related topics; staff dedicated to chronic respiratory diseases and oral diseases were the least prevalent worldwide. More than 80% of countries reported having funding available for the following NCD-related areas: health care and treatment (90%); primary prevention (88%); health promotion (88%); early detection and screening (87%); and surveillance, monitoring and evaluation (84%). Funding for capacity-building was slightly less prevalent (79%) while funding for palliative care (68%) and NCD-related research (65%) lagged further still. Taxation on alcohol and tobacco were widely implemented; however other fiscal incentives, such as taxation on sugar-sweetened beverages and foods high in fats, sugar or salt were not widely utilized.

An operational national multisectoral commission, agency, or mechanism to oversee NCD engagement, policy coherence and accountability of sectors beyond health was present in nearly half of countries globally (46%). While the vast majority of countries (87%) included NCDs in the outputs or outcomes of their national health plans, only two thirds (67%) had set NCD targets in line with the nine voluntary global targets from the WHO Global Monitoring Framework for NCDs.[2]

Three quarters of countries (74%) had operational, integrated policies, strategies or action plans on NCDs, but only 57% reported that these policies were multisectoral and covered all four NCD risk factors and included early detection, treatment and care for the four main NCDs. For nutrition-related areas, the rate of implementation of a number of recommended policies was generally low, with around a third of countries implementing policies to reduce the impact of marketing of unhealthy foods to children or to reduce the consumption of salt or fat. Even fewer countries (25%) had implemented policies on front-of-pack labelling systems. However, nearly

[1] See: https://sustainabledevelopment.un.org/?menu=1300
[2] See: https://www.who.int/nmh/global_monitoring_framework/en/

two thirds of countries (64%) had implemented a recent educational campaign on physical activity.

Surveillance of NCDs continues to be the responsibility of one or more departments within the Ministry of Health in the large majority of countries. Just under two thirds of countries (64%) reported having population-based cancer registries, and exactly half reported having a diabetes registry. Just over half of countries reported having completed a recent, national survey among adults for all the major risk factors for NCDs, with the exception of salt/sodium intake. However, roughly a third of countries (31%) had not collected population-based data for any of the risk factors through a recent, national survey of adults, and the proportion was only slightly lower (27% of countries) for recent national data on adolescents.

Fewer than half of countries (48%) reported having national guidelines available for all four of the main NCDs; guidelines for chronic respiratory diseases were the least prevalent. National screening programmes for breast cancer and cervical cancer were reported by slightly fewer than two thirds of countries (62% and 65%, respectively), with roughly a third of each reported to be opportunistic and well under half reaching the majority of their target population. Of the six essential technologies for early detection, diagnosis and monitoring of NCDs: measurements of height; weight; blood glucose; blood pressure; and total cholesterol; and urine strips for albumin assay, just over half of countries (53%) reported all were generally available in primary care facilities of the public health sector. Most of the remaining countries had at least four of the six technologies generally available. Availability of essential NCD medicines was more uneven. Although approximately half of countries (51%) reported all were generally available, more than one in five countries (21%) reported only six or fewer of the 11 essential medicines were generally available. Cardiovascular risk stratification was reported as being offered by most countries (81%); however, only about half of these countries reported it as widely available (i.e. offered in over 50% of health care facilities).

Of the procedures for treating NCDs, dialysis was most widely available (71% reported it as being generally available in the publicly-funded health system), followed by thrombolytic therapy (65%), and retinal photocoagulation (58%). While stenting and coronary bypass were also reported as generally available by a slim majority of countries (54% and 53%, respectively), renal transplantation (40%) and bone marrow transplantation (31%) were markedly less common. Cancer diagnosis and treatment services, including the availability of cancer centres or cancer departments at the tertiary level of care, were generally more prevalent and were reported as being generally available in two thirds or more of countries. The exception was radiotherapy with only 62% of countries reporting this service as being generally available. Palliative care, however, continued to be not widely available, with only around 40% of countries reporting that it reached at least half of patients in need.

Despite considerable improvement across income groups since 2010, the 2019 survey revealed persistent disparities, demonstrating the need for action in a number of areas. Integrated NCD policies were more prevalent, yet many were inadequate in breadth. Most “Best Buy” interventions addressed in the survey were vastly underutilized globally. NCD surveillance systems in most countries were shown to be insufficiently robust to ensure the regular collection of national-level data on all key risk factors. Most countries lacked at least one or more clinical guidelines for the four main NCDs, and cancer-screening programmes, where available, were generally inadequate in their reach. Essential NCD technologies and medicines remained widely unavailable in nearly all low- and lower-income countries, and more than half of upper-middle income countries. Palliative care did not reach those in need throughout vast areas of the world.

ASSESSING NATIONAL CAPACITY FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

INTRODUCTION

Nearly 20 years ago, WHO carried out the very first NCD country capacity survey (CCS) in order to assess national capacity to address and respond to the growing burden of NCDs. Although this early survey was relatively limited in scope, it captured many of the essential elements of an effective national response and provided an initial situation assessment *(1)*. Since then, NCDs have gained greater importance in the public health agenda and now account for the vast majority of deaths worldwide, most of which occur in low- and middle-income countries *(2)*. The past 20 years have witnessed three High-level Meetings on NCDs at the United Nations *(3, 4, 5)* and the implementation of a Global Action Plan on NCDs that includes ambitious targets not only to reduce NCD mortality, but reduce the burden of key NCD risk factors and strengthen important aspects of the health system *(6, 7)*. More recently, the United Nations Summit on Sustainable Development adopted the 2030 Sustainable Development Goals.[1] These included a goal to reduce premature mortality from NCDs, along with targets to address risk factors such as alcohol and tobacco use, and the achievement of universal health coverage by 2030. Such ambitious goals require dedicated action from countries to ensure that adequate government resources are allotted to NCDs, that NCD-related policies and legislation are implemented and enforced, and that surveillance and health care systems are sufficiently resourced for full implementation.

Since the initial survey in 2001, the NCD country capacity survey has been conducted a further six times (in 2005, 2010, 2013, 2015, 2017 and 2019), and has been expanded to reflect the political commitments as well as the updated NCD "Best Buys" *(8)*. The survey now serves not only as a means for WHO to assess country action on a wide range of topics related to NCDs, but also as a guide for countries on what actions to take at the national level in order to strengthen their response to NCDs. This report presents the results of the 2019 round of the NCD CCS and highlights which areas have seen the most improvement and draws conclusions as to which areas are in need of the greatest action.

[1] See: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

METHODS

Data collection, review and validation

As with the previous two survey rounds, the 2019 CCS was implemented using a web-based questionnaire hosted on the WHO website. In March 2019, NCD focal points, or designated colleagues within the Ministry of Health or national institute or agency responsible for NCDs in each WHO Member State (194 countries), received their unique details to access the website. The focal points were requested to submit their completed questionnaire through the WHO website by the end of May 2019. The survey instructions specified that a team of people, led by the NCD focal point, should complete the responses, so that topic-specific experts in each country could respond to the questions relating to their area of expertise, thus ensuring a more thorough assessment. In order for WHO to validate and verify responses, countries were asked to submit supporting documentation for a selected number of questions. For example, the question on the existence of an integrated NCD policy, strategy or action plan in a country, requested a copy of such.

Once a country had submitted its response to the survey, the WHO Secretariat checked the response for completeness, and validated it against existing data sources and the supporting documentation submitted. As the questionnaire had been only slightly modified since 2017, responses to almost all questions in the 2019 survey could be compared with those of the 2017 round in order to check for unexpected inconsistencies. Responses relating to the collation of mortality data were checked against information on vital registrations systems held within WHO in the Department of Data and Analytics. Information on recent NCD risk factor surveys was checked against the internal survey tracking systems for WHO-supported risk factor surveys. These included WHO STEPS (adult risk factor surveillance),[2] the Global School-based Student Health Survey (GSHS),[3] the Global Youth Tobacco Survey (GYTS),[4] and the Global Adult Tobacco Survey (GATS).[5] Additionally, alcohol and tobacco taxation data available from WHO were used to check country responses to questions on these fiscal measures; data on cancer registries from IARC was used to validate country responses to the cancer registry questions.

Countries were requested to provide clarification and, where necessary, to change their responses if discrepancies were noted between the country response and these other sources. Similarly, country focal points were also requested to provide any missing documentation if a required supporting document was not already on file at WHO. In most cases, suggested modifications were adopted and the missing data and documents were added to the country's response on the website.

Questionnaire

The web-based questionnaire consisted of four modules: (i) public health infrastructure, partnerships and multisectoral collaboration; (ii) policies, strategies and action plans; (iii) health information systems, monitoring, surveillance and surveys; and (iv) health system capacity for detection, treatment and care (the full questionnaire can be found in Annex 3). Questions were developed through a consultative process with relevant technical departments in WHO headquarters and all WHO regional offices, with the intent of obtaining objective information on each of these four components, rather than opinions about adequacy of capacity. Specific components of the questionnaire were as follows:

I. The infrastructure component asked 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 if there was a high-level national multisectoral commission, agency or mechanism to oversee NCD-related work.

[2] See: http://www.who.int/ncds/surveillance/steps/en/
[3] See: http://www.who.int/ncds/surveillance/gshs/en/
[4] See: http://www.who.int/tobacco/surveillance/gyts/en/
[5] See: http://www.who.int/tobacco/surveillance/survey/gats/en/

II. The policies, strategies and plans component asked 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 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 was currently in operation. Additionally, this component covered cost-effective policies for NCDs, such as policies to reduce population salt consumption.

III. The information systems and surveillance module asked questions addressing the routine collection of mortality data; patient information; facility surveys; the existence of cancer and diabetes registries; and risk factor surveillance activities.

IV. The health system capacity component asked countries to assess the capacity of their health system related to NCD prevention, early detection, and treatment and care within the primary health-care sector. Specific questions focused on the existence of guidelines or protocols to treat major NCDs; 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.

Compared with the 2017 questionnaire, the 2019 questionnaire contained new questions on staffing for NCDs within the Ministry of Health (or equivalent); physical activity guidelines; front-of-pack labelling policies; mHealth initiatives; child risk factor surveillance; and NCD risk factor management guidelines.

The survey included a set of detailed instructions on how to complete the questionnaire and a glossary defining the terms used. The questionnaire was translated into Spanish, French, and Russian to facilitate completion in all countries. Each country followed their own review process before submitting their response to WHO.

Response rate

All WHO Member States (194 countries) responded to the survey. A complete list of Member States by WHO region is given in Annex 1.

Analysis

Data were downloaded directly from the web-based platform to an Excel-readable file. Data cleaning was performed by the WHO Secretariat to ensure consistency with responses within a question and its sub-questions. All statistical analyses, including analysis by WHO region and World Bank income groups (for 2019 groupings, see Annex 2), were carried out using STATA 15 software (Stata Corporation, 2017). All data extraction, cleaning and analysis were performed at WHO headquarters.

For all analyses, the denominator used was the total number of responding countries, either overall or within the subgroup of interest. To avoid fluctuating denominators, percentages reported were based on the positive responses from countries to the survey items. Non-positive responses (i.e. "No", "Don't know", and items left unanswered) were treated equally. Trends in national capacity for NCDs were derived from comparing the results of the 2019 survey with those from the capacity surveys conducted in 2017, 2015, 2013 and 2010. For the comparison of survey responses across these five surveys, analyses were limited to the 160 Member States that completed all five surveys and focused only on those questions which appeared in all five surveys.

Survey results were examined in relation to the objectives and key recommendations made to WHO Member States in the Global NCD Action Plan (see Box 1), as well as the progress monitoring indicators adopted in 2015, later updated in 2017, and included in the 2014 United Nations Outcome Document on NCDs[6] (see Box 2).

[6] See: http://www.who.int/nmh/events/2014/a-res-68-300.pdf

Box 1: Key objectives of the WHO Global NCD Action Plan 2013–2020

Objective 1: To raise the priority accorded to the prevention and control of noncommunicable diseases in global, regional and national agendas and internationally agreed development goals, through strengthened international cooperation and advocacy.

Objective 2: To strengthen national capacity, leadership, governance, multisectoral action and partnerships to accelerate country response for the prevention and control of noncommunicable diseases.

Objective 3: To reduce modifiable risk factors for noncommunicable diseases and underlying social determinants through creation of health-promoting environments.

Objective 4: To strengthen and orient health systems to address the prevention and control of noncommunicable diseases and the underlying social determinants through people-centred primary health care and universal health coverage.

Objective 5: To promote and support national capacity for high-quality research and development for the prevention and control of noncommunicable diseases.

Objective 6: To monitor noncommunicable diseases and their determinants, and evaluate progress at national, regional and global levels.

Box 2: Progress monitoring indicators

Indicator 1: Member State has set time-bound national targets based on WHO guidance.

Indicator 2: Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis.

Indicator 3: Member State has a STEPS surveya or a comprehensive health examination survey every five years.

Indicator 4: Member State has an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors.

Indicator 5: Member State has implemented the following five demand-reduction measures of the WHO FCTCb at the highest level of achievement:

a. Reduce affordability of tobacco products by increasing excise taxes and prices on tobacco products;

b. Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places and public transport;

c. Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages;

d. Enact and enforces comprehensive bans on tobacco advertising, promotion and sponsorship;

e. Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second hand smoke.

Indicator 6: Member State has implemented, as appropriate according to national circumstances, the following three measures to reduce the harmful use of alcohol as per the WHO Global Strategy to Reduce the Harmful Use of Alcoholc:

a. Enact and enforce restrictions on the physical availability of alcohol (via reduced hours of sale);

b. Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media);

c. Increase excise tax increases on alcoholic beverages.

Indicator 7: Member State has implemented the following four measures to reduce unhealthy diets:

a. Adopted national policies to reduce population salt/sodium consumption;

b. Adopted national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply;

c. WHO set of recommendations on marketing of foods and non-alcoholic beverages to children;

d. Legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes.

Indicator 8: Member State has implemented at least one recent national public awareness programme on physical activity, including mass media campaigns for physical activity behavioural change.

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.

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.

[a] http://www.who.int/ncds/surveillance/steps/en/
[b] http://www.who.int/fctc/en/
[c] Global strategy to reduce the harmful effects of alcohol. World Health Organization, Geneva, 2010.

RESULTS

Aspects of NCD infrastructure

Unit, branch or department responsible for NCDs

The availability of a unit, branch or department within the Ministry of Health for NCDs and NCD risk factors was reported by 95% of countries across all WHO regions. As shown in Table 1, little variation in availability was seen between low-income (97%) and high-income (98%) groups. Across all regions, 94% of countries reported having at least one full-time technical or professional staff member working within the unit, branch or department. The proportion of countries with full-time staff was higher in low-income countries than in countries of all other income groups.

Table 1

Percentage of countries with units, branches or departments within the Ministry of Health (or equivalent) with responsibility for NCDs and their risk factors, and percentage of countries that have at least one full-time technical or professional staff member working in the unit, branch or department

		% of countries with NCD units/ Branches/ Departments	% of countries with Full-time staff
WHO Region	AFR	98	98
	AMR	89	89
	EMR	90	90
	EUR	98	92
	SEAR	100	100
	WPR	96	96
World Bank income group	Low-income	97	97
	Lower-middle-income	93	93
	Upper-middle-income	93	93
	High-income	98	93
ALL		**95**	**94**

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

The percentage of countries with units, branches or departments allocated to NCDs and NCD risk factors within the Ministry of Health increased or remained more or less stable across all WHO regions between 2010 (88% overall) and 2019 (95% overall) (Table 2). Although there was a marked decrease across all regions between 2015 (93%) and 2017 (86%), with the African Region showing the greatest decline, a far more positive picture was evident in 2019, with more than 90% of countries in nearly all regions reporting that they had an existing unit, branch or department responsible for NCDs within their Ministry of Health.

Table 2

Percentage of countries with units, branches or departments within the Ministry of Health (or equivalent) with responsibility for NCDs by WHO region, 2010, 2013, 2015, 2017 and 2019*

		% of countries				
		2010	2013	2015	2017	2019
WHO Region	AFR	93	97	100	77	97
	AMR	93	96	85	81	89
	EMR	85	90	95	90	90
	EUR	79	92	94	90	98
	SEAR	100	100	90	80	100
	WPR	92	96	88	92	96
ALL		**88**	**94**	**93**	**86**	**95**

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

In 2019, 93% of countries in all regions reported having at least one full-time technical or professional staff member working in the unit, branch or department, compared with 79% in 2010 (Table 3). A significant decline occurred between 2015 (91%) and 2017 (84%); however, percentages have since risen, with both the African and South-East Asia regions showing increases of 20%. The 2019 survey was the first time since 2010 that all countries in the South-East Asia region reported having at least one full-time technical or professional staff member working in the unit, branch or department.

Table 3

Percentage of countries with at least one full-time technical or professional staff member working in the NCD unit, branch or department, by WHO region, 2010, 2013, 2015, 2017 and 2019*

		% of countries				
		2010	2013	2015	2017	2019
WHO Region	AFR	83	93	100	77	97
	AMR	78	78	85	81	89
	EMR	80	80	95	90	90
	EUR	69	75	88	83	92
	SEAR	100	90	90	80	100
	WPR	84	92	88	92	96
ALL		**79**	**83**	**91**	**84**	**93**

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

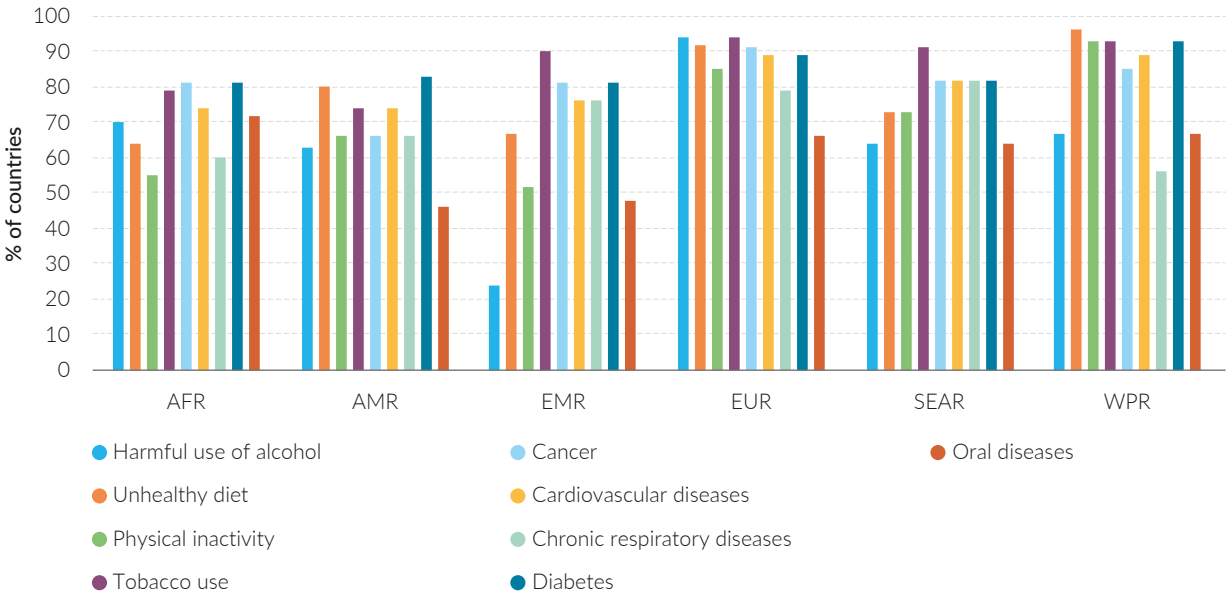
In a newly added question, countries were asked to report on whether or not they had staff "dedicating a significant proportion of their time" to each of the major risk factors for NCDs as well as to the four main NCDs and oral diseases. Countries most commonly reported having staff dedicated to tobacco use (86%), followed by diabetes (85%) and cancer (81%). Oral diseases were the least likely to be

covered by dedicated staff (62% of countries). Three of the main NCDs, cancer, cardiovascular disease and diabetes were generally well covered by staff in low- and lower-middle-income countries; in contrast NCD risk factors, apart from tobacco use, were not well covered in these same country income groups. While chronic respiratory diseases were the least commonly staffed of the four main NCDs, these were still generally more likely to be covered by staff than NCD risk factors (except for tobacco use) (Figure 1).

Figure 1

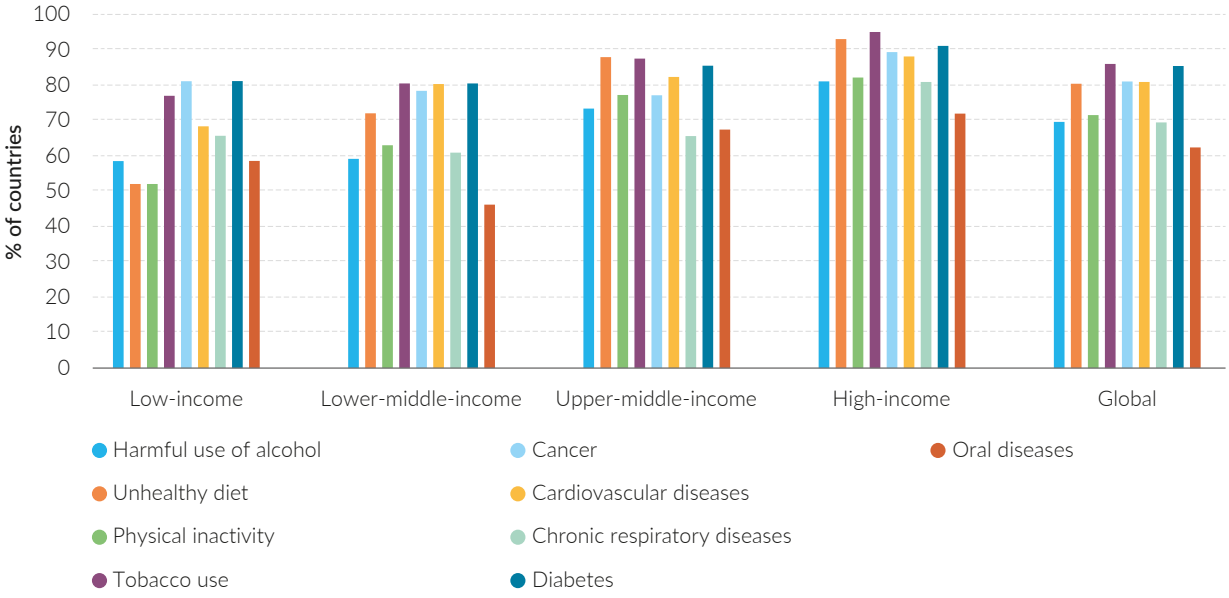
Percentage of countries with staff in the NCD unit, branch or department dedicating a significant proportion of their time to specific risk factors and diseases

a) By WHO region



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

b) By World Bank income group

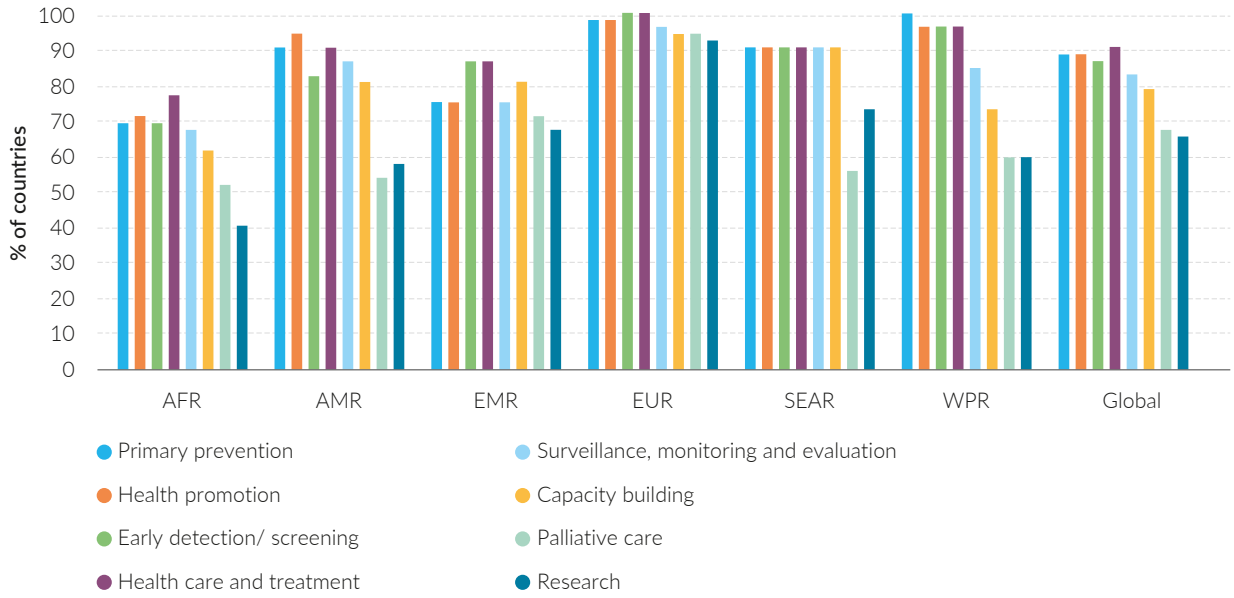


Funding mechanisms

Countries were questioned on the availability of funding for eight key NCD-related activities or functions, ranging from primary prevention to research. As shown in Figure 2, health care and treatment received the most funding globally (90% of countries), followed by activities for health promotion and primary prevention of NCDs (88%) and early detection/screening (87%). Activities least likely to have allocated funding were palliative care (68%) and research (65%). The South-East Asia Region reported 91% of countries having funding allocated for all activities, except for research (73%) and palliative care (55%). Generally, high-income and upper-middle-income countries showed higher percentages across the eight activities compared with those in the lower-middle-income and low-income groups. For example, all countries in the high-income and 97% in the upper-middle-income groups reported having funding allocated for health care and treatment, compared with 89% of those in the lower-middle-income and 61% in the low-income groups.

Figure 2

Percentage of countries with funding for NCD activities by function, by WHO region



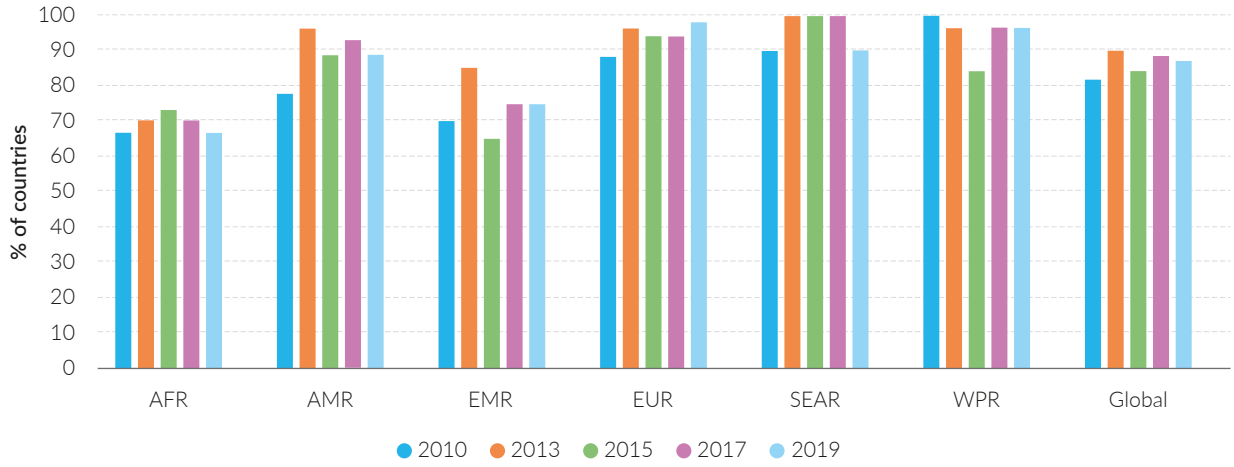
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Trend analysis on the funding of NCD activities was available only for primary prevention and health promotion (combined); and surveillance, monitoring and evaluation. The varied results of the analysis showed that availability of funding for primary prevention and health promotion increased modestly overall between 2010 (82%) and 2019 (87%) (Figure 3a). The Region of the Americas showed the greatest increase, from 78% (2010) to 89% (2019), while the Western Pacific Region showed a slight decline, from 100% (2010) to 96% (2019); funding for primary prevention and health promotion in the African Region has shown no lasting improvement since 2010. Whereas funding designated to the surveillance, monitoring and evaluation of NCDs was less prevalent globally in 2010 (72%) a more marked improvement was seen in 2019 (85%) (Figure 3b). Positive trends were most apparent among countries in the African Region, the Region of the Americas and the Eastern Mediterranean Region.

Figure 3

Percentage of countries with funding for NCD-related activities, by WHO region, 2010, 2013, 2015, 2017 and 2019*

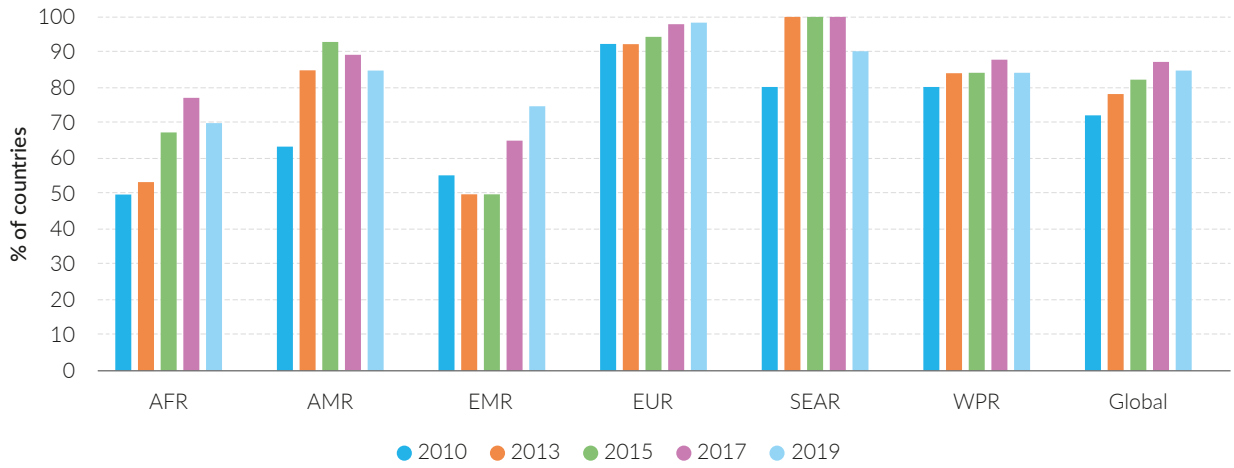
a) For primary prevention and health promotion



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

b) For surveillance, monitoring and evaluation



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

In decreasing order of prevalence, the following were reported by countries as the major sources of funding for NCDs: government revenues (93% of countries); international donors (64%); health insurance (63%); earmarked taxes (46%); national donors (45%); and other sources (27%) (Table 4). The "national donors" category was not included in the earlier surveys, but was added to the 2017 survey.

The most common source of funding for NCDs across all regions and income groups was general government revenues (Table 4). All high-income and upper-middle-income countries (100%) reported receiving funds from government revenues, compared with 71% of countries in the low-income group. Earmarked taxes were markedly less common as a funding source in low-income countries, with only 26% of countries receiving funds from this source compared with 50% of countries in all other income groups. International donors were more likely to be a major funding source

in middle-income countries (79%) than in low-income countries (58%). Health insurance was also a far less prevalent source of funding for NCDs among low-income (35%) and lower-middle-income countries (59%) than among high-income countries (74%).

Table 4

Major funding sources for NCDs

		Funding sources for NCDs (% of countries with funding source)					
		General government revenues	Health insurance	International donors	National donors	Earmarked taxes on alcohol, tobacco, etc.	Other
WHO Region	AFR	83	57	70	55	40	19
	AMR	97	51	63	49	49	40
	EMR	90	67	67	38	33	29
	EUR	98	81	51	32	51	28
	SEAR	91	64	73	55	73	18
	WPR	100	48	74	48	44	26
World Bank income group	Low-income	71	35	58	42	26	13
	Lower-middle-income	91	59	85	43	43	20
	Upper-middle-income	100	70	75	53	52	35
	High-income	100	74	39	39	54	33
ALL		**93**	**63**	**64**	**45**	**46**	**27**

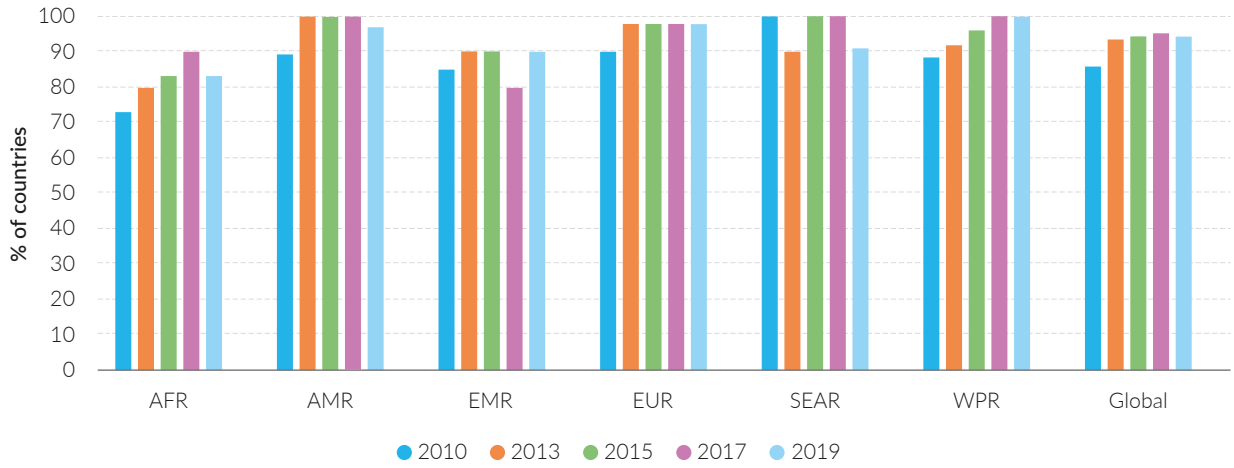
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

General government revenues have consistently been widely reported as a major source of funding for NCDs, yet there has still been a notable increase in the number of countries relying on this source of funds for NCDs in the African Region and the Western Pacific Region (Figure 4a). Health insurance, however, has not always been so widely reported. In 2010, only 42% of countries globally, including just 13% of countries in the African Region, reported health insurance as being a major source of funding for NCDs. By 2019, the picture had changed considerably, with more than half of countries across all regions reporting that health insurance was a major source of funding for NCDs (Figure 4b). In 2019, 63% of countries reported that international donors were a major source of NCD funding, an increase from 56% in 2010 (Figure 4c). While far less prevalent than other NCD funding sources, earmarked taxes were a major source of funds for more than twice as many countries in 2019 compared to 2010 (49% and 23%, respectively) (Figure 4d). The largest expansion in the use of earmarked taxes to fund NCD prevention and control activities occurred in the Region of the Americas, where, in comparison with 2010, a further 12 countries reported earmarked taxes as being a major source of funding.

Figure 4

Percentage of countries ranking each of the following sources of funding in the top three major funding sources for NCDs, by WHO region, 2010, 2013, 2015, 2017 and 2019*

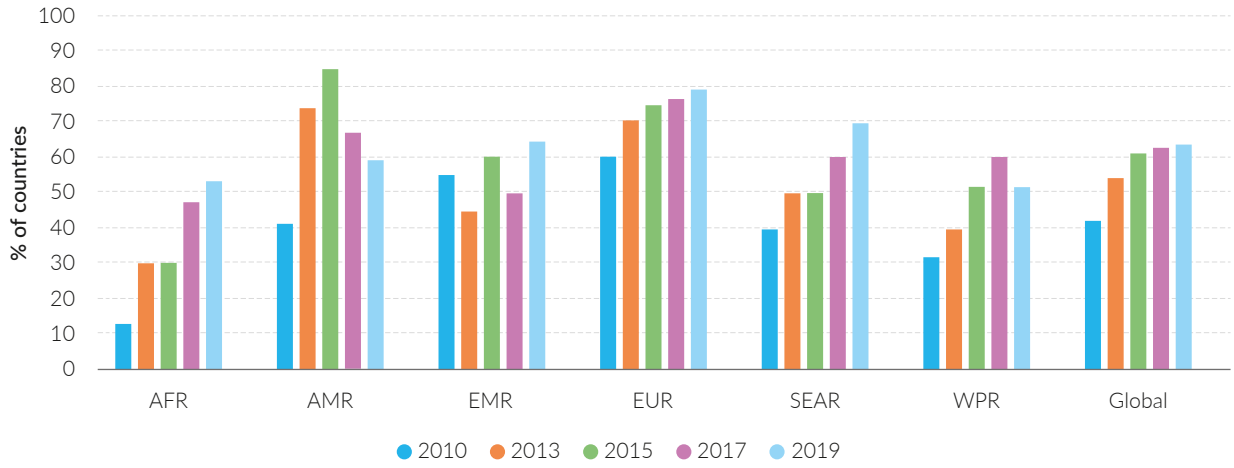
a) General government revenues



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

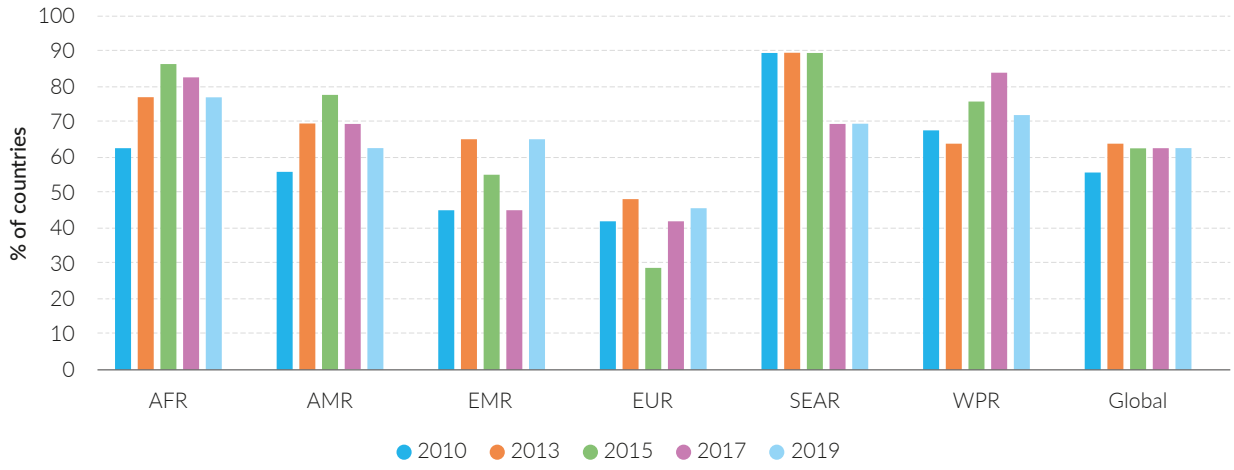
b) Health insurance



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

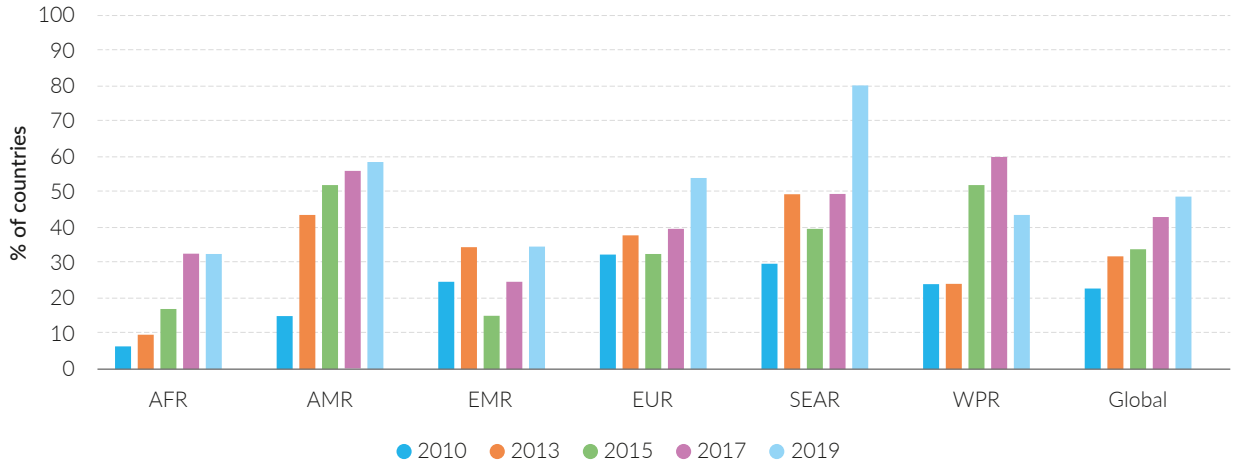
c) International donors



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

d) Earmarked taxes on alcohol, tobacco, etc.



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

Fiscal interventions

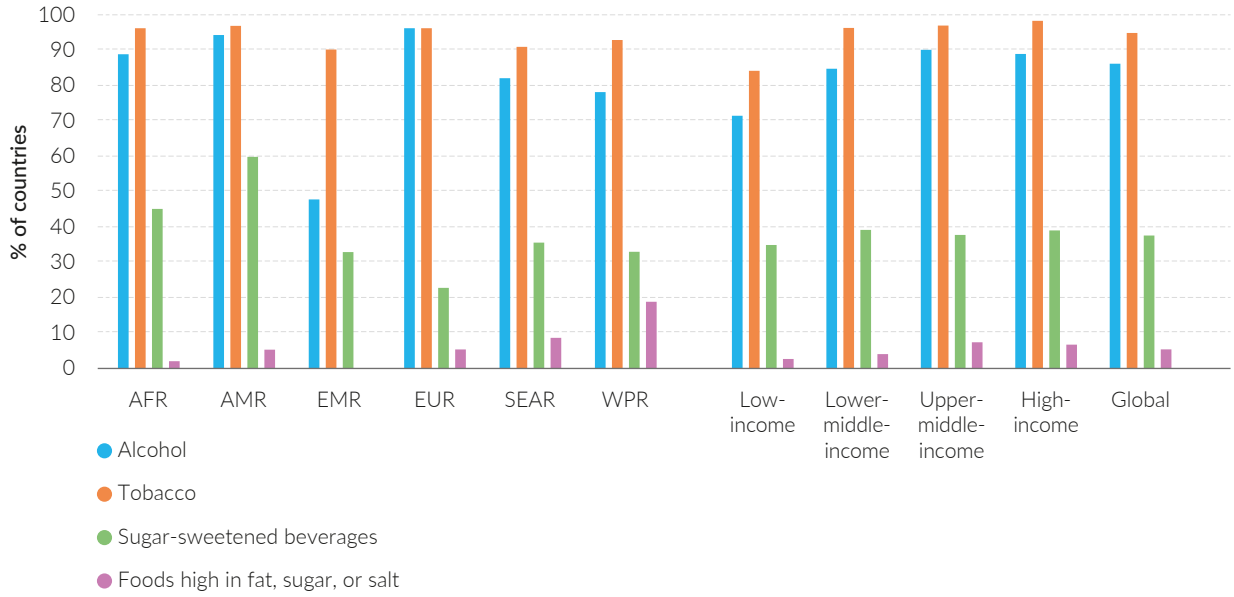
Nearly all countries (95%) reported having taxes on tobacco (excise and non-excise taxes); most countries not reporting tobacco taxes were in the low-income group (Figure 5a). Alcohol taxation was also broadly reported (86% of countries). Taxation of sugar-sweetened beverages was reported by more than a third of countries across all regions (38%) and nearly two thirds of countries in the Region of the Americas (60%). Taxation of foods high in fat, sugar or salt were reported by only 12 countries (6%) worldwide.

The implementation of price subsidies for healthy foods, and taxation incentives to promote physical activity, was relatively low globally compared with the other types of fiscal interventions mentioned above (Figure 5b). Across World Bank income groups there was little variation in percentages of price subsidies for healthy foods. While no countries in low-income or low-middle-income groups reported incentives to promote physical activity, 19% and 5% of countries in high-income and upper-middle-income groups, respectively, reported such incentives.

Figure 5

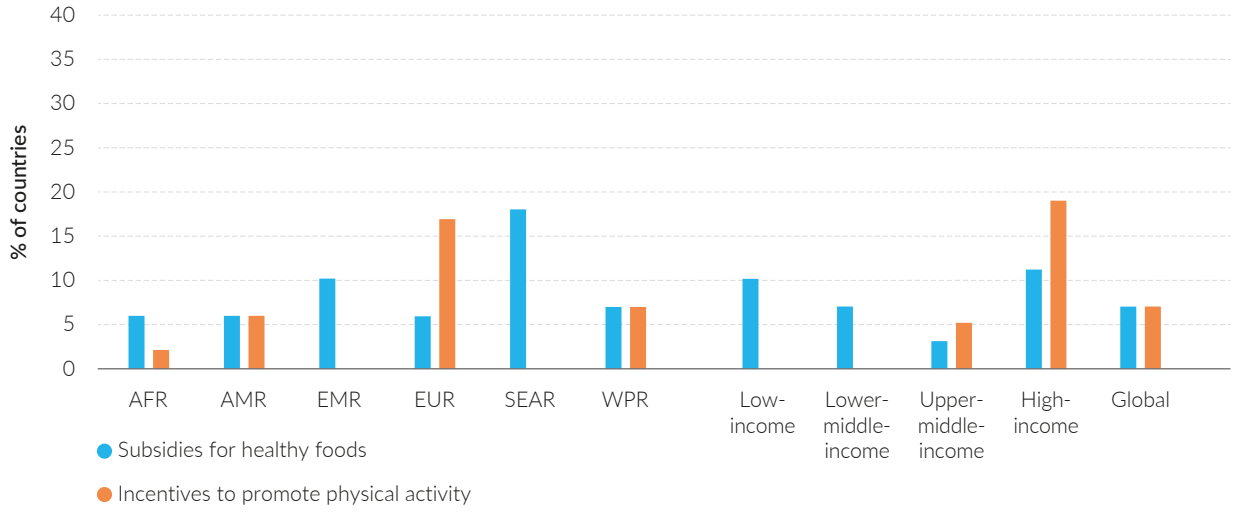
Percentage of countries implementing fiscal interventions by category, by WHO region and World Bank income group

a) Taxation on products



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

b) Subsidies and incentives



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Multisectoral commissions, agencies, or mechanisms

The availability of a national multisectoral commission, agency, or mechanism to oversee NCD engagement, policy coherence and accountability of sectors beyond health was reported by 60% of countries globally, yet only 46% confirmed that this was operational. All but one country in the South-East Asia Region, and more than half of countries in the Eastern Mediterranean Region and European Region reported having an operational multisectoral commission (Figure 6).

Figure 6

Percentage of countries with a national multisectoral commission, agency or mechanism to oversee NCD engagement, policy coherence and accountability of sectors beyond health and the stage of implementation, by WHO region and World Bank income group

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Plans, policies and strategies

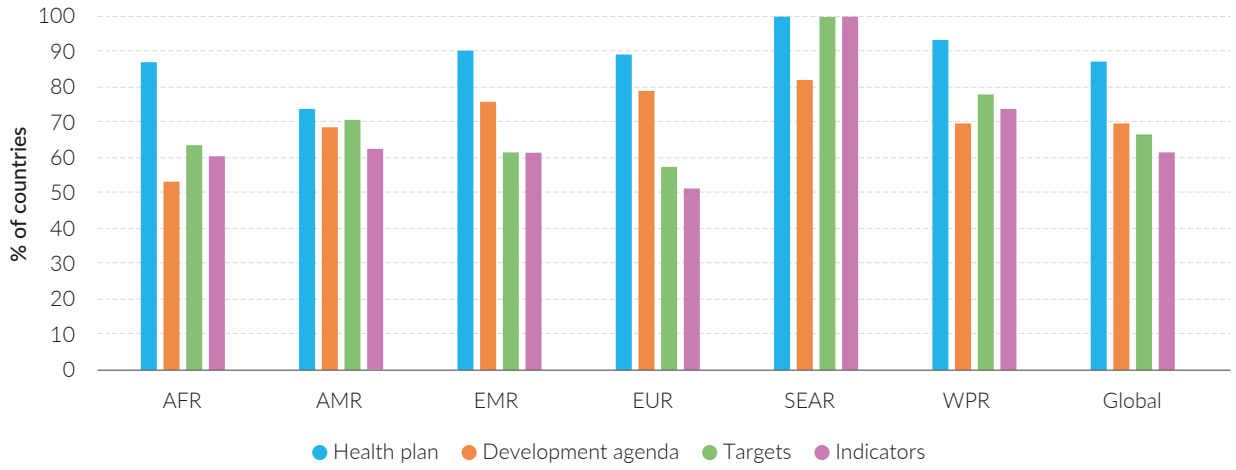
National health plans and targets

Globally, 87% of countries reported that they included NCDs in the outcomes or outputs of their national health plan: 100% of countries in the South-East Asia Region, and 90% or more of countries in the Eastern Mediterranean and European Regions. Some 70% of countries had included NCDs in their national development agenda, with the African Region (53% of countries) deviating most markedly from the global average (Figure 7). Countries were 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[7] countries, and whether they had indicators for these targets. Across all regions, 67% of countries reported having some targets and 62% (or 93% of those who set targets) reported having indicators for those targets.

[7] See: https://www.who.int/nmh/global_monitoring_framework/en/

Figure 7

Percentage of countries with NCDs in their national health plan; NCDs in their national development agenda; a set of national NCD indicators; and a set of time-bound national targets for those indicators, by WHO region



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Policies addressing the major NCDs and their risk factors

Globally, 74% of countries had operational policies, strategies or action plans that integrated several NCDs and their risk factors; all but one were multisectoral. With the exceptions of the South-East Asia and Western Pacific regions, most other regions had at least a few countries either with integrated policies under development or not yet in effect. One of the indicators assessed in the NCD Progress Monitor pertained to integrated NCD policies. To be categorized as "fully achieved" for this indicator a country had to have an operational, multisectoral integrated policy, strategy or action plan covering the four main NCDs (cardiovascular diseases, diabetes, cancer, chronic respiratory diseases) and the four main risk factors (and their four main associated risk factors (tobacco use, unhealthy diet, physical inactivity, harmful use of alcohol[8]). Globally, over half of countries (57%) fully achieved this indicator, including all countries in the South-East Asia Region and 64% of countries in the European Region. Even in the African Region, where prevalence of operational, integrated NCD policies was the lowest of all regions, nearly half of countries (45%) fully achieved the Progress Monitor indicator (Figure 8).

[8] Exception made for alcohol according to national context.

Figure 8

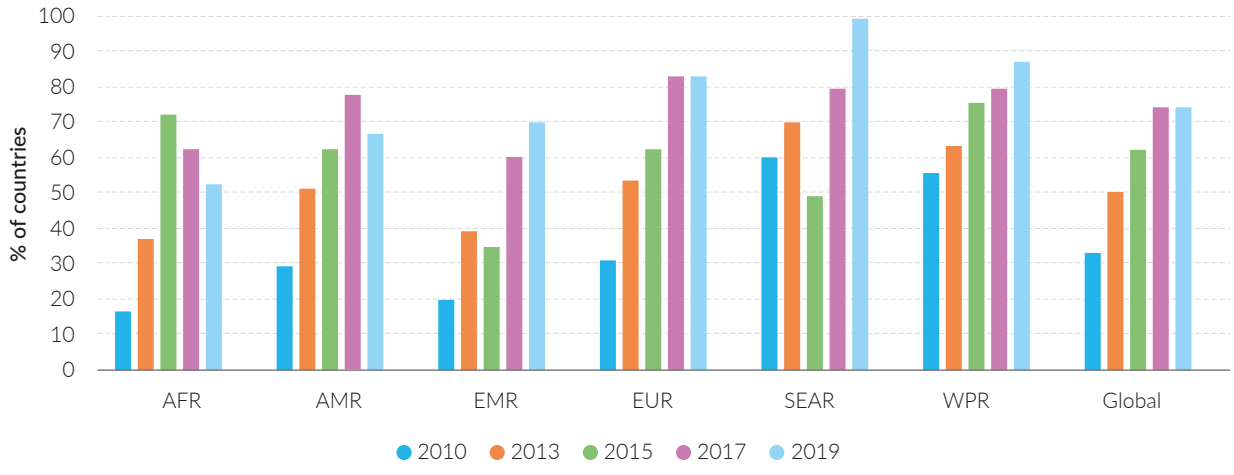
Percentage of countries with a national NCD policy, strategy or action plan that integrates several NCDs and their risk factors and their level of plan integration, by WHO region

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

While the global picture of operational, integrated NCD policies had not changed greatly since 2017, steady progress continued to be made in the Eastern Mediterranean, South-East Asia and Western Pacific regions (Figure 9). Slight or more marked decreases in other regions were evident, possibly reflecting an expiration of policies from the first half of the decade with those not yet updated or operational.

Figure 9

Percentage of countries with an operational integrated national NCD policy, strategy or action plan, by WHO region, 2010, 2013, 2015, 2017 and 2019*



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

In addition to the set of questions on integrated NCD policies, strategies or action plans, countries were also asked about topic-specific plans they had for each of the main NCDs and NCD risk factors. Table 5 shows, in descending order of operational policies, the global percentage of countries having either a topic-specific policy or an integrated policy covering each of the main conditions and risk factors.

While nearly three quarters or more of countries addressed cancer, cardiovascular disease and diabetes in operational policies, less than two thirds covered chronic respiratory diseases in an operational policy. Policies addressing the NCD risk factors were broadly available, the exception being overweight and obesity, for which only 40% of countries had an operational policy.

Table 5

Percentage of countries with a policy, plan or strategy addressing the major NCDs and/or their risk factors

		% of countries with a policy, strategy or action plan	% of countries with an operational policy, strategy or action plan
NCDs	Cancer or particular cancer types	92	80
	Diabetes	85	73
	Cardiovascular diseases	85	72
	Chronic respiratory diseases	74	61
Risk factors	Unhealthy diet	89	80
	Tobacco use	92	79
	Physical inactivity	91	79
	Harmful use of alcohol	86	74
	Overweight and obesity	47	40

Figures 10a and 10b show the availability of operational, topic-specific or integrated policies addressing each of the main NCDs and their risk factors by region and income group. Although there was a clear positive relationship between policy availability and income group, operational policies were available in at least 50% of low-income countries for all NCDs and risk factors, except for overweight and obesity. Policies for chronic respiratory diseases were broadly less available, their prevalence among high- and middle-income countries being only slightly higher than among low-income countries. Nonetheless, all countries in the South-East Asia Region reported covering chronic respiratory diseases in an operational policy.

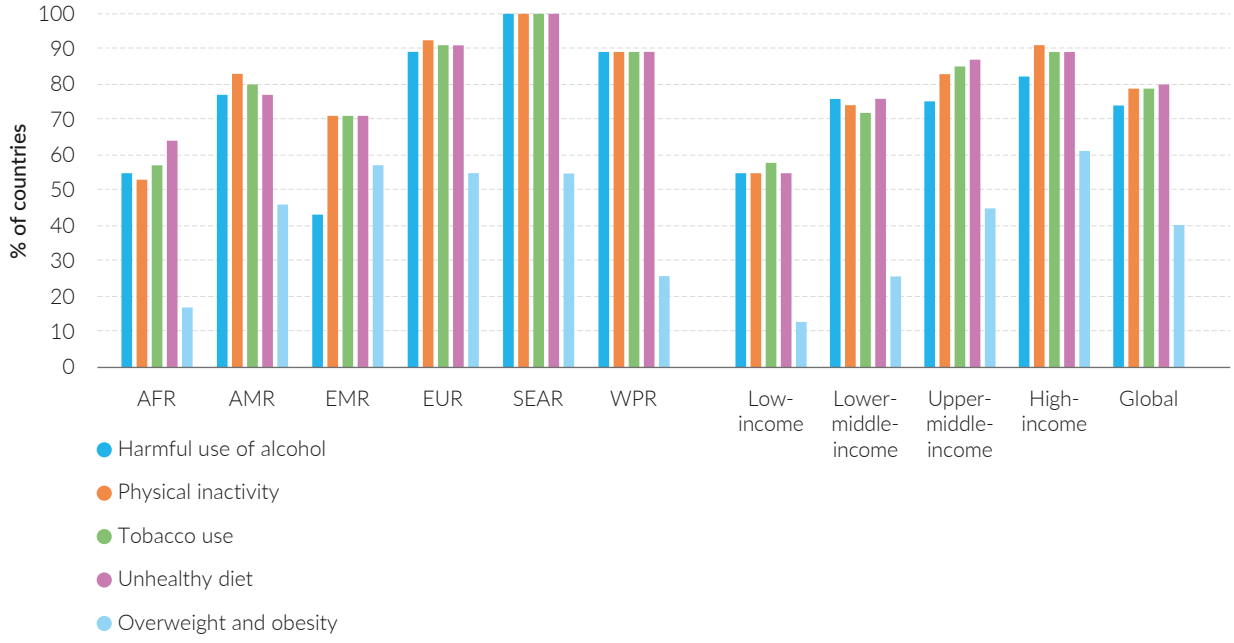
Figure 10

Percentage of countries with operational plans, strategies or action plans for the leading NCDs and risk factors, by WHO region and World Bank income group

a) Operational policies, strategies or action plans for leading NCDs

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

b) Operational policies, strategies or action plans for leading NCD risk factors



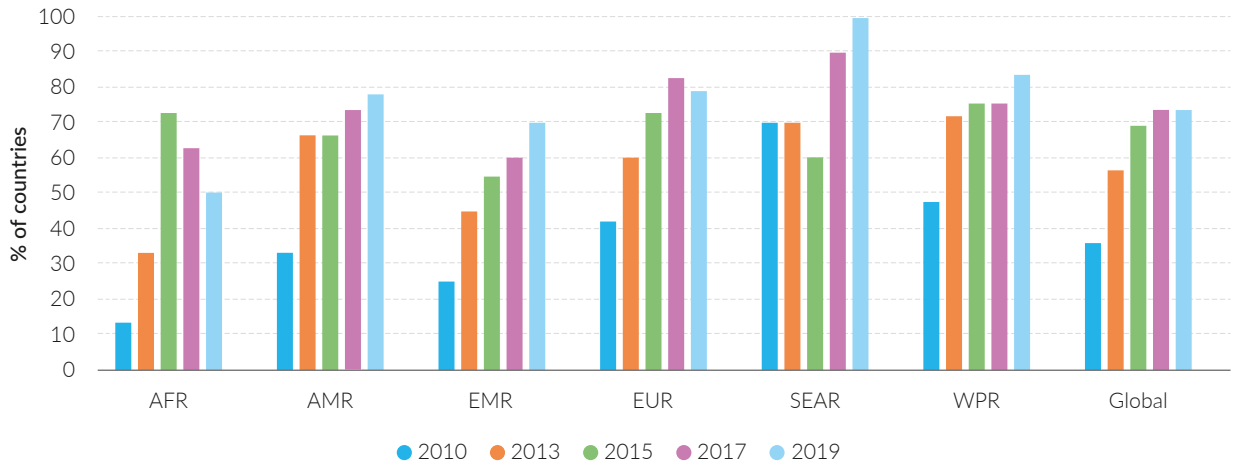
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

When reviewing the past decade, the increase in availability of operational policies addressing each of the four main NCDs is notable, particularly for chronic respiratory diseases, for which policy coverage globally has more than tripled during this time period (Figure 11). While in 2010, only one country (5%) in the Eastern Mediterranean Region reported having a policy for chronic respiratory diseases, in the same region this rose to 70% in 2019. As with integrated NCD plans, many of which were also represented here, progress was seen in the early part of the decade, with some decline in prevalence as operational policies expired and were not immediately replaced by newer policies towards the end of the decade.

Figure 11

Percentage of countries with operational plans, policies or strategies or action plans for the four main NCDs, by WHO region, 2010, 2013, 2015, 2017 and 2019*

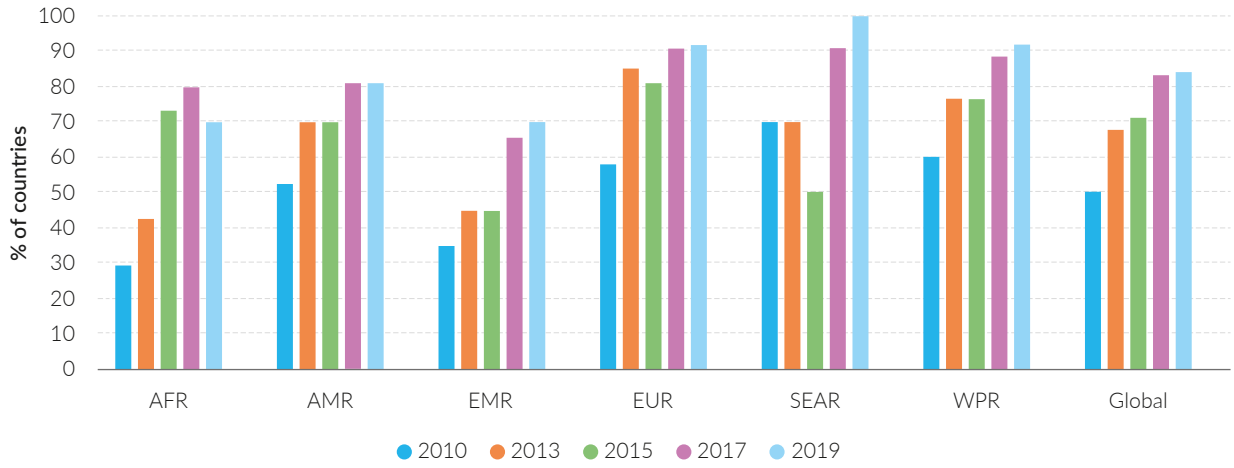
a) Cardiovascular diseases



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

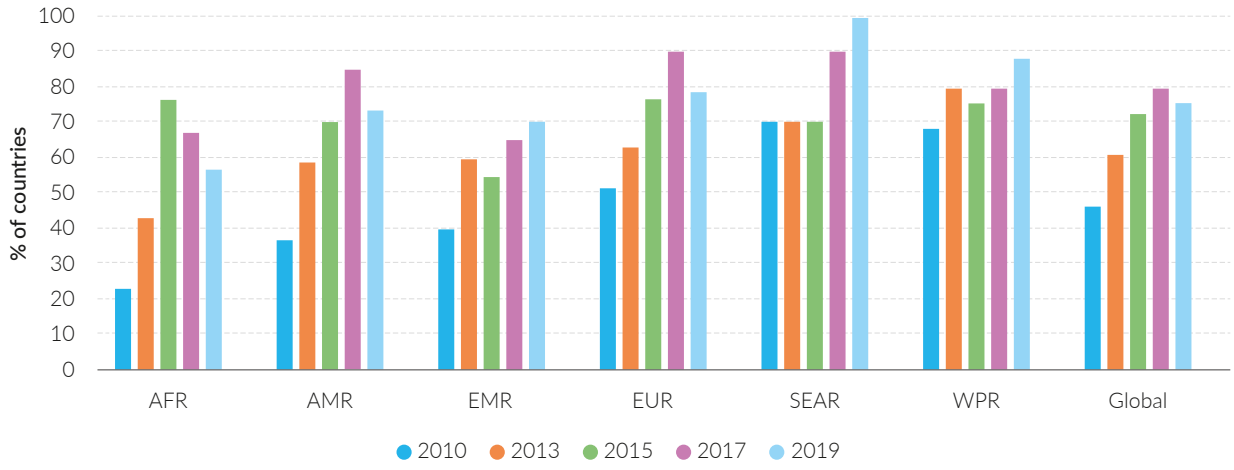
b) Cancers



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

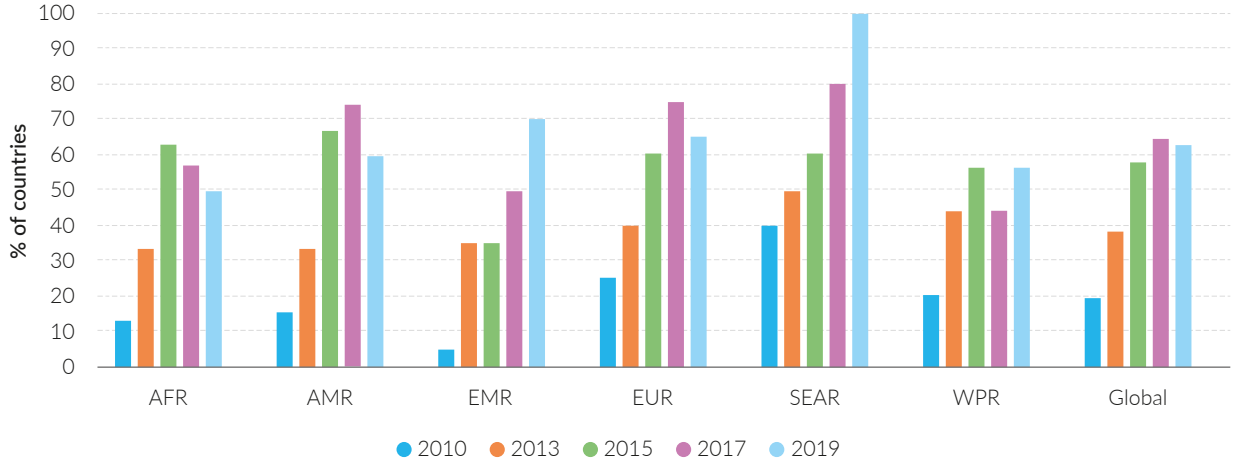
c) Diabetes



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

d) Chronic respiratory diseases



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

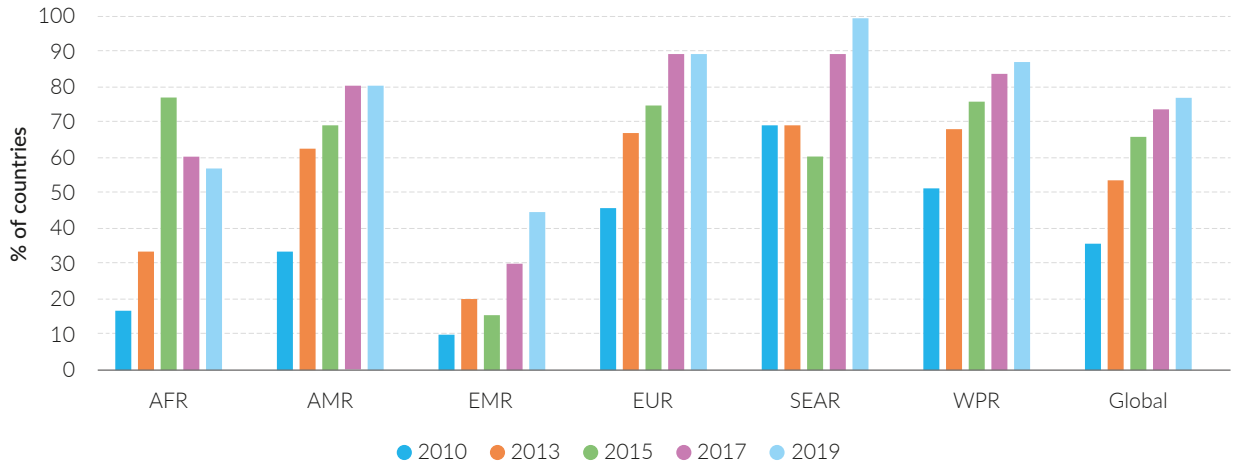
* of 160 countries that responded to all 5 surveys.

When considering integrated or topic-specific operational policies that addressed the main NCD risk factors, during the past decade the overall trend was positive, although there were areas of decline. Whereas, for example, prevalence of policies for each of the risk factors in the African Region had declined since 2015 (Figure 12), initial increases seen in the other regions from 2010 to 2013 had been sustained. Furthermore, since 2010, the prevalence of policies for each of the risk factors had doubled in some regions.

Figure 12

Percentage of countries with operational plans, policies or strategies or action plans for the main NCD risk factors, by WHO region, 2010, 2013, 2015, 2017 and 2019*

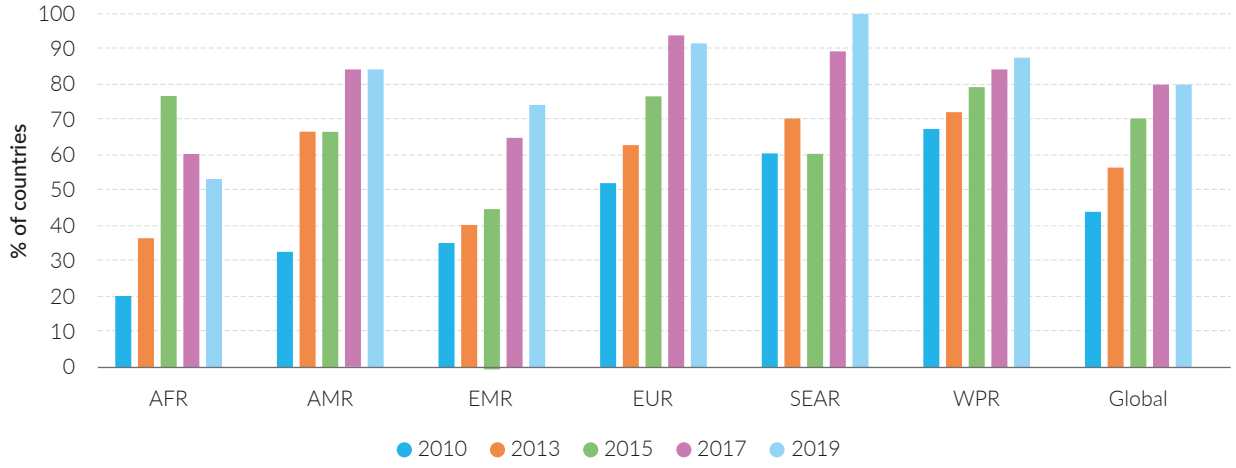
a) Reducing the harmful use of alcohol



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

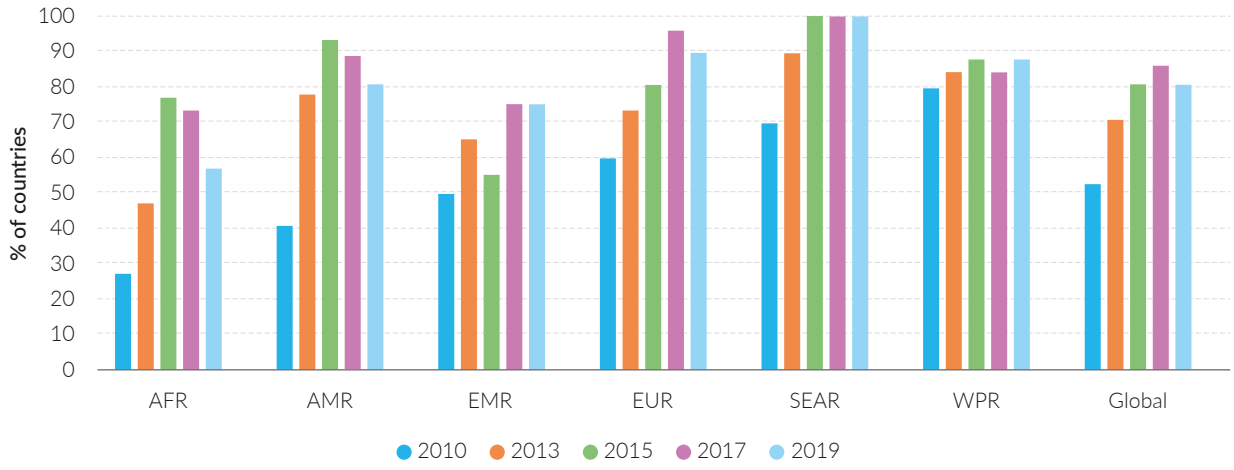
b) Reducing physical inactivity



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

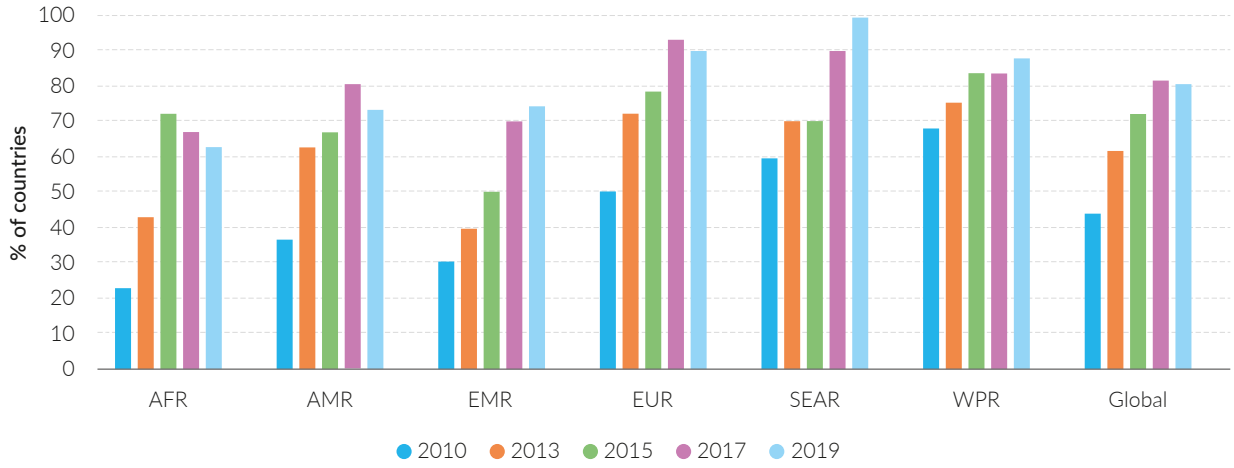
c) Decreasing tobacco use



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

d) Reducing unhealthy diet related to NCD



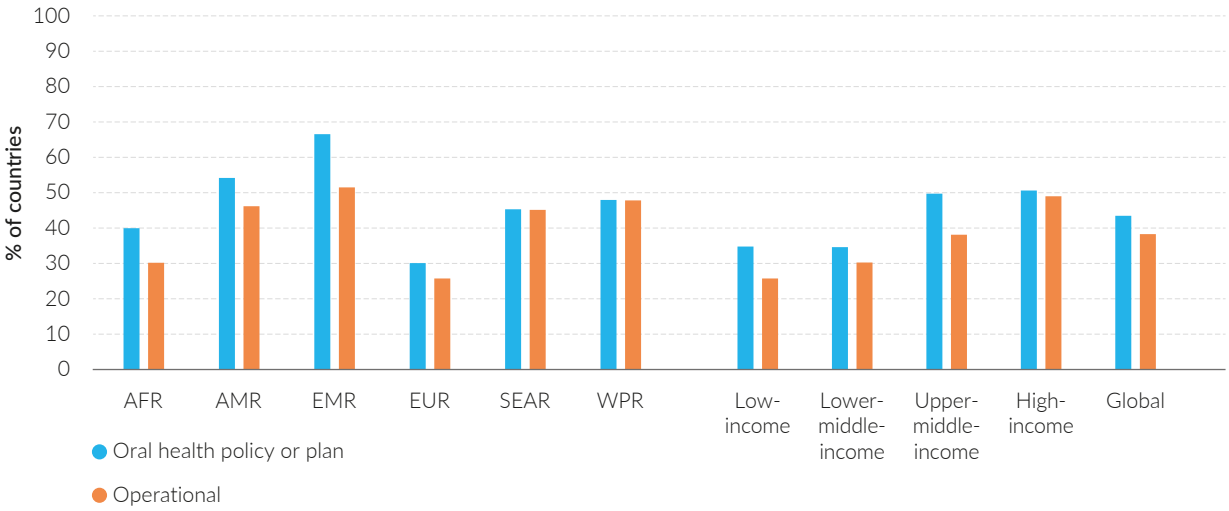
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

* of 160 countries that responded to all 5 surveys.

Countries also reported on the existence of policies, strategies or action plans for oral health. These were found to be not as widely available as policies for any of the main NCDs or NCD risk factors; only 38% had an operational policy in place, with an additional 6% having an oral health policy either under development or not in effect (Figure 13). This was a newly added question to the 2017 survey and since then little progress has been made except in the Eastern Mediterranean and Western Pacific regions.

Figure 13

Percentage of countries with a policy, strategy or action plan for oral health, by WHO region and World Bank income group



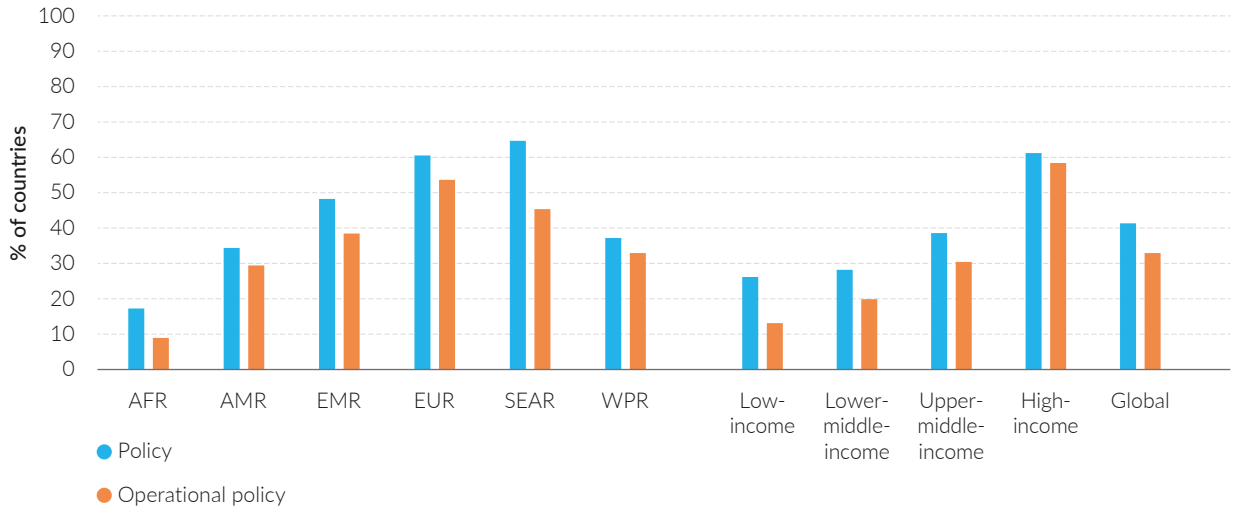
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

NCD-related research

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 just 33% of countries globally, with an additional 8% of countries reporting having a policy under development or not in effect (Figure 14). Such policies were far more likely to be available in high-income countries (58%) than in low-income countries (13%); only the European Region had more than half of countries (53%) with operational policies. A new question added to the 2019 survey addressed the existence of national networks for NCD-related research that included community-based research and evaluation of the impact of interventions and policies. Only one in five countries (20%) had such a network in place, three quarters of which were located in the Eastern Mediterranean, European or South-East Asia regions.

Figure 14

Percentage of countries with an NCD-related research policy, by WHO region and World Bank income group



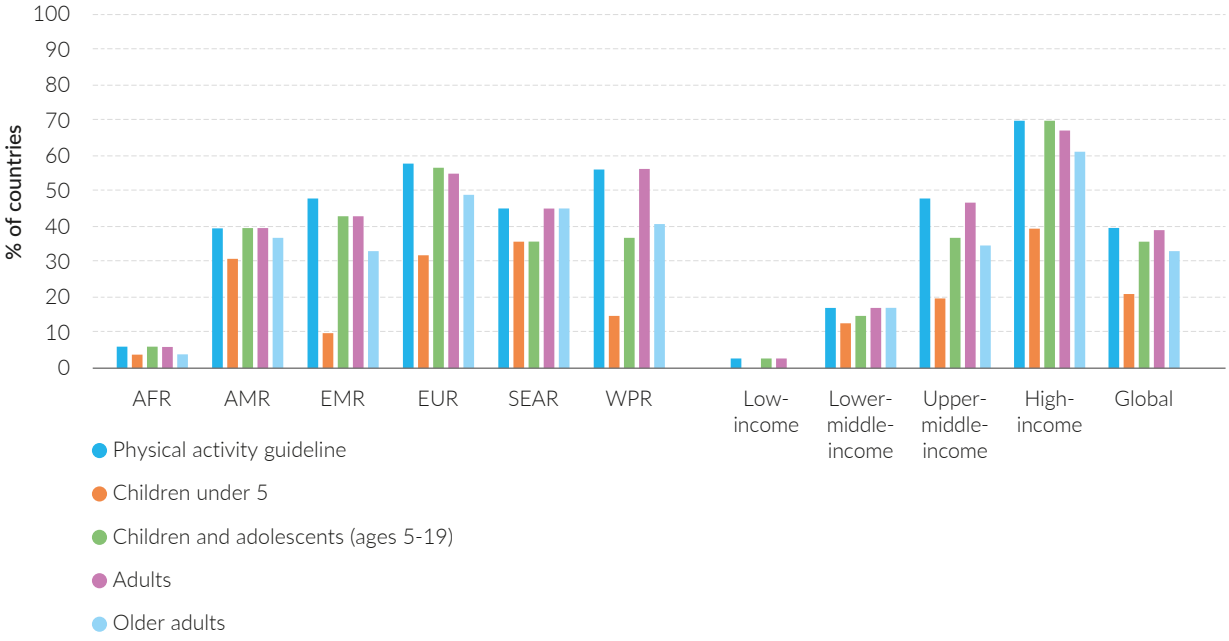
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Physical activity guidelines

In 2019 countries were asked for the first time about the availability of national guidelines that provided recommended levels of physical activity for the population, or a specific segment of the population. Just 40% of countries reported having guidelines for physical activity; more than half of these were high-income countries (Figure 15). Only one low-income country reported having such guidelines. Of those countries with guidelines available, virtually all had guidelines specifically for adults and nearly all (90%) had guidelines for children and adolescents. Guidelines for older adults were slightly less common (82% of countries with guidelines) while guidelines for children aged under five years were available in just 21% of countries overall, or just over half of all countries having any physical activity guidelines.

Figure 15

Percentage of countries with national physical activity guidelines, including age groups covered by guidelines, by WHO region and World Bank income group



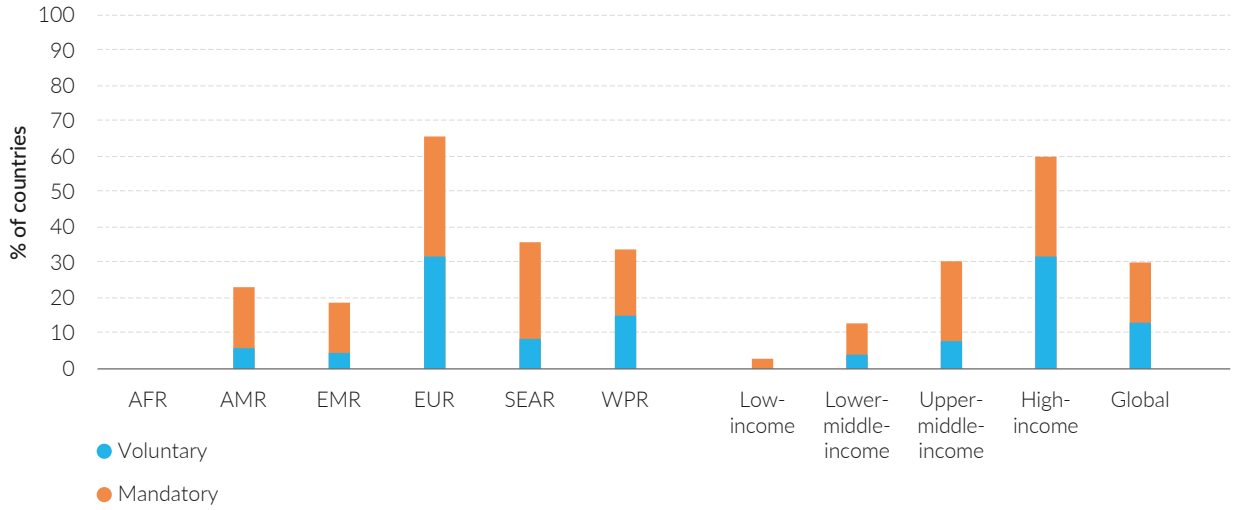
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Marketing to children

One of the measures tracked in the NCD Progress Monitor was whether countries had implemented restrictions on the marketing of unhealthy foods to children. Only 60 countries (31%) had implemented marketing policies, more than half of which were in the European Region (Figure 16). No countries in the African Region, and approximately a third of countries in the South-East Asia and Western Pacific regions, had implemented marketing policies. Across all regions, mandatory policies were more prevalent than voluntary policies, yet in the European and Western Pacific regions, both types were roughly equally prevalent. In contrast to low- and middle-income countries, voluntary policies were more common among high-income countries.

Figure 16

Percentage of countries with a policy to reduce the impact on children of the marketing of foods and non-alcoholic beverages high in saturated fats, trans-fatty acids, free sugars, or salt, and the method of regulation, by WHO region and World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Food regulation and policy

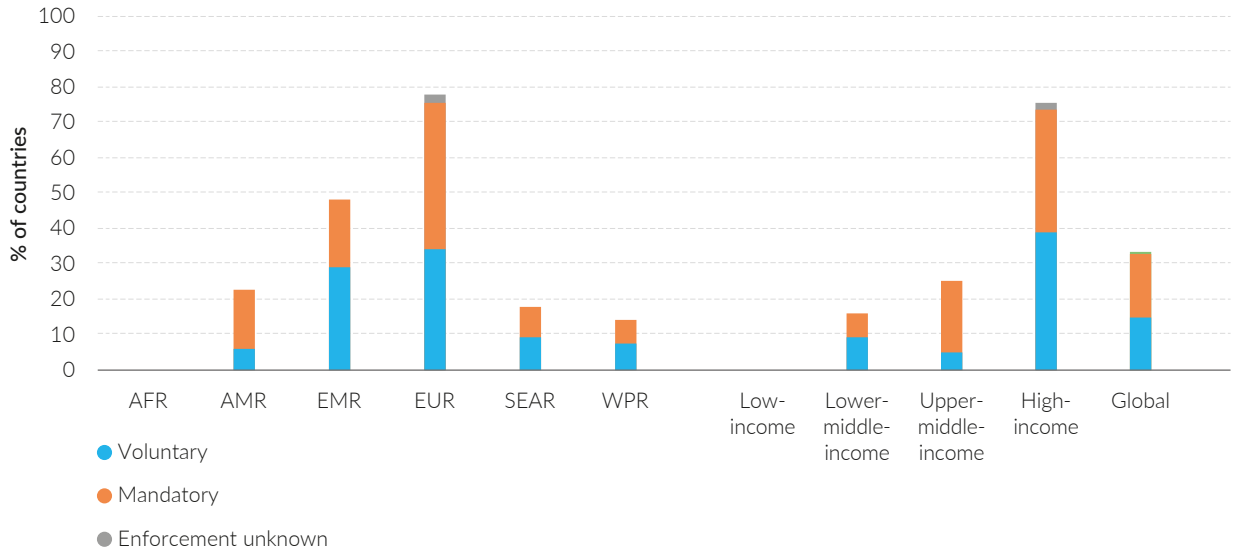
Countries were asked about a number of policies aimed at reducing the consumption of salt and fat in the population, including a new question on front-of-pack labelling systems that had been implemented. A third of countries (34%) had policies to reduce the intake of saturated fatty acids, with just over half of these being mandatory policies (Figure 17a). No low-income and only one in five middle-income countries had such policies in place. With the exception of the European Region (77%) and the Eastern Mediterranean Region (48%), fewer than a quarter of countries in each region had policies in place that addressed the intake of saturated fatty acids.

Policies to virtually eliminate trans-fatty acids from the food supply were not very prevalent; just 37% of countries reported having such policies in place (Figure 17b). These policies were predominantly mandatory (73% of countries with policies) and were far more prevalent in high-income countries (74%) and in the European (81%) and Eastern Mediterranean regions (48%). Only 30% of countries had policies covering both saturated fat and trans-fat, thus fully achieving the related Progress Monitor indicator; two thirds of these countries were in the European Region.

Figure 17

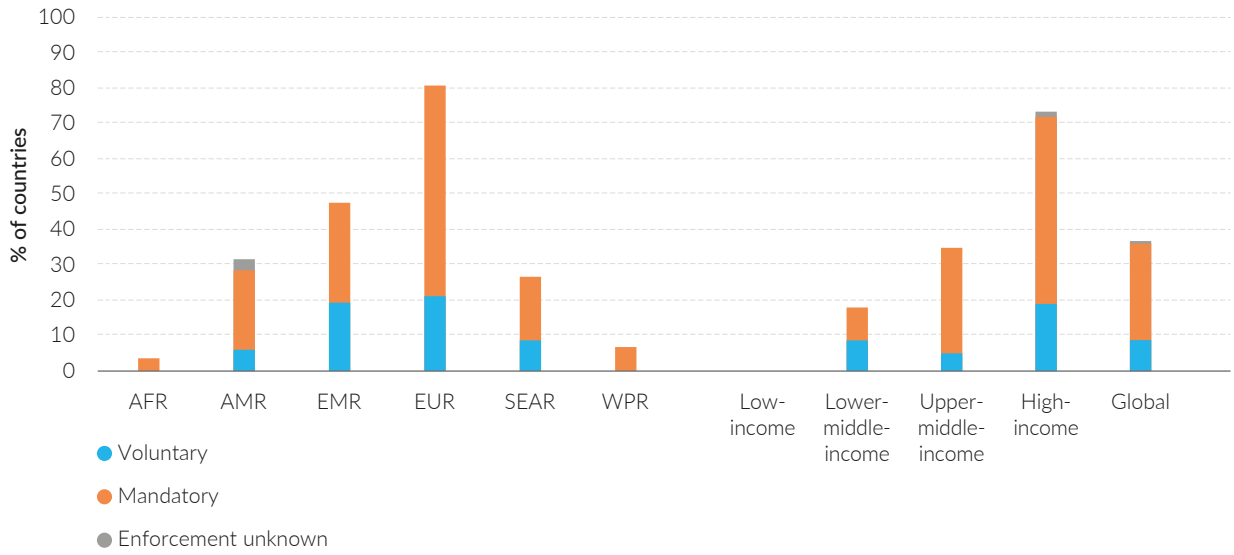
Percentage of countries with fat-related policies and the method of regulation, by WHO region and World Bank income group

a) Policies to reduce population saturated fatty acid intake



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

b) Policies to eliminate industrially produced trans-fatty acids in the food supply



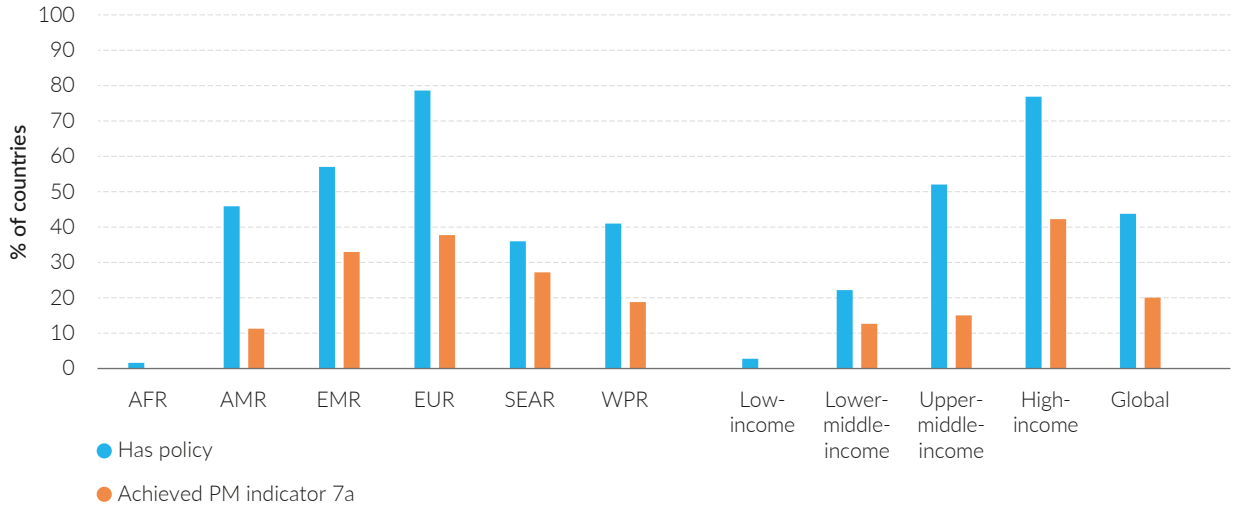
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Several of the recommended "Best Buys" pertain to the reduction of salt consumption in the population. Countries were asked to report not only on the existence of policies to reduce salt consumption, but also more specifically on "Best Buy" interventions – namely product reformulation; regulation of salt content in specific settings, such as schools and hospitals; public awareness programmes; and front-of-pack nutrition labelling. The Progress Monitor indicator pertaining to salt policies captures all of these aspects of salt reduction efforts in the country; countries must indicate that they have implemented

product reformulation and/or salt content regulation as well as a public awareness programme and front-of-pack nutrition labelling in order to be scored as "fully achieved" for this indicator. While 44% of countries reported having a salt policy in place, only 20% fully achieved the Progress Monitor indicator on salt reduction policies (Figure 18). Once again, policies were found to be most prevalent in the European (79%) and Eastern Mediterranean (57%) regions, while all other regions had fewer than half of countries with salt policies in place. A clear pattern of increasing prevalence of salt policies with rising income group was also evident.

Figure 18

Percentage of countries with any policy to reduce population salt consumption and that achieved Progress Monitor (PM) indicator 7a, by WHO region and World Bank income group

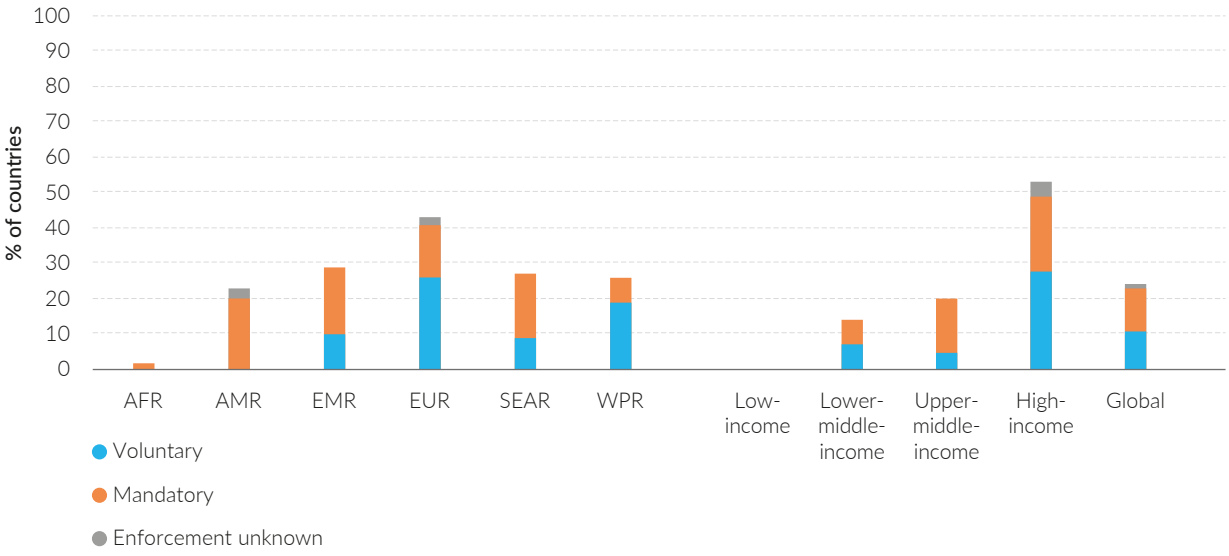


AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

A new question added to this round of the survey asked countries to report on policies on front-of-pack labelling to identify foods high in saturated fatty acids, trans-fatty acids, free sugars, or salt. Only one in four countries (25% overall), most commonly in the European Region (43% of countries) reported implementing a front-of-pack labelling policy. With the exception of the African Region, where only one country reported implementing front-of-pack labelling, roughly a quarter of countries in each of the other regions reported having such labelling systems in place. Mandatory front-of-pack labelling policies were only slightly more prevalent than voluntary policies, a pattern from which only the Region of the Americas deviated. In this region, all policies were reported to be mandatory, except in one country where enforcement type was not reported.

Figure 19

Percentage of countries implementing policies on front-of-pack labelling, by WHO region and by World Bank income group



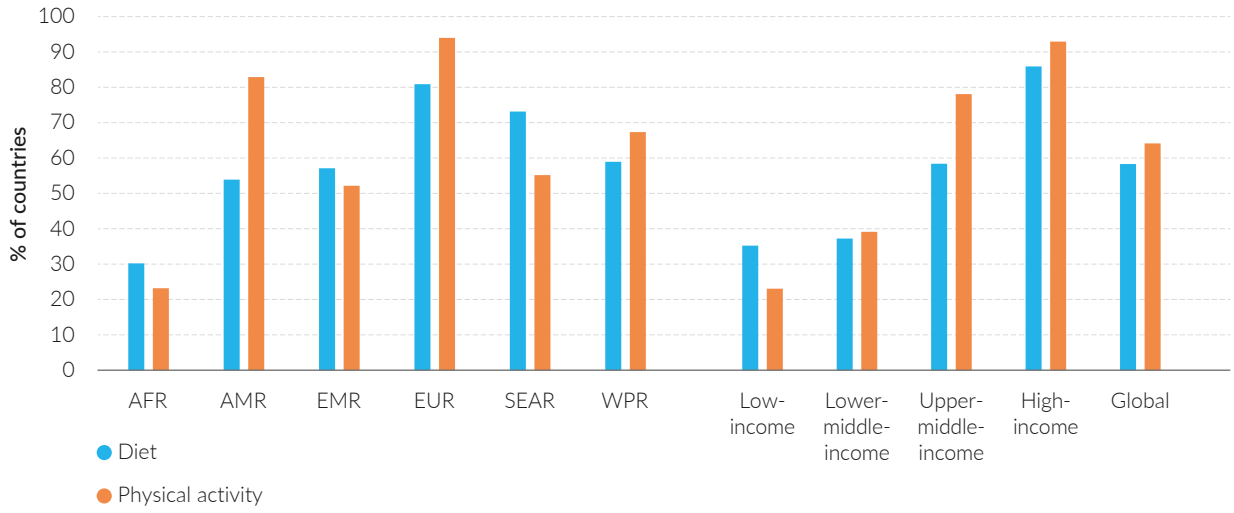
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Public awareness campaigns and mass participation events

While public awareness campaigns for physical activity have been labelled a "Best Buy", campaigns on diet are also a recommended intervention. Figure 20 shows the percentage of countries that have implemented a public awareness campaign for diet and physical activity during the past two years. More than half of countries in all regions except for the African Region have implemented both types of campaign during this time period. A strong relationship was evident between income group and the likelihood of either type of campaign being implemented: among low-income countries, only a third (35%) had implemented a campaign for diet, and less than a quarter (23%), for physical activity; in contrast, among high-income countries, 86% had implemented campaigns for diet, and 93% for physical activity. Campaigns for physical activity were somewhat more prevalent, except in low-income countries and the African, Eastern Mediterranean and South-East Asia regions.

Figure 20

Percentage of countries that have implemented a public awareness programme in the past two years that addresses diet or physical activity, by WHO region and by World Bank income group

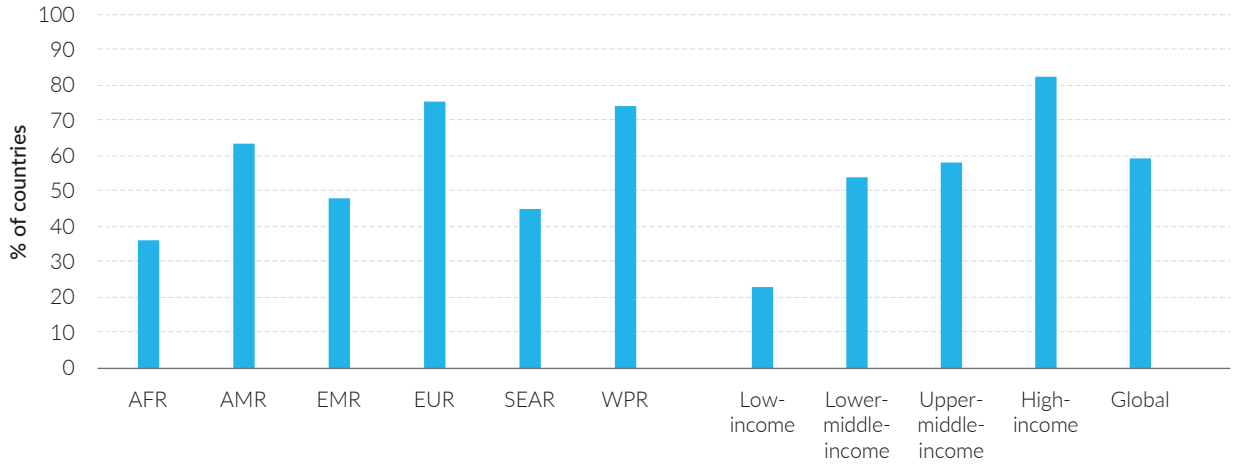


AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

A newly added question in the 2019 survey requested countries to report on whether any national or subnational mass participation events had taken place during the past two years. The instructions stressed that "mass participation events" referred to free events that did not require paid participation, and where participation of the general public was encouraged. Some 59% of countries reported having implemented at least one mass participation event during this time period. The overall pattern was similar to that seen in the implementation of physical activity awareness campaigns, with a strong positive correlation between numbers of events and income group: high-income countries (82%) were more than three times as likely to have implemented a mass participation event than low-income countries (23%).

Figure 21

Percentage of countries that have implemented a mass participation event in the past 2 years, by WHO region and by World Bank income group



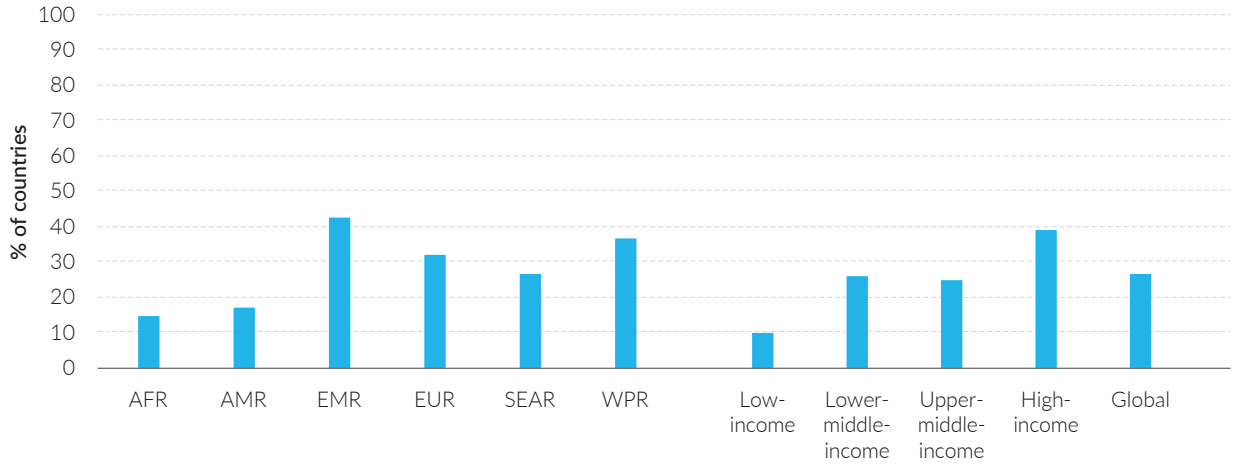
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

mHealth initiatives

Another new question added to the 2019 survey asked countries to report on any NCD-related mHealth initiatives that had been implemented in their country during the past two years. This question referred to programmes that utilized mobile and wireless technologies to support the achievement of health objectives, such as for tobacco cessation or cervical cancer screening awareness. Just over a quarter (27%) of all countries reported having implemented an mHealth initiative recently; differences among regions and income group were less stark than with other interventions described earlier in this section. Of the 52 countries reporting an mHealth initiative, more than half were from the middle-income range, and two thirds were from all regions apart from the European Region.

Figure 22

Percentage of countries that have implemented a national, NCD-related mHealth initiative, by WHO region and by World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

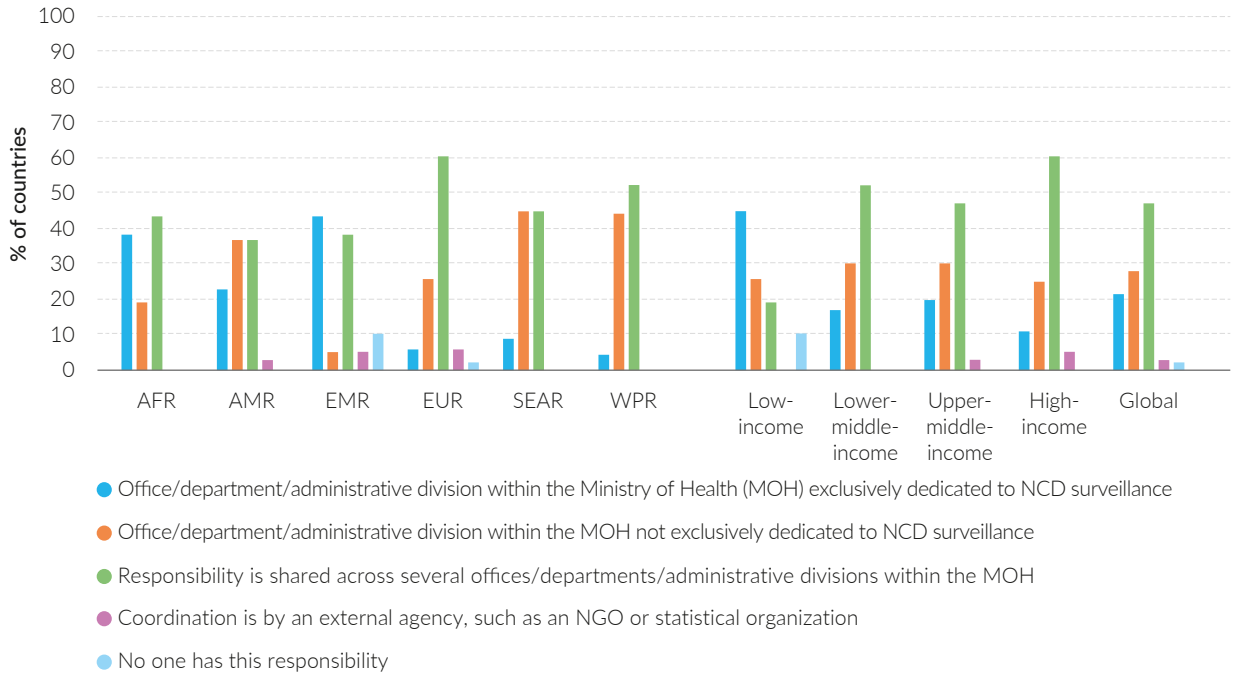
Surveillance

Surveillance responsibility

Responsibility for the surveillance of NCDs and their risk factors was most commonly shared across several offices/departments/administrative divisions within the Ministry of Health, both globally (47% of countries) and in almost all WHO regions, except for the Eastern Mediterranean Region, and across all income categories except for low-income countries. Conversely, having an office, department, or administrative division within the Ministry of Health exclusively dedicated to NCD surveillance was most common in low-income countries (45%) and in the Eastern Mediterranean Region (43%). Coordination by an external agency, such as a non-governmental organization (NGO) or statistical organization for the surveillance of NCDs and their risk factors was far less prevalent; only 3% of countries in the upper-middle-income group and 5% in the high-income group reported this. In general, with the exception of three low-income countries, all countries reported having an institution responsible for the surveillance of NCDs and their risk factors (Figure 23).

Figure 23

Percentage of countries with an area of responsibility for the surveillance of NCDs and their risk factors, by WHO region and World Bank income group



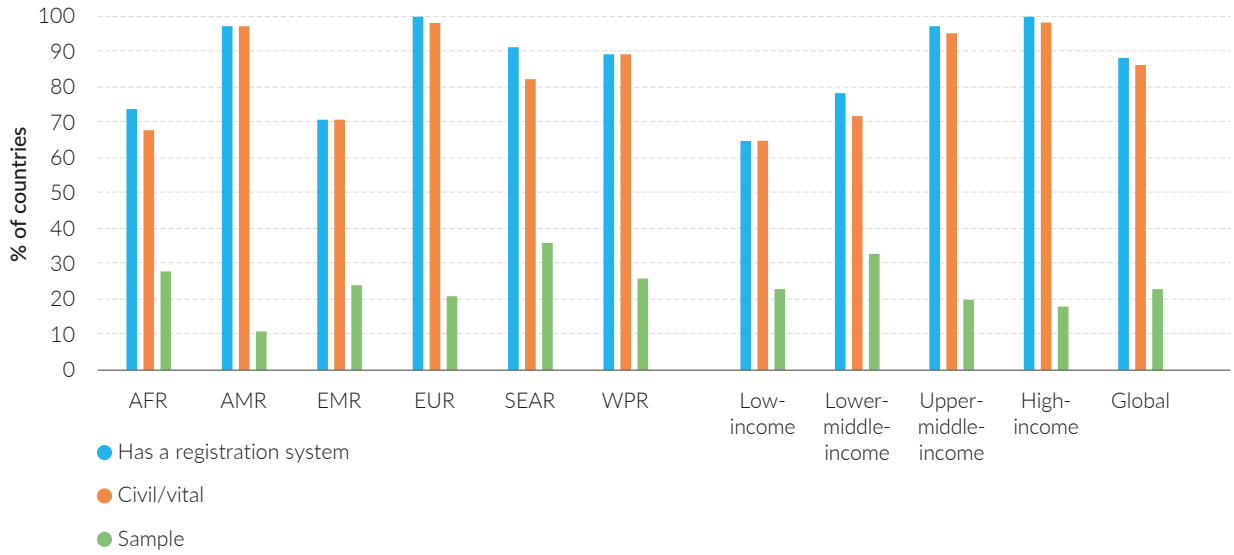
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Civil and vital registration systems reporting mortality by cause

The availability of a system for collecting mortality data by cause of death was reported by a majority of countries globally (88%); most of these had a civil/vital registration system (86% of all countries), as opposed to a sample-registration system (Figure 24). While virtually all high-income (100%) and upper-middle-income (97%) countries had systems in place to collect mortality data, just under two thirds of low-income countries and just over three quarters of lower-middle-income countries had such systems in place. Across WHO regions, mortality data systems were most frequently reported in the European Region (100% of countries) and the Region of the Americas (97% of countries), and least reported in the African Region (74%) and Eastern Mediterranean Region (71%).

Figure 24

Percentage of countries with a system for collecting mortality data by cause of death and the type of registration system, by WHO region and World Bank income group



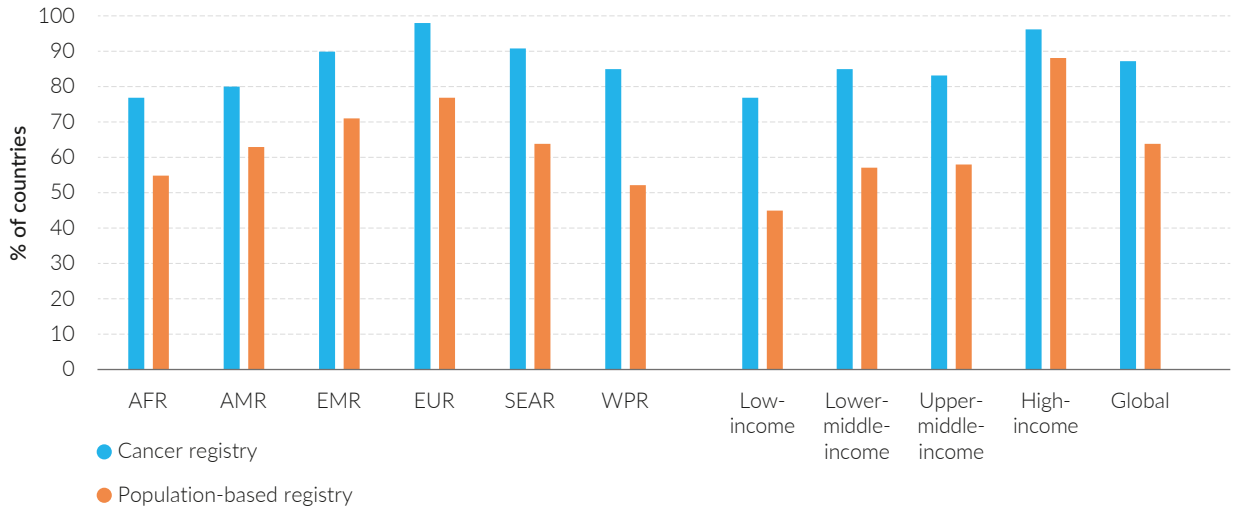
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Cancer registries

While the availability of a cancer registry was reported by 87% of countries globally, the availability of a population-based cancer registry was less widespread (64%). Across income groups, availability of population-based cancer registries ranged from 88% of high-income countries to just 45% of low-income countries, although hospital-based registries were available in an additional 32% of low-income countries. Population-based registries were most commonly reported in countries in the European Region (77%) and the Eastern Mediterranean Region (71%) and least commonly reported in the African Region (55%) and Western Pacific Region (52%) (Figure 25). The availability of population-based cancer registries has been tracked in the 160 countries that have responded to the last five rounds of the survey and clear progress has been made: whereas in 2010, only 47% of the 160 countries reported having a population-based cancer registry, this rose to 69% in 2019. The most notable progress was seen in the African Region, where among the 30 countries responding to all rounds of the survey, the number having population-based cancer registries leapt from only eight countries in 2010 to 19 in 2019.

Figure 25

Percentage of countries with cancer registries, and type of registry, by WHO region and World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

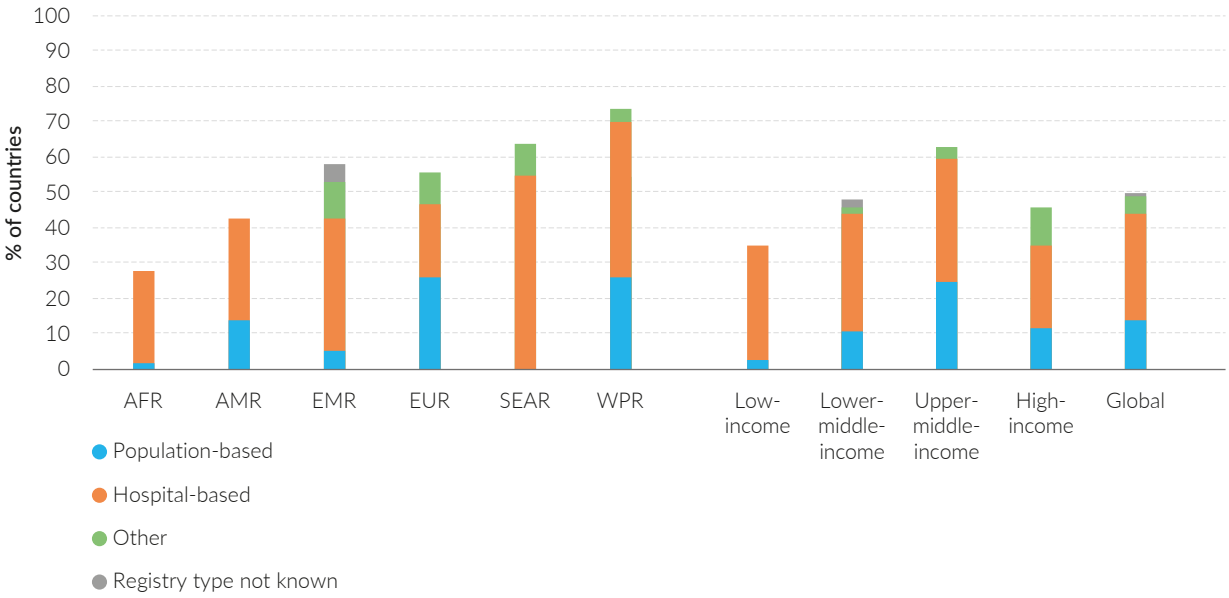
Diabetes registries

Half of all countries (50%) reported having a diabetes registry; the majority of which were hospital-based (61% of countries with diabetes registries) (Figure 26). Across income groups, diabetes registries were most prevalent in upper-middle-income countries (63%), and least prevalent in low-income countries (35%).

Across regions, the Western Pacific Region reported the highest percentage of countries with any kind of diabetes registry (74%) followed by the South-East Asia Region (64%). Population-based diabetes registries were most prevalent in the Western Pacific Region and the European Region (26% of countries in each region); the South-East Asia Region reported having hospital-based registries only.

Figure 26

Percentage of countries with a diabetes registry, and type of registry, by WHO region and World Bank income group



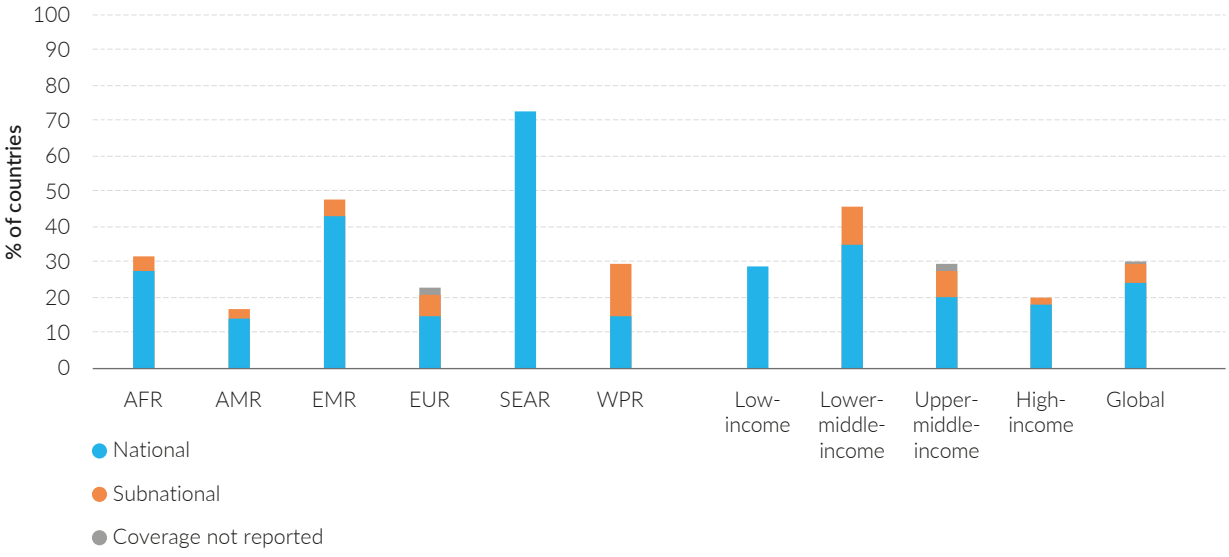
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Service availability and readiness

Nearly a third of countries (30%) had conducted a facility survey to assess service availability and readiness for NCDs; 80% of countries had conducted such a survey at the national level (Figure 27). Countries in the South-East Asia (73%) and Eastern Mediterranean (48%) regions, as well as countries in the lower-middle-income category (46%), were most likely to have conducted a survey on NCD facilities.

Figure 27

Percentage of countries that have conducted a survey of facilities to assess service availability and readiness for NCDs, by WHO region and World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

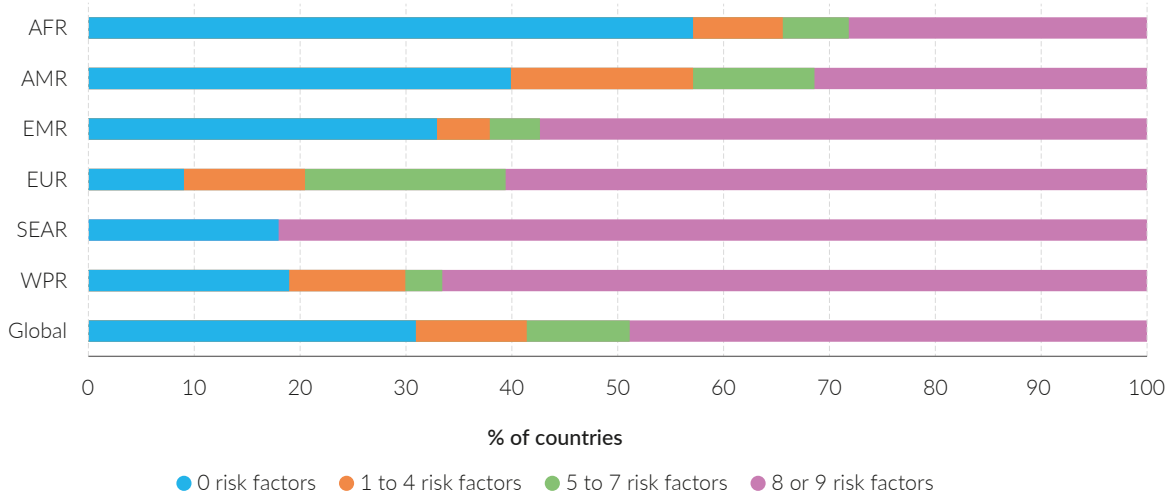
Risk factor surveys

Almost half of countries (49%) had conducted recent, national surveys among adults for eight or nine of the NCD risk factors: harmful alcohol use, unhealthy diet, physical inactivity, tobacco use, overweight and obesity, raised blood pressure, raised blood glucose, raised cholesterol, and sodium intake. Across WHO regions, at least half of countries had covered a similar number of risk factors in their surveys, except for countries in the African Region (28%) and the Region of the Americas (31%) (Figure 28a). While many countries in the Region of the Americas had covered between one and seven of the risk factors in a recent, national survey, the proportion of countries was far smaller in the African Region with 57% of countries having no recent, national survey activity on NCD risk factors among adults. Across income groups, 71% of low-income countries and just over a third (35%) of lower-middle-income countries had not conducted a recent, national survey of any of the NCD risk factors (Figure 28b).

Figure 28

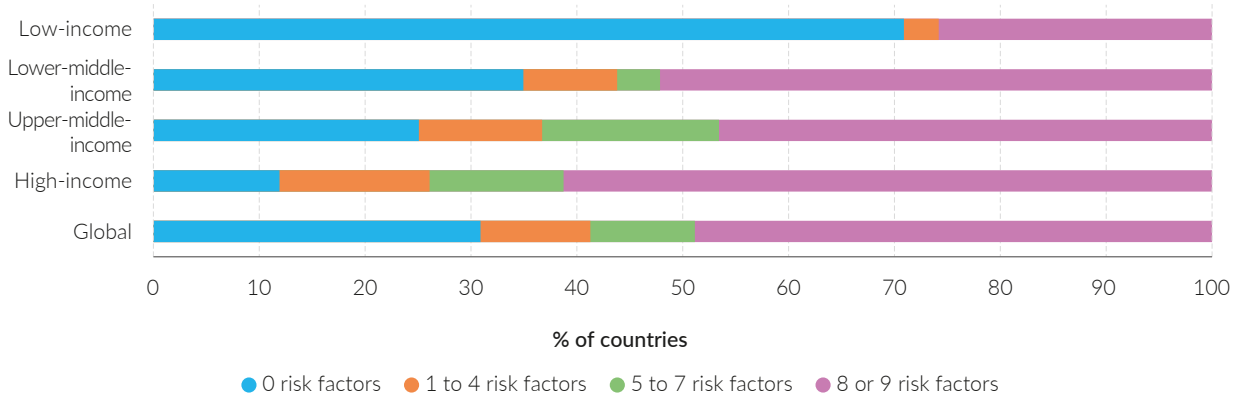
Percentage of countries covering 0–9 risk factors in recent, national adult NCD risk factor surveys

a) By WHO region



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

b) By World Bank income group

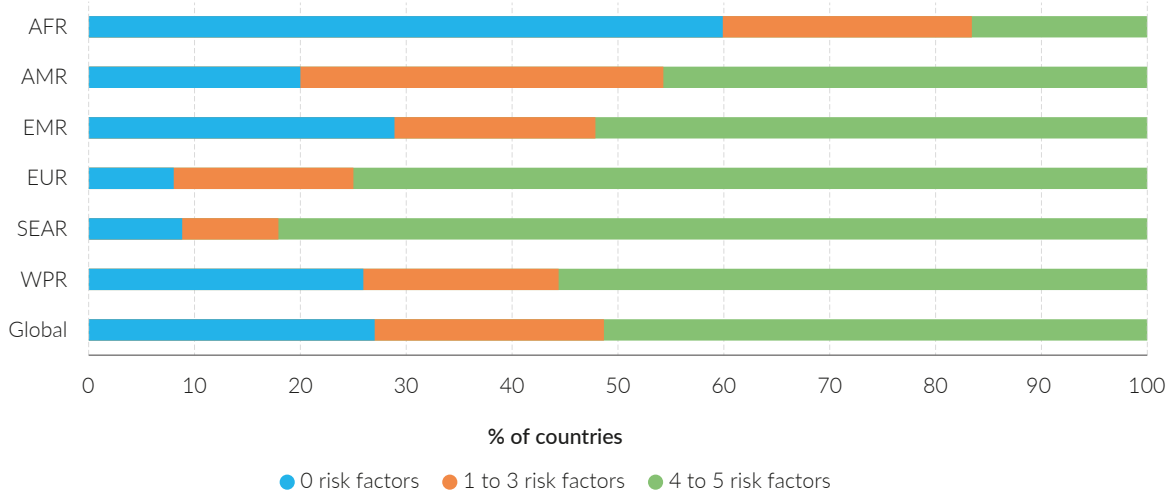


For adolescents, countries were questioned on surveys addressing five of the key risk factors for NCDs: harmful alcohol use, unhealthy diet, physical inactivity, tobacco use, and overweight and obesity. Just over half of countries (51%) had conducted a recent, national survey among adolescents covering at least four of these five risk factors (Figure 29a). As seen in the surveys of risk factors for adults, the African Region had the highest percentage of countries (60%) that had conducted no recent, national surveys. All other regions had fewer than 30% of countries with no recent, national surveys (Figure 30a). All but five high-income countries had covered at least one risk factor in a recent, national survey, while only 39% of low-income countries had done the same (Figure 29b).

Figure 29

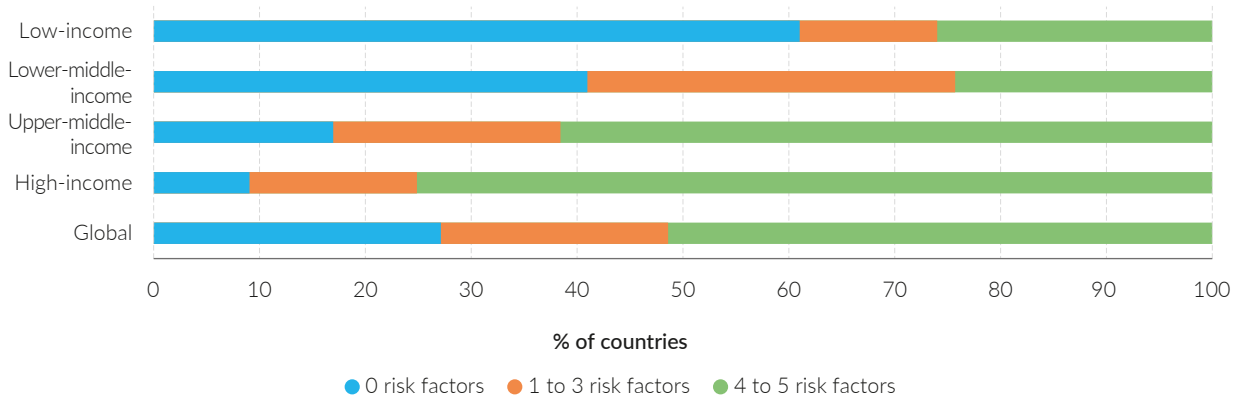
Percentage of countries covering 0–5 risk factors in recent, national adolescent NCD risk factor surveys

a) By WHO region



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

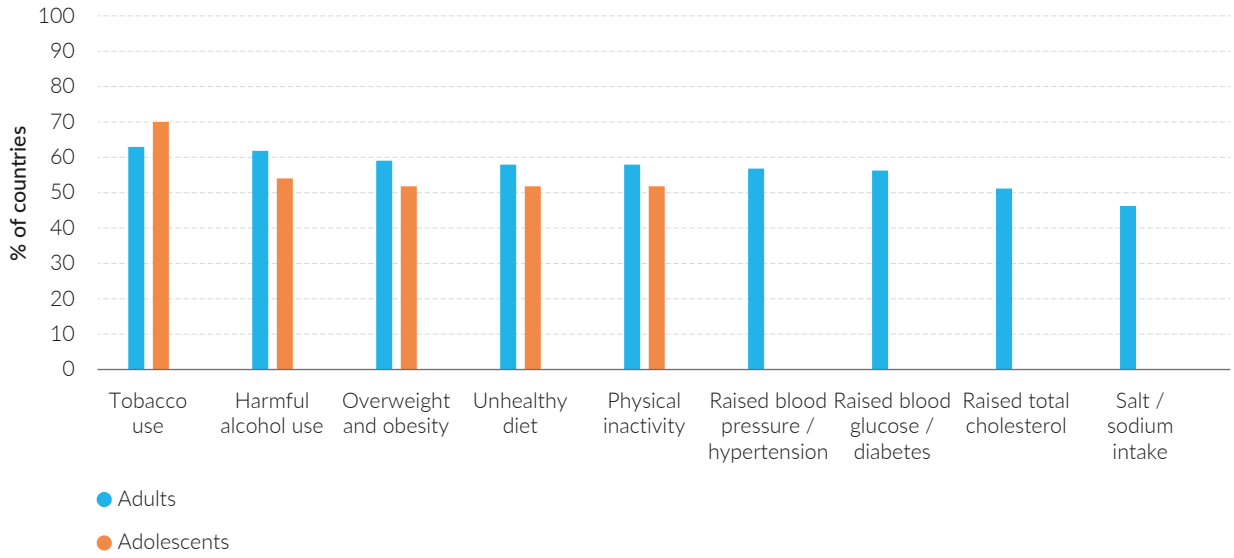
b) By World Bank income group



Of all NCD risk factors, tobacco use was the most commonly included in both adult and adolescent national surveys (Figure 30). Differences in the prevalence of surveys covering each of the risk factors were not particularly striking and ranged from a high of 63% of countries for tobacco use, to 46% for salt/sodium consumption – the least commonly covered. Likewise, with adolescents, tobacco use was covered by surveys in 70% of countries and all the other risk factors by 52–54% of countries.

Figure 30

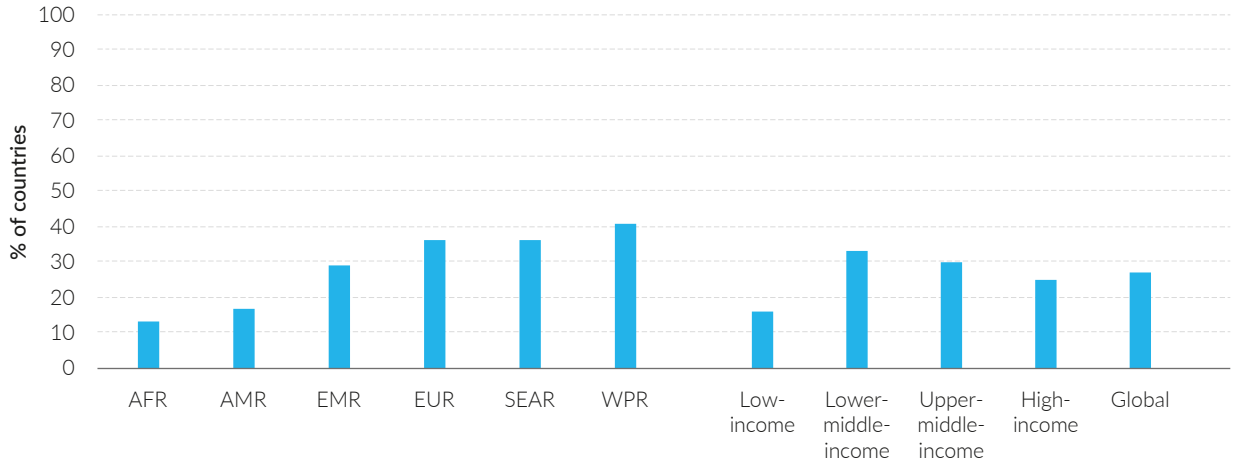
Percentage of countries that have conducted recent, national adult or adolescent risk factor surveys, by risk factor



For a country to fully achieve the Progress Monitor indicator on surveillance (see Box 2), it must have conducted a survey(s) covering harmful alcohol use, physical inactivity, tobacco use, overweight and obesity, raised blood pressure, raised blood glucose and sodium intake within the past five years (i.e. in 2014 or later) and indicate that the survey(s) was conducted at least once every five years. Only one in four countries (27%) had fully achieved this indicator, the highest prevalence being in countries of the Western Pacific Region (41%) (Figure 31). Only six countries in each of the African Region, the Region of the Americas and Eastern Mediterranean Region fully achieved the indicator. Countries in the middle-income category had the highest proportion of countries fully achieving this indicator (31%); those in the low-income group had the lowest (16%).

Figure 31

Percentage of countries that fully attained Progress Monitor indicator 3, on regular health examination surveys, by WHO region and World Bank income group

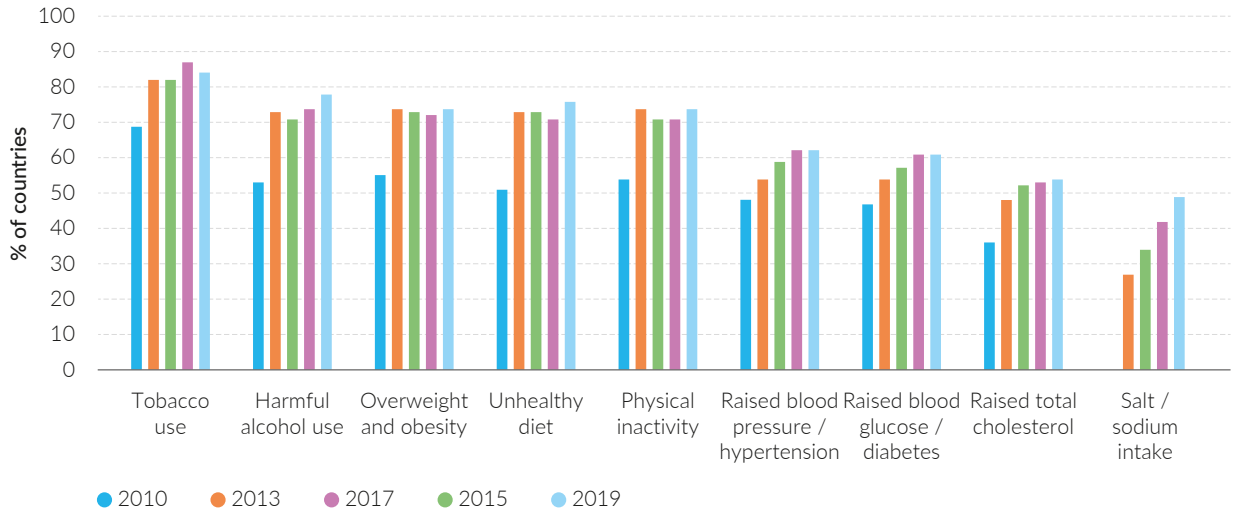


AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

The number of countries conducting recent national surveys on the nine major NCD risk factors has increased consistently since 2010. While salt/sodium intake was always the least likely to be covered by a survey in countries, substantial progress has been made in coverage of this risk factor since 2013: prevalence of salt/sodium intake saw the greatest increase since 2017 of any NCD risk factor. Tobacco use continued to be the most widely covered NCD risk factor in recent, national surveys, although data on all the other behavioural risk factors, as well as overweight and obesity, were nearly as widely collected (Figure 32).

Figure 32

Percentage of countries that have conducted recent, national risk factor surveys, 2010, 2013, 2015, 2017 and 2019*

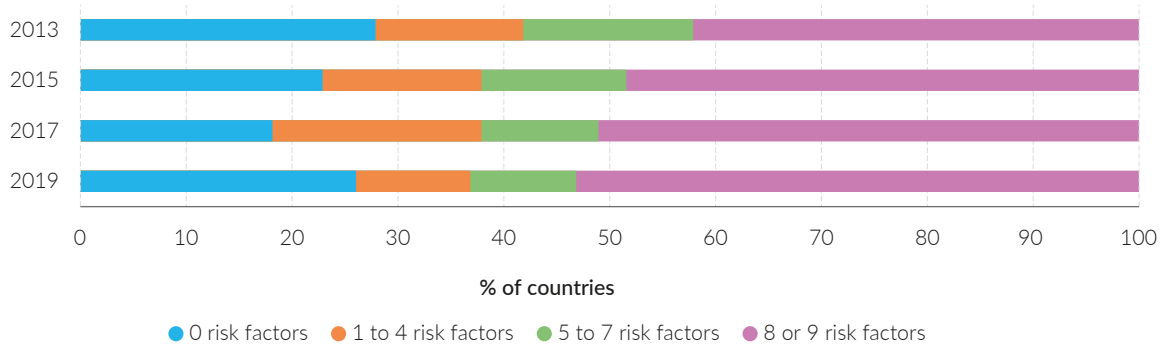


* of 160 countries that responded to all 5 surveys

Since 2013, countries have surveyed adult and adolescent risk factor activity separately; thus progress made in each of these areas can be reviewed individually (Figure 33). While there has been a small but steady increase in the number of countries covering eight or nine risk factors in recent, national surveys, the percentage of countries not covering any risk factor in a recent, national survey has remained consistent at around a quarter (28% in 2013; 26% in 2019). The trend was far more flat in risk factor surveys of adolescents, with half of countries providing steady coverage of four to five of the NCD risk factors since 2013. The proportion of countries having no recent, national survey that covered even one of the NCD risk factors fluctuated slightly from a low of 19% in 2017, to a high of 25% in 2019 (Figure 34).

Figure 33

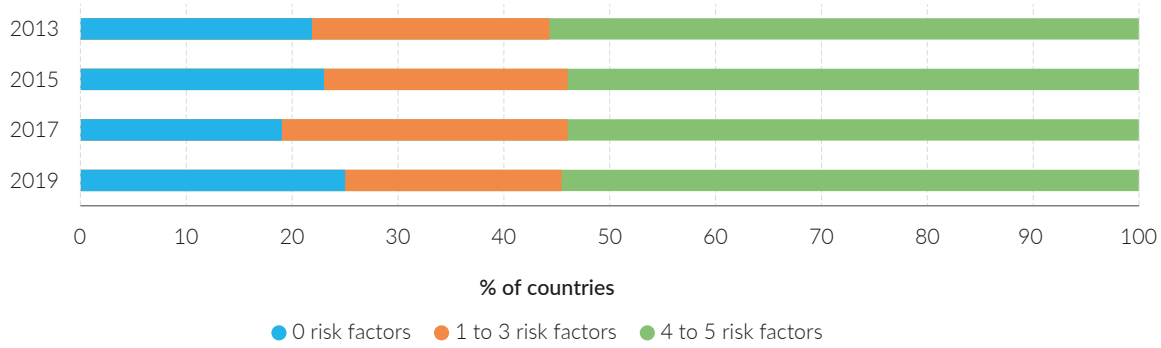
Percentage of countries that have conducted recent, national adult risk factor surveys, 2013, 2015, 2017 and 2019*



* of 160 countries that responded to all 4 surveys.

Figure 34

Percentage of countries that have conducted recent, national adolescent risk factor surveys, 2013, 2015, 2017 and 2019*

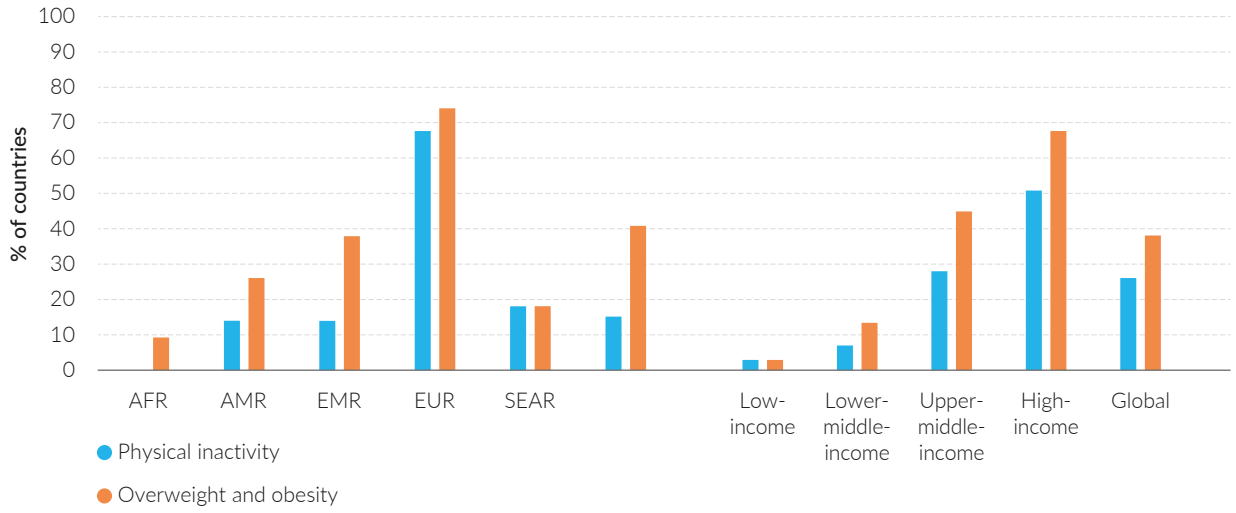


* of 160 countries that responded to all 4 surveys.

For the first time, in the 2019 questionnaire, countries were asked about any surveillance activities they had conducted on physical inactivity, and overweight and obesity among children – two important areas of information to help countries address the rise in childhood obesity. Globally, roughly a quarter of countries (26%) had conducted national, recent surveys on physical inactivity among children, and just over a third (38%) on overweight and obesity (Figure 35). With the exception of the European Region, where more than two thirds of countries had collected data on both of these risk factors, fewer than half of countries in all other regions had conducted recent, national surveys on either risk factor. There was a marked disparity according to income group: all but one low-income country lacked a recent, national survey on these risk factors, while at least 50% of high-income countries had conducted a recent, national survey on each.

Figure 35

Percentage of countries that have conducted recent, national risk factor surveys among children, by WHO region and World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

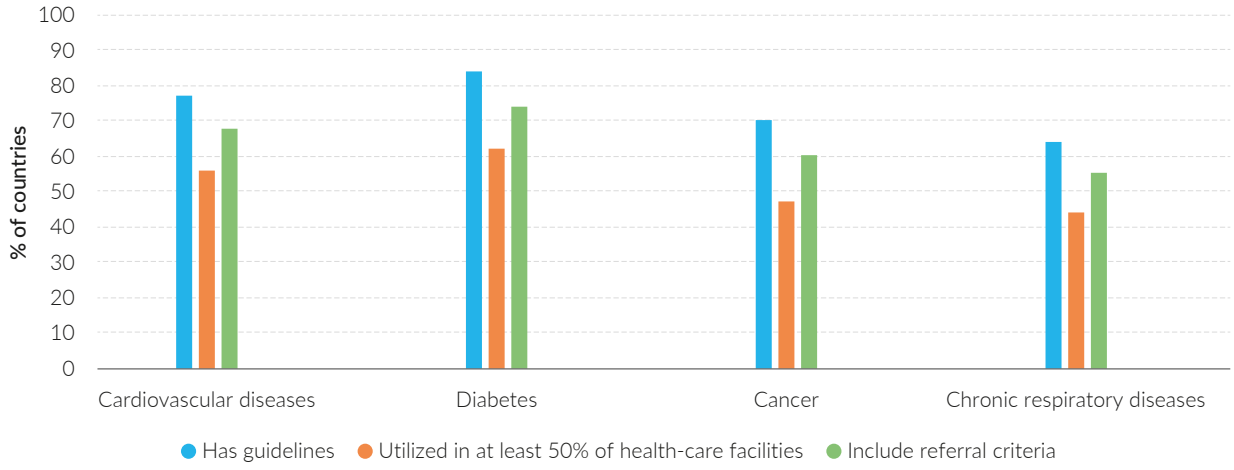
Health systems capacity

NCD-related guidelines

A set of questions captured information on the availability of evidenced-based national guidelines/protocols/standards for the management of each of the four main NCDs (cardiovascular diseases, diabetes, cancer and chronic respiratory diseases) and whether they were utilized in at least 50% of health-care facilities and included referral criteria. Globally, more than half of all countries reported having guidelines for each of the four main NCDs (Figure 36). In descending order of prevalence, 84% of countries had guidelines for diabetes, 77% of countries for cardiovascular diseases, 70% for cancer, and 64% for chronic respiratory diseases. Guidelines for diabetes, likewise, were most likely to be reported as utilized in at least 50% of health-care facilities (62% of countries, or 74% of those with diabetes guidelines), with upper-middle-income countries having the highest utilization (80% of countries). Chronic respiratory diseases were least commonly utilized globally (44% of countries), and just 16% of low-income countries reported that they were utilized in at least 50% of health-care facilities.

Figure 36

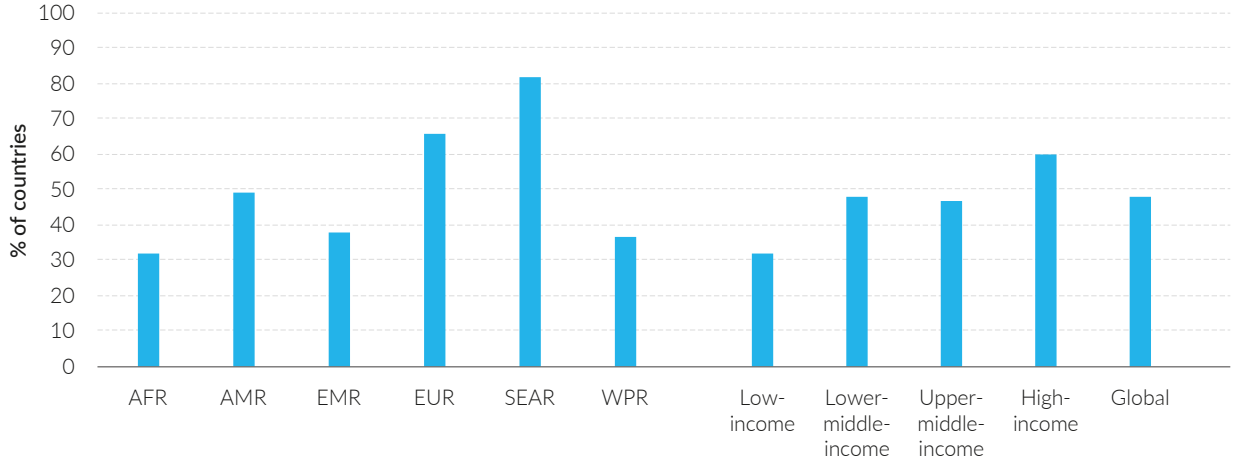
Percentage of countries that have evidenced-based national guidelines/protocols/standards for each of the four main NCDs, and whether the standard guidelines/protocols/standards are utilized in at least 50% of health-care facilities and include referral criteria



Questions on the availability of NCD guidelines for the four main NCDs informed Progress Monitor indicator 9, on NCD management guidelines (see Box 2). Countries needed to have guidelines available for all four NCDs in order to fully achieve the indicator. Guidelines solely for the management of hypertension were not accepted as cardiovascular disease guidelines; this excluded approximately 20% of reported guidelines for cardiovascular diseases. Some 48% of countries fully achieved the indicator, with little difference seen between high- and middle-income groups. Across WHO regions, the South-East Asia Region (82% of countries) and the European Region (66% of countries) had the highest achievement rates; the African Region (32% of countries), the lowest (Figure 37).

Figure 37

Percentage of countries with guidelines for all four main NCDs (Progress Monitor indicator 9), by WHO region and World Bank income group

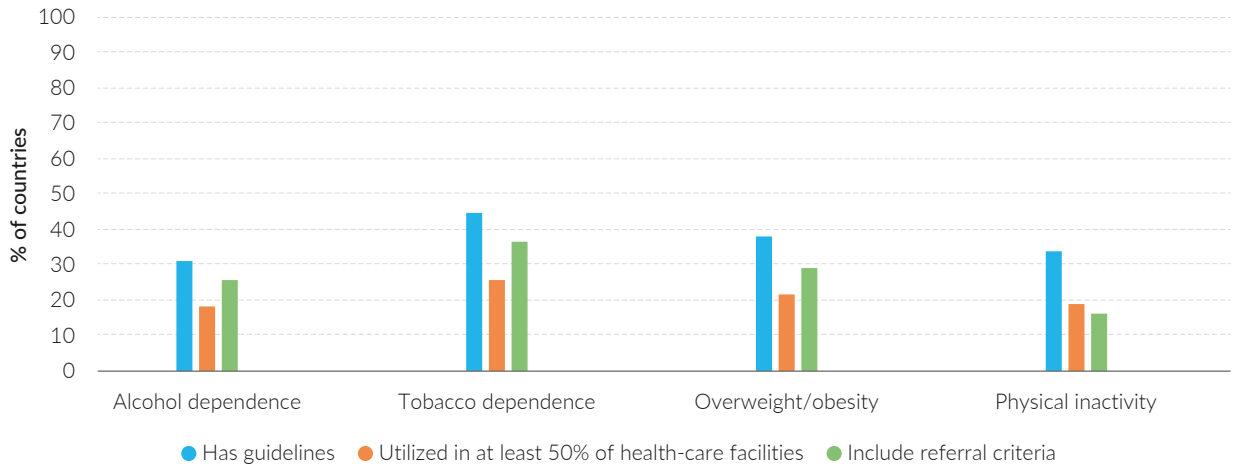


AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

In a new set of questions added to the 2019 survey, countries were asked if they had guidelines for the management of four major risk factors for NCDs (alcohol dependence, tobacco dependence, overweight/obesity, and physical inactivity). As with questions on NCD management guidelines, countries were asked to report if their risk factor management guidelines were utilized in at least 50% of health-care facilities, and if they included referral criteria. Guidelines for the management of tobacco dependence were most widely reported (45% of countries); those for the management of the other three risk factors ranged from 31% for alcohol dependence to 38% for overweight and obesity management (Figure 38). Tobacco guidelines were also most likely to be reported as utilized in at least 50% of health-care facilities (26% of countries), while around one fifth of countries reported guidelines that were widely utilized for any of the other risk factors.

Figure 38

Percentage of countries that have evidenced-based national guidelines/protocols/standards for each of the four major NCD risk factors, and whether the standard guidelines/protocols/standards are utilized in at least 50% of health-care facilities and include referral criteria



Cancer screening programmes

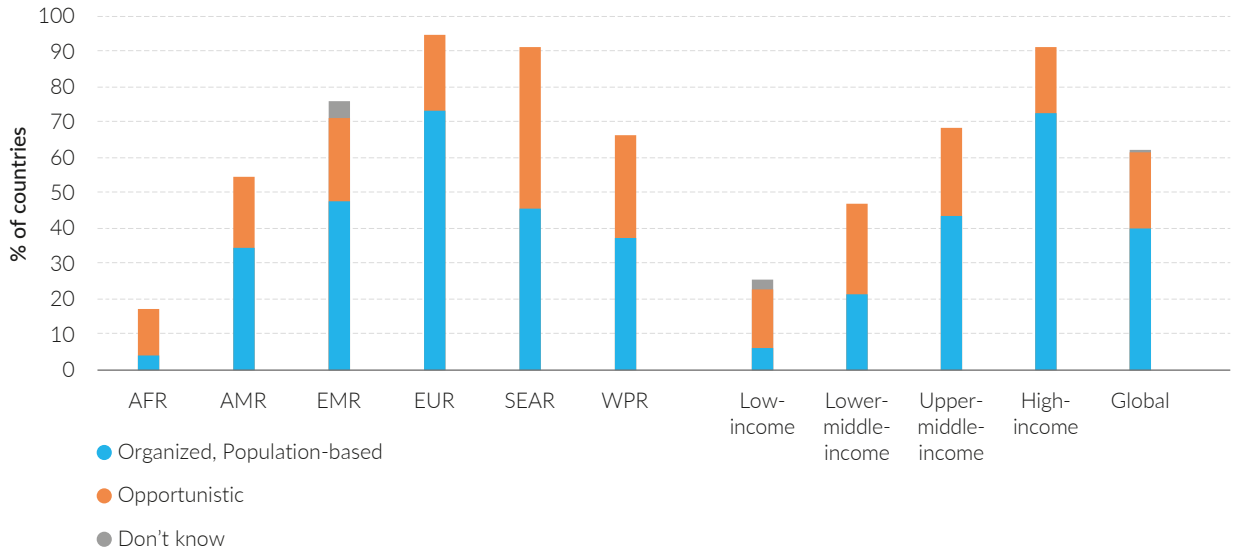
Breast cancer screening

The availability of a breast cancer screening programme was reported by 62% of countries globally (Figure 39). Regionally, availability of such programmes was highest in the European Region (94% of countries) followed by the South-East Asia Region (91% of countries). In contrast, only 17% of countries in the African Region reported having such programmes. Across World Bank income groups, breast cancer screening programmes were more prevalent in high-income countries (88%) than in middle-income (59%) and low-income countries (26%). Globally, breast cancer screening programmes were approximately twice as likely to be organized, population-based programmes (40%) than opportunistic programmes (22%). Organized, population-based programmes were far more prevalent among high-income countries and were increasingly less prevalent with decreasing income group (Figure 39a). With screening coverage, countries most commonly reported their programmes were covering just 10–50% of the target population (Figure 39b); only 11% of countries reached 70% or more of the target population. Likewise, only 10% of countries reached more than 50%, but less than 70%. Although the programmes of nearly a third of high-income countries (30%) reached at least 70% of their target population, no low-income countries had programmes reaching this target, and only 5% of middle-income countries reached this level of coverage.

Figure 39

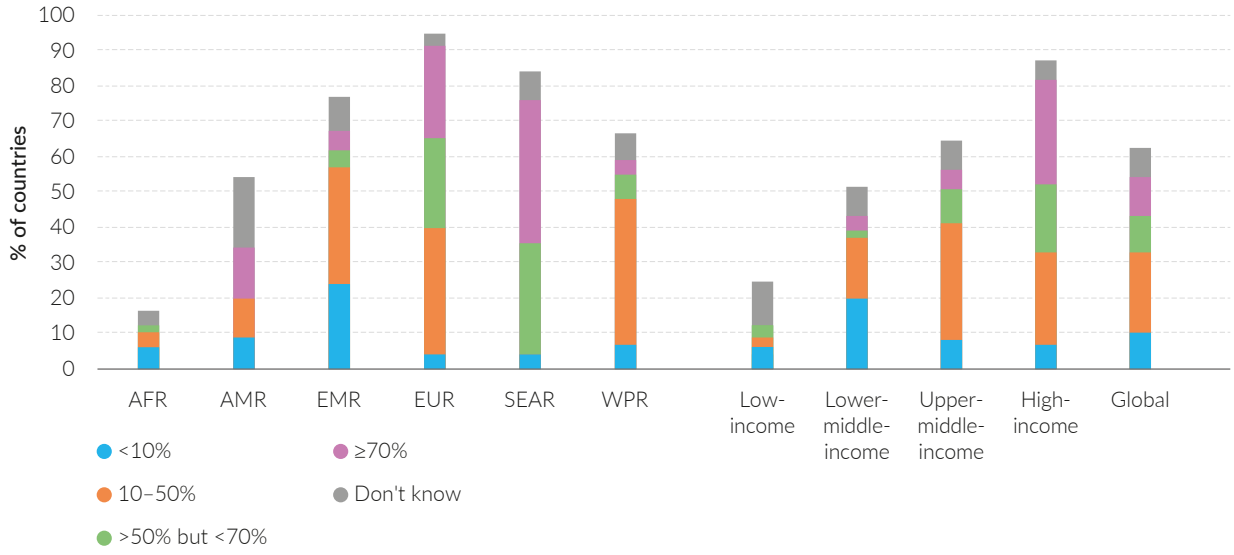
Percentage of countries with a breast cancer screening programme, the type of screening programme, and percentage of screening coverage, by WHO region and World Bank income group

a) Breast cancer screening by type of screening



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

b) Breast cancer screening by screening coverage



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Cervical cancer screening

Across all regions, 65% of countries reported having a national screening programme for cervical cancer, most of which (40% of countries or 62% of countries with screening programmes) had organized, population-based programmes, while a little more than a third of countries with programmes reported having opportunistic screening programmes (Figure 40a). Generally, availability of cervical cancer screening programmes increased with rising income group: organized, population-based programmes were far more prevalent among

high-income and upper-middle-income countries than among countries in the lower income groups. Organized, population-based programmes were also more prevalent in every region except for the African Region. With regards to screening coverage, the greatest percentage of countries (25% or 38% of countries with screening programmes) reported having cervical cancer screening programmes that reached 10–50% of the target population; most of these were from the European and Western Pacific regions (Figure 40b). Approximately a further third of countries with screening programmes reached at least 50% coverage, while the remainder reached less than 10%, or did not know the coverage of their programme.

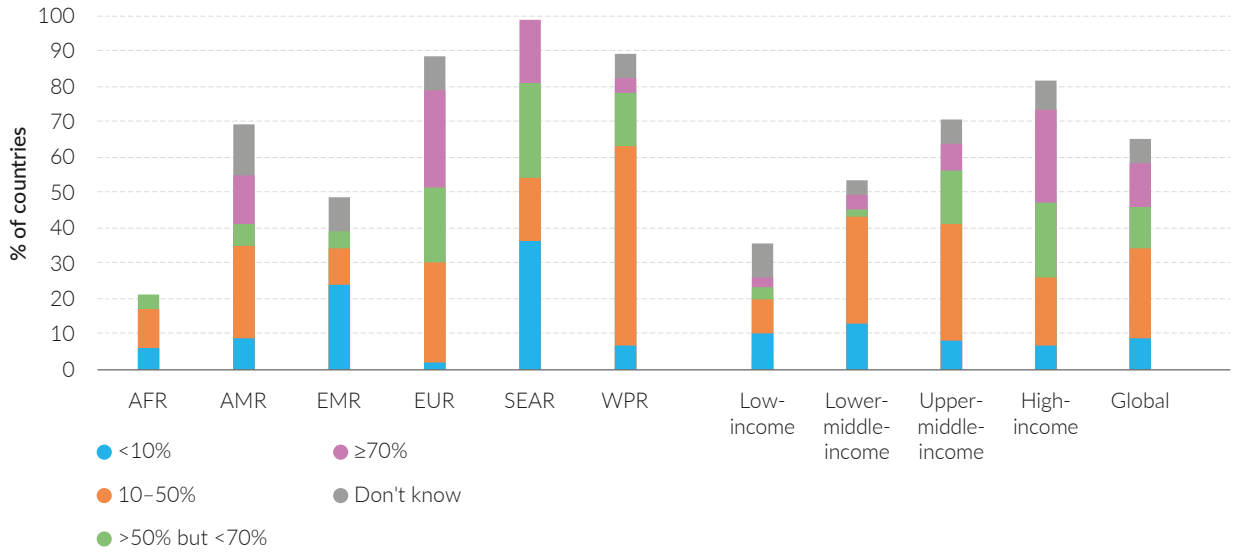
Figure 40

Percentage of countries with a cervical cancer screening programme, the type of screening programme, and percentage of screening coverage, by WHO region and World Bank income group

a) Cervical cancer screening by type of screening

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

b) Cervical cancer screening by screening coverage



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

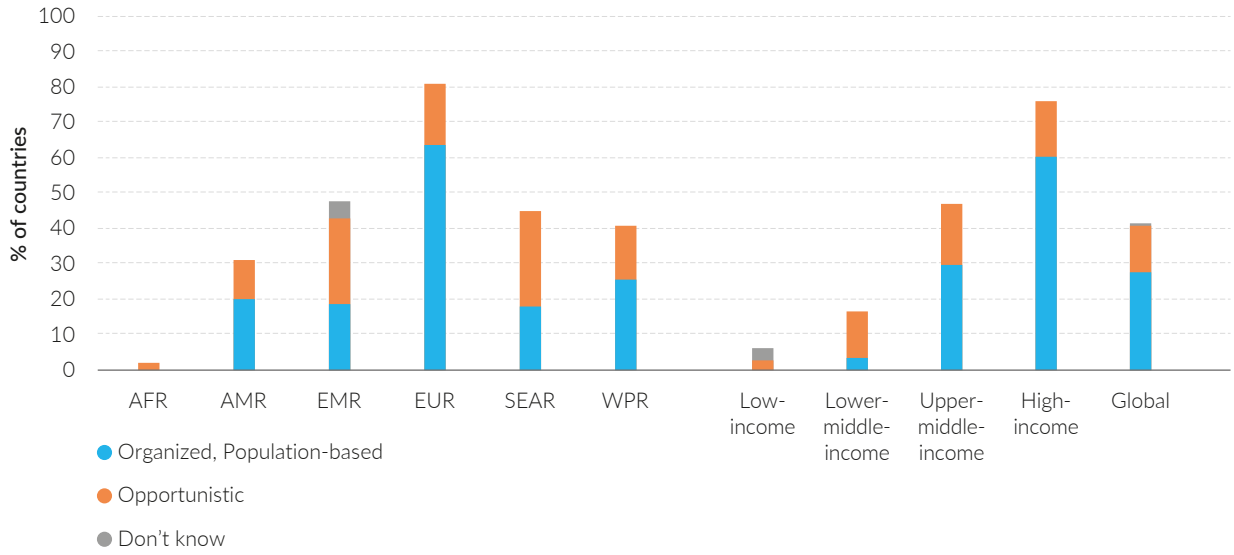
Colon cancer screening

The availability of a national colon cancer screening programme was reported by 42% of countries globally, all but 10 of which were in the high-income or upper-middle-income categories. Organized, population-based screening programmes were far more prevalent a type (67% of countries with programmes) than opportunistic programmes (32% of countries with programmes) (Figure 41a). Most programmes reached between 10–50% of their target population (40% of countries with programmes); one in five countries with programmes reached more than 50% of the population (Figure 41b). Globally, only five countries in the European Region reached at least 70% of the target population of their colon cancer screening programmes.

Figure 41

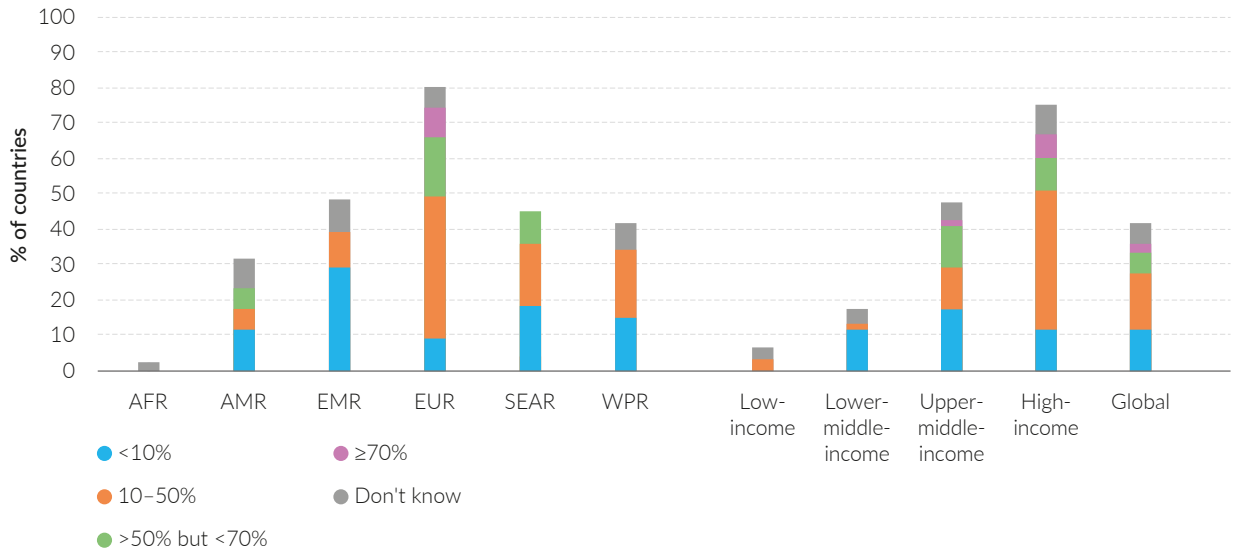
Percentage of countries with a colon cancer screening programme, the type of screening programme, and percentage of screening coverage, by WHO region and World Bank income group

a) Colon cancer screening by type of screening



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

b) Colon cancer screening by screening coverage



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Early detection of cancers

The availability of early detection programmes/guidelines to strengthen early diagnosis of cancer symptoms at the primary health-care level was reported by 62% of countries globally for cervical cancer; 59% for breast cancer; 38% for colon cancer; and 20% for childhood cancers (Figure 42). Notably, 100% of countries in the South-East Asia Region reported having early detection programmes/guidelines for both cervical and breast cancer. In general, early detection programmes/guidelines for all cancer types were increasingly available

with rising income group. At least half of countries in each income group, except for the low-income group, had early detection programmes/guidelines for cervical and breast cancer.

A clearly defined referral system from primary care to secondary and tertiary care for suspect cancer cases was more widely available for each type of cancer than early detection programmes/guidelines: 69% of countries reported referral systems for cervical cancer; 64% for breast cancer; 45% for colon cancer; and 33% for childhood cancers (Figure 43). More than half of countries in all regions had referral systems in place for cervical cancer cases, and nearly all regions had at least half of countries with referral systems in place for breast cancer cases (in the African Region only 49% of countries reported breast cancer referral systems). In general, referral systems for all cancer types were increasingly available with rising income group, although referral systems for breast and cervical cancer were reported by a slightly higher percentage of upper-middle-income countries than by high-income countries.

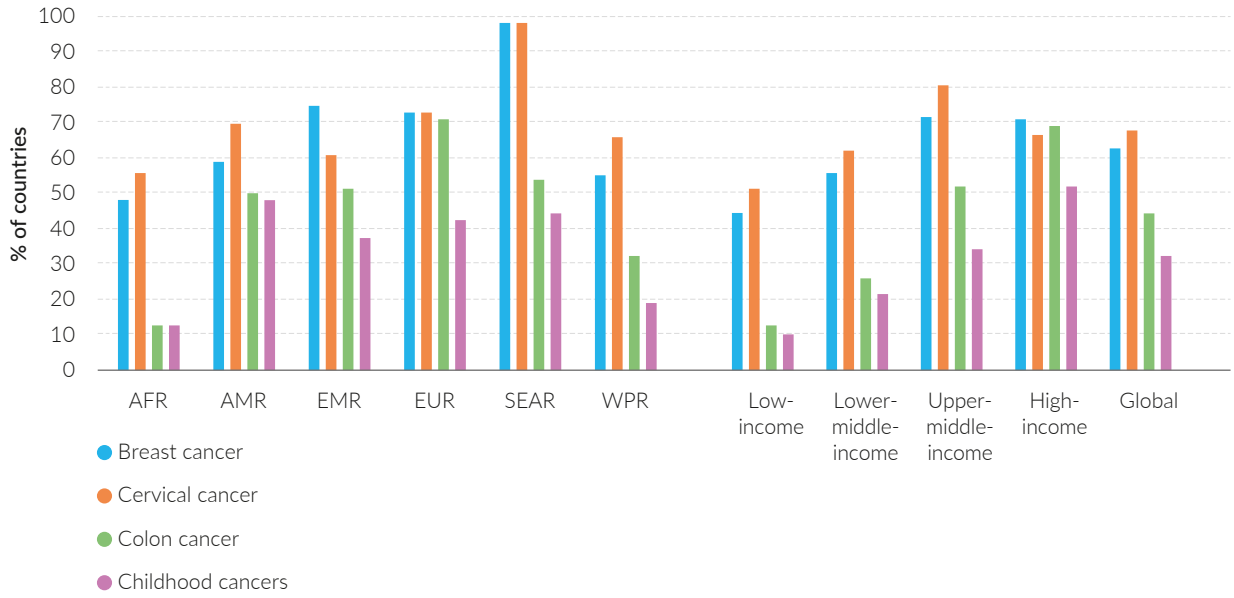
Figure 42

Percentage of countries with early detection programmes/guidelines to strengthen early diagnosis of cancer symptoms at the primary health-care level

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Figure 43

Percentage of countries with a clearly defined referral system from primary care to secondary and tertiary care for suspected cancer cases



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

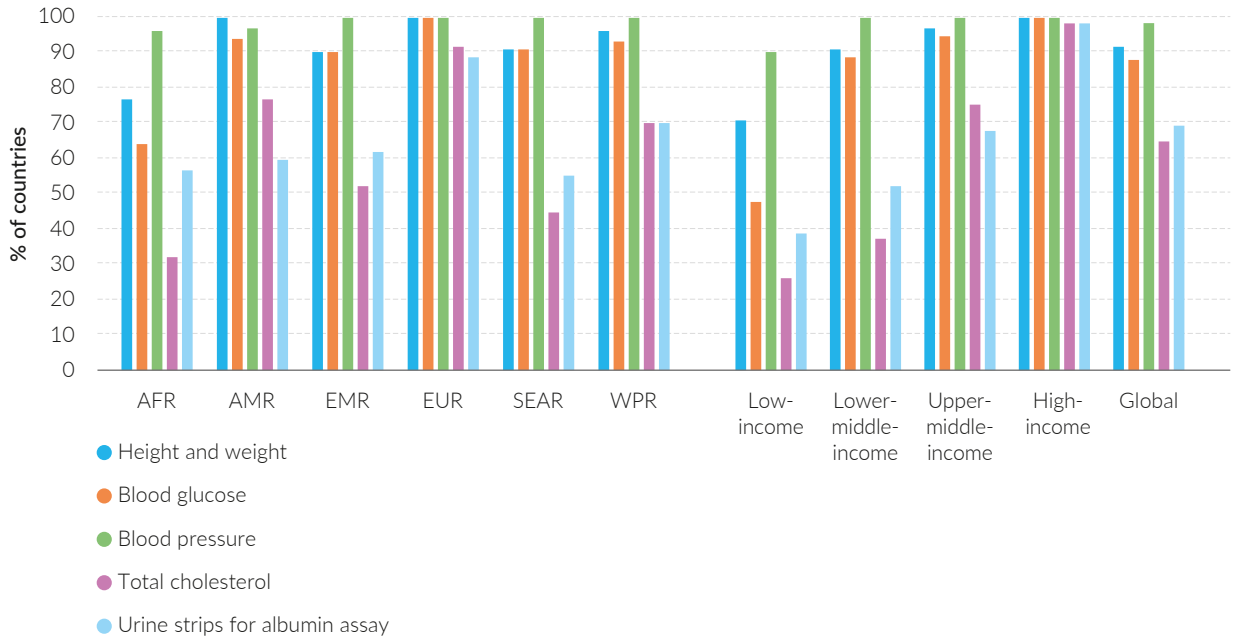
Availability of tests and procedures for early detection, diagnosis and monitoring of NCDs

Most of the basic tests and procedures for early detection, diagnosis and monitoring of NCDs were reported as being generally available in primary care facilities by most countries. Blood pressure measurement was reported as being generally available by 98% of countries; height and weight measurements by 92% of countries; and blood glucose measurement by 88% of countries (Figure 44). Urine albumin strips and total cholesterol measurement – also considered essential NCD tests and procedures – were reported as being generally available by markedly fewer countries (69% and 65%, respectively). Total cholesterol measurement was also highly variable across regions and income groups with significantly lower availability reported in the South-East Asia (45% of countries) and African regions (32% of countries), and countries of the low-income (26%) and low-middle-income (37%) groups.

By contrast, blood pressure measurement was consistently available in 90% or more of countries across all regions and income groups. Just over half of countries (53%) reported all six essential tests and procedures (measurement of height, weight, blood pressure, blood glucose, and total cholesterol, as well as urine strips for albumin assay) being generally available. Marked disparities were evident across the income groups: 96% of high-income countries reported all six tests and procedures were generally available compared with 16% (or just five) low-income countries. Other basic tests and procedures were not as widely available. With the exception of urine strips for glucose and ketone measurement (reported as being generally available in 72% of countries), oral glucose tolerance test (52%) and HbA1c tests (53%), and remaining tests (such as dilated fundus examination, foot vibration perception test and peak flow spirometry) were reported as being generally available in 45–50% of countries.

Figure 44

Percentage of countries with availability of essential technologies for early detection, diagnosis, and monitoring of NCDs in the primary care facilities of the public and private health sector, by WHO region and World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Availability of medicines in the public health sector

The percentage of countries reporting each NCD-related medicine as being generally available is shown in Table 6 ("generally available" was defined as being available in 50% or more pharmacies in primary care facilities of the public health sector). The most widely available medicines were aspirin, metformin and thiazide diuretics (available in 90%, 87% and 87% of countries, respectively); oral morphine (available in 44% of countries) and nicotine replacement therapy (available in 36% of countries) were the least generally available medicines. Differences in availability across regions varied starkly for several of the essential medicines. For example, 92% of countries in the European Region (all but 4 of 53 countries) reported angiotensin II receptor blockers (ARBs) being generally available, but only 36% of countries in the African Region reported such availability. Likewise, significant differences were observed between the regions in availability of statins and steroid inhalers; the latter was reported as being generally available by just four countries in the South-East Asia Region, and by less than a quarter of countries in the African Region. Disparities across the income groups were also marked: 93% of countries in the high-income group reported having all 11 essential medicines as generally available; the remainder of countries in this income group reported having a minimum of eight. In contrast, 10% of low-income countries (just 3 countries) reported having all 11 essential medicines generally available; just over 50% had five or fewer generally available.

Table 6

Percentage of countries with medicines generally available in primary care facilities of the public health sector, by WHO region and World Bank income group

		% of countries with medicines generally available						
		Insulin*	Aspirin (100 mg)*	Met-formin*	Thiazide Diuretics*	ACE Inhibitors*	Angio-tensin II receptor blockers (ARBs)*	Calcium channel Blockers*
WHO region	AFR	60	79	70	77	66	36	57
	AMR	83	94	94	91	91	77	89
	EMR	86	86	90	86	86	76	90
	EUR	94	100	94	98	94	92	94
	SEAR	45	91	91	82	73	73	64
	WPR	81	89	89	78	74	63	78
World Bank income group	Low-income	45	71	61	68	58	29	45
	Lower-middle-income	63	87	78	76	63	50	63
	Upper-middle-income	90	93	95	92	92	78	92
	High-income	96	100	100	100	100	96	100
ALL		**78**	**90**	**87**	**87**	**82**	**69**	**80**

		% of countries with medicines generally available							
		Beta Blockers*	Statins*	Oral morphine	Steroid inhaler*	Broncho-dilator*	Sulphon-ylurea(s)	Benza-thine penicillin injection	Nicotine replace-ment
WHO region	AFR	57	36	21	23	64	51	81	6
	AMR	86	83	49	77	91	91	89	23
	EMR	90	81	24	71	90	71	67	29
	EUR	96	91	70	89	96	92	92	75
	SEAR	91	73	18	36	73	64	82	9
	WPR	74	67	52	67	78	74	78	41
World Bank income group	Low-income	55	29	13	19	55	35	68	0
	Lower-middle-income	61	48	17	33	70	57	76	11
	Upper-middle-income	92	83	40	77	92	90	85	28
	High-income	100	98	86	96	100	98	96	82
ALL		**81**	**71**	**44**	**63**	**83**	**76**	**84**	**36**

AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

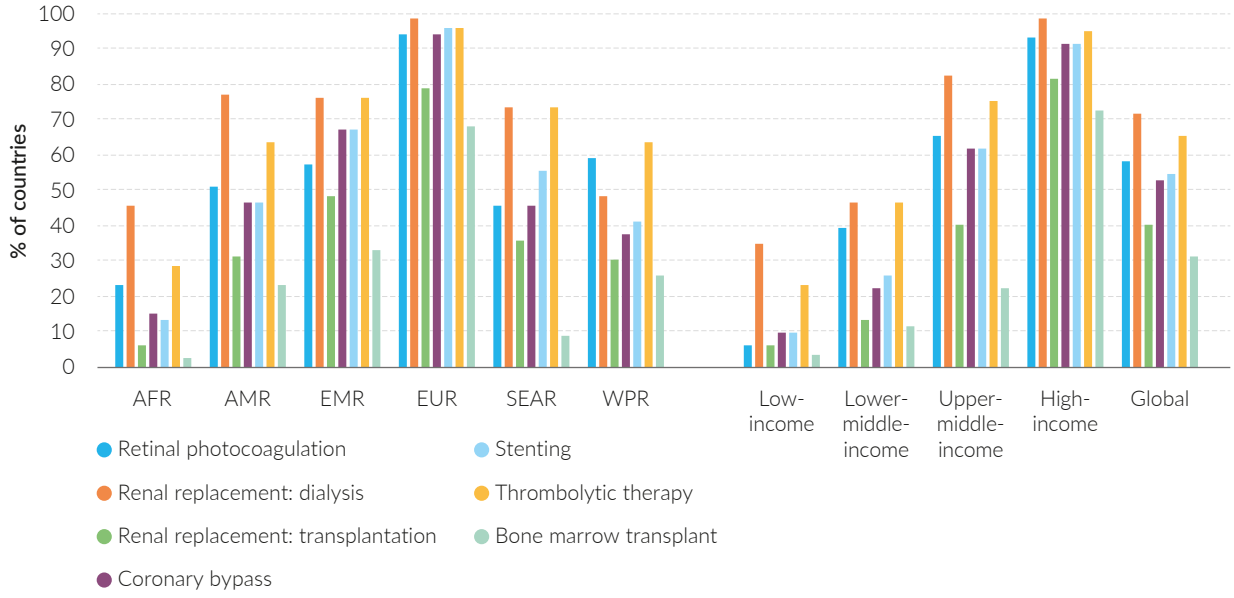
* Essential NCD medicine

Procedures for treating NCDs

As in previous rounds of the survey, countries were asked to report on the availability of key procedures for treating NCDs in the publicly funded health system ("generally available" was defined as reaching at least 50% of patients in need). Renal replacement by dialysis (71% of countries) and thrombolytic therapy (65% of countries) were procedures most widely reported as being generally available; retinal photocoagulation, stenting and coronary bypass were reported by just over 50% of countries as being generally available (Figure 45). Renal replacement by transplantation and bone marrow transplant were available to the majority of patients in need in less than half of countries worldwide (40% and 31% of countries, respectively). Disparities across income groups were even more marked than for essential medicines: all but 10 high-income countries reported six or seven of the seven procedures as being generally available, while 55% of low-income countries reported no procedures as being generally available, and a further third reported just one. These procedures were reported as being most widely available in the European Region (68–98% of countries) and least widely available in the African Region (2–45%). Dialysis was the most widely available procedure in all regions and income groups, except for the Western Pacific Region where thrombolytic therapy and retinal photocoagulation were more widely available. The 2019 survey was the first survey in which countries were asked about availability of bone marrow transplantation. This revealed considerable gaps in availability: while over two thirds of countries in the European Region reported bone marrow transplantation as being generally available, a third or fewer of countries in all other regions reported this procedure reaching the majority of patients in need, including just one country in each of the African and South-East Asia regions.

Figure 45

Percentage of countries with procedures for treating NCDs reported as being "generally available" in the publicly funded health system, by WHO region and World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

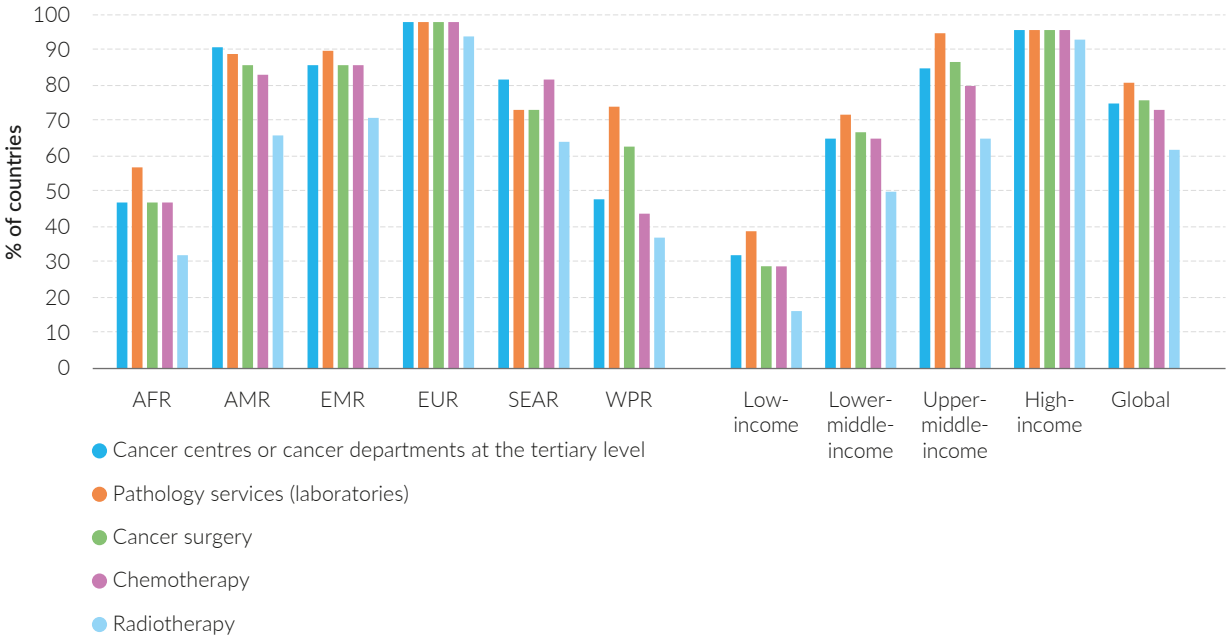
Cancer diagnosis and treatment

Countries were asked to report on the availability of the following cancer diagnosis and treatment services in the public sector: cancer centres or cancer departments at a tertiary level; pathology services (laboratories); cancer surgery; chemotherapy; and radiotherapy. Again "generally available" was defined as reaching 50% or more of the patients in need. Globally, pathology services were the most widely available cancer diagnosis and treatment service (81% of countries) (Figure 46). Cancer surgery and cancer centres or cancer departments at a tertiary level were also commonly available in the public health sector, with 76% and 75% of countries, respectively, reporting these as being generally available. While radiotherapy was the least available service globally

(62% of countries), it was roughly as widely available as all other cancer diagnosis and treatment services in the European Region and among high-income countries. Increasing prevalence of availability for all cancer diagnosis and treatment services was found to correspond with increasing income group. All cancer diagnosis and treatment services were reported as being generally available in 90% or more of countries in the high-income group and at least 50% of countries in the middle-income group. In the low-income group such services were markedly less available, with 16% of countries reporting radiotherapy services as being generally available, and 39% pathology services.

Figure 46

Percentage of countries with cancer diagnosis and treatment services reported as being "generally available" in the public sector, by WHO region and World Bank income group



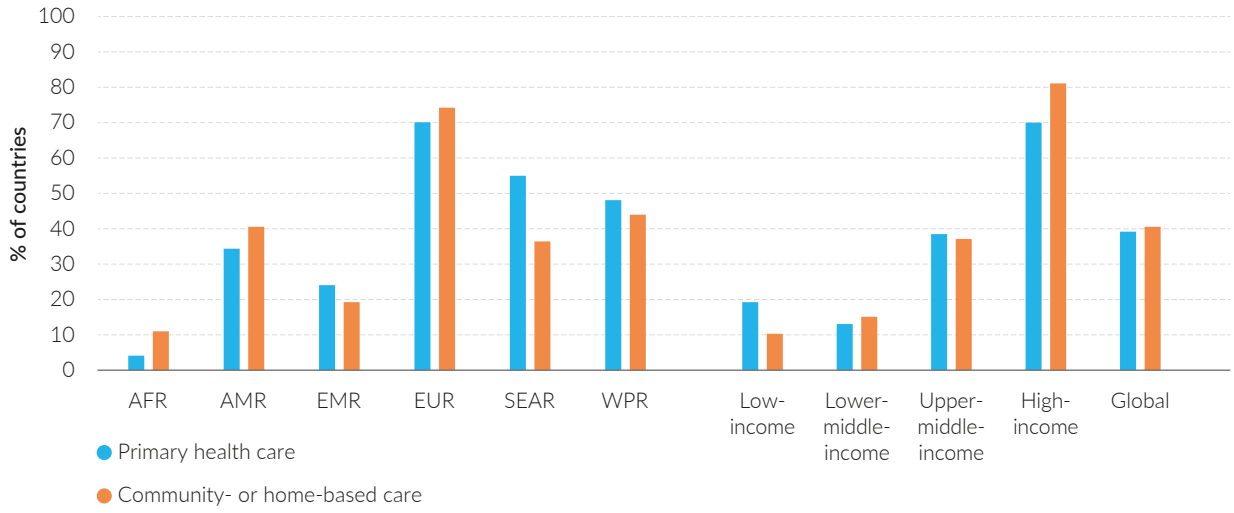
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Palliative care

Globally, palliative care was reported as being generally available (reaching at least 50% of patients in need) in a community- or home-based care setting by 40% of countries (Figure 47), and in a primary health-care setting by 39% of countries. Palliative care was most commonly available in both settings among countries in the European Region and high-income group, with well over two thirds of countries reporting it as being generally available in each. In the low-income group, considerably more countries reported palliative care as being more generally available in a primary health-care setting (19% of countries) than in a community- or home-based care setting (10% of countries). A similar situation was seen in the South-East Asia Region where palliative care was reported as being generally available by 55% and 36% of countries for each setting, respectively. With the exception of the European Region and primary health-care facilities in the South-East Asia Region, palliative care was available to the majority of patients in need in either setting in fewer than half of countries in all regions.

Figure 47

Percentage of countries with palliative care reported as being "generally available" in a primary health-care setting or community- or home-based care, by WHO region and World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Cardiovascular risk stratification

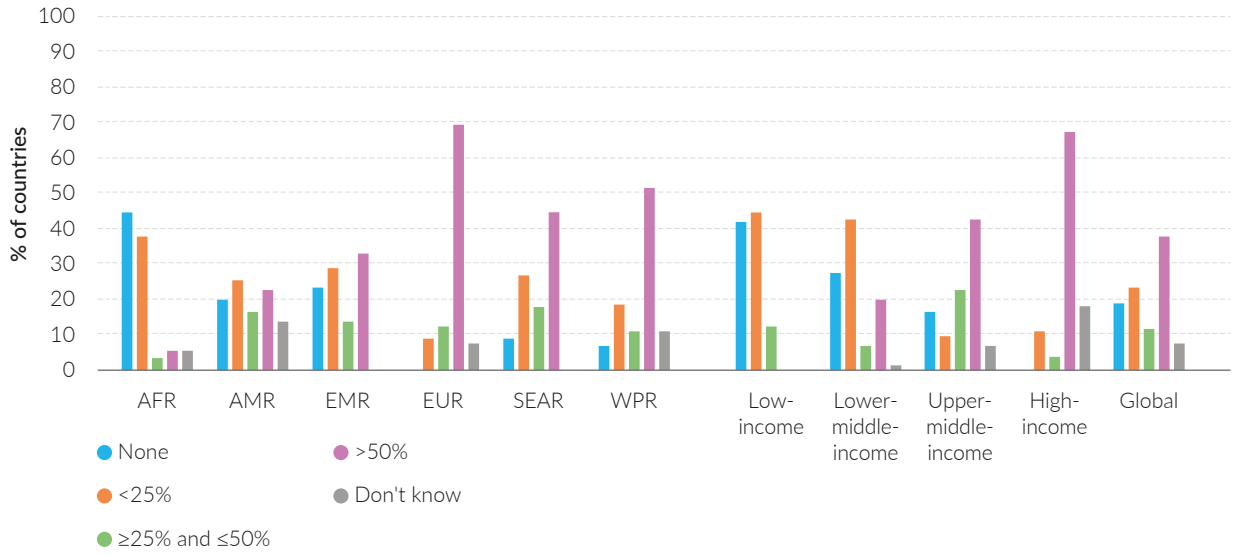
More than three quarters (81%) of countries reported that cardiovascular risk stratification was offered at primary health care facilities; however, the availability reported within these countries varied widely. While nearly half of these countries reported that risk stratification was available in over 50% of health care facilities, 29% reported that it was available in fewer than 25% of facilities, and an additional 15% reported that it was available in between 25% and 50% of facilities (Figure 48). A further 9% of these countries did not know how widely the risk stratification was offered. All but nine countries with availability in over 50% of facilities were in the high-income or upper-middle-income categories, and half of these countries with such broad availability were from the European Region. Nearly half (45%) of countries in the African Region and a quarter (24%) of countries in the Eastern Mediterranean Region reported that risk stratification was not available in any health-care facilities.

Among those countries that could report the availability of cardiovascular risk stratification in their health-care facilities, the majority (52%) reported that the WHO/ISH prediction charts[9] were used. A further 40% reported other types of charts being used, and the remainder did not know or did not report which type of charts were used.

[9] See: http://www.who.int/cardiovascular_diseases/guidelines/Chart_predictions/en/

Figure 48

Percentage of primary health-care facilities offering cardiovascular risk stratification for the management of patients at high risk for heart attack and stroke, by WHO region and World Bank income group



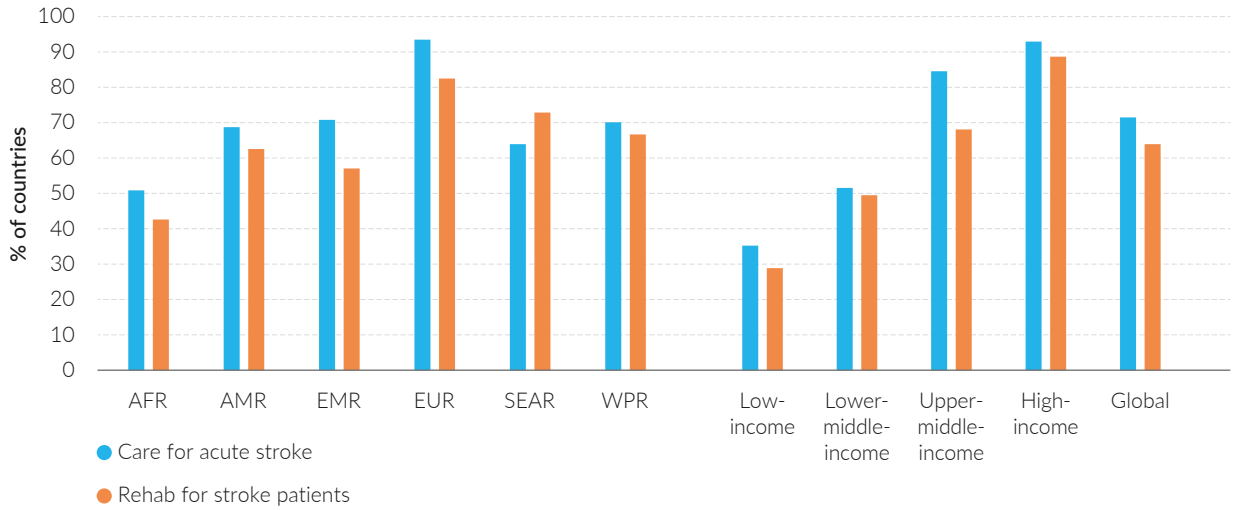
AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Care of acute stroke and rehabilitation

Globally, 72% of countries reported that services for the provision of care for acute stroke were generally available (again defined as reaching 50% or more of patients in need) (Figure 49). Additionally, 64% of countries reported rehabilitation for stroke patients as being generally available. Care for acute stroke was available in at least half of countries in all regions, including all but three countries (94%) in the European Region and approximately two thirds or more of countries in all other regions, except for the African Region. Rehabilitation for stroke patients was generally slightly less available in each region compared with care for acute stroke; the South-East Asia Region was the only exception to this pattern. Disparities across income groups were marked, with around a third of low-income countries having either service available, compared to around half of lower-middle-income countries, and two thirds or more of upper-middle-, and high-income countries.

Figure 49

Percentage of countries with available services for provision of care for acute stroke and rehabilitation, by WHO region and World Bank income group



AFR: WHO African Region; AMR: WHO Region of the Americas; EMR: WHO Eastern Mediterranean Region; EUR: WHO European Region; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region.

Registers and follow up systems for rheumatic fever and rheumatic heart disease

A third of all countries reported having registers of patients with rheumatic fever and rheumatic heart disease; 72% of these countries had systems in place for follow-up or recall to deliver long-term penicillin prophylaxis. Among the 74 countries where rheumatic heart disease was endemic,[10] nearly a third (32%) had registers, more than three quarters (79%) of which had follow-up or recall systems in place. As seen in previous rounds of the survey, no endemic countries in the Eastern Mediterranean Region, and only three endemic countries (12%) in the African Region had registers, whereas nine of the 11 endemic countries (82%) in the Western Pacific Region reported having registers in place.

[10] Defined as in Watkins, D. A. et al. Global, regional, and national burden of rheumatic heart disease, 1990–2015. *N. Eng. J. Med.* 377, 713–722 (2017) using mortality data from Global Health Data Exchange: http://ghdx.healthdata.org/ (accessed 31 May 2018).

DISCUSSION

Key findings

Infrastructure, governance and financing

Despite a slight dip in reporting in 2017, all but nine countries in 2019 reported the existence of an NCD department in the Ministry of Health or equivalent agency; virtually all of these countries (98% of those with NCD departments) had at least one full-time staff member. Of particular note was the progress made in the African Region, where 98% of countries reported having an NCD department with at least one full-time staff compared with only 77% of the countries in the region two years ago. Staffing for specific NCDs or NCD risk factors within the NCD department was widely reported but revealed consistent disparities across income groups, and a general trend to have dedicated staff working more on specific diseases than the underlying risk factors.

Funding for the eight key NCD activities queried in the survey remained fairly stable since 2017, with funding for palliative care and NCD research still generally lagging behind that for all other NCD activities; funding for health care and treatment was most prevalent overall, followed closely by funding for primary prevention and health promotion. While government revenues remained the most commonly reported source of funding for countries, earmarked taxes had grown in importance within just two years: nearly half of countries reported this as a major source of funding in the 2019 survey round, compared with only 39% in 2017. This may be related to the rise in fiscal interventions, specifically taxes on sugar-sweetened beverages, which were implemented by fewer than a quarter of countries in 2017 (23%) and well over a third (38%) by 2019. Although not as widely implemented, taxation on foods high in fat, sugar or salt was also somewhat more broadly adopted, with twice as many countries reporting their implementation in 2019 (14 countries) than in 2017 (7 countries).

Multisectoral commissions, agencies or mechanisms to oversee NCD engagement, policy coherence and accountability of sectors beyond health were instituted by substantially more countries in 2019 (60% of countries) than two years earlier (48%); in both survey rounds, a full three quarters of the NCD commissions, agencies or mechanisms were reported to be operational. The availability of operational NCD commissions increased across all regions since 2017, most from the Region of the Americas, South-East Asia Region and Western Pacific Region.

Policies, action plans and strategies

While, globally, a high prevalence of countries included NCDs in their national health plans, NCDs were far less likely to be included in national development agendas, particularly in the African Region, where these were included by barely half of countries. Since 2017, there was a slight increase in countries adopting national targets on NCDs (63% in 2017; 67% in 2019) but supporting documents provided by countries revealed considerably more work than suggested by these numbers; nearly a quarter of countries that had targets previously, submitted new, updated targets.

Almost three quarters of countries had operational integrated NCD plans, yet many of these plans fell short of the requirements laid out in Progress Monitor indicator 4, that specifies that the plan must be not only multisectoral, but also cover the four main risk factors and management of the four main NCDs. The detection, treatment and care of the four main NCDs was the area most often lacking in the operational, integrated NCD plans, particularly chronic respiratory diseases. While progress was steady across all regions since 2010, notably the South-East Asian Region had reached 100% attainment of the Progress Monitor indicator, indicating that all 11 countries in the region had operational, integrated NCD plans that were multisectoral and addressed the four main risk factors and four main NCDs.

Of the four main NCDs and four main risk factors, cancer and unhealthy diet, followed closely by tobacco use and physical activity, were most commonly addressed by operational policies, strategies or action plans, whether they were topic-specific plans addressing only that issue, or covered as part of the integrated NCD plan of the country. Chronic respiratory diseases remained the least likely of the four main NCDs to be addressed by an operational policy in countries, showing no progress since 2017. Policies addressing oral health remained scarce, with just 38% of countries having such a policy that was operational; however since 2017, a number of

countries newly reported operational oral health policies, particularly in the Western Pacific and Eastern Mediterranean regions, the proportion more than doubling in the latter.

While the number of countries with an operational policy to reduce population salt consumption remained relatively stable since 2017, a slight modification to one of the questions relating to such a policy resulted in a marked drop in the percentage of countries fully achieving the Progress Monitor indicator. The modification to the questionnaire was the change in nutritional labelling to front-of-pack labelling (to align with the "Best Buy"). Since fewer than half of countries with salt policies were implementing front-of-pack labelling, this resulted in several countries no longer fully achieving the indicator. Information on policies on trans-fats and saturated fats were captured in two separate questions for the first time in 2019, revealing more nuanced information on policy action in this area. Policies to virtually eliminate trans-fatty acids from the food supply were only slightly more prevalent overall; a pattern repeated across nearly all income groups and regions. While 77 countries (40%) had implemented at least one of the two policies, only 59 (30%) had implemented both.

In the area of physical activity, a new question revealed that 40% of countries had some guidelines available, predominantly for adults and older children. While availability was fairly consistent across regions, only three countries in the African Region reported having physical activity guidelines, including the single low-income country that reported having them. However, nearly a quarter of countries in the African Region and low-income group reported having implemented an educational campaign on physical activity during the past two years. Although this was an improvement over availability of physical activity guidelines, it still represented a marked disparity compared with other regions and income groups.

Finally, NCD-related mHealth initiatives were reported for the first time in 2019. While these were implemented in approximately only a quarter of countries, implementation was in countries across the income group range and in at least a quarter of countries in most regions.

NCD surveillance

While the vast majority of countries had NCD surveillance covered by one or more departments in the Ministry of Health (or equivalent), there remained a small number of high- and upper-middle-income countries that relied on an external agency; three low-income countries reported that there was no one responsible for NCD surveillance – a situation that remained unchanged since the previous survey. Population-based cancer registries had seen some expansion during the past two years; in 2019, 27 more countries reported having them than in 2017. While diabetes registries continued to be less common, small progress was evident, with a few more countries in nearly every income group newly reporting their existence in this survey round.

Assessments of service availability and readiness continued to be an underutilized tool for monitoring and evaluating health systems, although the past two years saw an additional 6% of countries implementing one. Nearly a third of countries have now implemented an assessment, and these have been more likely to be national assessments.

Considering country assessments for the Progress Monitor indicator on adult risk factor surveys revealed that, while an increasing number of countries were addressing many of the risk factors, many countries failed to fully achieve the indicator due to the reported frequency of their surveys. It was notable that middle-income countries were most likely to fully achieve the Progress Monitor indicator on risk factor surveys. Although there remained a substantial proportion of countries that had conducted no recent, national surveys on any of the risk factors among adults, the percentage that had covered at least eight of the nine risk factors in recent, national surveys also remained steady at just under 50%. A similar pattern was seen among adolescent surveys, where the percentage of countries covering at least four of the five risk factors in recent, national surveys was just over 50% (a very slight improvement over 2017); the percentage covering no risk factors remained close to 25%. For the first time, the survey included questions on risk factor surveys addressing physical activity, and overweight and obesity among children; this revealed such surveys being highly clustered among upper-middle and high-income countries, with just a single low-income country covering each of the risk factors in a recent, national survey.

NCD management

Despite modest improvements in the availability of evidence-based national management guidelines for each of the four main NCDs, the percentage of countries fully attaining the Progress Monitor indicator remained unchanged since 2017 and guidelines for the management of chronic respiratory disease remained the least available. New questions on the availability of risk factor management guidelines revealed that while around a third of countries had

guidelines for each risk factor, with only tobacco dependence guidelines approaching 50%, there were consistent disparities across all risk factors with each being considerably more likely to be available in high- and upper-middle-income countries than in lower-middle- and low-income countries.

Close to two thirds of countries reported having implemented national cervical cancer screening programmes – a slight decline since 2017, likely reflecting in part the previous inclusion of pilots that had not been established programmes. Screening programmes continued to be somewhat more likely population-based, as opposed to opportunistic, and more likely to cover only a minority of the target population.

Of the six essential technologies for early detection, diagnosis and monitoring of NCDs, the majority were still as widely available as reported in 2017; cholesterol measurement and urine strips for albumin assay, the least available of the six essential technologies, were reported as "generally available" in slightly more countries than in 2017. However, the improvement was due largely to an increase in availability in middle- and high-income countries. The high global availability of blood glucose measurement masks the fact that it remained unavailable in far too many low-income countries: only 48% of low-income countries reported this technology as being "generally available" as opposed to 95% of middle- and high-income countries.

Just half of countries reported that all essential NCD medicines were generally available, while one in five countries had fewer than half of the 11 medicines generally available. Of particular note was the lack of insulin reported by countries in the South-East Asia Region – only five of the 11 countries reported insulin being generally available to patients in need. Steroid inhalers were even less common in the region – only four countries reported these as being generally available. Along with statins, steroid inhalers were also notably scarce in the African Region; both of these medicines continued to be markedly less available globally compared with all the other essential NCD medicines. A newly added question on the availability of angiotensin II receptor blockers (ARBs) revealed a lower global availability compared with most other essential NCD medicines, with marked disparities in availability across the income groups. Oral morphine and nicotine replacement therapy continued to have limited availability globally, with well under half of countries reporting each as being generally available.

Stark disparities were also seen in the availability of procedures for treating NCDs as well as cancer diagnosis and treatment services, with little change evident since 2017. The addition of questions on bone marrow transplantation in the 2019 survey round revealed yet another procedure with very limited availability: just 31% of countries globally reported bone marrow transplantation as being generally available, including just a single country in each of the African and South-East Asia regions. Palliative care availability remained low, regardless of the setting in which it was provided. The European Region was the only part of the world where a majority of countries reported palliative care as being generally available. Cardiovascular risk stratification also remained widely underutilized, with only 38% of countries reporting that it was offered in the majority of health-care facilities – a very modest improvement from the 32% of countries reporting the same in 2017.

Strengths and limitations of the survey

The NCD country capacity survey remains the definitive means by which the World Health Organization and countries themselves can assess capacity to address and respond to the growing burden of NCDs. Through regular implementation and with much attention given to maintaining the consistency of the tool, the survey also allows for the tracking of progress over time. Each survey round has seen an expansion to the validation process, which is carried out by a team of colleagues across WHO regional offices and overseen by WHO headquarters to ensure consistency. Although countries were asked not to re-send documents already received in previous rounds, just over 7000 supporting documents were received for this round. Many of these will be added to the searchable NCD Document Repository on the WHO website, allowing the public health community to benefit from this extensive collection of NCD-related materials. While the response rate for the survey has always been high, the attainment of an 100% response rate for the second consecutive round reflects the importance countries place on the exercise, with several countries noting that the questionnaire is a useful tool that enables them to assess their own progress and identify priority areas for action.

One limitation of the survey pertains to validation: the survey contained a number of items for which it was not feasible to request supporting documentation. For a few regions, the volume of documents to review in detail proved extremely challenging, even with the protracted period for their review. Despite all

efforts made by WHO headquarters to standardize the validation process across all regions by supplying detailed guidelines, sharing queries with all members of the validation team, and double-checking selected documents across all regions, individual differences in assessing documents were nevertheless inevitable. Differences in the interpretation of the questions by countries were, likewise, inevitable, although all efforts were made to mitigate this potential problem by providing a detailed glossary and having regional staff available to respond to queries at any time during the survey implementation period. If, in the validation, a misunderstanding of the question was suspected, regional staff would double-check with countries and give them an opportunity to modify their response. A further limitation is that private sector capacity is not collected and these may be major NCD service providers in some countries. Finally, as noted in previous rounds of the survey, the questionnaire strived to obtain national-level information from countries; this was a limitation for many countries with decentralized governments and health systems, who thus may be less accurately depicted in the results of the survey.

CONCLUSION

Priorities for further action

Countries worldwide are in their final decade for achieving the targets of the 2030 Sustainable Development Goals, and it is now time to accelerate their response to addressing NCDs. The results of the 2019 NCD country capacity survey reveal that, while substantial progress continues to be made in national responses to prevent and address NCDs, a wide range of opportunities for improvement remain. Highlighted below are several key areas where action needs to be prioritized:

(i) Fiscal interventions

There is need for a broader adoption of fiscal policies, such as taxation on sugar-sweetened beverages and unhealthy foods, and subsidies for healthy foods; these are recommended interventions that can aid in lowering the prevalence of NCD risk factors. The wider implementation of such policies may also bring needed resources to support NCD efforts at country level.

(ii) Multisectoral coordination

Adopting multisectoral mechanisms remains an underutilized approach in most counties. Multisectoral mechanisms support policy coherence, oversee broad engagement among a wide range of entities, and promote sustained NCD action in countries.

(iii) Policy implementation

A critical need remains for integrated national NCD plans that clearly articulate a roadmap for a country's NCD response. However, further work is needed to ensure such plans engage all relevant sectors and cover the main risk factors and management of the main NCDs. It is vital to ensure that the detection, treatment and care of the main NCDs form key components of these plans. For the policies and plans to have the desired impact, efficient mechanisms for implementation are necessary.

(iv) NCD Best Buys and other recommended interventions

Further implementation of the WHO "Best Buys and recommended interventions" – a set of 16 practical and cost-effective interventions proven effective in preventing and controlling NCDs – continues to be a priority for accelerated action.

(v) Sustained surveillance

Regular periodic surveillance of NCD risk factors, remains an area where additional effort and resources need to be invested.

(vi) NCD screening, diagnosis and treatment

Detection, treatment and care for the main NCDs need to be prioritized in countries, especially in primary health care. Clinical guidelines for the management of the main NCDs need to be developed and widely implemented to ensure appropriate diagnosis, referral and treatment. Strengthening of health systems – particularly efforts to improve availability of essential NCD medicines and technologies – remains critical.

REFERENCES

1. Alwan AD, Maclean D, Mandil A. Assessment of national capacity for noncommunicable disease prevention and control: the report of a global survey, Geneva: World Health Organization, 2001 (http://apps.who.int/iris/bitstream/10665/67305/1/WHO_MNC_01.2.pdf, accessed January 2020).

2. Global Health Estimates 2016: deaths by cause, age, sex, by country and by region, 2000–2016. Geneva, World Health Organization; 2018.

3. United Nations, General Assembly. Outcome document of the high-level meeting of the General Assembly on the comprehensive review and assessment of the progress achieved in the prevention and control of non-communicable diseases, 10 July 2014 (https://www.who.int/nmh/events/2014/a-res-68-300.pdf, accessed January 2020).

4. United Nations, General Assembly. Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases, A/66/L.1, 16 September 2011 (http://www.un.org/ga/search/view_doc.asp?symbol=A/66/L.1, accessed January 2020).

5. United Nations, General Assembly. Political declaration of the third high-level meeting of the General Assembly on the prevention and control of non-communicable diseases, A/RES/73/2; 17 October 2018 (https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/73/2, accessed January 2020).

6. Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva, World Health Organization, 2013 (http://apps.who.int/iris/bitstream/10665/94384/1/9789241506236_eng.pdf, accessed January 2020).

7. Resolution WHA66.10. Follow-up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. In: Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization, 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf?ua=1, accessed January, 2020).

8. 'Best buys' and other recommended interventions for the prevention and control of noncommunicable diseases. Geneva, World Health Organization, 2017 (http://apps.who.int/iris/bitstream/10665/259232/1/WHO-NMH-NVI-17.9-eng.pdf, accessed January 2020).

ANNEXES

ANNEX 1: WHO MEMBER STATES AND SURVEY RESPONDENTS

* Signifies that the country responded to the 2019 survey but not to one or more of the 2010, 2013 or 2015 surveys (all countries responded in 2017). These countries were thus excluded from the multi-year comparisons.

WHO African Region

Algeria
Angola*
Benin
Botswana*
Burkina Faso
Burundi
Cabo Verde*
Cameroon
Central African Republic
Chad*
Comoros
Congo
Côte d'Ivoire*
Democratic Republic of the Congo*
Equatorial Guinea*
Eritrea
Eswatini
Ethiopia*
Gabon*
Gambia
Ghana
Guinea
Guinea-Bissau*
Kenya
Lesotho
Liberia*
Madagascar
Malawi
Mali
Mauritania
Mauritius*
Mozambique
Namibia*
Niger
Nigeria
Rwanda
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone*
South Africa*
South Sudan*
Togo
Uganda
United Republic of Tanzania*
Zambia
Zimbabwe

WHO Region of the Americas

Antigua and Barbuda*
Argentina
Bahamas*
Barbados
Belize
Bolivia (Plurinational State of)
Brazil
Canada
Chile
Colombia*
Costa Rica
Cuba
Dominica
Dominican Republic
Ecuador
El Salvador
Grenada*
Guatemala
Guyana*
Haiti*
Honduras
Jamaica
Mexico
Nicaragua
Panama
Paraguay
Peru
Saint Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines*
Suriname
Trinidad and Tobago
United States of America
Uruguay
Venezuela (Bolivarian Republic of) *

WHO Eastern Mediterranean Region

Afghanistan
Bahrain
Djibouti*
Egypt
Iran (Islamic Republic of)
Iraq
Jordan
Kuwait
Lebanon
Libya
Morocco
Oman
Pakistan
Qatar
Saudi Arabia
Somalia
Sudan
Syrian Arab Republic
Tunisia
United Arab Emirates
Yemen

WHO European Region

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus*
Belgium
Bosnia and Herzegovina*
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan*
Latvia
Lithuania
Luxembourg*
Malta
Monaco
Montenegro
Netherlands
North Macedonia
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
Turkey
Turkmenistan*
Ukraine
United Kingdom
Uzbekistan

WHO South-East Asia Region

Bangladesh
Bhutan
Democratic People's Republic of Korea
India
Indonesia
Maldives
Myanmar
Nepal
Sri Lanka
Thailand
Timor-Leste*

WHO Western Pacific Region

Australia
Brunei Darussalam
Cambodia
China
Cook Islands*
Fiji
Japan
Kiribati
Lao People's Democratic Republic
Malaysia
Marshall Islands
Micronesia (Federated States of)
Mongolia
Nauru
New Zealand
Niue
Palau
Papua New Guinea
Philippines
Republic of Korea
Samoa*
Singapore
Solomon Islands
Tonga
Tuvalu
Vanuatu
Viet Nam

ANNEX 2: LIST OF COUNTRIES BY WORLD BANK INCOME GROUP

Categories for this report were based on the income categories for 2019

High income

Andorra
Antigua and Barbuda
Australia
Austria
Bahamas
Bahrain
Barbados
Belgium
Brunei Darussalam
Canada
Chile
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Japan
Kuwait
Latvia
Lithuania
Luxembourg
Malta
Monaco
Netherlands
New Zealand
Norway
Oman
Palau
Panama
Poland
Portugal
Qatar
Republic of Korea
Saint Kitts and Nevis
San Marino
Saudi Arabia
Seychelles
Singapore
Slovakia
Slovenia
Spain
Sweden
Switzerland
Trinidad and Tobago
United Arab Emirates
United Kingdom
United States of America
Uruguay

Upper-middle income

Albania
Algeria
Argentina
Armenia
Azerbaijan
Belarus
Belize
Bosnia and Herzegovina
Botswana
Brazil
Bulgaria
China
Colombia
Cook Islands
Costa Rica
Cuba
Dominica
Dominican Republic
Ecuador
Equatorial Guinea
Fiji
Gabon
Georgia
Grenada
Guatemala
Guyana
Iran (Islamic Republic of)
Iraq
Jamaica
Jordan
Kazakhstan
Lebanon
Libya
Malaysia
Maldives
Marshall Islands
Mauritius
Mexico
Montenegro
Namibia
Nauru
Niue
North Macedonia
Paraguay
Peru
Romania
Russian Federation
Saint Lucia
Saint Vincent and the Grenadines
Samoa
Serbia
South Africa
Sri Lanka
Suriname
Thailand

Tonga
Turkey
Turkmenistan
Tuvalu
Venezuela (Bolivarian Republic of)

Lower-middle income

Angola
Bangladesh
Bhutan
Bolivia (Plurinational State of)
Cabo Verde
Cambodia
Cameroon
Comoros
Congo
Côte d'Ivoire
Djibouti
Egypt
El Salvador
Eswatini
Ghana
Honduras
India
Indonesia
Kenya
Kiribati
Kyrgyzstan
Lao People's Democratic Republic
Lesotho
Mauritania
Micronesia (Federated States of)
Mongolia
Morocco
Myanmar
Nicaragua
Nigeria
Pakistan
Papua New Guinea
Philippines
Republic of Moldova
Sao Tome and Principe
Senegal
Solomon Islands
Sudan
Timor-Leste
Tunisia
Ukraine
Uzbekistan
Vanuatu
Viet Nam
Zambia
Zimbabwe

Low income

Afghanistan
Benin
Burkina Faso
Burundi
Central African Republic
Chad
Democratic People's Republic of Korea
Democratic Republic of the Congo
Eritrea
Ethiopia
Gambia
Guinea
Guinea-Bissau
Haiti
Liberia
Madagascar
Malawi
Mali
Mozambique
Nepal
Niger
Rwanda
Sierra Leone
Somalia
South Sudan
Syrian Arab Republic
Tajikistan
Togo
Uganda
United Republic of Tanzania
Yemen

ANNEX 3: 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

Purpose

- The purpose of this survey is to gauge your country's capacity for responding to noncommunicable diseases (NCDs). It will guide Member States, WHO Regional Offices and WHO HQ 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 process indicators and UN 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 (UNGA) and World Health Assembly (WHA);

- 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.

- The four main types of noncommunicable diseases are cardiovascular diseases (like 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.

- 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 sub-national levels, it can also be applied at sub-national 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

1a) 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

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

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

If at least one Yes to above questions:

2a) What are the major sources of regular funding for NCDs and their risk factors?

More than one can apply, rank order them where: 1=Largest source; 2=Next largest; 3=Others

- ☐ General government revenues
- ☐ Health insurance
- ☐ International Donors
- ☐ 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 alcoholic beverages.....	☐ 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, sugars 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. ministries of sport, education, transport, urban planning)
- ☐ 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 tobacco industry's participation to the consultations and decision making process excluded from the national multisectoral commission?

☐ Yes ☐ No ☐ Don't Know

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 the 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

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) Indicate its stage:

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

If Operational:

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

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

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

The questions in this sub-section 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 another non-communicable disease of importance 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? .....

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

The questions in this sub-section 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.

10) 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 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 reducing overweight / obesity in your country?

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 12

If yes:

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? .....

12) 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 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) 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 14

If yes:

13a) Are there guidelines specifically addressing any of the following age groups:

Children under 5 ..... ☐ 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

14) 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 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 food-based dietary guidelines for the population or a specific segment of the population?

☐ Yes ☐ No ☐ Don't Know

16) 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 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? .....

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.

17) 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 18

If yes:

17a) Indicate its stage:

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

18) 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

19) 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 20

If yes:

19a) Are the policies:

☐ Voluntary ☐ Mandatory ☐ Don't know

19b) Who is responsible for overseeing enforcement and complaints?

☐ Government ☐ Food Industry ☐ Independent regulator ☐ Other, please specify: .....

19c) 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

19c-i) If yes, please provide details: .....

20) Is your country implementing any policies on front-of-pack 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 21

If yes:

20a) Are the policies:

☐ Voluntary ☐ Mandatory ☐ Don't know

20b) Who is responsible for overseeing enforcement and complaints?

☐ Government ☐ Food Industry ☐ Other, please specify: .....

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

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 22

21a) If yes, are the policies:

☐ Voluntary ☐ Mandatory ☐ Don't know

22) Is your country implementing any national policies to eliminate industrially produced *trans*-fatty acids (i.e. partially hydrogenated oils) in the food supply?

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 23

22a) If yes, are the policies:

☐ Voluntary ☐ Mandatory ☐ Don't know

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

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 24

If yes:

23a) Are these targeted at:

Product reformulation by industry across the food supply ..... ☐ Yes ☐ No ☐ Don't Know

Regulation of salt content of food served in specific settings such as hospitals, schools, workplaces ..... ☐ Yes ☐ No ☐ Don't Know

Public awareness programme ..... ☐ Yes ☐ No ☐ Don't Know

Front-of-pack nutrition labeling ..... ☐ Yes ☐ No ☐ Don't Know

23b) If yes to product reformulation or regulation of salt/sodium content, is the policy:

☐ Voluntary ☐ Mandatory ☐ Don't know

24) 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 25

24a) If yes, please provide details of the public education and awareness campaign(s): .....
.....

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

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 26

If yes:

25a) Does the campaign integrate with community-based programmes?

☐ Yes ☐ No ☐ Don't Know

25b) Is the campaign supported by any environmental changes to enable physical activity?

☐ Yes ☐ No ☐ Don't Know

25c) Does the campaign address any of the social, environmental and economic benefits of physical activity, in addition to the health benefits?

☐ Yes ☐ No ☐ Don't Know

25d) Please provide details of the public education and awareness campaign(s):.....
.....

26) 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 mass participation events include national walk to school days/weeks; other free events; cycling, yoga, tai chi, dance. Note this does NOT include hosting of major competitive sporting events like marathons, which require paid participation.

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 27

26a) Please provide details of the event(s): .....
.....

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

☐ Yes ☐ No ☐ Don't Know

If no: Go to MODULE III

27a) 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 mortality, morbidity and risk factor reporting systems of each country and whether NCD mortality, morbidity and risk factor 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 MOH exclusively dedicated to NCD surveillance
- ☐ An office/department/ administrative division within the MOH not exclusively dedicated to NCD surveillance
- ☐ Responsibility is shared across several offices/departments/administrative divisions within the MOH
- ☐ Coordination is by an external agency, such as an NGO 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 system for collecting mortality data by cause of death on a routine basis?**

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 3

If yes:

2a) Is there a civil/vital registration system?

☐ Yes ☐ No ☐ Don't Know

2b) Is there a sample registration system?

☐ Yes ☐ No ☐ Don't Know

2c) What is the latest year for which data are available? .....

2d) What percentage of total deaths in the entire country are officially registered in the system? (national estimated completeness)

☐ < 20% ☐ 20-49% ☐ 50-74% ☐ 75% or more ☐ Don't know

If estimated completeness is known:

2d-i) Specify source of estimated completeness: .....

2d-ii) If applicable, specify any population/area not covered by your registration system:

☐ Not applicable ☐ Don't know

3) **Does your country have a cancer registry?**

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 4

If yes:

3a) Are the data collected population-based, hospital-based, or other?

☐ population-based

☐ hospital-based

☐ Other (specify: .....)

☐ Don't know

3b) Is the coverage of the registry national or subnational?

☐ National (covers the whole population of the country)

☐ Subnational (covers only the population of a defined region, not the whole country)

☐ Don't know

3c) What is the latest year for which data are available? .....

4) **Does your country have a diabetes registry?**

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 5

If yes:

4a) Are the data collected population-based, hospital-based, or other?

☐ population-based

☐ hospital-based

☐ Other (specify: .....)

☐ Don't know

4b) Is the coverage of the registry national or subnational?

☐ National (covers the whole population of the country)

☐ Subnational (covers only the population of a defined region, not the whole country)

☐ Don't know

4c) Does the registry include data on any chronic complications which are updated as the patient's complications status changes?

☐ Yes ☐ No ☐ Don't Know

4d) What is the latest year for which data are available? .....

5) **Does your country have a system for recording patient information that includes NCD status (e.g. hypertension, diabetes, tobacco use status)?**

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 6

If yes:

5a) Is it an electronic medical records/health records system?

☐ Yes ☐ No ☐ Don't Know

5b) What is the coverage 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

6) Has your country conducted a survey of facilities to assess service availability and readiness for NCDs?

☐ Yes ☐ No ☐ Don't Know

If no: Go to Question 7

6a) Year of last survey .....

6b) Coverage of last survey:

☐ National ☐ Subnational ☐ Don't know

III B. Risk Factor Surveillance

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

(Please fill in all columns, start in the first row, going left to right, and then continue left to right across the second row.)

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).

7a) Harmful alcohol 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

ii-2) How often is the survey conducted?

☐ National ☐ Subnational ☐ Don't know

ii-3) When was the last survey conducted?

(give year) .....

7b) Unhealthy diet

☐ 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) 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 adults?

☐ Yes ☐ No ☐ Don't know

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) .....

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

(Please fill in all columns, start in the first row, going left to right, and then continue left to right across the second row.)

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).

7c) Physical inactivity

☐ 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

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) .....

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) .....

7d) 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

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) .....

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

(Please fill in all columns, start in the first row, going left to right, and then continue left to right across the second row.)

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).

7e) Raised blood glucose/diabetes	7f) Raised total cholesterol
☐ Yes ☐ No ☐ Don't know	☐ Yes ☐ No ☐ Don't know
If no: Go to next column.	If no: Go to next column.
If yes:	If yes:
i) Was it:	i) Was it:
☐ Measured ☐ Self-reported ☐ Don't know	☐ Measured ☐ Self-reported ☐ Don't know
ii) Was it:	ii) Was it:
☐ National ☐ Subnational ☐ Don't know	☐ National ☐ Subnational ☐ Don't know
iii) How often is the survey conducted?	iii) How often is the survey conducted?
☐ Ad hoc ☐ Every 1 to 2 years ☐ Every 3 to 5 years ☐ Other ☐ Don't know	☐ Ad hoc ☐ Every 1 to 2 years ☐ Every 3 to 5 years ☐ Other ☐ Don't know
iv) When was the last survey conducted?	iv) iWhen was the last survey conducted?
(give year)	*(give year)* .....

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

(Please fill in all columns, start in the first row, going left to right, and then continue left to right across the second row.)

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).

7g) Raised blood pressure/Hypertension

☐ Yes ☐ No ☐ Don't know

If no: Go to next column.

If yes:

i) 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) .....

7h) Overweight and obesity

☐ 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

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) .....

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) .....

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

(Please fill in all columns, start in the first row, going left to right, and then continue left to right across the second row.)

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).

7i) Salt / Sodium intake

☐ 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 urine collection methods
- ☐ Self-reported salt intake
- ☐ 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 lastsurvey 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 systems 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. It also assesses 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 cancers:	☐ Yes ☐ No ☐ Don't Know If yes: If there are multiple guidelines, specify for which conditions: .....
iii) Are they being utilized 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 utilized 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?				
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: in 50% or more health care facilities*
Generally not available: in less than 50% 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	.....	.....

3) **Please indicate if there is a national screening program 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 program	Type of program	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	☐ Organised 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	☐ Organised 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	☐ Organised 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 (specify: ... .)
Program/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 ☐ 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.

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) Describe 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 (75/100 mg)	
6c) Metformin	
6d) Thiazide Diuretics	
6e) ACE Inhibitors	
6f) Angiotensin II receptor blockers (ARBs)	
6g) Calcium channel Blockers	
6h) Beta Blockers	
6i) Statins	
6j) Oral morphine	
6k) Steroid inhaler	
6l) Bronchodilator	
6m) Sulphonylurea(s)	
6n) Benzathine penicillin injection	
6o) Nicotine Replacement Therapy	

7) Indicate the availability* of the following procedures for 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) Detail 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	Availability*
Cancer centres or cancer departments at tertiary level	☐ Generally available ☐ Generally not available ☐ Don't know
Pathology services (laboratories)	☐ Generally available ☐ Generally not available ☐ Don't know
Cancer surgery	☐ Generally available ☐ Generally not available ☐ Don't know
Chemotherapy	☐ Generally available ☐ Generally not available ☐ Don't know
Radiotherapy	☐ Generally available ☐ Generally not available ☐ Don't know

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

Dedicated cancer centres are defined as providing multi-disciplinary care including pathology, surgery, systematic therapy, and radiotherapy. If you don't know the exact number, please give an estimated range.

Number of public cancer centres: ..... ☐ Don't know

Number of private cancer centres: ..... ☐ Don't know

10) Indicate the availability* of palliative care for patients with NCD 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

10a) In primary health care facilities:

☐ Generally available ☐ Generally not available ☐ Don't know

10b) 1In community or home-based care:

☐ Generally available ☐ Generally not available ☐ Don't know

11) 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

If more than none:

11a) Which CVD risk scoring chart is used?

☐ WHO/ISH risk prediction charts

☐ Others (specify .....)

☐ Don't know

12) Indicate the availability* of services for 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

12a) Provision of care for acute stroke:

☐ Generally available ☐ Generally not available ☐ Don't know

12b) Rehabilitation for stroke patients:

☐ Generally available ☐ Generally not available ☐ Don't know

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

☐ Yes ☐ No ☐ Don't Know

If yes:

13a) Are there systems for follow-up/recall to deliver long-term penicillin prophylaxis?

☐ Yes ☐ No ☐ Don't Know

GLOSSARY

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 assessment: 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.

Civil registration: The system by which a government records the vital events of its citizens and residents, such as births, deaths and marital status, and cause of death.

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 (FOPL): Nutrition labelling systems that are presented on the front of food packages (in the principle field of vision) and can be applied across the packaged retail food supply. FOPL comprise an underpinning nutrient profile model that considers the overall nutrition quality of the product and/or the nutrients of concern for NCD; and presents 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 FOPL, including 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.

Full immunization coverage: The proportion of people in the population targeted by the programme who actually received the full dose(s) of vaccine.

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 facility: 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 noncommunicable diseases (NCDs) and conditions. The exact make-up of a healthy, balanced diet will vary depending on the individual 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, 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.

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, non-governmental 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, NGOs and the private sector.

National Cancer Screening Programme: A government-endorsed programme where screening is offered. NGO-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:

I. ***National focal point:*** the person responsible for the prevention and control of chronic diseases in a ministry of health or national institute.

II. ***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:

I. ***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.

II. ***National survey:*** A fixed or unfixed time interval survey on the main chronic diseases, or major risk factors common to chronic diseases.

III. ***Surveillance:*** The systematic collection of data (through survey or registration) on risk factors, chronic diseases and their determinants for continuous analysis, interpretation and feed-back.

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, action plan:

I. ***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.

II. ***Strategy:*** a long-term plan designed to achieve a particular goal.

III. ***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, improve outcomes and quality of life of patients.

NGO: Non-governmental organization.

Noncommunicable diseases (NCDs): The four main types of noncommunicable diseases are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes.

Noncommunicable diseases prevention and control: All activities related to surveillance, prevention and management of the chronic noncommunicable diseases.

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.

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: Palliative care is 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.

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 noncommunicable diseases: The four main risk factors for NCDs are tobacco use, harmful use of alcohol, unhealthy diet and low levels of physical activity.

Sample registration system: A method and procedure for estimating vital statistics in national and regional populations by intensively registering and verifying vital events in population samples. For instance, in India more than 4,000 rural and 2,000 urban sample units, with a total of more than 6 million persons, i.e., less than 1% of the total national population, are included in a sample registration system that provides a reasonably reliable picture of the national pattern of vital events at a cost that is feasible and reasonable.

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 preformed 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 2 years for women aged 50 to 60. The screening coverage is the number of women aged 50 to 60 who benefitted from mammography thanks to the programme in the past 2 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.

Sugar-sweetened beverages: Sugar-sweetened beverages (SSB) are defined as all types of beverages containing free sugars and 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 monosaccharide 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, should be time bound, and define a 'desired', 'promised', 'minimum' or 'aspirational' level of achievement.

Taxation incentives to promote physical activity: Involve removing the tax (or a portion of the 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.

VAT/Sales Tax: "Value-added tax" (VAT) is 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. Example: 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.

World Health Organization

ISBN 978-92-4-000231-9