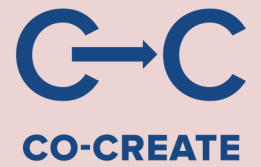


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## D2.2: Journal article on physical activity framework

World Cancer Research Fund International  
31.10.2019



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2	20 January 2020	Updated wording regarding the scans		PU
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## Executive Summary

As part of the CO-CREATE project, World Cancer Research Fund (WCRF) International is required to draft an article to outline the new MOVING framework and how it was developed.

An article has been drafted which introduces the CO-CREATE project and provides the context to the framework, outlines the objectives of the framework, the methodology for developing the framework, the attributes of the framework, the challenges faced when designing the framework, and the strengths of the framework. It concludes with how the framework will be used and how it will support objectives within the broader CO-CREATE project.

Earlier versions of the deliverable were submitted in the form of a draft to the European Commission. The paper was unsuccessfully submitted to Obesity Reviews, however the useful feedback informed tweaks to the MOVING framework, and supported the development of the final version of the paper. The final version, which has now been published in the Journal of Physical Activity and Health in April 2022, is now attached (Appendix 1).



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## Introduction

### Deliverable description

Article outlining the physical activity framework

### Deliverable objective

An article in a peer-reviewed journal will be provided to disseminate the physical activity framework.

### Background

As part of *CO-CREATE: Confronting Obesity: Co-creating Policy with Youth* (known as the CO-CREATE project), World Cancer Research Fund (WCRF) International is responsible for deliverables in Work Package (WP) 2, such as the development of a physical activity policy framework (the MOVING framework) (D2.1), conducting a global and a European policy scan for diet and physical activity (D2.3) and the development of an article on the challenges associated with conducting a global and targeted in-depth European policy scan for diet and physical activity (D2.4). WCRF International has already developed a policy index (D2.8) to benchmark and assess the overall 'policy status' of European countries regarding the promotion of healthy diets and physical activity. A physical activity policy database and a web-platform (D2.5 and D2.6) have also been submitted in M18.

Deliverable 2.2 requires WCRF International to deliver a journal article published in a peer-reviewed journal. This will enable the policy community to understand the MOVING policy framework and how it was developed, as well as promote the work of the CO-CREATE project.

## Description of activities

The following process was undertaken to develop the draft article.

### Identifying co-authors

WP2 (WCRF International) is responsible for the main drafting of the article. Key personnel include:

- Fiona Sing (Former WCRF International Policy and Public Affairs Manager) (WP2 / WCRF International)
- Kate Oldridge-Turner (WP2 / WCRF International)

A publication proposal was circulated within the CO-CREATE Executive Board which invited personnel from all WP packages to contribute alongside the Principal Investigators. The following co-authors were identified.

### Principal Investigators

- Professor Knut-Inge Klepp
- Professor Harry Rutter

## WP contributors

- Arnfinn Helleve (WP3)

A number of WCRF International staff were also identified as co-authors given their involvement in the project to date.

## WCRF International contributors

- Dr. Kate Allen, Executive Director, Science and Policy, WCRF International
- Dr. Giota Mitrou, Director of Research, WCRF International
- Prof. Martin Wiseman, Medical and Scientific Advisor, WCRF International
- Louise Meincke, Former Head of Policy and Public Affairs
- Bryony Sinclair, Former Senior Policy and Public Affairs Manager

## Developing a draft

The drafting process has undergone several iterations, for the submission as a deliverable to the European Commission, as a draft paper to Obesity Reviews in September 2020, and then as a successful submission to the Journal of Physical Activity and Health in November 2021.

More broadly, the article introduces the role of physical activity and its role in preventing and tackling non-communicable diseases, and the links with obesity. The role of public policy in shaping environments is then discussed and how policy tools such as policy framework can support policy monitoring and development. The paper also provides a history of the development of physical activity international policy guidance.

It introduces the NOURISHING framework and explains the relationship going forward with the new MOVING physical activity framework. The CO-CREATE project and the relevant deliverables are then introduced and explained.

Following this the methodology of how the framework was developed is then outlined, including the mapping exercise and review of key documents. In the results section, findings of the research and consultation is detailed. It is then explained how the results then informed the development of the framework and the creation of policy areas and sub-policy areas. The structure of the framework is then explained. The discussion then explains how the framework will support activities within the CO-CREATE project and how it will form the basis of a database of relevant policy actions. The article then finishes with a conclusion about how the framework can support the objectives of CO-CREATE and how it can help promote physical activity research and advocacy.

## Refining and finalising the draft

For each development of the draft before it went to the European Commission, then Obesity Reviews and then the Journal of Physical Activity and Health, it went through 4 rounds of review by the co-authors. During each round of review, comments were received and collated, and the draft was updated until co-authors were satisfied. Feedback from the unsuccessful submission to Obesity

Reviews was also used for the development for the final draft, which was submitted to the Journal of Physical Activity and Health. It was successfully published in April 2022. The journal of Physical Activity and Health was deemed to be a better fit for the article and has an impact factor of 2.592.

## Results

The journal article entitled ‘Promoting Physical Activity Policy: The Development of the MOVING Framework’ is attached (Appendix 1: D2.2 MOVING FRAMEWORK JOURNAL ARTICLE). The article was published in April 2022 in the Journal of Physical Activity and Health.

## Discussion

The drafting process provided a useful to opportunity to review the framework and the process by which it was developed, especially in the context of new deliverables that are either in development or completed.

The MOVING framework was also thoroughly tested as it provides the search and organising scope of the MOVING database. The policy scans that populate the policy database show that there are policy actions that fall under every policy area. As expected, new sub areas have had to be created.

User testing on the MOVING database, which included young people and partners within the COCREATE project, and populating the database by WCRF International staff, identified that policy actions could be categorized within several different areas of framework at the same time either by the type of policy action/instrument (eg, programs and/or guidelines) or by the policy area (eg, schools, the built environment). The framework was updated to only focus on policy areas (rather than the type of policy action/instrument) (as detailed in Appendix 1).

The development of the framework also demonstrated strong complementarity with the WHO Global Action Plan for Physical Activity (GAPPA) which is also explored in the paper. The article aimed to show how the MOVING framework and the GAPPA complement each other. These links should be maintained and strengthened throughout the CO-CREATE project to avoid duplication of efforts. We will continue to keep relevant WHO contacts informed of our work and the policy actions sourced through our policy scans.

## Conclusion

The article explains the rationale to why the framework was developed and outlines the process. It highlights how the framework can support policy development efforts and CO-CREATE activities going forward. This will enable stakeholders with an interest in physical activity (especially policy makers and youth who will be co-creating policy) to understand the purpose of the MOVING policy framework and where action should be taken to promote physical activity.



## Appendix 1

The journal article entitled 'Promoting Physical Activity Policy: The Development of the MOVING Framework' is attached below.



# Promoting Physical Activity Policy: The Development of the MOVING Framework

Kate Oldridge-Turner,<sup>1</sup> Margarita Kokkorou,<sup>1</sup> Fiona Sing,<sup>1</sup> Knut-Inge Klepp,<sup>2</sup> Harry Rutter,<sup>3</sup> Arnfinn Helleve,<sup>2</sup> Bryony Sinclair,<sup>1</sup> Louise Meincke,<sup>1</sup> Giota Mitrou,<sup>1</sup> Martin Wiseman,<sup>1</sup> and Kate Allen<sup>1</sup>

<sup>1</sup>World Cancer Research Fund International, London, United Kingdom; <sup>2</sup>Norwegian Institute of Public Health, Oslo, Norway; <sup>3</sup>Department of Social and Policy Sciences, University of Bath, Bath, United Kingdom

**Background:** Considering the large health burden of physical inactivity, effective physical activity promotion is a “best buy” for noncommunicable disease and obesity prevention. The MOVING policy framework was developed to promote and monitor government policy actions to increase physical activity as part of the EU Horizon 2020 project “Confronting Obesity: Co-creating policy with youth (CO-CREATE).” **Method:** A scanning exercise, documentary review of key international policy documents, and thematic analysis of main recommendations were conducted. Themes were reviewed as part of a consultation with physical activity experts. **Results:** There were 6 overarching policy framework areas: M—make opportunities and initiatives that promote physical activity in schools, the community, and sport and recreation; O—offer physical activity opportunities in the workplace and training in physical activity promotion across multiple professions; V—visualize and enact structures and surroundings that promote physical activity; I—implement transport infrastructure and opportunities that support active societies; N—normalize and increase physical activity through public communication that motivates and builds behavior change skills; and G—give physical activity training, assessment, and counseling in health care settings. **Conclusions:** The MOVING framework can identify policy actions needed, tailor options suitable for populations, and assess whether approaches are sufficiently comprehensive.

**Keywords:** CO-CREATE project, noncommunicable disease, obesity, policy action, physical inactivity

Considering the large health<sup>1</sup> and economic burden<sup>1</sup> of physical inactivity, investing in physical activity promotion is a “best buy” for public health<sup>2,3</sup> and noncommunicable disease (NCD) and obesity prevention.<sup>4</sup> However, despite the well-established evidence of the necessity for, and impact of, effective physical activity policy, progress on reducing the prevalence of physical inactivity has been very limited.<sup>5,6</sup> Unless policies to increase population levels of physical activity are prioritized, the World Health Organization (WHO) NCD prevention and control target of 15% relative reduction in insufficient physical activity by 2030<sup>7</sup> will not be met.

Frameworks that outline a set of policies that govern or relate to a particular area can be used to drive action in public policy, including physical activity policy. A policy framework allows policies to be organized along related dimensions and allows for gaps to be identified.<sup>7</sup> Moreover, frameworks can be used to positively contribute to the improvement and standardization of physical activity policy research<sup>8</sup> and monitoring<sup>9</sup> of policy progress to complement monitoring of NCD risk factors set up by WHO.

For example, World Cancer Research Fund International’s (WCRF International) NOURISHING framework of diet-related policy actions<sup>10</sup> seeks to encourage policy action in ten policy areas

to promote healthy diets and reduce overweight, obesity, and diet-related NCDs. The NOURISHING framework also provides an organizing structure for the NOURISHING database of diet-related policies<sup>11</sup> and scope to identify eligible policies for the database. The NOURISHING framework has been used as a research and monitoring tool by a range of institutions and projects, such as the STOP project<sup>12</sup> and the INFORMAS food policy benchmarking project.<sup>13</sup> The Global Food Research Program at University of North Carolina at Chapel Hill<sup>14</sup> uses the NOURISHING databases and framework in its diet-related policy fact sheets,<sup>15,16</sup> which support the program’s technical assistance on obesity prevention measures to universities, organizations, and governments. Moreover, WCRF International uses the NOURISHING framework to underpin advocacy efforts to press for more government action in the ten policy areas as well as examine the experiences of developing robust “NOURISHING” nutrition policies in several countries.<sup>17</sup>

Historically, there has been only limited action on physical activity policy development and implementation at both global and national levels.<sup>7,18</sup> However, there have been significant efforts to drive action<sup>19</sup> with international guidance documents and tools for physical activity policy development, such as the Global Strategy on Diet, Physical Activity, and Health (2004),<sup>20</sup> the Toronto Charter on Physical Activity (2010),<sup>21</sup> and the complementary NCD Prevention: Investments that Work for Physical Activity (2011)<sup>22</sup> developed by the Global Advocacy for Physical Activity.<sup>23</sup> The Health-Enhancing Physical Activity Policy Audit Tool<sup>24</sup> followed in 2015, which allows countries to perform and communicate a detailed assessment of what health-enhancing physical activity policies are in place and where there are gaps. Furthermore, the WHO Global Action Plan on Physical Activity (GAPPA)<sup>25</sup> (2018) aims to build on this progress with a detailed strategy and guidance on the policy areas needed to promote physical activity. The Comprehensive Analysis of Policy on

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Physical Activity framework (2019) specifies 38 elements of a comprehensive analysis of physical activity policies in the 6 categories.<sup>26</sup> It is designed to support research related to physical activity policy and to provide a context for the analysis of its specific components.<sup>26</sup> The Global Observatory for Physical Activity<sup>27</sup> develops scorecards that highlight the absence and presence of physical activity plans and strategies within countries.

These tools and policy guidance documents provide a range of detailed ways to monitor and assess the status of physical activity policy within a country and develop policy in a range of areas. However, more action, including advocacy activities, is needed to drive policy development and implementation. Recognizing this, partners in the EU project, “Confronting Obesity: Co-creating policy with youth”<sup>28</sup> (known as the CO-CREATE project), comprising public health academics, civil society organizations, and physical activity experts, identified an opportunity for a policy framework to draw together all the key recommendations into a single overarching framework as a one-stop shop visual tool. This tool would present a consolidated overview of the recommended key policy areas where national governments should act. The tool could complement and support existing efforts and help further communicate the policy areas recommended in leading guidance, such as the WHO GAPP. Furthermore, a new framework could also act as an advocacy tool to drive engagement and implementation of key recommendations, including GAPP actions, as many international policy guidance documents were designed as technical guidance and not as primarily advocacy documents.

The framework would facilitate summarizing the areas where policy action is needed to increase physical activity and identify policy gaps. It could help identify what policies exist, support monitoring of policy development and implementation processes, and be an advocacy tool to drive more policy development action. The framework would also be used to develop an organizing structure and search scope for a physical activity policy database, which was identified in the CO-CREATE project as a needed resource that could contribute to physical activity policy monitoring and development. Both the framework and database would be used by youth within the CO-CREATE project to support participatory policy research, idea formulation, and advocacy activities.

This paper describes the development and structure of the MOVING framework.

## Method

The framework was developed through a documentary review and thematic analysis of key international guidance on physical activity policy, and expert consultation. A scan was performed of international physical activity policy documents and guidance to identify global physical activity policy recommendations as well as key experts in physical activity. Themes identified through the documentary review and thematic analysis were then refined using expert consultation into components for the framework. The functionality of the framework as a conceptual and organizing tool was then tested, refined, and finalized with the development of branded visualization of the tool. Figure 1 illustrates how the chosen methods were linked in the process of development of the framework.

### Policy Guidance Document and Stakeholder Scanning Exercise

The scanning exercise sought to identify evidence-based policy action recommendations from international physical activity policy

documents and guidance to provide a basis for the policy areas within the framework. The document scan also was used to identify experts for the consultation on the conceptualization and organization of the framework who had either participated in the development of physical activity policy and/or conducted physical activity policy research.

The scan was designed to identify international physical activity policy guidance documents published in English and that contained guidance and recommendations for promoting physical activity through policy action. Only documents that were published after 2004 were included. This cutoff year was chosen because the WHO Global Strategy on Diet, Physical Activity and Health was published that year. Policy guidance documents that fell outside these criteria, such as country-specific policy documents and those before 2004, were not reviewed.

The search was carried out using the Google search engine using the following search terms: “physical activity,” “policy action,” and “policy recommendation.” Citation chaining was also employed whereby documents referenced within identified policy guidance documents were searched and reviewed to see whether they met the search criteria and contained policy action recommendations.

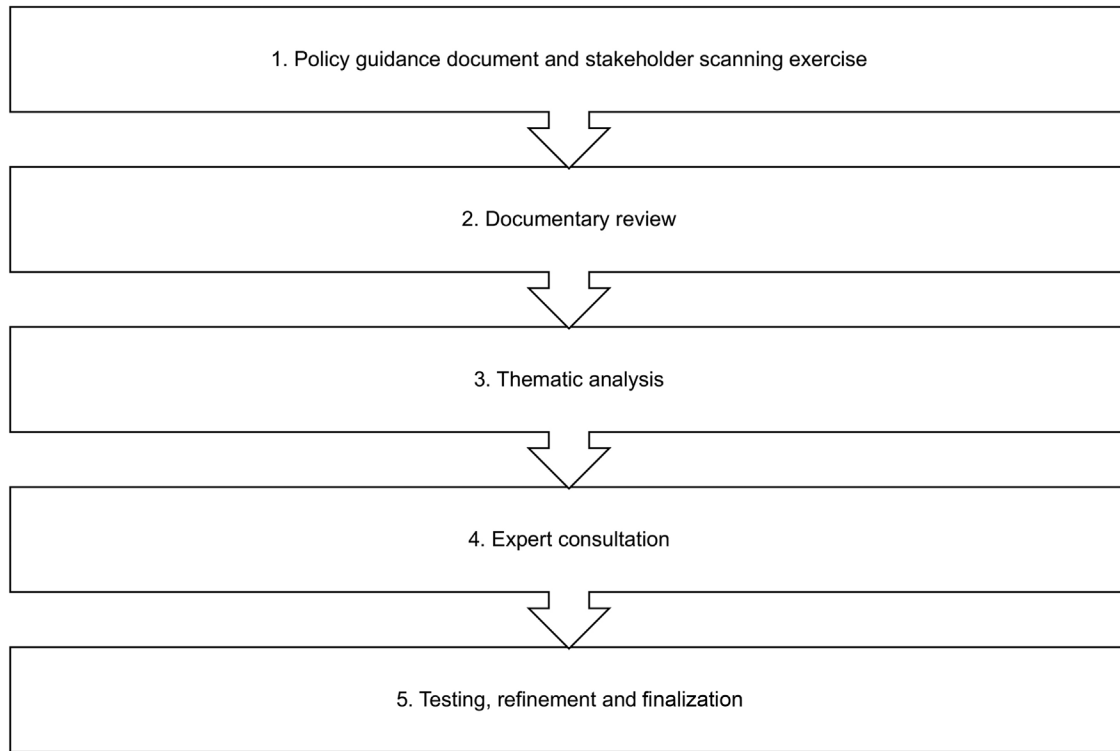
The same search strategy was used to identify relevant organizations and experts involved in development of international physical activity policy, involved in research related to developing physical activity policy, and/or who had practical experience in physical activity policy making. The purpose was to identify experts for the consultation on the conceptualization and organization of the framework who had either participated in the development of physical activity policy and/or conducted physical activity policy research. Experts were invited based on their physical activity policy development experience and technical knowledge of physical activity policy areas to advise on the content and structure of the framework.

Fourteen experts from a variety of backgrounds, such as academia (n = 12), civil society (n = 1), and national and international public policy (n = 1), were engaged. Furthermore, 5 members of the WCRF International Policy Advisory Group<sup>29</sup> were also engaged as the group had expertise and experience in policy development and NCD prevention strategies as well as contributed to the development of the NOURISHING framework and database (policymaker n = 1, academia n = 2, n = 1 civil society, n = 1 international organization) with the support of WCRF International staff (n = 6), who had experience of working with the NOURISHING framework and database. A full list of experts and their affiliation is detailed in [Appendix 1](#).

### Documentary Review

The documents identified in the scanning exercise were reviewed to identify physical activity policy actions and specific recommendations that promoted physical activity to form the basis of the framework. All policy actions identified were extracted, but not all were included for the development of the framework, in line with its focus on policy actions rather than strategy documents, such as national action plans. The following criteria were applied for inclusion of the policy actions identified:

1. Meet the definition of “policy,” “policy action,” or “implemented policy” ([Appendix 2](#)) adopted from the NOURISHING policy framework and database methods document<sup>30,31</sup> and
2. have a policy objective linked to supporting or increasing physical activity. Although policy actions may have multiple objectives (eg, health, environmental sustainability), only



**Figure 1** — Schematic presentation of the method.

those policy actions for which public health was a clearly stated aim or cobenefit were included (eg, reducing overweight/obesity, increasing active travel, increasing the time children spend on physical activity in school).

As the focus of the CO-CREATE project was on preventing childhood obesity and working with young people to cocreate policies, special attention was paid to identify policy action recommendations across the life course, specifically for children and adolescents.

### Thematic Analysis

The data extracted through the documentary review were analyzed through thematic analysis,<sup>32</sup> as outlined here. The eligible policy recommendations and policy actions were categorized and refined iteratively until key overarching themes were identified, which formed the foundation of the policy areas of the framework. Subpolicy areas were categorized under each policy area identified. Using a deductive approach, the themes were oriented around 4 broader policy domains, which were represented in existing key guidance documents (people, societies, environments, and systems). Furthermore, all policy actions in the WHO GAPP were cross-referenced with the policy areas of the framework to ensure all featured in MOVING.

### Expert Consultation

Three rounds of consultation were undertaken with the group of physical activity experts and members of the WCRF Policy Advisory Group. First, feedback was collated on the initial results of the thematic analysis, and a revised draft of the framework was developed. Second, a consultation document was developed and

shared with the group of experts, which included information about the objectives of the framework, how it was developed, a list of the framework's proposed policy and subpolicy areas, and a summary of potential policy actions to further elaborate on the subpolicy areas.

The consultation asked the following questions:

1. What is your feedback on the framework's main policy areas? Is anything missing or could they be improved?
2. Do you agree with the way we have structured/divided or combined the policy options into those policy areas?
3. If you were using this framework (and a policy database following the same structure) to access implemented policy actions, would you be able to easily find what you were looking for using these policy areas?
4. Do the overarching policy domains chosen work? Do you agree with how we have classified the policy areas under the domains?
5. Do the policy action examples help you understand more about their corresponding policy areas? Do the examples help you understand the distinction between the different policy areas?

A third draft was developed and circulated with the same group of experts for written feedback.

In addition, 2 external policy meetings were used to gather feedback. First, verbal feedback was collected in a presentation at a meeting of an independent interest group of physical activity experts convened during the 2018 International Society for Physical Activity and Health conference. Second, feedback was collected in an informal presentation at a meeting of physical activity experts convened by the WHO to discuss the WHO GAPP, which was being launched at the same time.



## Testing, Refinement, and Finalization

The MOVING framework was then also used as the organizing structure for the MOVING policy database (which was also under development at the same time) and as the scope for the search and policy categorization protocol to populate the database. This provided an opportunity to test the use of the framework and its ability to outline and organize the range of policies within the framework. The full method for developing the MOVING database is not described in this paper.

Its use as an organizing database structure prompted the framework to be further refined in October 2020. User testing (n = 19), including young people and partners within the CO-CREATE project, and populating the database by WCRF International staff (n = 3), identified that policy actions could be categorized within several different areas of framework at the same time either by the type of policy action/instrument (eg, programs and/or guidelines) or by the policy area (eg, schools, the built environment). It was updated to only focus on policy areas (rather than the type of policy action/instrument).

A branded graphic of the framework was developed to conceptualize and communicate the policy areas and domains.

## Results

The resulting “MOVING” framework was developed by WCRF International, one of the CO-CREATE partners. The MOVING framework mirrors the approach used to develop the NOURISHING framework of diet-related policies.

The mapping process identified a range of documents (n = 8), including key publications by the WHO, such as the WHO GAPP, <sup>25</sup> and councils such as the Global Advocacy for Physical Activity and the Global Observatory for Physical Activity, both from the International Society for Physical Activity and Health (Appendix 3). <sup>3,6,20,25,33–36</sup>

The policy document review identified that key physical activity policy documents had outlined a consistent set of policy recommendations since 2004. Each extracted policy recommendation that met the criteria was categorized into a series of broad themes (comprising policy areas and policy actions), namely: public education on physical activity; school education on physical activity; counseling patients on physical activity; urban design, environments; design guidelines; planning policies; road safety measures; open space and infrastructure; fiscal measures; and implementing programs to increase physical activity, such as workplace programs, mass participation programs, community initiatives, school programs, active transport programs, and training of professionals inside and outside of health on the importance of physical activity. The full results, which include the document name, policy recommendations identified, policy area to which each related, and key words are described in Appendix 3.

Based on the thematic analysis and input from 3 rounds of consultation and the testing through the development of the MOVING database, the policy framework developed a structure that covered 6 policy areas. As outlined earlier, it was decided to remove any focus on the type of policy instrument (such as “programs” or “guidelines”). The following 6 areas were identified:

1. Opportunities and initiatives that promote physical activity in schools, the community, and sport and recreation
2. Physical activity opportunities in the workplace and training in physical activity promotion across multiple professions

3. Structures and surroundings that promote physical activity
4. Transport infrastructure and opportunities that support active societies
5. Mass communications and behavior change
6. Physical activity training, assessment, and counseling in health care settings.

Within the 6 policy areas, policy actions were identified as outlined next. (The full detailed list of policy areas and subpolicy areas is outlined in Appendix 4).

### Opportunities and Initiatives That Promote Physical Activity in Schools, the Community, and Sport and Recreation

This policy area encompasses policy actions relating to education, the community, and sport and leisure. Examples include policy actions to promote physical education for students in schools, increased physical activity in and outside of classrooms, community and mass participation initiatives across the life course, policies promoting or supporting physical activity for the least active groups, vulnerable or marginalized people, and people of all ages and abilities, and financial and nonfinancial incentives to promote physical activity. <sup>3,6,20,25,33–36</sup>

### Physical Activity Opportunities in the Workplace and Training in Physical Activity Promotion Across Multiple Professions

This policy area includes policy actions focused on training professionals outside health care in the importance of physical activity and inclusive sport and their role in promoting and increasing physical activity. This includes training for educators, architects, planners, landscape architects, and recreational and open space facility managers about the role they play in creating environments that are conducive to being physically active. <sup>3,6,20,25,33–36</sup> It also includes policies that promote physical activity in the workplace, such as campaigns to be more active during work, tax-free benefits to the employees to buy a bicycle, and fitness classes.

### Structures and Surroundings That Promote Physical Activity

This policy area includes the design of buildings and their immediate vicinity and the wider structural factors that impact the built environment. Identified policy actions <sup>3,6,20,25,33–36</sup> include active design guidelines for both the inside and outside of buildings that prioritize equitable, safe, and universal access for all and that encourage occupants to be physically active as well as utilizing active design guidelines when designing open spaces or green spaces for communities. The latter includes quality paths, amenities, play facilities, sports facilities, drinking fountains, toilets, and signage. The policy document review <sup>3,6,20,25,33–36</sup> highlighted that, although active design guidelines can help increase activity in and around the built environment, the wider interactivity of the built environment and the infrastructure that is put in place to increase activity is important. For example, urban design and land-use policies have an impact on where residential areas are placed, and how dense they are, as well as whether other forms of development, such as retail or open space, are accounted for in the area. Policies targeting the built environment and policies that

reduce barriers to physical activity as well as policies that impact transport policies and policies to increase space for recreational activity have shown positive results in increasing levels of physical activity.<sup>35</sup> Urban planning and policies that promote active transport can improve the accessibility, acceptability, and safety of walking and cycling and can support the development of relevant infrastructure. In addition, the creation and preservation of built and natural environments that support physical activity can support active recreation and play and participation in sport.<sup>6</sup>

### Transport Infrastructure and Opportunities That Support Active Societies

This policy area focuses on the wider transport infrastructure. According to the policy document review,<sup>3,6,20,25,33–36</sup> populations that are more spread out with limited infrastructure and facilities are more likely to be sedentary and rely on car transport. Transport policies that increase walking and cycling infrastructure and road safety measures for pedestrians and cyclists can greatly impact activity levels by increasing cycling and walking relative to car use. Increased public transport can also increase activity levels and decrease car use. Policies that promote active transport, for example, to and from school and/or work, are also important for supporting people to be more physically active and to decrease car use.

### Mass Communications and Behavior Change

This policy area focuses on mass communication campaigns to inform the public. The policy document review<sup>3,6,20,25,33–36</sup> showed that it was important to have mass communication campaigns that increase awareness and knowledge of the benefits of physical activity, change social norms around physical activity, and increase awareness of cobenefits of the physical activity (environmental, social, and economic). This policy area also encompasses the development by governments of national physical activity guidelines and the publication of the guidelines through a communication plan, which can help people understand the recommended levels of physical activity.

### Physical Activity Training, Assessment, and Counseling in Health Care Settings

This policy area contains all policy actions that aim to educate health care professionals about the importance of physical activity and how to use their knowledge to counsel and advise the population about the importance of and the ways of doing physical activity. This includes training of professionals within health care and the assessment and counseling of patients by professionals in primary care, health care, outpatient, and community-based settings. The policy document review<sup>3,6,20,25,33–36</sup> highlights actions to provide education, assessment, or counseling on the benefits of physical activity to a person to increase their levels of physical activity.

To support communication and organization, the MOVING acronym was devised to convey the 6 overarching policy areas: M—make opportunities and initiatives that promote physical activity in schools, the community, and sport and recreation; O—offer physical activity opportunities in the workplace and training in physical activity promotion across multiple professions; V—visualize and enact structures and surroundings that promote

physical activity; I—implement transport infrastructure and opportunities that support active societies; N—normalize and increase physical activity through public communication that motivates and builds behavior change skills; and G—give physical activity training, assessment, and counseling in health care settings.

These 6 policy areas of MOVING were further categorized into 3 policy domains given their target focus on people, societies, and environments. The framework used the names for the policy domains from the WHO GAPP (active societies, active environments, and active people) given the strong complementarity in content and desire for alignment.

Based on the policy document review<sup>3,6,20,25,33–36</sup> and consultation with physical activity experts, several additional key factors were identified as required to support the development of physical activity policy. For example, the physical activity policy documents consistently highlighted the importance of, and necessity for, strong governance systems, leadership, physical activity surveillance, interdisciplinary research funding, financing mechanisms, monitoring and evaluation of policy actions, and using a life course and health in all policies approach. A fourth policy domain, active systems, is, therefore, included in the framework as an overarching policy domain to encompass these additional elements.<sup>3,6,20,25,33–36</sup> This name was taken from the WHO GAPP<sup>25</sup> to ensure alignment and coherence. The final structure of the MOVING framework is shown in Figure 2.

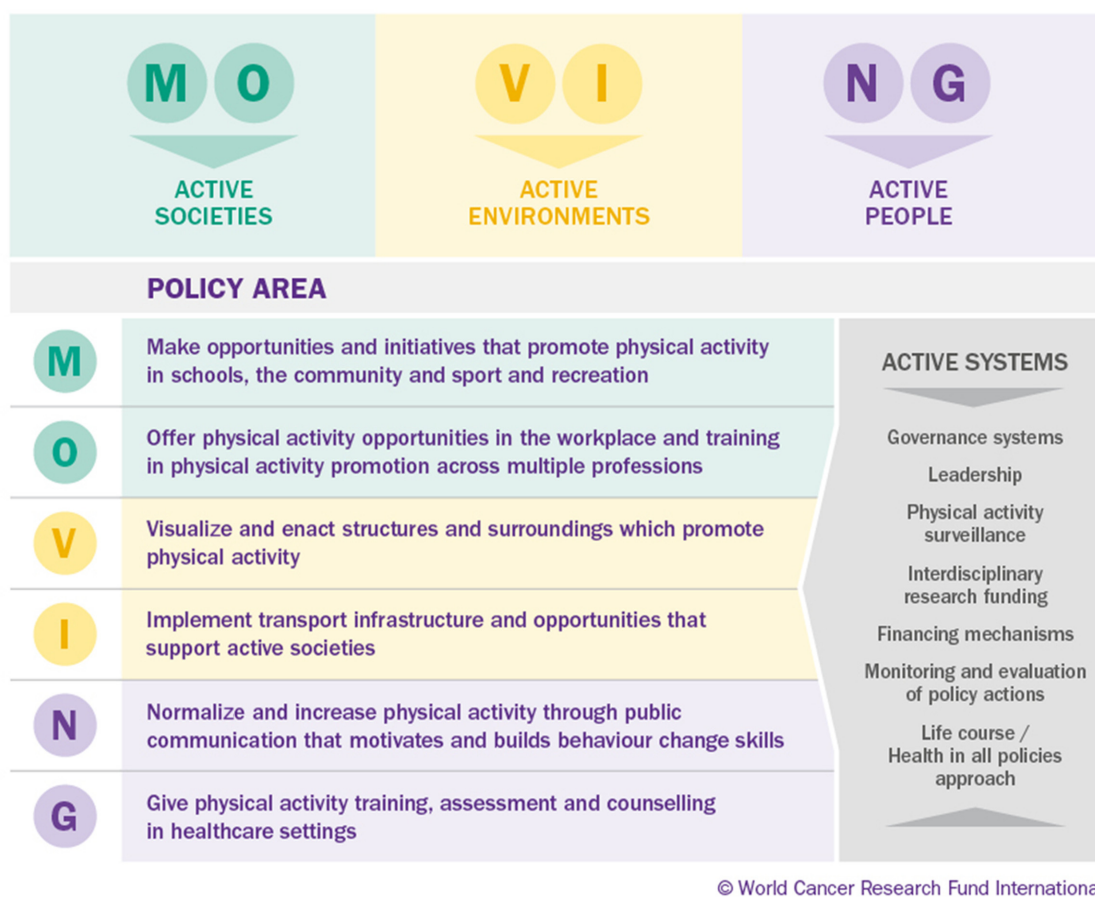
Furthermore, the MOVING framework provides the organizing structure for a database of physical activity policy actions (<https://policydatabase.wcrf.org>). The policy and subpolicy areas (as outlined in Appendix 4) also provide the search scope for policies eligible for inclusion within the database.<sup>30,31</sup>

## Discussion

The MOVING framework comprises a comprehensive range of policy actions designed to increase physical activity, built on the principle that action needs to be taken in all policy areas, and draws on expert opinion and published recommendations related to physical activity policy actions.

The MOVING framework promotes a whole-of-government and whole-of-society approach to increasing physical activity. The framework reflects the multisectoral nature of physical activity and the need for physical activity to be integrated in all government departments as well as in investment and budget strategies in line with the appreciable economic costs resulting<sup>37</sup> from physical inactivity across populations.

The framework also adopts a life course approach in recognition that different policy actions are targeted at different life stages, including children, adolescents, adults, and older people—policy areas include key life course areas, such as education, community, workplace, and health care, with specific actions targeted at specific groups (as detailed in the subpolicy areas of the framework in Appendix 4). This also includes young people, particularly in and out of the school environment, in line with the focus of the CO-CREATE project. The framework also recognizes the importance of systems-based approaches, acknowledging that action must be taken in all areas rather than a siloed approach to promote physical activity—from the built environment to schemes and initiatives that advance physical activity in the community and within education.



**Figure 2** — The MOVING physical activity policy framework.

The testing of the MOVING framework in the development of the database allowed for small adjustments to improve its ability to logically organize policy actions while retaining the original policy recommendations as identified in the policy document review.

The framework also details the common elements of all policy areas as outlined in the active systems policy domain, such as financing, surveillance, and good governance, which cut across the system and can support the promotion of physical activity. Active systems reinforces the importance of knowledge, structures, and processes to underpin and support policy development that promotes physical activity.

The MOVING framework recognizes the importance of the WHO GAPPA<sup>25</sup> and seeks to align with its recommendations. As such, efforts were made to ensure that all recommended policy areas of the WHO GAPPA featured in the MOVING framework (as described in Appendix 5), and the MOVING policy domain names were taken from WHO GAPPA. Consequently, the MOVING framework and database can support advocacy activities that also implement the GAPPA recommendations. Looking at other physical activity policy tools, the MOVING framework supplements the coverage of the Comprehensive Analysis of Policy on Physical Activity framework<sup>26</sup> with the addition of mass media campaigns, active transport, and training for professionals within and outside of health care settings.

The policy document review highlighted that local government takes a prominent role in promoting physical activity. However, the framework is designed for national policies (in

line with the scope of the CO-CREATE project) but recognizes that national policies can inform more localized policy development.

The use of the MOVING framework as an organizing structure and search scope for a database of implemented physical activity policies, categorized by theme and by country—the MOVING database<sup>11</sup>—can support advocacy, monitoring, and research activities of national policies in effect in a country. The MOVING database sits alongside the NOURISHING framework and database,<sup>11</sup> which can be searched together or alone to identify relevant physical activity and nutrition policy actions (<https://policy.database.wcrf.org>) for obesity and NCD prevention.

Moreover, the CO-CREATE project explicitly aims to include the voice of youth in its work. Young people were, therefore, included in this process through participation in user testing of the MOVING database. Youth insights on policy innovation in physical activity are sought in the outputs of the CO-CREATE project, building on the knowledge generated through the application of the MOVING framework.

Reflecting on the development of the MOVING framework, an alternative approach to identifying policy documents for the development of the framework could have been the use of a systematic literature review of the physical activity policy. Moreover, the presence of more policymakers could have brought even more practical experience to the expert group.

However, the policy document review and analysis found that the key physical activity literature had covered a highly consistent



set of policy areas over the last 15 years,<sup>3,6,20,25,33–36</sup> obviating the need to devote extensive resources to a more formal systematic review. This was further confirmed by the consensus of expert opinion generated in the external consultation.

There is also strong alignment with existing and recently published literature to ensure that the framework complements resources and activities already available. For example, the recently published *Eight Investments That Work for Physical Activity*<sup>38</sup> by the International Society for Physical Activity and Health as well as *Getting Australia Active III*<sup>39</sup> also highlight the same policy areas covered by the MOVING framework.

## Conclusions

The MOVING framework and database can be used by policy-makers to identify what action is needed, tailor options suitable for their populations, and assess whether their approach is sufficiently comprehensive. Policy frameworks such as MOVING are important tools as they also enable researchers and civil society to monitor what governments are doing, benchmark progress, and hold governments to account. They can also support advocacy activities by highlighting the policy areas where action needs to be taken.

The MOVING framework will also support a range of activities within the CO-CREATE project, which will involve and empower adolescents and youth organizations to foster a participatory process of identifying and formulating relevant policies, promoting relevant policy actions, and developing tools and strategies for implementation to promote physical activity.

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Dr Justin Varney (National Strategic Advisor on Health and Work at Public Health England). Dr Ioana Vlad (Senior Policy Research Officer, WCRF International). Professor Catherine Woods (Professor of Physical Activity for Health, Department of Physical Education and Sport Sciences at University of Limerick). The “Confronting Obesity: Co-creating policy with youth (CO-CREATE)” project has received funding from the European Union’s Horizon 2020 research and innovation program under grant agreement No 774210 (<https://www.fhi.no/en/studies/co-create/>). All authors and their institutions report grants under this agreement and have declared their conflict of interest.

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## Appendix 1: Physical Activity Experts

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Abbreviations: GOPA, Global Observatory for Physical Activity; IPAN, Institute for Physical Activity and Nutrition; WCRF, World Cancer Research Fund.

## Appendix 2: Definitions of Policy, Policy Action, and Implemented Policy

Policy was defined as “the written or unwritten aims, objectives, targets, strategy, tactics, and plans that guide the actions of a government, political party, business, other organisation or people.” Policy action was defined as “any form of government action, including, but not restricted to, legislation, regulation, decrees, standards, policies, programmes, fiscal measures and government sponsored or endorsed voluntary action and agreements. All policy actions are part of public policy, but not all policies are policy actions.

A policy action can be implemented at the national, regional, provincial/territorial or local level.” A policy is defined as implemented “at the point in time when an adopted policy first comes into effect. For example, draft or model laws, policy proposals, election commitments, and laws that have been passed but not come into effect are not considered to be implemented.”<sup>30</sup>

### Appendix 3: Physical Activity Policy Document Search, Analysis, and Coding

Publication	Recommendation	Code	Policy area	Subpolicy areas
Tackling NCDs: 'Best Buys' and Other Recommended Interventions for the Prevention and Control of Noncommunicable Diseases <sup>3</sup>	Implement community-wide public education and awareness campaign for physical activity, which includes a mass media campaign combined with other community-based education, motivational and environmental programs aimed at supporting behavioral change of physical activity levels. Provide physical activity counseling and referral as part of routine primary health care services through the use of a brief intervention. Ensure that macro level urban design incorporates the core elements of residential density, connected street networks that include sidewalks, easy access to a diversity of destinations, and access to public transport. Implement whole-of-school program that includes quality physical education, availability of adequate facilities, and programs to support physical activity for all children. Provide convenient and safe access to quality public open space and adequate infrastructure to support walking and cycling. Implement multicomponent workplace physical activity programs. Promotion of physical activity through organized sport groups and clubs, programs, and events. Implement the global strategy on diet, physical activity, and health.	Mass media campaigns Counseling Urban design School education and programs Public open space and infrastructure Workplace Community and mass participation initiatives Implement global strategy National guidelines Urban and town planning Sport and recreation facilities Commuting School programs School space and facilities Counseling Community initiatives	Public education Health care Infrastructure School settings Infrastructure Workplace Community Governance Public education Infrastructure Infrastructure Active transport School settings Infrastructure Health care Community/mass participation	Mass media campaign; combine with other community education Primary health care; physical activity counseling; physical activity referral Residential density; connected street networks (sidewalks); easy access to a diversity of destinations; access to public transport Physical education; physical activity programs; school facilities Accessible public open space; walking and cycling infrastructure Workplace program Community programs; mass participation events Physical activity strategy Physical activity guidelines Walking and cycling infrastructure; town planning; accessible and safe physical activity Walking infrastructure; sport and recreation facilities Active transport to and from work Physical activity at school settings School facilities; free time activity Primary care; counseling Social networks
Global Recommendations on Physical Activity for Health <sup>33</sup>	National guidelines or recommendations on physical activity for the general population to inform the population on the frequency, duration, intensity, types, and total amount of physical activity necessary for health. Reviewing urban and town planning and environmental policies at national and local levels to ensure that walking, cycling, and other forms of physical activity are accessible and safe. Providing local play facilities for children (eg, building walking trails). Facilitating active transport to work (eg, cycling and walking) and other physical activity strategies for the working population. Ensuring that school policies support the provision of opportunities and programs for physical activity. Providing schools with safe and appropriate spaces and facilities so that students can spend their time actively. Providing advice or counsel in primary care. Creating social networks that encourage physical activity.			

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Publication	Recommendation	Code	Policy area	Subpolicy areas
WHO Physical activity fact sheets <sup>34</sup>	In cooperation with relevant sectors, physical activity is promoted through activities of daily living. Walking, cycling, and other forms of active transportation are accessible and safe for all. Labor and workplace policies encourage physical activity. Schools have safe spaces and facilities for students to spend their free time actively. Quality physical education supports children to develop behavior patterns that will keep them physically active throughout their lives. Sports and recreation facilities provide opportunities for everyone to do sports. Adopt and implement national guidelines on physical activity for health. Consider establishing a multisectoral committee or similar body to provide strategic leadership and coordination. Develop appropriate partnerships and engage all stakeholders, across government, nongovernmental organizations, and civil society and economic operators, in actively and appropriately implementing actions aimed at increasing physical activity across all ages. Develop policy measures in cooperation with relevant sectors to promote physical activity through activities of daily living, including through “active transport,” recreation, leisure, and sport, for example: national and subnational urban planning and transport policies to improve the accessibility, acceptability, and safety of, and supportive infrastructure for, walking and cycling. Develop policy measures in cooperation with relevant sectors to promote physical activity through activities of daily living, including through “active transport,” recreation, leisure, and sport, for example: improved provision of quality physical education in educational settings (from infant years to tertiary level), including opportunities for physical activity before, during, and after the formal school day. Develop policy measures in cooperation with relevant sectors to promote physical activity through activities of daily living, including through “active transport,” recreation, leisure, and sport, for example: actions to support and encourage “physical activity for all” initiatives for all ages. Creation and preservation of built and natural environments, which support physical activity in schools, universities, workplaces, clinics and hospitals, and the wider community with a particular focus on providing infrastructure to support active transport, ie, walking and cycling, active recreation and play, and participation in sports. Promotion of community involvement in implementing local actions aimed at increasing physical activity.	Cross-sector	Governance/ community	Initiatives promoting active living; cross-sector cooperation
		Active transport	Active transport	Walking, cycling, safety
		Workplace	Workplace	Physical activity in the workplace; workplace policies
		School space and facilities	School settings	Free time activity; school facilities infrastructure
		School education and programs	School settings	Physical education; school programs; physical activity during school hours
		Sport and recreation	Infrastructure	Sports and recreation facilities
		National guidelines	Public education	Physical activity guidelines
		Multisectoral committee	Governance	Leadership; multisectoral action; coordination
		Partnerships	Governance	Physical activity stakeholders; cross-sector cooperation
		Urban and town planning and active transport	Transport/ infrastructure	Active transport; walking and cycling; sport and recreation facilities
Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 <sup>6</sup>		School programs; sport and recreation initiatives; active transport	School settings/active transport/sport/leisure	Physical education; physical activity at school settings; active transport; sport and recreation
		Sport and recreation initiatives	Sport and recreation	Physical activity for all ages and abilities; sport; leisure; active transport
		Active transport and urban design	Infrastructure	Active transport to and from work/schools; physical activity at universities, workplaces, clinics and hospitals, and the wider community
		Community initiatives	Governance	Community initiatives promoting physical activity; citizen participation

(continued)

Publication	Recommendation	Code	Policy area	Subpolicy areas
	Conduct evidence-informed public campaigns through mass media, social media at the community level, and social marketing initiatives to inform and motivate adults and young people about the benefits of physical activity and to facilitate healthy behaviors. Campaigns should be linked to supporting actions across the community and within specific settings for maximum benefit and impact.	Public campaigns	Public education	Mass media, social media, social marketing
	Encourage the evaluation of actions aimed at increasing physical activity to contribute to the development of an evidence base of effective and cost-effective actions.	Evaluation	Governance	Evidence base; physical activity evaluation; cost-effective actions
	Implement the WHO Global Strategy on Diet, Physical Activity, and Health (objective 3, paragraphs 40–41).	Global strategy	Governance	Physical activity strategy
	Provide more convenient, safe, and health-oriented environments for physical activity.	Active environments	Infrastructure	Safe, health-oriented, convenient environments
	Implement best practice communication campaigns, linked with community-based programs, to heighten awareness, knowledge, and understanding of, and appreciation for, the multiple health benefits of regular physical activity and less sedentary behavior, according to ability, for individual, family, and community well-being.	Public campaigns	Public education	Physical activity campaigns
Global Action Plan on Physical Activity 2018–2030: More Active People for a Healthier World <sup>25</sup>	Conduct national and community-based campaigns to enhance awareness and understanding of, and appreciation for, the social, economic, and environmental cobenefits of physical activity and, particularly, more walking, cycling, and other forms of mobility involving the use of wheels (including wheelchairs, scooters, and skates) and, thereby, make a significant contribution to achievement of the 2030 Agenda for Sustainable Development (SDG2; SDG3; SDG4; SDG5; SDG8; SDG9; SDG10; SDG11; SDG13; SDG15; SDG16; SDG17).	Public campaigns	Public education	Physical activity campaigns; active transport campaigns
	Implement regular mass participation initiatives in public spaces, engaging entire communities, to provide free access to enjoyable and affordable socially and culturally appropriate experiences of physical activity.	Mass participation initiatives	Mass participation	Public spaces; community initiatives, free access to enjoyable and affordable socially and culturally appropriate experiences
	Strengthen preservice and in-service training of professionals, within and outside the health sector, to increase knowledge and skills related to their roles and contributions in creating inclusive, equitable opportunities for an active society, including, but not limited to, the sectors of transport, urban planning, education, tourism and recreation, and sports and fitness as well as in grassroots community groups and civil society organizations.	Training for professionals	Training/health care	Preservice and in-service training; health care professions; professions outside health care
	Strengthen the integration of urban and transport planning policies to prioritize the principles of compact, mixed-land use, at all levels of government as appropriate, to deliver highly connected neighborhoods to enable and promote walking, cycling, and other forms of mobility involving the use of wheels (including wheelchairs, scooters, and skates) and the use of public transport in urban, periurban, and rural communities.	Planning policies	Infrastructure; active transport	Compact, mixed-use land, highly connected neighborhoods, walking, cycling or other mobility, public transport in urban, periurban, and rural communities

(continued)

Publication	Recommendation	Code	Policy area	Subpolicy areas
	<p>Improve the level of service provided by walking and cycling network infrastructure to enable and promote walking, cycling, and other forms of mobility involving the use of wheels (including wheelchairs, scooters, and skates) and the use of public transport in urban, periurban, and rural communities, with due regard for the principles of safe, universal, and equitable access by people of all ages and abilities and in alignment with other commitments.</p> <p>Accelerate implementation of policy actions to improve road safety and the personal safety of pedestrians, cyclists, people engaged in other forms of mobility involving the use of wheels (including wheelchairs, scooters, and skates), and public transport passengers, with priority given to actions that reduce risk for the most vulnerable road users in accordance with the safe-systems approach to road safety and in alignment with other commitments.</p> <p>Strengthen access to good-quality public and green open spaces, green networks, recreational spaces (including river and coastal areas), and sports amenities by all people, of all ages, and of diverse abilities in urban, periurban, and rural communities, ensuring that design is consistent with these principles of safe, universal, age-friendly, and equitable access with a priority being to reduce inequalities and in alignment with other commitments.</p> <p>Strengthen the policy, regulatory, and design guidelines and frameworks, at the national and subnational levels, as appropriate, to promote public amenities, schools, health care, sports and recreation facilities, workplaces, and social housing that are designed to enable occupants and visitors with diverse abilities to be physically active in and around the buildings and prioritize universal access by pedestrians, cyclists, and public transport.</p> <p>Strengthen provision of good-quality physical education and more positive experiences and opportunities for active recreation, sports, and play for girls and boys, applying the principles of the whole-of-school approach in all preprimary, primary, secondary, and tertiary educational institutions to establish and reinforce lifelong health and physical literacy and promote the enjoyment of, and participation in, physical activity, according to capacity and ability.</p> <p>Implement and strengthen systems of patient assessment and counseling on increasing physical activity and reducing sedentary behavior by appropriately trained health, community, and social care providers, as appropriate, in primary and secondary health care and social services as part of universal health care, ensuring community and patient involvement and coordinated links with community resources, where appropriate.</p> <p>Enhance provision of, and opportunities for, more physical activity programs and promotion in parks and other natural environments (such as beach, rivers, and foreshores) as well as in private and public workplaces, community centers, recreation and sports facilities, and faith-based centers to support participation in physical activity by all people of diverse abilities.</p> <p>Enhance the provision of, and opportunities for, appropriately tailored programs and services aimed at increasing physical activity and reducing sedentary behavior in older adults, according to ability, in key settings such as local and community venues, health, social and long-term care settings, assisted living facilities, and family environments to support healthy aging.</p>	<p>Urban design</p> <p>Urban design and road safety</p> <p>Public and open spaces</p> <p>Planning and urban design</p> <p>School programs</p> <p>Counseling</p> <p>Physical activity programs</p> <p>Community initiatives</p>	<p>Infrastructure</p> <p>Active transport</p> <p>Infrastructure</p> <p>Infrastructure</p> <p>Infrastructure</p> <p>School settings</p> <p>Health care</p> <p>Infrastructure; sport and recreation</p> <p>Community</p>	<p>Walking and cycling network infrastructure</p> <p>Road safety actions; public transport; active transport; safety</p> <p>Green open spaces, green networks, recreation spaces, sports amenities, safety</p> <p>Design guidelines and frameworks for schools, health care, sports and recreational facilities, workplaces, and social housing, enabling them to be physically active in and around buildings</p> <p>Physical education; active recreation</p> <p>Primary care; secondary care; social services; counseling and assessment</p> <p>Parks, natural environments, workplaces, community centers, rec and sports facilities, faith-based centers</p> <p>Older adults; least active groups</p>

Strengthen the development and implementation of programs and services, across various community settings, to engage with, and increase the opportunities for, physical activity in the least active groups, as identified by each country, such as girls, women, older adults, rural and indigenous communities, and vulnerable or marginalized populations, embracing positive contributions by all people.	Physical activity programs and community initiatives	Community	Least active groups; vulnerable and marginalized groups
Implement whole-of-community initiatives, at the city, town, or community levels, that stimulate engagement by all stakeholders and optimize a combination of policy approaches, across different settings, to promote increased participation in physical activity and reduced sedentary behavior by people of all ages and diverse abilities, focusing on grassroots community engagement, codevelopment, and ownership.	Community engagement	Governance	Community initiatives
Strengthen policy frameworks and leadership and governance systems, at the national and subnational levels, to support implementation of actions aimed at increasing physical activity and reducing sedentary behaviors, including multisectoral engagement and coordination mechanisms; policy coherence across sectors; guidelines, recommendations, and actions plans on physical activity and sedentary behavior for all ages; and progress monitoring and evaluation to strengthen accountability.	Governance	Governance	Multisectoral engagement, policy coherence
Enhance data systems and capabilities at the national and, where appropriate, subnational levels to support regular population surveillance of physical activity and sedentary behavior across all ages and multiple domains; development and testing of new digital technologies to strengthen surveillance systems; development of monitoring systems of wider sociocultural and environmental determinants of physical inactivity; and regular multisectoral monitoring and reporting on policy implementation to ensure accountability and inform policy and practice.	Data	Governance	Surveillance systems; monitoring systems
Strengthen the national and institutional research and evaluation capacity and stimulate the application of digital technologies and innovation to accelerate the development and implementation of effective policy solutions aimed at increasing physical activity and reducing sedentary behavior.	Research and evaluation	Research and data	Physical activity developments; innovation
Escalate advocacy efforts to increase awareness and knowledge of, and engagement in, joint action at the global, regional, and national levels, targeting key audiences, including but not limited to high-level leaders, policymakers across multiple sectors, the media, the private sector, city and community leaders, and the wider community.	Advocacy	Advocacy	Physical activity advocacy; targets; global, national, and regional level
Strengthen financing mechanisms to secure sustained implementation of national and subnational action and the development of the enabling systems that support the development and implementation of policies aimed at increasing physical activity and reducing sedentary behavior.	Financing	Fiscal measures	Financial incentives

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Publication	Recommendation	Code	Policy area	Subpolicy areas
A Guide for Population-Based Approaches to Increasing Levels of Physical Activity. Implementation of the WHO Global Strategy on Diet, Physical Activity, and Health <sup>35</sup>	Develop a national strategy.	National strategy	Governance	Physical activity strategy
	Develop or integrate into national policy the promotion of physical activity, targeting change in a number of sectors.	Governance	Governance	Multisectoral
	Review existing policies to ensure that they are consistent with best practice in population-wide approaches to increasing physical activity.	Governance	Governance	Multisectoral; policy coherence
	Review urban planning/town planning and environmental policies (national and local level) to ensure that walking, cycling, and other forms of physical activity are accessible and safe.	Urban planning	Infrastructure	Walking and cycling infrastructure
	Ensure transport policies include support for nonmotorized modes of transportation.	Transport policies	Transport	Transport policies; public transport; active transport
	Review labor and workplace policies to ensure they support physical activity in and around the workplace.	Workplace	Workplace	Physical activity in the workplace
	Encourage sports, recreation, and leisure facilities to take up the concept of sports (and physical activity) for all.	Sport and recreation; infrastructure	Sport and recreation	Sport and recreation facilities
	Ensure school policies support the provision of opportunities and programs for physical activity (consider staff as well as children).	School programs	School settings	Physical activity during school hours; physical activity at school settings
	Explore fiscal policy that may support participation in physical activity.	Fiscal policies	Fiscal measures	Financial incentives
	Policy and action plans should:	National policy	Governance	Physical activity policy and plans
The Toronto Charter for Physical Activity <sup>21</sup>	<ul style="list-style-type: none"><li>• gain input from a broad constituency of relevant stakeholders;</li><li>• identify clear leadership for physical activity, which may come from any government sector or other relevant nongovernment agencies or from a cross-sector collaboration;</li><li>• describe the roles and actions that government, not-for-profit, volunteer, and private sector organizations at national, regional, and local levels should take to implement the plan and promote physical activity;</li><li>• provide an implementation plan that defines accountability, timelines, and funding;</li><li>• include combinations of different strategies to influence individual, social, cultural, and built environment factors that will inform, motivate, and support individuals and communities to be active in ways that are safe and enjoyable;</li><li>• adopt evidence-based guidelines on physical activity and health.</li></ul> Urban and rural planning policies and design guidelines that support walking, cycling, public transport, sport, and recreation with a particular focus on equitable access and safety. Fiscal policies such as subsidies, incentives, and tax deductions that may support participation in physical activity or taxation to reduce obstacles. For example, tax incentives on physical activity equipment or club membership. Workplace policies that support infrastructure and programs for physical activity and promote active transport to and from work.	Urban settings and planning Fiscal policies	Infrastructure Fiscal measures	Design guidelines; public transport; active transport Financial incentives

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Publication	Recommendation	Code	Policy area	Subpolicy areas
	<p>Education policies that support high-quality compulsory physical education, active travel to school, physical activity during the school day, and healthy school environments.</p> <p>Sport and recreation policy and funding systems that prioritize increased community participation by all members of the community.</p> <p>Advocacy to engage the media to promote increased political commitment to physical activity. For example, "report cards" or civil society reports on the implementation of physical activity action to increase accountability.</p> <p>Mass communication and social marketing campaigns to increase community and stakeholder support for physical activity action.</p> <p>In education:</p> <ul style="list-style-type: none"> <li>• education systems that prioritize a high-quality compulsory physical education curriculum with an emphasis on noncompetitive sports in schools and enhancing physical education training for all teachers;</li> <li>• physical activity programs that focus on a range of activities that maximize participation regardless of skill level and that focus on enjoyment;</li> <li>• opportunity for students to be active during class, in breaks, at lunch time, and after school.</li> </ul> <p>In transportation and planning:</p> <ul style="list-style-type: none"> <li>• transport policies and services that prioritize and fund walking, cycling, and public transit infrastructure;</li> <li>• building codes that encourage or support physical activity;</li> <li>• trails in national parks and preserved areas to increase access.</li> </ul> <p>In planning and environment:</p> <ul style="list-style-type: none"> <li>• evidence-based urban design that supports walking, cycling, and recreational physical activity;</li> <li>• urban design that provides opportunities for sport, recreation, and physical activity by increasing access to public space where people of all ages and abilities can be physically active in urban and rural settings.</li> </ul> <p>In workplace:</p> <ul style="list-style-type: none"> <li>• workplace programs that encourage and support employees and their families to lead active lifestyles;</li> <li>• facilities that encourage participation in physical activity;</li> <li>• incentives for active commuting to work or by public transport rather than by car.</li> </ul> <p>In sport, parks, and recreation:</p> <ul style="list-style-type: none"> <li>• mass participation and sports for all, including those least likely to participate;</li> <li>• infrastructure for recreational activities across the life course;</li> <li>• opportunities for individuals with disabilities to be physically active;</li> <li>• building capacity among those who deliver sport through increased training on physical activity.</li> </ul>	<p>Education</p> <p>Financing</p> <p>Advocacy</p> <p>Public campaigns</p> <p>Education</p>	<p>School settings</p> <p>Governance</p> <p>Advocacy</p> <p>Public education</p> <p>School settings</p>	<p>Physical education; physical activity during school hours; physical activity at school settings; active transport to and from school</p> <p>Funding, financial incentives</p> <p>Political commitment to physical activity</p> <p>Physical activity campaigns</p> <p>Physical education; physical activity during school hours; physical activity at school settings; active breaks</p> <p>Design guidelines; public transport; open and green spaces</p> <p>Urban design; walking and cycling infrastructure; access to open and green spaces</p> <p>Physical activity in the workplace</p> <p>Sport and recreation facilities</p>

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Publication	Recommendation	Code	Policy area	Subpolicy areas
	<p>Cross-government working groups at all relevant levels to implement action plans:</p> <ul style="list-style-type: none"><li>• community initiatives involving different government departments and nongovernment agencies (eg, transport, urban planning, arts, conservation, economic development, environmental development, education, sport and recreation, and health) working in collaboration and sharing resources;</li><li>• coalitions of nongovernment organizations formed to advocate to governments for the promotion of physical activity;</li><li>• national, regional, or local partnership forums with key agencies from multiple sectors and public and private stakeholders to promote programs and policies;</li><li>• partnerships with population subgroups, including indigenous peoples, migrants, and socially disadvantaged groups.</li></ul>	Governance	Governance	Multisectoral
Global Strategy on Diet, Physical Activity and Health <sup>20</sup>	<p>National strategies should include specific goals, objectives, and actions similar to those outlined in the strategy. Of particular importance are the elements needed to implement the plan of action, including identification of necessary resources and national focal points (key national institutes); collaboration between the health sector and other key sectors, such as agriculture, education, urban planning, transportation, and communication; and monitoring and follow-up.</p> <p>National guidelines for health-enhancing physical activity should be prepared in accordance with the goals and objectives of the strategy and expert recommendations.</p> <p>A sound basis for action is provided by public knowledge and understanding of the relationship between diet, physical activity, and health, energy intake and output, and healthy choice of food items. Consistent, coherent, simple, and clear messages should be prepared and conveyed by government experts, nongovernmental and grassroots organizations, and the appropriate industries. They should be communicated through several channels and in forms appropriate to local culture, age, and gender. Behavior can be influenced especially in schools, workplaces, and educational and religious institutions and by nongovernmental organizations, community leaders, and mass media. Member states should form alliances for the broad dissemination of appropriate and effective messages about healthy diet and physical activity. Nutrition and physical activity education and acquisition of media literacy, starting in primary school, are important to promote healthier diets and to counter food fads and misleading dietary advice. Support should also be provided for action that improves the level of health literacy while taking account of local cultural and socioeconomic circumstances. Communication campaigns should be regularly evaluated.</p> <p>Health literacy should be incorporated into adult education programs. Such programs provide an opportunity for health professionals and service providers to enhance knowledge about diet, physical activity, and prevention of NCDs and to reach marginalized populations.</p> <p>National food and agricultural policies should be consistent with the protection and promotion of public health.</p>	National strategies	Governance	Physical activity strategy
		National guideline	Public education	Physical activity guidelines
		Education	Public education	Training for professionals outside of health
		Education	Public education	Adult health literacy; health professionals
		Governance	Governance	Multisectoral; policy coherence

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Publication

Recommendation

Code

Policy area

Subpolicy areas

Fiscal policies. Prices influence consumption choices. Public policies can influence prices through taxation, subsidies, or direct pricing in ways that encourage healthy eating and lifelong physical activity. Several countries use fiscal measures, including taxes, to influence availability of, access to, and consumption of, various foods, and some use public funds and subsidies to promote access among poor communities to recreational and sporting facilities. Evaluation of such measures should include the risk of unintentional effects on vulnerable populations.

Multisectoral policies are needed to promote physical activity. National policies to promote physical activity should be framed, targeting change in a number of sectors. Governments should review existing policies to ensure that they are consistent with best practice in population-wide approaches to increasing physical activity.

National and local governments should frame policies and provide incentives to ensure that walking, cycling, and other forms of physical activity are accessible and safe; transport policies include nonmotorized modes of transportation; labor and workplace policies encourage physical activity; and sport and recreation facilities embody the concept of sports for all. Public policies and legislation have an impact on opportunities for physical activity, such as those concerning transport, urban planning, education, labor, social inclusion, and health care funding related to physical activity.

Strategies should be geared to changing social norms and improving community understanding and acceptance of the need to integrate physical activity into everyday life. Environments should be promoted that facilitate physical activity, and supportive infrastructure should be set up to increase access to, and use of, suitable facilities.

Ministries of health should take the lead in forming partnerships with key agencies and public and private stakeholders to draw up jointly a common agenda and work plan aimed at promoting physical activity.

Simple, direct messages need to be communicated on the quantity and quality of physical activity sufficient to provide substantial health benefits.

School policies and programs should support the adoption of healthy diets and physical activity. Schools influence the lives of most children in all countries. They should protect their health by providing health information, improving health literacy, and promoting healthy diets, physical activity, and other healthy behaviors. Schools are encouraged to provide students with daily physical education and should be equipped with appropriate facilities and equipment.

Fiscal policies

Fiscal measures

Financial incentives; funding

Governance

Governance

Multisectoral; national and local; best practice; legislation

Education

Public education

Develop active environments promoting physical activity

Governance

Governance

Partnerships

Public campaigns

Public education

Physical activity campaigns

School programs

School settings

Physical activity at school settings

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Publication	Recommendation	Code	Policy area	Subpolicy areas
	<p>Health care providers, especially for primary health care but also other services (such as social services), can play an important part in prevention. Routine enquiries as to key dietary habits and physical activity, combined with simple information and skill building to change behavior, taking a life-course approach, can reach a large part of the population and be a cost-effective intervention. Attention should be given to WHO's growth standards for infants and preschool children, which expand the definition of health beyond the absence of overt disease to include the adoption of healthy practices and behaviors. The measurement of key biological risk factors, such as blood pressure, serum cholesterol, and body weight, combined with education of the population and support for patients, helps to promote the necessary changes. The identification of specific high-risk groups and measures to respond to their needs, including possible pharmacological interventions, is an important component. Training of health personnel, dissemination of appropriate guidelines, and availability of incentives are key underlying factors in implementing these interventions.</p>	Counseling	Health care	Health care providers; primary care; high risk groups

Abbreviations: NCD, noncommunicable disease; WHO, World Health Organization.

## Appendix 4: The Policy and Subpolicy Areas of the MOVING Physical Activity Framework

Policy areas	Subpolicy areas
M Make opportunities and initiatives that promote physical activity in schools, the community, and sport and recreation	<ul style="list-style-type: none"> <li>• Physical education in the curriculum</li> <li>• Policies increasing physical activity in and outside of classrooms</li> <li>• Community initiatives promoting physical activity across the life course</li> <li>• Mass participation initiatives promoting physical activity across the life course</li> <li>• Policies promoting/supporting physical activity for least active groups and vulnerable/marginalized people</li> <li>• Policies promoting/supporting physical activity for people of all ages and abilities</li> <li>• Financial and nonfinancial incentives to promote physical activity</li> </ul>
O Offer physical activity opportunities in the workplace and training in physical activity promotion across multiple professions	<ul style="list-style-type: none"> <li>• Preservice and in-service training for sport educators/trainers on inclusive sport</li> <li>• Preservice and in-service training for relevant professions outside of health care (such as educators, architects, planners, landscape architects, and park and recreation professionals)</li> <li>• Policies promoting physical activity in the workplace</li> </ul>
V Visualize and enact structures and surroundings that promote physical activity	<ul style="list-style-type: none"> <li>• Design guidelines and regulations for buildings that prioritize equitable, safe, and universal access by all that encourage occupants to be physically active</li> <li>• Active design guidelines outside buildings</li> <li>• Active design guidelines for people of all ages and abilities</li> <li>• Active design guidelines for open/green spaces</li> <li>• Walking and cycling infrastructure</li> <li>• Infrastructure for sport facilities</li> <li>• Integrated urban design and land-use policies prioritizing compact, mixed-land use</li> <li>• Policies that support access to quality public open space and green spaces</li> <li>• Policies that support people of all ages and abilities considered and accounted for in all planning decisions</li> </ul>
I Implement transport infrastructure and opportunities that support active societies	<ul style="list-style-type: none"> <li>• Policies that support public transport</li> <li>• Road safety actions including safety of pedestrians, cyclists, etc.</li> <li>• Mass communication campaigns to increase awareness about road safety</li> <li>• Mass communication campaigns to promote the use of public transport</li> <li>• Mass communication campaigns to promote active transport</li> <li>• Policies promoting active transport</li> <li>• Policies promoting active transport to and from school</li> <li>• Policies promoting active transport to and from work</li> </ul>
N Normalize and increase physical activity through public communication that motivates and builds behavior change skills	<ul style="list-style-type: none"> <li>• Mass communication campaigns including social marketing to increase awareness and knowledge about benefits of physical activity through the life course</li> <li>• Mass communication campaigns including social marketing to change social norms about the accessibility and need for physical activity</li> <li>• Mass communication campaigns to increase awareness of cobenefits of physical activity (environmental, social, and economic) through the life course</li> <li>• Mass communication campaigns to change social norms about discrimination and gender equality in sport</li> <li>• Develop and communicate physical activity guidelines</li> </ul>
G Give physical activity training, assessment, and counseling in health care settings	<ul style="list-style-type: none"> <li>• Preservice and in-service training within health care</li> <li>• Primary care (assessment, counseling, and physical activity prescriptions)</li> <li>• Policies that promote physical activity in health care and outpatient settings</li> <li>• Policies that promote physical activity in social care provision</li> </ul>

## Appendix 5: The WHO GAPP (16) Policy Domains and Actions Mapped Against the MOVING Physical Activity Framework Policy Areas

WHO GAPP policy domains	WHO GAPP policy actions	MOVING policy areas
Active societies	<p>Action 1.1: Implement best-practice communication campaigns, linked with community-based programs, to heighten awareness, knowledge, and understanding of, and appreciation for, the multiple health benefits of regular physical activity and less sedentary behavior, according to ability, for individual, family, and community well-being.</p> <p>Action 1.2: Conduct national and community-based campaigns to enhance awareness and understanding of, and appreciation for, the social, economic, and environmental cobenefits of physical activity and, particularly, more walking, cycling, and other forms of mobility involving the use of wheels (including wheelchairs, scooters, and skates) and, thereby, make a significant contribution to achievement of the 2030 Agenda for Sustainable Development (SDG2; SDG3; SDG4; SDG5; SDG8; SDG9; SDG10; SDG11; SDG13; SDG15; SDG16; SDG17).</p> <p>Action 1.3: Implement regular mass participation initiatives in public spaces, engaging entire communities, to provide free access to enjoyable and affordable socially and culturally appropriate experiences of physical activity.</p> <p>Action 1.4: Strengthen preservice and in-service training of professionals, within and outside the health sector, to increase knowledge and skills related to their roles and contributions in creating inclusive, equitable opportunities for an active society, including, but not limited to, the sectors of transport, urban planning, education, tourism and recreation, and sports and fitness as well as in grassroots community groups and civil society organizations.</p>	<p>Normalize and increase physical activity through public communication that motivates and builds behavior change skills</p> <p>Make opportunities and initiatives that promote physical activity in schools, the community, and sport and recreation</p> <p>Offer physical activity opportunities in the workplace and training in physical activity promotion across multiple professions</p>
Active environments	<p>Action 2.1: Strengthen the integration of urban and transport planning policies to prioritize the principles of compact, mixed-land use, at all levels of government as appropriate, to deliver highly connected neighborhoods to enable and promote walking, cycling, other forms of mobility involving the use of wheels (including wheelchairs, scooters, and skates), and the use of public transport, in urban, periurban, and rural communities.</p> <p>Action 2.2: Improve the level of service provided by walking and cycling network infrastructure to enable and promote walking, cycling, other forms of mobility involving the use of wheels (including wheelchairs, scooters, and skates), and the use of public transport in urban, periurban, and rural communities with due regard for the principles of safe, universal, and equitable access by people of all ages and abilities and in alignment with other commitments.</p>	<p>Implement transport infrastructure and opportunities that support active societies</p> <p>Implement transport infrastructure and opportunities that support active societies</p> <p>Visualize and enact structures and surroundings that promote physical activity</p>

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**WHO GAPP  
policy  
domains**

**WHO GAPPA policy actions**

**MOVING policy areas**

	<p>Action 2.3: Accelerate implementation of policy actions to improve road safety and the personal safety of pedestrians, cyclists, people engaged in other forms of mobility involving the use of wheels (including wheelchairs, scooters, and skates), and public transport passengers, with priority given to actions that reduce risk for the most vulnerable road users in accordance with the safe systems approach to road safety and in alignment with other commitments.</p> <p>Action 2.4: Strengthen access to good-quality public and green open spaces, green networks, recreational spaces (including river and coastal areas), and sports amenities by all people, of all ages, and of diverse abilities in urban, periurban and rural communities, ensuring that design is consistent with these principles of safe, universal, age-friendly, and equitable access with a priority being to reduce inequalities and in alignment with other commitments.</p> <p>Action 2.5: Strengthen the policy, regulatory, and design guidelines and frameworks, at the national and subnational levels, as appropriate, to promote public amenities, schools, health care, sports and recreation facilities, workplaces, and social housing that are designed to enable occupants and visitors with diverse abilities to be physically active in and around the buildings and prioritize universal access by pedestrians, cyclists, and public transport.</p>	<p>Implement transport infrastructure and opportunities that support active societies</p> <p>Visualize and enact structures and surroundings that promote physical activity</p> <p>Visualize and enact structures and surroundings that promote physical activity</p> <p>Offer physical activity opportunities in the workplace and training in physical activity promotion across multiple professions</p>
Active people	<p>Action 3.1: Strengthen provision of good-quality physical education and more positive experiences and opportunities for active recreation, sports, and play for girls and boys, applying the principles of the whole-of-school approach in all preprimary, primary, secondary, and tertiary educational institutions to establish and reinforce lifelong health and physical literacy and promote the enjoyment of, and participation in, physical activity, according to capacity and ability.</p> <p>Action 3.2: Implement and strengthen systems of patient assessment and counseling on increasing physical activity and reducing sedentary behavior by appropriately trained health, community, and social care providers, as appropriate, in primary and secondary health care and social services, as part of universal health care, ensuring community and patient involvement and coordinated links with community resources, where appropriate.</p> <p>Action 3.3: Enhance provision of, and opportunities for, more physical activity programs and promotion in parks and other natural environments (such as beach, rivers, and foreshores) as well as in private and public workplaces, community centers, recreation and sports facilities, and faith-based centers to support participation in physical activity by all people of diverse abilities.</p> <p>Action 3.4: Enhance the provision of, and opportunities for, appropriately tailored programs and services aimed at increasing physical activity and reducing sedentary behavior in older adults, according to ability, in key settings, such as local and community venues, health, social and long-term care settings, assisted living facilities, and family environments to support healthy aging.</p> <p>Action 3.5: Strengthen the development and implementation of programs and services, across various community settings, to engage with, and increase the opportunities for, physical activity in the least active groups, as identified by each country, such as girls, women, older adults, rural and indigenous communities, and vulnerable or marginalized populations, embracing positive contributions by all people.</p> <p>Action 3.6: Implement whole-of-community initiatives, at the city, town, or community levels, that stimulate engagement by all stakeholders and optimize a combination of policy approaches, across different settings, to promote increased participation in physical activity and reduced sedentary behavior by people of all ages and diverse abilities, focusing on grassroots community engagement, codevelopment, and ownership.</p>	<p>Make opportunities and initiatives that promote physical activity in schools, the community, and sport and recreation</p> <p>Give physical activity training, assessment, and counseling in health care settings</p> <p>Make opportunities and initiatives that promote physical activity in schools, the community, and sport and recreation</p> <p>Offer physical activity opportunities in the workplace and training in physical activity promotion across multiple professions</p> <p>Make opportunities and initiatives that promote physical activity in schools, the community, and sport and recreation</p>

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WHO GAPP policy domains	WHO GAPP policy actions	MOVING policy areas
Active systems	<p>Action 4.1: Strengthen policy frameworks, leadership, and governance systems, at the national and subnational levels, to support implementation of actions aimed at increasing physical activity and reducing sedentary behaviors, including multisectoral engagement and coordination mechanisms; policy coherence across sectors; guidelines, recommendations, and action plans on physical activity and sedentary behavior for all ages; and progress monitoring and evaluation to strengthen accountability.</p> <p>Action 4.2: Enhance data systems and capabilities at the national and, where appropriate, subnational levels to support regular population surveillance of physical activity and sedentary behavior across all ages and multiple domains, development and testing of new digital technologies to strengthen surveillance systems, development of monitoring systems of wider sociocultural and environmental determinants of physical inactivity, and regular multisectoral monitoring and reporting on policy implementation to ensure accountability and inform policy and practice.</p> <p>Action 4.3: Strengthen the national and institutional research and evaluation capacity and stimulate the application of digital technologies and innovation to accelerate the development and implementation of effective policy solutions aimed at increasing physical activity and reducing sedentary behavior.</p> <p>Action 4.4: Escalate advocacy efforts to increase awareness and knowledge of, and engagement in, joint action at the global, regional, and national levels, targeting key audiences, including but not limited to high-level leaders, policy-makers across multiple sectors, the media, the private sector, city and community leaders, and the wider community.</p> <p>Action 4.5: Strengthen financing mechanisms to secure sustained implementation of national and subnational action and the development of the enabling systems that support the development and implementation of policies aimed at increasing physical activity and reducing sedentary behavior.</p>	<p>Active systems: Governance; leadership; physical activity surveillance; interdisciplinary research funding; financing mechanisms; monitoring and evaluation of policy actions; life course/healthy in all policies approach</p>

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Abbreviation: GAPP, Global Action Plan on Physical Activity; WHO, World Health Organization.





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