

1 **A critique of national physical activity policy in Oman using three established policy**
2 **frameworks**

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22 **Abstract**

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24 **Background:** This paper aims to assess the development process, content and early
25 implementation of Oman’s national physical activity plan of action to identify strengths and
26 areas for improvement.

27 **Methods:** Data were extracted from four documents: the national NCD policy, the physical
28 activity plan of action, and two WHO Mission Reports. Three policy frameworks and
29 approaches (the physical activity content analysis grid, the health-enhancing physical activity
30 policy audit tool, and the policy cube approach for diet-related NCDs) were used to assess the
31 national policy.

32 **Results:** The findings demonstrated that policy makers engaged a broad range of sectors in
33 developing a national plan. It aligned with many of the elements from the three policy
34 frameworks (i.e., multisectoral approach, political commitment/leadership, identification of
35 national goals and targets, timeframe for implementation). The main gaps included the lack
36 of a specified sustainable funding mechanism, systems for monitoring progress and an
37 emphasis on general interventions with limited focus on specific target groups.

38 **Conclusion:** A range of sectors were engaged in the development of Oman’s national
39 physical activity plan of action, with strong political commitment and using global guidance
40 and local evidence. Establishing a strong accountability framework, including a clear
41 financing mechanism, is critical for Oman to meet its target for a 10% relative reduction in
42 physical inactivity by 2025.

43

44

45 **Introduction**

46

47 Non-communicable diseases (NCDs) are responsible for over 70% of deaths worldwide.¹

48 Insufficient physical activity (defined as less than 150 minutes of moderate intensity physical

49 activity per week) is associated with increased risk of all-cause mortality as well as increased

50 risk of developing a wide range of NCDs including cardiovascular disease, type 2 diabetes,

51 and cancer. Being regularly active contributes to maintenance of a healthy weight, as well as

52 improvements in cognitive function, sleep and quality of life.² Thus, promoting physical

53 activity should form a key part of NCD prevention strategies.

54

55 Physical inactivity was recognized as one of the four key behavioral risk factors for NCDs in

56 the World Health Organization (WHO) Global Status Report on Noncommunicable Diseases,

57 2010.³ Subsequently reducing physical inactivity was one of the nine targets set in the Global

58 Action Plan for the Prevention and Control of Noncommunicable Diseases 2013 – 2020.⁴

59 This helped to build further momentum for the physical activity agenda and in 2018 the

60 WHO member states adopted the Global Action Plan on Physical Activity 2018 – 2030.⁵ This

61 new action plan set two global targets: a 10% reduction in the prevalence of physical

62 inactivity by 2025 (to align with the global NCD action plan target), and a 15% reduction by

63 2030 (to align with the 2030 Agenda for Sustainable Development).⁶ However, without a

64 substantial increase in national action, these global targets will not be achieved.

65

66 Increasing population levels of physical activity requires a systems approach including a

67 comprehensive national policy.^{5,7} Such policies facilitate the creation of supportive

68 environments and opportunities for people to be physically active. Klepac Pogrmilovic and

69 colleagues identified 16 instruments to analyse the development and/or content of physical

70 activity policies.⁸ Although they noted that there is no consensus on what constitutes good
71 policy analysis, and none of the available tools covered all relevant components of a national
72 policy, they identified some commonality between instruments including funding, political
73 leadership, specific target groups, multi-sectoral engagement and approaches, physical
74 activity surveillance, and setting clear and specific goals.

75

76 The Eastern Mediterranean is the second most inactive region globally and has the highest
77 levels of inactivity among women due to social and cultural norms that constrain women's
78 mobility.⁹⁻¹¹ Oman is one of a few countries in the region that has a national physical activity
79 plan. Although women in Oman are highly inactive, they are playing a key role in advancing
80 physical activity policy in the country. The Ministry of Health focal point for physical
81 activity, including the one leading the development and implementation of the national plan,
82 is a woman. All authors of this manuscript are women. The National Sub-committee on
83 physical activity includes 6 women out of ten members; and among 26 sectoral focal points,
84 20 are women.

85

86 The national physical activity policy in Oman was developed over a course of three years by
87 a national multisectoral team and is now embedded within the national NCD policy and plan
88 of action launched in 2018; the authors documented Oman's experience in developing a
89 physical activity policy and plan of action in an earlier paper.¹² This paper aims to critically
90 assess this policy to identify strengths and areas for improvement.

91

92 **Method**

93

94 The policy analysis involved assessing the development, content and early implementation of
95 Oman's physical activity plan using three policy frameworks and approaches: 1. The physical
96 activity content analysis grid; 2. The Health-enhancing physical activity policy audit tool
97 (HEPA-PAT); and 3. The policy cube approach for diet-related NCDs.

98

99 The physical activity content analysis grid, developed for assessing a collection of European
100 physical activity policy documents, has eight aspects: sectors and institutions involved;
101 implementation plan; legal status; target groups; goals and targets; timeframe; budget; and
102 evaluation and surveillance.¹³ This grid emphasizes intersectoral engagement in terms of
103 policy development and implementation. The HEPA-PAT identifies 17 criteria for a
104 successful policy approach, which was tested and validated in ten countries in Europe.¹⁴ It
105 emphasizes intersectoral engagement and stresses the importance of evidence-based actions.
106 It is also the only one of the three tools that mentions a communication strategy and branding
107 of the policy. The policy cube approach for diet-related NCDs, based on the WHO Best Buys
108 for diet-related NCDs, assesses three dimensions: comprehensiveness of policy coverage;
109 policy salience and effectiveness; and an equity, gender and rights orientation.¹⁵ Although
110 this policy cube was developed for assessing diet-related NCD policies, the three dimensions
111 are relevant for physical activity. This tool is the only one that highlights the principles of
112 equity and human rights.

113

114 All three approaches share similar views about policy content (goals and targets, timeframe,
115 target groups and a monitoring framework) and political expedience (coordination and
116 financing mechanism). Together they cover different elements to be considered when
117 developing a physical activity policy and plan of action. As such, together they allow a more

118 comprehensive approach to critically reviewing the Oman policy than using one instrument
119 alone.⁸

120

121 The authors were involved in developing the national plan and conducted the content
122 analysis. For each tool, RMM developed a matrix outlining the key elements and then
123 populated the matrices using information from the national NCD policy,¹⁶ the physical
124 activity plan of action,¹⁷ and two WHO Mission Reports.¹⁸⁻¹⁹ HA and AA cross-checked the
125 matrices and confirmed the content. KM reviewed them to ensure comprehensiveness and
126 clarity.

127

128 **Results**

129 This section describes the findings of the policy analysis using the three approaches, which
130 are also summarized in Tables 1-3.

131

132 *Physical activity content analysis grid*

133 Following the content analysis grid¹³ as a framework found that the Oman policy covered the
134 first six of the eight aspects of the grid: sectors and institutions involved; implementation
135 plan; legal status; target groups; goals and targets; and timeframe (Table 1). Budget and
136 evaluation and surveillance were not specifically covered in the policy.

137

138 Four government sectors (education, health, sports and municipalities at national and
139 subnational levels) were involved in the development of the plan. During early
140 implementation, when a national sub-committee on physical activity was fully established,
141 overseen by the National NCD committee, sectoral involvement expanded to include

142 transport, housing and higher education, ensuring a broader approach in the promotion of
143 physical activity.

144

145 The plan includes a national target to reduce physical inactivity in adults by 10% and
146 provides a clear timeframe (2016 – 2025), although it does not set specific targets for
147 population sub-groups with high levels of inactivity like women and girls or adolescents. The
148 plan was formally adopted by the government, but is not legally binding. Like all government
149 5-year plans, the National NCD Plan, and the physical activity plan in particular, does not
150 have a specific budget allocation; the actions outlined are expected to be covered by funds
151 allocated to each ministry. The national NCD policy, which forms the basis for this plan,
152 mentions setting targets and monitoring progress as part of the governance and leadership
153 strategic area of work. While a monitoring framework is integrated within the plan and
154 includes both process and output indicators, the establishment of a surveillance system to
155 measure trends in physical activity, including for specific population sub-groups, is not
156 mentioned.

157 INSERT TABLE 1 ABOUT HERE

158

159 *Health-enhancing physical activity policy audit tool*

160 Of the three assessment tools, the HEPA-PAT is the most comprehensive with its 17
161 criteria;¹⁴ the policy development and implementation approach in Oman covered 15 of these
162 aspects relatively well (Table 2). A consultative approach was taken in the development of
163 the plan; this iterative process initially involved a core group of sectors (health, education,
164 municipalities and sports) and expanded during early implementation, ensuring the
165 integration across sectors and policies and a multi-strategy approach. This evidence-based
166 approach aligned with the WHO’s draft physical activity plan²⁰ including WHO physical

167 activity recommendations and global target, as well as available national and regional data
168 and information. Although a formal mechanism for monitoring has not been established,
169 process (i.e., annual progress reports, monitoring of activities and beneficiaries) and impact
170 measures (ie., population-based surveys) have been identified for monitoring purposes. The
171 establishment of a national intersectoral NCD Committee, as well as a subcommittee on
172 physical activity to oversee implementation of the plan of action, demonstrates high level
173 political commitment and commitment to working in partnership with relevant sectors; it also
174 ensures a clear link between policy and practice as does the intersectoral approach for early
175 implementation through developing a one-year operational plan. Finally, in December 2016
176 while developing the national policy, the Physical Activity Taskforce launched a one-year
177 social media campaign, “Health begins with one step”.²¹

178 Despite these positive aspects, clear weaknesses exist in two criteria: an undefined budget for
179 implementing the plan, and no explicit plan for an evaluation. Although the premier
180 university in the country is a member of the national NCD committee, involvement of
181 academia in physical activity is minimal due to the limited capacity in the country.

182 INSERT TABLE 2 ABOUT HERE

183

184 *A policy cube approach*

185 From Buse’s policy cube approach,¹⁵ the comprehensiveness of policy coverage in Oman’s
186 plan is the strongest of the three dimensions as it includes a goal and target and mentions the
187 one WHO best buy for addressing physical inactivity, a national campaign (Table 3).²²
188 However, the plan does not embark on establishing rules and regulations which have higher
189 levels of authority in terms of political salience and effectiveness.¹⁵ At the same time,
190 although an intersectoral committee is in place to oversee the plan’s implementation by

191 responsible authorities, the plan does not include independent reporting, remedial action for
192 delayed and/or non-implementation, nor a specific budget. The element of equity on the third
193 dimension is reflected in the fact that equitable access is included in the guiding principles of
194 the NCD policy. This policy also mentions specific initiatives targeting women and girls.
195 Although specific vulnerable groups (women, girls, people with disabilities, older adults) are
196 mentioned in the plan, it provides limited details on how these principles are operationalized.
197 In addition, the principles of human rights are not explicitly discussed.

198

199 **Discussion**

200 This policy analysis, using three approaches, found that a broad range of government partners
201 were engaged in the development and early implementation of Oman’s national physical
202 activity plan of action. Engaging with multi-sector stakeholders helped to secure buy-in and
203 enabled co-development of the physical activity plan of action. This meant that those
204 involved in implementing the plan were involved in its development, and that a cohesive set
205 of multi-sector actions could be designed to complement one another as part of a systems-
206 based approach. Oman’s experience in using multisectoral engagement to ensure ‘health in
207 all policies’ demonstrates how a shared goal for improving health and well-being is critical
208 when working with non-health partners but requires patience and health diplomacy.²³

209

210 Content analysis, using the different tools, indicates that the policy and plan includes
211 common elements of these tools, namely: national goals and targets; timeframe for
212 implementation; target groups; and a monitoring framework. However, the actual
213 interventions focused on individual behavior change and service provision in the education,
214 health and sports sectors; actions that would encounter the least policy resistance, as seen
215 elsewhere^{15, 24} including in neighboring countries like Bahrain, Kuwait, Qatar, Saudi Arabia

216 and the United Arab Emirates. Interventions related to the social and structural determinants
217 of physical activity, such the built environment, are not well addressed; a weakness noted by
218 Buse *et al* when assessing diet-related policies in 7 countries using the policy cube
219 approach.¹⁵ More specifically, the plan places limited emphasis on upstream approaches to
220 promoting physical activity related to urban and transport planning, improving road safety,
221 and promoting active building design; interventions that feature in the WHO Global Action
222 Plan for Physical Activity and are recommended by public health and urban design
223 researchers in Oman²⁵⁻²⁶ and globally.²⁷⁻²⁸ Further, advocacy and increased engagement by
224 transport and urban planners is essential for accelerated action on upstream cost-effective
225 approaches to promoting physical activity,²⁹⁻³¹ building evidence on interventions for active
226 transport and leisure is also vital to inform such policies.^{27, 31-32}

227

228 A key strength of the action plan is that roles and responsibilities for each ministry were
229 clearly defined. Their involvement in the development process also cemented their
230 commitment to the actions, indicators and timeframe. Although this provides a level of
231 accountability, a formal mechanism for regular monitoring is needed to ensure people are
232 held to account,³³ so that Oman meets the 2025 target.^{15, 34-36} Learning from neighboring
233 countries experiences, such as the NCD accountability framework in the United Arab
234 Emirates,³⁷ would be particularly useful.

235

236 A key challenge is that achieving a 10% reduction in physical inactivity will require
237 significant resources.^{34, 36} Currently no sustainable funding mechanism to support
238 implementation of the plan has been identified. Furthermore, the Oman action plan was
239 relatively modest in its actions, focusing mainly on actions targeted at individuals through the
240 health, education and sports sectors. Achieving population level changes in physical activity

241 will require a whole of society approach to tackle large scale systemic changes, and
242 particularly actions aimed at improving the environment for physical activity, through
243 improved urban design, transport and environmental policies and actions. These types of
244 actions will require further resources and commitment by not only the public sector but also
245 the private sector, academia and civil society.^{15, 32, 38} Without such engagement and action,
246 the impact of the current policy may be limited.

247

248 The guiding principles of the NCD policy, such as equitable access to health services and
249 using a life course approach, reflect commitments to the principles of gender equality, equity
250 and human rights. These principles are core aspects of the Sustainable Development Goals
251 (SDGs) and Oman's constitution, and are reflected in Oman's first Voluntary National
252 Review.³⁹ Despite these high-level commitments, the physical activity plan did not
253 incorporate actions targeting specific population groups, except for promoting leisure activity
254 for women and girls. Meaningful involvement of people from vulnerable populations in the
255 planning and implementation process could help in identifying relevant activities and
256 approaches. However, more research is needed among inactive and vulnerable population
257 subgroups such as women and girls, adolescents, older adults and people with disabilities, to
258 ensure equity is addressed.^{15, 28}

259

260 The major strength of this policy analysis was the use of three complementary frameworks,
261 instead of being limited to one instrument. The tools were straight forward to use and cover
262 different elements to be considered in a physical activity policy analysis, allowing a more
263 comprehensive approach.⁸ However, the authors, as individuals central to the development
264 and early implementation of the physical activity plan of action, could bias the findings; the
265 use of multiple tools, and cross-checking of data extraction against the published policies and

266 reports helped to address potential bias. Given that each tool covers different aspects,
267 designing a more comprehensive instrument may allow a more detailed analysis that could
268 better guide the policy agenda in the future.⁸

269

270 **Conclusion**

271 A broad range of government partners were engaged in the development and early
272 implementation of Oman’s national physical activity plan of action, through a shared goal of
273 improving the wellbeing of the people in Oman. Strong political commitment, global
274 guidance and local evidence resulted in a national plan that has clearly defined national goals
275 and targets with a clear timeframe. Current gaps related to upstream cost-effective
276 interventions which require increased engagement with transport and urban planners.
277 Establishing a strong accountability framework, including a clear financing mechanism, is
278 critical for Oman to meet its 2025 target. Further research among inactive and vulnerable
279 populations, including women and girls, adolescents, older adults and people with
280 disabilities, is needed to better align the plan with Oman’s commitment to gender equality,
281 equity and human rights.

282

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286

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397

398 **Table 1. Physical activity content analysis grid** ¹³

Aspect	Oman
1. Sectors and institutions involved: involvement of different sectors in the preparation and implementation of the policy. Important partners include various sectors of the national government, subnational authorities, municipalities, nongovernmental organizations, the private sector, the media, associations, educational institutions, employers, etc.	Initial development with 4 government sectors (Health, Education, Municipalities, Sports) including subnational authorities. Early implementation expanded to include additional government sectors (transport, housing and higher education), as well as NGOs, private sector, media, educational institutions and employers.
2. Implementation: implementation plan for the policy and a clear definition of the body or bodies responsible for the implementation	Clear policy and plan, overseen by Intersectoral committee and a sub-committee. Each action in the plan has been assigned to a Ministry, which provides leadership for implementation. A timeline for implementation of each action has been identified, along with indicators of successful implementation of each action.
3. Legal status: legally binding or nonbinding; formally adopted by government or not	Formally adopted by government but it is not legally binding
4. Target groups: clearly identified population groups targeted by the policy	Target: whole population, however in some areas specific target groups were identified e.g. school children, women, elderly and people with special needs.
5. Goals and targets: physical activity goals or targets were specified for certain population groups and time periods	Goal is to reduce physical inactivity in adults by 10% by 2025. Nothing specific for other population sub-groups
6. Timeframe: clear timeframe specified for the implementation of the policy	Clear time frame: 2016- 2025
7. Budget: specified budget allocated to the implementation of the policy.	No budget specifically allocated. Costing exercise was done where physical activity interventions comprise 2% of the total cost of the NCD plan
8. Evaluation and surveillance: development or continuation of an evaluation on the implementation and results of the policy; surveillance or monitoring system to measure physical activity.	Surveillance for adults and children is undertaken on an ad hoc basis using STEPwise and GSHS respectively but there is no plan or budget for regular implementation. Monitoring and evaluation activities include: Monitoring the number/gender/age groups of beneficiaries from the sports programs. Monthly monitoring of social media activity Evaluation of the campaign

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	Annual progress reports from different sectors.
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Table 2. Health Enhancing Physical Activity Policy Audit Tool ¹⁴

Elements	Oman
1. Consultative approach in development	Initial development with 4 government sector (Health, Education, Municipalities, Sports) including subnational authorities
2. Evidence based	Actions were based on the draft Global Action Plan which are evidence-based, as well as available evidence at the regional and country level
3. Integration across other sectors and policies	Sectoral mapping of relevant actions formed a basis for the development of the plan of action
4. National recommendations on physical activity levels	Adapted WHO recommendations
5. National goals and targets	Goal is to reduce physical inactivity in adults by 10% by 2025 Nothing specific for other population sub-groups
6. Implementation plan with a specified time frame for implementation	Clear time frame: 2016- 2025 Each action in the plan has been assigned to a Ministry, which provides leadership for implementation. A timeline for implementation of each action has been identified, along with indicators of successful implementation of each action.
7. Multiple strategies	The initial mapping exercise not only defined sectoral roles and responsibilities but also current policies and plans as they relate to promoting physical activity. Multisectoral involvement in planning and early implementation supported policy coherence and health in all policy approach. Recognition to expand partnership was noted and addressed in early implementation.
8. Evaluation	Not explicitly mentioned
9. Surveillance or health monitoring systems	Surveillance for adults and children is undertaken on an ad hoc basis using STEPwise and GSHS respectively but there is no plan or budget for regular implementation. Monitoring and evaluation activities include: Monitoring the number/gender/age groups of beneficiaries from the sports programs. Monthly Monitoring of social media activity Evaluation of the campaign Annual progress reports from different sectors.
10. Political commitment	Formally adopted by government but it is not legally binding
11. Ongoing funding	No specific budget for implementation
12. Leadership and coordination	National NCD Policy and Plan of Action Overseen by National NCD Committee and PA Subcommittee
13. Working in partnership	Explicitly defined by the National NCD Committee
14. Links between policy and practice	NCD Policy operationalized through the NCD Plan of Action, 2016 – 2023 and reflected in early implementation

Elements	Oman
15. Communication strategy	Communication strategy for PA campaign but not for the policy and Plan of Action itself
16. Identity (branding/logo/slogan)	The communication slogan is “Health begins with one step”
17. Network supporting professionals	Academics included on the NCD committee but limited involvement in PA as limited national capacity

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404 **Table 3. Policy Cube Approach** ¹⁵

Dimensions	Oman
Comprehensiveness of policy coverage	
- Goal and targets	Reduce physical inactivity in adults by 10% by 2025
- Actions	The plan consists of 18 main actions. Each action has been assigned to a Ministry, which provides leadership for implementation. A timeline for implementation of each action has been identified, along with indicators of successful implementation of each action.
Political salience and effectiveness	
- Policy authority	National Committee for NCDs
- Clear Budget to finance actions	None
- Systems of accountability (lead/implementing agency, mechanism for independent monitoring or progress and remedial actions/sanctions for no progress)	National NCD Committee No identified mechanisms for monitoring progress
Principles of equity and rights	
- Acknowledgement of vulnerable/at-risk populations as a particular target or concern in the policy specifically looked at gender-related inequities	Guiding principles of NCD policy includes equitable access to health services and a life course approach to address different age groups the plan includes initiatives to enable women and girls to be active during leisure
- Principle of human rights	Not explicitly mentioned

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