Physical activity to prevent non-communicable diseases: current status and national-level policy in Pakistan

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The positive effects of physical activity on health are well established and known in the scientific literature. Recent evidence suggests that regular participation in physical activity is associated with a marked reduction in the risk for premature mortality and more than 25 chronic medical conditions.\(^1\)\(^2\) Despite this, a large amount of population worldwide remains physically inactive. The term ‘physical inactivity’ may be defined as ‘performing insufficient amounts of physical activity, that is, not meeting specified physical activity guidelines’.\(^3\) For instance, the World Health Organization recommends, for adults aged 18-64 years, to undertake: i) at least 150 minutes of moderate-intensity activity throughout the week, or ii) at least 75 minutes of vigorous-intensity activity throughout the week, or iii) perform an equivalent combination of both forms of physical activity.\(^3\) A pooled analysis of 358 surveys across 168 countries reported that the worldwide, age-standardized prevalence of insufficient physical activity was 27.5% in 2016.\(^4\) This suggests that one in every four individuals does not meet the recommended levels of physical activity for health benefits.

Recent evidence suggests that 34.1 million deaths and 1.2 billion disability-adjusted life years (DALYs) were attributable to the risk factors for global burden of disease in 2017. Physical inactivity accounted for 1.26 million deaths and 23.7 million DALYs.\(^5\) In addition, strong evidence supports the contention that physical inactivity increases the risk of three out the four highest ranked factors attributable to DALYs, such as high systolic blood pressure, high fasting plasma glucose, and high body mass index.\(^6\)^{\(^7\)}

From an economic perspective, physical inactivity costs are as high as $53.8 billion worldwide, of which Pakistan alone bears the amount of $198.5 million and the middle- and low-income countries share a larger proportion (75.0% of DALYs) of the disease burden.\(^8\) Therefore, physical inactivity is now considered a global pandemic which contributes to substantial disease and economic burden worldwide. The World Health Organization, through the WHO Stepwise Approach to Chronic Disease Risk Surveillance (STEPS) initiative, has attempted to increase the surveillance of physical activity across the world. Furthermore, the WHO has launched a global action plan for reducing physical inactivity by a relative 10% by 2025, as an attempt to address the rising challenges of non-communicable diseases attributable to physical inactivity.\(^9\)

Globally, the first major effort related to physical activity policy was the development of the Global Strategy on Diet, Physical Activity and Health, in 2004 by international consultations on physical activity policy development.\(^7\)^{\(^10\)} Later in 2011, physical inactivity was acknowledged as an important determinant of non-communicable diseases. At the same time, leadership and advocacy networks were established to support the promotion of physical activity.\(^10\) Some of them include Physical Activity Network of the Americas (PANA), Asia Pacific Physical Activity Network (AP-PAN) and the European Network for the Promotion of Health-Enhancing Physical Activity (HEPA Europe), Global Advocacy for Physical Activity (GAPA), Africa Physical Activity Network (AFRO-PAN), Global Observatory for Physical Activity (GoPA!), and Active Healthy Kids Global Alliance (AHKGA). Specifically, the Global Observatory for Physical Activity is the first attempt to compile country-level data on surveillance, policy, and research for a better understanding of how countries and regions are progressing in promoting physical activity.\(^9\)^{\(^11\)}

Pakistan is the sixth most populous country in the world, and approximately 80 million of its individuals suffer from non-communicable diseases.\(^12\) There was a subnational STEPS survey conducted in 2005 across the Rawalpindi district whilst the latest national STEPS survey was conducted in 2014. The findings of the national STEPS survey suggest that the prevalence of low level of physical activity is as high as 41.5%.\(^13\) In addition, only 0.6% of 7,366 participants had none of the five main risk factors for non-communicable diseases, 41.2% were...
overweight/obese, and 52.9% had hypertension.\textsuperscript{13} It is worthwhile to note that Pakistan was one of the first developing countries to have formulated a comprehensive national action plan (NAP) for non-communicable diseases but its effects are not yet apparent.\textsuperscript{12} While several developing economies and countries of the South Asian Association for Regional Cooperation (SAARC) region, such as Bangladesh, India, and Nepal have taken serious steps to promote physical activity and reduce the challenges of non-communicable diseases, Pakistan may be seen far behind. For instance, the first STEPS survey in Pakistan was conducted recently in 2014, which is comparable to other countries.\textsuperscript{4} In addition, the Global School-based Student Health Survey (GSHS) in Pakistan has not been conducted since 2009. Similarly, Pakistan is not included in the list of 139 members of the Global Observatory for Physical Activity.\textsuperscript{11} Likewise, Pakistan is not anywhere in the Global Matrix, an initiative led by the Active Healthy Kids Global Alliance (AHKGA) to advance physical activity in children and youth from around the world. Although we have started to progress towards setting up large-scale studies on non-communicable diseases and their consequent health burden, there are no physical activity policies at the national level. With the increasing prevalence of physical inactivity worldwide, increasing emphasis is placed on comprehensive physical activity surveillance to include indicators such as governmental support, national policy, and infrastructure for physical activity.\textsuperscript{9} Thus, it is important that the stakeholders consider formulating a national physical activity policy to achieve an effective execution of the national action plan (NAP) for non-communicable diseases. Efforts at all levels are required to promote physical activity as a measure to tackle non-communicable diseases. In elementary school textbooks, we once read lessons about health promotion and physical activity (exercise) but we no longer find such health-promoting texts for children and youth. We are lagging behind in addressing non-communicable diseases through physical activity promotion, and we still do not have specific national-level physical activity guidelines (see the supplementary table for some noteworthy sources on physical activity guidelines). It is the time now for the policy makers and stakeholders to initiate physical activity policy at the national level. In order to tackle the growing burden of non-communicable diseases, the focus should be placed on cost-effective and efficient physical activity interventions and health-oriented approaches, which place the emphasis on primary prevention and health promotion. The implementation of physical activity policy relies on the support from the federal and provincial governments; hence, they are urged to put efforts into achieving this initiative. The delivery of policy making and healthcare services should not be focused only on the disease oriented, secondary and tertiary prevention approaches. A national-level physical activity policy is the need of the hour. Such a step would reduce the economic as well as disease burden of non-communicable diseases.

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\textbf{References}


