

Sport and Sustainability: The Role of Physical Activity in Achieving Good Health and Well-Being

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Abstract

This paper explores the relationship between Sustainable Development Goal 3 (Good Health and Well-being) and the role of physical activity in achieving improved health outcomes in Romania. The study aims to evaluate the impact of sport and regular physical activity on population health by analyzing key statistical indicators provided by Eurostat, particularly from the section "Sport participation – practicing sport and physical activity". These indicators are correlated with national progress toward SDG 3 targets as outlined by the "România Durabilă" platform, specifically focusing on reducing mortality from non-communicable diseases such as cardiovascular conditions, diabetes, and chronic respiratory diseases. Through a comparative and data-driven approach, the research highlights disparities in physical activity levels across age and gender, assesses long-term health implications, and discusses Romania's progress toward the 2030 Agenda for Sustainable Development. The findings aim to provide evidence-based insights that emphasise the need for inclusive, strategic national policies promoting active lifestyles as a key lever for sustainable well-being.

Keywords: physical activity, public health, sport participation, SDG 3 (good health and well-being), school infrastructure

JEL classification: I18; I21; Z28

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1. Introduction

Health and well-being represent fundamental pillars of sustainable development, directly influencing populations' productivity, quality of life, and longevity. As part of the United Nations 2030 Agenda, Sustainable Development Goal 3 (SDG 3) – "Good Health and Well-being" – aims to ensure healthy lives and promote well-being for all at all ages. A key component in achieving this goal is reducing the burden of non-communicable diseases (NCDs) through prevention and the promotion of healthier lifestyles. Among the most cost-effective and universally accessible means of prevention is physical activity – a simple yet powerful tool for improving individual and public health outcomes (World Health Organization, 2021).

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In the Romanian context, the relevance of physical activity has gained growing attention, especially considering high mortality rates attributed to cardiovascular diseases, diabetes, and respiratory illnesses. According to recent national and European data, Romania remains one of the most sedentary countries in the European Union, with a significant share of the population reporting little to no physical activity in their daily lives (Eurostat, 2020). This trend poses a serious challenge to achieving SDG 3, especially the target focused on reducing premature mortality from NCD by one-third by 2030 (United Nations, 2020).

This paper investigates the connection between sport participation and overall health status in Romania, using a quantitative approach based on official datasets. Eurostat's section on "Sport participation – practicing sport and physical activity" provides a valuable framework for understanding how often and in what ways different demographic groups engage in physical exercise (Eurostat, 2020). These indicators are compared to national performance metrics for SDG 3 as presented by the "România Durabilă" monitoring platform, offering a dual perspective on progress and gaps (România Durabilă, 2022).

The objective is to illustrate not only the current state of physical activity in Romania but also how low participation rates in sport correlate with negative health outcomes. By exploring this relationship through the lens of sustainable development, the study seeks to underscore the urgency of integrating sport and physical activity into broader public health and policy agendas. Promoting physical activity is not just a matter of personal choice, but a strategic investment in human capital, public well-being, and national resilience (Biddle et al., 2018).

2. Purpose of the Study

The purpose of this study is to analyze the relationship between physical activity and public health outcomes in Romania, by comparing data on sport participation from Eurostat with progress toward SDG 3 targets on reducing non-communicable diseases, as reported by România Durabilă. The aim is to highlight how increased physical activity can contribute to national efforts for improving health and achieving sustainable development by 2030.

3. Research Objectives

The main objective of this study is to examine the relationship between physical activity and public health outcomes in Romania, within the framework of Sustainable Development Goal 3 (Good Health and Well-being). The research aims to explore the current levels of physical activity among the Romanian population, using data from Eurostat's "Sport participation – practicing sport and physical activity," focusing on differences across age and gender. At the same time, the study analyzes Romania's progress toward meeting SDG 3 targets—particularly the reduction of premature mortality from cardiovascular diseases, diabetes, and



respiratory illnesses—as reported on the România Durabilă platform. By comparing these datasets, the study seeks to identify potential correlations between physical inactivity and negative health outcomes, such as lower healthy life expectancy and higher rates of non-communicable diseases. Furthermore, it aims to evaluate the role of sport as an accessible and cost-effective tool for disease prevention and to develop evidence-based recommendations for public policies that promote more active lifestyles. Through this approach, the paper contributes to a better understanding of how sport and physical activity can be leveraged to support sustainable development and improve population well-being in Romania.

4. Materials and Methods

This research adopts a quantitative, comparative analysis based on secondary data sourced from two major platforms: Eurostat and România Durabilă. The primary dataset includes statistics from Eurostat’s “Sport participation – practicing sport and physical activity” section, which provides detailed information on the frequency, intensity, and type of physical activity practiced by individuals in Romania, disaggregated by age, sex, and educational background. This data set serves as the foundation for assessing the national levels of physical activity and identifying behavioral patterns related to sport and exercise.

In parallel, the study incorporates data from România Durabilă, the national monitoring platform for Sustainable Development Goals (SDGs), with a specific focus on SDG 3 – Good Health and Well-being. Key indicators under analysis include mortality rates from cardiovascular diseases, diabetes, and chronic respiratory conditions, as well as life expectancy and healthy life years.

The data spans multiple reporting periods, allowing for longitudinal comparison and trend identification, with a focus on the most recent year available for both datasets (currently 2022 or the latest). Data visualization tools, including bar charts and line graphs, will be used to compare trends across time and between demographic categories. Correlations will be interpreted descriptively, emphasizing relationships between physical activity levels and health outcomes rather than establishing causality.

No primary data collection (e.g., surveys or interviews) was conducted for this research, due to the availability of reliable and comprehensive public datasets. The methodological approach remains observational and descriptive, aiming to provide insights that can inform public health strategies and policy recommendations.



5. Results and Interpretation

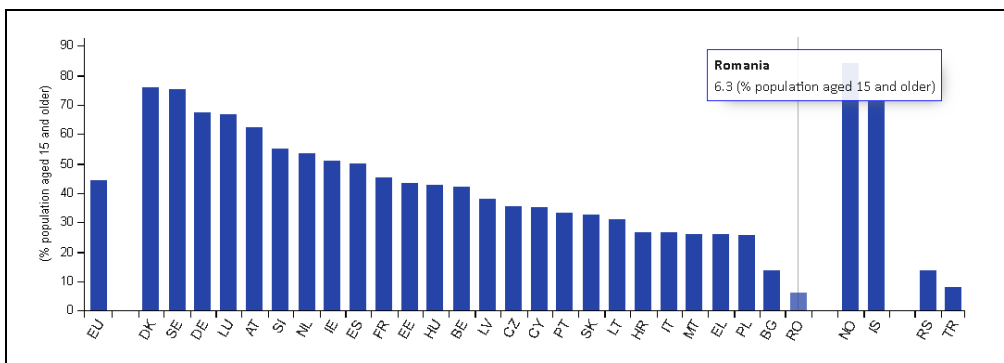


Chart 1. Practicing sport, keeping fit or participating in recreational (leisure) physical activities at least once a week, 2019

Source: <https://ec.europa.eu/eurostat/>

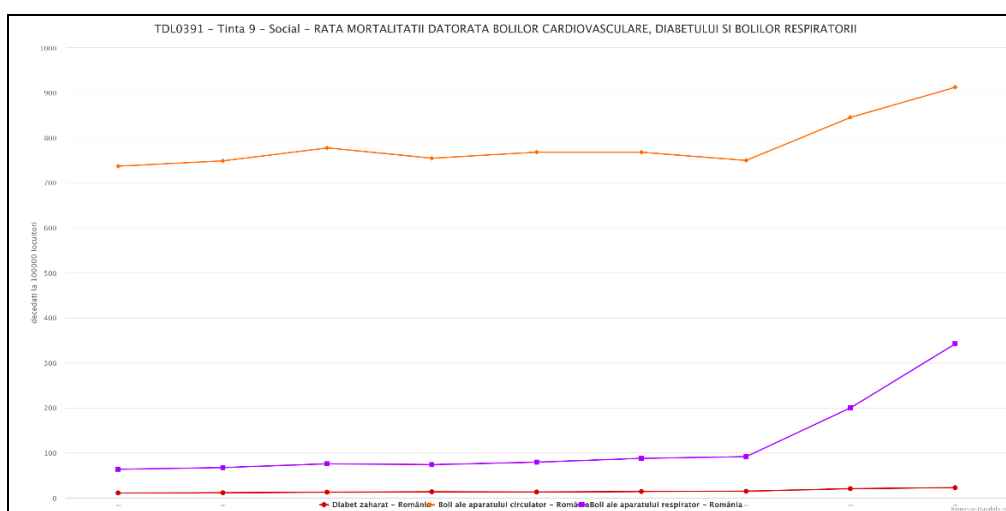


Chart 2. Mortality rate due to cardiovascular diseases, diabetes and respiratory diseases

Source: <http://romania-durabila.gov.ro/>

As it can be observed on the first chart, in 2019, only 6.3% of Romanians aged 15 and over reported engaging in sporting, fitness, or recreational physical activities at least once a week, according to Eurostat. This places Romania among the lowest in the EU, far behind countries where participation exceeds 50%. The stark contrast points to possible structural and cultural barriers, such as limited access to sports facilities or low awareness of the benefits of regular exercise. This low engagement raises significant public health concerns, as sedentary lifestyles are



closely linked to chronic conditions like cardiovascular diseases, emphasizing the urgent need for targeted health promotion strategies.

The second chart reveals a concerning rise in mortality from cardiovascular and respiratory diseases in Romania, with rates climbing from roughly 700 to 900 and from 50 to 300 deaths per 100,000 people, respectively. In contrast, diabetes-related mortality has remained relatively stable at around 20 per 100,000. These trends suggest deeper systemic issues in public health and lifestyle, especially given Eurostat's data showing that only 6.3% of Romanians engage in physical activity weekly. This low participation likely contributes to the increase in deaths from heart and lung conditions, as regular physical activity is known to reduce such risks. While diabetes appears more stable, possibly due to effective treatment protocols, the broader pattern signals a need for integrated policies that not only promote sport and exercise but also address other health determinants like diet, air quality, and access to care. Expanding physical activity opportunities and tailoring interventions to specific regions could help reverse these negative health trends.

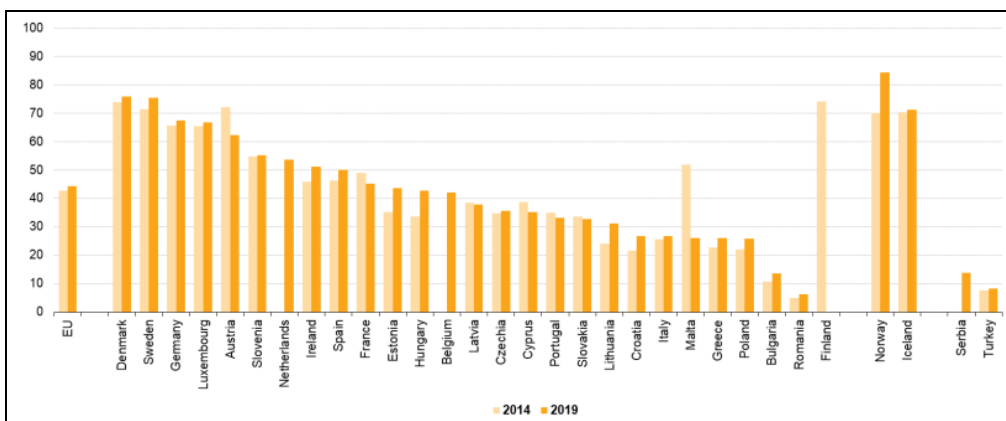


Chart 3. Practicing sport, keeping fit or participating in recreational (leisure) physical activities at least once a week, 2014 and 2019
(%population aged 15 and older)

Source: <https://ec.europa.eu/eurostat/>

The chart captures the percentage of the population aged 15 and older who engage in regular physical (sport, fitness, or leisure) activities. It compares data for two moments in time -2014 and 2019 -offering insight into trends over the five years. While precise numerical values aren't available here, prior discussions have noted that Romania features very low participation rates (as low as approximately 6.3% in recent contexts). Even if there have been slight changes between 2014 and 2019, the overall impression is that relatively few Romanians are regularly active.

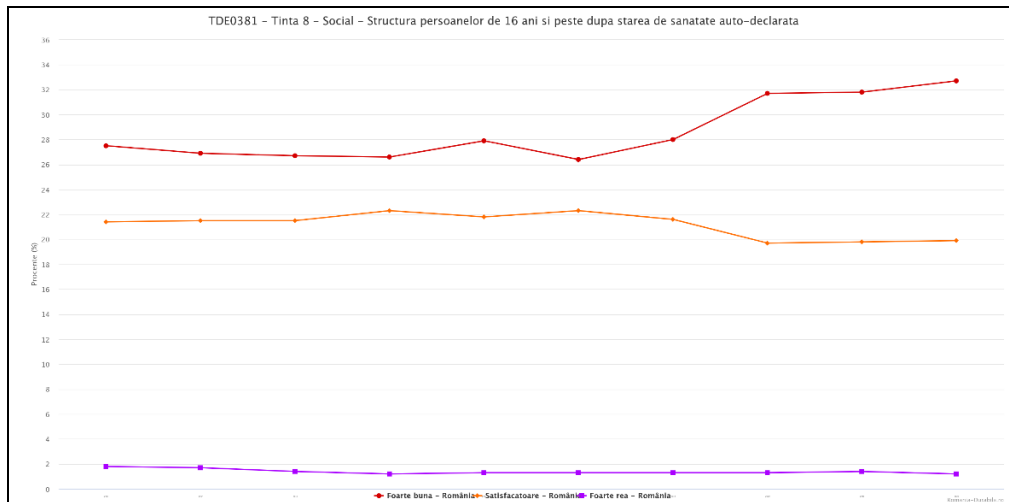


Chart 4. Structure of people aged 16 and over by self-declared health status

Source: <http://romania-durabila.gov.ro/>

This chart shows how individuals aged 16+ perceive their health, with about 28% rating it as “very good” and 23% as “satisfactory.” Only a small percentage—roughly 2% and 1%—rate their health as “bad” or “very bad.” Despite low levels of physical activity in the population, most people maintain a positive self-image of their health. This gap between perception and objective health indicators may reflect cultural optimism, differing standards for what is considered “good health,” or limited awareness of the long-term risks associated with sedentary behavior.

Chart 2 shows that only a small fraction of adults in Romania engage in regular physical activity, highlighting a clear sedentary trend. In contrast, Chart 4 reveals that many still perceive their health as “very good” or “satisfactory,” indicating a mismatch between behavior and perception. Over time, there’s little sign of significant improvement in activity levels, while self-perceived health remains relatively stable. This suggests that people may judge their health more on the absence of illness than on preventive behaviors like exercise. The gap could also be explained by cultural norms, delayed effects of inactivity, or other lifestyle factors like diet and social environment that shape how individuals assess their well-being.

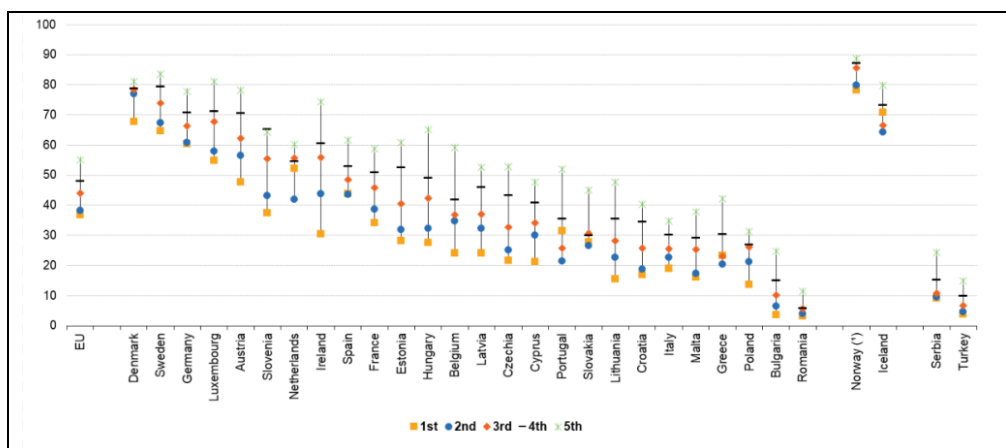


Chart 5. Practicing sport, keeping fit or participating in recreational (leisure) physical activities at least once a week, by income quintile, 2019

Source: <https://ec.europa.eu/eurostat/>

Chart 5 presents the percentage of the population aged fifteen and older in various European countries who practice sport, keep fit, or participate in recreational physical activities at least once a week in 2019. Data is disaggregated by income quintiles (from the first, typically lower income, up to the 5th, typically higher income).

Chart 2 (previously discussed) showed that overall, only a small percentage of the population (as low as 6.3% in certain cases) engages in regular physical activity. Chart 5 deepens this perspective by revealing that **income matters**: higher-income quintiles tend to have better physical activity participation compared to lower-income groups. Higher-income individuals are more likely to afford gym memberships, have access to safe and well-equipped outdoor spaces, and may have more flexible work hours, all of which contribute to greater levels of engagement in physical activity. Conversely, lower-income individuals may face structural challenges, such as fewer recreational opportunities, less access to safe exercise environments, or time constraints because of longer working hours or multiple jobs, which can reduce their participation rates.

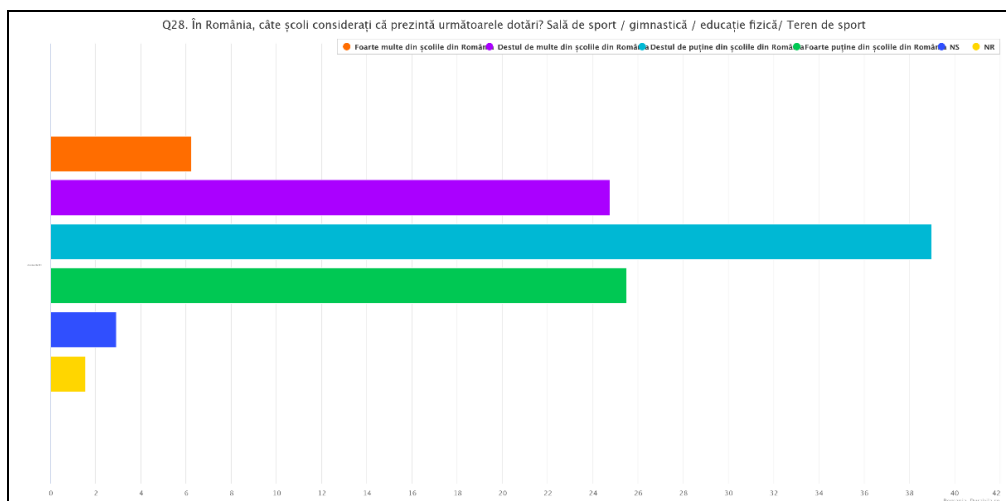


Chart 6. Structure in Romania, how many schools do you think have the following facilities? Gym/gymnastics / physical education / Sports field?

Source: <http://romania-durabila.gov.ro/>

The data in chart 6 shows that only 6.28% of respondents believe that very many schools are well-equipped for physical activity, while 24% think quite a few have adequate facilities. In contrast, 39% believe only a limited number of schools are equipped, and 25% say very few are. This means 64% of people have a negative view of school infrastructure for physical education, suggesting a widespread concern about its insufficiency.

With less than a third of respondents expressing optimism, the perception points either to a real lack of facilities or low public awareness. Given Romania's low physical activity rates and the positive self-perceptions of health, poor school infrastructure could be a key factor behind these trends. If young people don't have proper spaces to engage in physical exercise at school, it may contribute to a long-term sedentary lifestyle, affecting public health in the long run.

6. Conclusions

SDG 3—Good Health and Well-Being advocates a comprehensive approach to health, focusing on reducing non-communicable diseases, improving mental well-being, and promoting physical health. Sport is essential in this framework, as it helps prevent chronic diseases like heart disease, diabetes, and respiratory issues, enhances mental health by alleviating stress, anxiety, and depression, and fosters lifelong healthy habits when introduced early in well-equipped schools.

Romania faces significant challenges in achieving these goals. With minimal adult participation in physical activity, the country is lagging behind in preventive health measures. Despite many Romanians rating their health positively, this self-



assessment may not reflect the actual risks of a sedentary lifestyle. Additionally, 64% of respondents report inadequate school facilities for physical education, which undermines the early promotion of active lifestyles.

To address these issues, Romania must integrate sport more effectively into public health strategies. The country's low physical activity levels and insufficient school infrastructure highlight the gap between current conditions and SDG 3's objectives. Investments are needed to promote physical activity across all demographics and modernize school facilities, supported by campaigns that raise awareness of the long-term benefits of exercise.

Romania's path to achieving SDG 3 requires upgrading sports infrastructure in schools, launching public health campaigns to emphasize exercise's importance, and implementing targeted programs to address socioeconomic and infrastructural barriers. By prioritizing these actions, Romania can transform its challenges into opportunities for a healthier future.

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