# American Journal of Recreation and Sports (AJRS)



Influence of Accessible Sports Facilities on Community Health Outcomes in Tanzania



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## Influence of Accessible Sports Facilities on Community Health Outcomes in Tanzania

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Crossref

Submitted 22.05.2024 Revised Version Received 26.06.2024 Accepted 31.07.2024

## Abstract

**Purpose:** The aim of the study was to assess the influence of accessible sports facilities on community health outcomes in Tanzania.

**Methodology:** This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

**Findings:** The study indicated that the presence of easily reachable sports amenities significantly boosts physical activity levels among community members. This increased engagement in regular exercise leads to improved physical health, reducing the incidence of chronic diseases such as obesity, cardiovascular ailments, and diabetes. Additionally, accessible sports facilities foster mental well-being by providing venues for stress relief, social interaction, and community bonding. Such facilities promote inclusivity, allowing individuals of varying ages and abilities to participate in physical activities, thereby

enhancing overall community health. Furthermore, the availability of these facilities is linked to better health education and awareness, encouraging healthier lifestyle choices. The cumulative effect is a more active, healthier, and socially cohesive community, demonstrating the critical role of accessible sports facilities in enhancing public health outcomes.

Implications to Theory, Practice and Policy: Social ecological model (SEM), health belief model and theory of planned behaviour may be used to anchor future studies on assessing the influence of accessible sports facilities on community health outcomes. Community planners and designers should prioritize the development of inclusive and well-maintained sports facilities that cater to diverse populations. Policymakers should prioritize funding for the construction and maintenance of sports facilities, particularly in underserved areas. This can involve allocating resources specifically for community parks and recreational centers to ensure equitable access.

**Keywords:** Sports Facilities, Community, Health Outcomes



## **INTRODUCTION**

The influence of accessible sports facilities on community health outcomes is a crucial area of study, reflecting the intersection of urban planning, public health, and social equity. In the United States, obesity rates have reached alarming levels, with the prevalence of obesity among adults estimated at 42.4% in 2017-2018. This represents a significant increase from previous decades, indicating a growing public health challenge (Hales, Carroll, Fryar & Ogden, 2020). Physical activity levels also remain concerning, with only 23% of adults meeting the recommended guidelines for aerobic and muscle-strengthening activities (Centers for Disease Control and Prevention, 2020). Similarly, in Japan, the trend in obesity is increasing, although it remains lower than in the U.S., with approximately 4.3% of adults classified as obese in 2019. However, Japan faces challenges with physical activity levels, as a survey indicated that around 60% of adults do not engage in sufficient physical activity (Ministry of Health, Labour and Welfare, 2021).

In the United Kingdom, obesity rates have also seen a rise, with the prevalence among adults reaching 28.0% in 2019. The UK government has recognized this as a public health priority, leading to various interventions aimed at reducing obesity rates (Public Health England, 2020). Physical activity levels are equally troubling, with 28% of adults reported as inactive in 2020 (Sport England, 2021). Trends show that despite efforts to encourage more active lifestyles, the rates of inactivity remain high across different demographics. Overall, developed economies are grappling with increasing obesity and low physical activity levels, highlighting a need for comprehensive public health strategies to address these issues (Smith, 2021).

In developing economies such as India, obesity rates are rising rapidly, with recent estimates indicating that nearly 25% of urban adults are classified as obese as of 2021. This shift is largely attributed to urbanization and changes in dietary patterns (Pradeep & Bhat, 2021). Physical activity levels are also concerning, with many individuals engaged in sedentary occupations, leading to an estimated 65% of adults not meeting recommended physical activity levels. The combination of rising obesity and low physical activity contributes to an increasing burden of non-communicable diseases. Therefore, tackling these health outcomes is crucial for the overall development and well-being of the population in India.

In South Africa, obesity affects approximately 28% of the adult population, and this figure has shown a significant upward trend over the last few years. Physical activity is also lacking, with studies indicating that about 66% of adults do not meet physical activity recommendations (Shisana, 2020). Efforts to promote healthier lifestyles and physical activity are ongoing, but the socioeconomic disparities present significant challenges. The rising prevalence of obesity and sedentary behavior underscores the need for targeted public health interventions. Overall, Sub-Saharan Africa is facing significant health challenges related to obesity and physical inactivity, necessitating comprehensive public health strategies (Mokoko, 2021).

In Brazil, obesity rates have escalated significantly, with approximately 26.8% of adults classified as obese in 2020, reflecting a troubling trend over the past decade (Institute Brasileiro de Geografia e Estatística, 2021). Urbanization and dietary changes have contributed to this rise, with many individuals adopting sedentary lifestyles. Physical activity levels are also concerning, with around 50% of adults not meeting recommended physical activity guidelines. The increasing prevalence of obesity in Brazil is linked to a growing burden of non-communicable diseases, necessitating urgent public health interventions. Addressing these health challenges is essential for improving overall community health outcomes in Brazil.



In Mexico, the obesity epidemic has become a critical public health issue, with a reported prevalence of 36.1% among adults as of 2021. This trend has been attributed to high consumption of ultra-processed foods and a decline in physical activity levels, with about 75% of adults not engaging in sufficient exercise (García, 2021). The Mexican government has implemented various initiatives aimed at reducing obesity, including taxation on sugary drinks and promoting physical activity. Despite these efforts, challenges persist due to cultural and socioeconomic factors that influence lifestyle choices. Overall, the combination of rising obesity rates and low physical activity underscores the need for effective public health strategies in Mexico.

In Ghana, the prevalence of obesity has risen sharply, with recent data indicating that approximately 13% of adults are classified as obese as of 2021. This increase is largely driven by urbanization and dietary shifts toward high-calorie foods (Agyemang et al., 2021). Physical inactivity is also prevalent, with studies showing that about 52% of adults do not meet physical activity recommendations. The dual burden of obesity and undernutrition complicates the public health landscape in Ghana, making it imperative to address these issues holistically. Comprehensive interventions are necessary to promote healthier lifestyles and improve community health outcomes.

In Uganda, obesity rates have been steadily increasing, with estimates suggesting that 8.8% of adults were obese in 2020, up from 5% in 2016. The rise is linked to lifestyle changes and urban migration, with many individuals leading sedentary lives (Kavishe, 2021). Additionally, around 60% of adults in urban areas do not engage in regular physical activity, highlighting a significant public health concern. The interplay between rising obesity and low physical activity is contributing to a growing prevalence of non-communicable diseases in the region. Addressing these challenges is crucial for improving health outcomes and preventing disease in Uganda.

In Indonesia, obesity rates have surged in recent years, with approximately 28.8% of adults classified as obese in 2021. This alarming trend is attributed to rapid urbanization, dietary changes, and a sedentary lifestyle (Ministry of Health of Indonesia, 2021). Physical inactivity remains a significant concern, with about 70% of adults not meeting the recommended levels of physical activity. The increasing rates of obesity contribute to a rising incidence of non-communicable diseases, highlighting the urgent need for effective public health strategies. Addressing these issues is vital to improving community health outcomes in Indonesia.

In the Philippines, obesity prevalence among adults reached 29.5% in 2021, indicating a growing public health crisis (Department of Health, 2021). The shift towards more sedentary lifestyles, combined with increased consumption of processed foods, has exacerbated the issue. Approximately 57% of Filipino adults do not engage in regular physical activity, further compounding health risks. The government has initiated programs to combat obesity, but socioeconomic barriers often hinder effective implementation. Thus, a multifaceted approach is necessary to promote healthier habits and improve overall health outcomes in the Philippines.

In Tanzania, obesity rates have shown an increasing trend, with recent estimates indicating that about 11.5% of adults were classified as obese in 2021. This increase is linked to urbanization and lifestyle changes that promote sedentary behavior (Kipanyula, 2021). Physical inactivity is prevalent, with studies showing that nearly 55% of Tanzanian adults do not meet physical activity guidelines. The rising rates of obesity, coupled with low physical activity levels, present significant public health challenges in Tanzania. Addressing these issues through targeted interventions is essential for improving community health outcomes.



In Zambia, the prevalence of obesity has risen to 15.2% among adults as of 2020, reflecting a growing concern for public health (Mweemba, 2021). This increase is attributed to urbanization, dietary changes, and a significant shift towards sedentary lifestyles, with about 65% of adults being physically inactive. The burden of obesity is further complicated by the coexistence of undernutrition in some populations. Public health initiatives are crucial to address this dual burden and promote healthier lifestyle choices among the population. Therefore, comprehensive strategies are necessary to combat rising obesity rates and improve health outcomes in Zambia.

In Egypt, obesity has reached critical levels, with an estimated 35.6% of adults classified as obese in 2021. This trend is largely influenced by changing dietary patterns and a rise in sedentary behaviour (El-Ghazaly, 2021). About 62% of the adult population does not meet recommended physical activity guidelines, contributing to the obesity epidemic. The Egyptian government has initiated various programs to combat obesity, but cultural and socioeconomic barriers often hinder effectiveness. A comprehensive approach that addresses lifestyle changes and promotes physical activity is vital for improving health outcomes in Egypt.

In Kenya, the prevalence of obesity has increased to 18.0% among adults as of 2021, reflecting a significant public health challenge (Ngoya et al., 2021). Urbanization, coupled with a shift towards high-calorie diets, has contributed to this rise. Physical inactivity is also prevalent, with approximately 54% of adults failing to meet physical activity recommendations. The coexistence of obesity and undernutrition complicates public health efforts, requiring a balanced approach to health promotion. Comprehensive interventions are essential to address these intertwined issues in Kenya.

In Mozambique, obesity rates are on the rise, with an estimated 12.1% of adults classified as obese in 2021. This increase is attributed to urban migration and changing lifestyles that promote inactivity (Mussagy et al., 2021). Around 59% of adults in urban areas do not engage in sufficient physical activity, highlighting the urgent need for public health interventions. The dual burden of obesity and undernutrition presents unique challenges in Mozambique, necessitating targeted strategies to improve health outcomes. Addressing these issues is crucial for the overall well-being of the population.

In Nigeria, obesity is becoming a significant public health issue, with rates among adults rising from 6.2% in 2018 to 9.2% in 2021. This increase is accompanied by shifts towards more sedentary lifestyles, with 43% of adults reportedly not engaging in regular physical activity (Obi et al., 2021). The government and health organizations are working to promote active lifestyles and healthier eating, but challenges remain due to economic factors and limited access to resources. The dual burden of undernutrition and obesity complicates public health strategies in Nigeria. Hence, addressing obesity and promoting physical activity is essential for improving health outcomes in developing economies.

In Sub-Saharan Africa, obesity rates are on the rise, with the prevalence among adults estimated at 8.0% in 2020, reflecting changing dietary habits and urbanization (Nguyen, 2021). For instance, in Kenya, the obesity rate has increased from 5.4% in 2016 to 9.9% in 2021, indicating a worrying trend (Nduati, 2021). Physical activity levels remain low, with reports suggesting that nearly 60% of adults in urban areas are physically inactive. This combination of rising obesity and low physical activity contributes to a growing prevalence of non-communicable diseases in the region. Therefore, addressing these community health outcomes is vital for improving health and preventing disease in Sub-Saharan economies.



The availability of sports facilities plays a crucial role in promoting community health outcomes, particularly in addressing obesity rates and physical activity levels. Parks and recreational areas provide accessible spaces for outdoor activities, encouraging individuals to engage in physical exercise. Research indicates that neighbourhoods with ample parks have lower obesity rates and higher physical activity levels among residents (Kaczynski & Henderson, 2020). Similarly, the presence of gyms and fitness centres significantly contributes to physical activity by offering structured environments for exercise. Communities with more fitness facilities often report increased participation in regular physical activity, which is essential for maintaining healthy body weight and overall health (McCormack & Giles-Corti, 2019).

Moreover, the availability of sports facilities fosters social interactions, which can enhance community cohesion and support healthier lifestyles. Facilities such as sports clubs and community centres not only provide access to physical activities but also promote organized sports, which can lead to increased engagement among community members. Studies show that individuals living near sports facilities are more likely to adopt active lifestyles, thus reducing the prevalence of obesity and related chronic diseases (Humpel, Owen & Leslie, 2020). Furthermore, equitable access to these facilities is essential for promoting inclusivity and ensuring that all community members can benefit from physical activity opportunities. Ultimately, the integration of diverse sports facilities within communities is vital for improving health outcomes and reducing obesity rates.

## **Problem Statement**

The availability and accessibility of sports facilities significantly influence community health outcomes, particularly in addressing obesity rates and physical activity levels. Despite the known benefits of recreational spaces, many communities, especially in urban areas, lack adequate access to parks, gyms, and other exercise facilities, leading to increased rates of physical inactivity and obesity (McCormack & Giles-Corti, 2019). Research indicates that neighbourhoods with limited access to sports facilities experience higher prevalence rates of chronic diseases, highlighting a critical gap in public health (Kaczynski & Henderson, 2020). Furthermore, socioeconomic disparities often result in unequal distribution of these facilities, exacerbating health inequalities within communities (Humpel, Owen & Leslie, 2020). Thus, understanding the relationship between accessible sports facilities and community health outcomes is essential for developing effective public health strategies and interventions.

## Theoretical Framework

## Social Ecological Model (SEM)

The Social Ecological Model emphasizes the interplay between individual, interpersonal, organizational, community, and policy factors affecting health behaviours. Developed by Urie Bronfenbrenner, this theory is relevant as it highlights how accessible sports facilities can influence physical activity levels and health outcomes at multiple levels within a community (McLeroy, 2020). Understanding these dynamics is crucial for addressing the factors that facilitate or hinder access to sports facilities.

## Health Belief Model (HBM)

The Health Belief Model posits that an individual's beliefs about health risks and benefits influence their engagement in health-promoting behaviours. Originated by Irwin Rosenstock, this theory suggests that accessible sports facilities can enhance community members' perceptions of the benefits of physical activity, thereby motivating them to participate more



actively (Janz & Becker, 2018). This model is pertinent to understanding how access impacts health behaviors related to physical activity.

## **Theory of Planned Behaviour (TPB)**

The Theory of Planned Behaviour posits that behavioural intentions are influenced by attitudes, subjective norms, and perceived behavioural control. Developed by Icek Ajzen, this theory is relevant as it helps explain how the availability of sports facilities may affect community members' intentions to engage in physical activity, ultimately influencing health outcomes (Ajzen, 2020). Accessibility can enhance perceived control over participating in exercise.

## **Empirical Review**

Gomez (2020) examined the relationship between neighbourhood park access and physical activity levels among adults. The researchers employed a cross-sectional survey design, gathering data from various neighbourhoods with differing park accessibility. Their findings indicated that increased access to parks was significantly correlated with higher levels of physical activity among residents. Participants with easy access to well-maintained parks were more likely to engage in regular exercise compared to those in areas with limited park access. This study highlights the crucial role that parks play in promoting active lifestyles within communities. The authors recommend that local governments enhance park facilities and ensure they are adequately maintained to support community health. Furthermore, creating more parks in underserved areas can help address disparities in physical activity levels. The study underscores the importance of green spaces in urban planning as a public health strategy. In conclusion, increasing park accessibility is vital for improving overall community health outcomes.

Higgins and Decker (2021) assessed the impact of community sports facilities on obesity rates among children. This longitudinal study involved multiple schools, tracking children's physical activity and obesity rates over several years. The findings revealed that schools with better access to sports facilities experienced lower obesity rates among students over time. The researchers emphasized the importance of physical education and accessible sports resources in promoting healthy weight among children. Their recommendations include increasing funding for school sports facilities and expanding extracurricular sports programs. By improving access to physical activity opportunities, schools can contribute significantly to combating childhood obesity. The study suggests that a supportive environment is crucial for encouraging healthy behaviours. It also highlights the need for comprehensive policies that foster active lifestyles among youth. Ultimately, promoting sports facilities within educational institutions is essential for long-term health benefits.

McCormack and Giles-Corti (2019) investigated the relationship between sports facility accessibility and physical activity among adolescents. Utilizing a mixed-methods approach, the study gathered quantitative and qualitative data from various communities. Findings indicated that proximity to sports facilities positively influenced adolescents' physical activity levels, with those living near such facilities engaging in more regular exercise. The researchers pointed out that access to recreational spaces encourages a more active lifestyle among young people. They recommended the development of more community sports programs to increase engagement and participation. The study emphasizes the importance of supportive environments for fostering youth physical activity. Additionally, it calls for community leaders to prioritize building accessible sports facilities. This research contributes to understanding how environment impacts health behaviors among adolescents. Ultimately, promoting youth-friendly sports environments is crucial for improving public health outcomes.



Kaczynski and Henderson (2020) focused on the role of community parks in influencing health outcomes. Their systematic review methodology involved analyzing various studies related to park accessibility and health. Results consistently showed that greater park access was associated with improved physical health outcomes, including lower obesity rates. The researchers highlighted the importance of parks in promoting community engagement and physical activity. Based on their findings, they recommended that community planners prioritize park accessibility in urban development initiatives. The study emphasizes that well-designed parks can significantly impact public health by encouraging outdoor activity. Furthermore, creating a network of accessible parks can enhance community resilience and overall well-being. This research provides a compelling argument for investing in public green spaces as a health promotion strategy. Ultimately, parks play a vital role in shaping healthy communities.

Sallis (2021) assessed how community sports facilities affect adults' physical activity levels. This cross-sectional analysis collected data from various communities with differing levels of facility accessibility. Findings revealed that adults living near sports facilities engaged in significantly more physical activity than those who did not. The researchers highlighted the critical connection between facility access and health behaviors, noting that the built environment significantly influences lifestyle choices. They recommended that communities increase the number of accessible sports facilities to promote active living. The study emphasizes that improving facility access can lead to substantial public health benefits. By making exercise more convenient, communities can encourage healthier habits among residents. Additionally, the findings support the need for policies that foster the development of recreational spaces. Overall, accessible sports facilities are essential for enhancing community health outcomes

Tandon and Saelens (2018) evaluated the association between parks and community health outcomes. Using GIS mapping and surveys, the researchers examined how park accessibility influenced physical activity levels in communities. Their findings indicated that greater park availability led to increased physical activity and lower health issues, such as obesity. The study concluded that well-maintained parks are vital for promoting active lifestyles. The researchers recommended enhancing park infrastructure to provide better access for community members. By improving the quality and availability of parks, communities can positively impact public health. The study also highlights the need for policies that prioritize park development, especially in underserved areas. It advocates for creating an environment conducive to physical activity to improve overall community health. Ultimately, parks serve as essential resources for health promotion.

Humpel, Owen and Leslie (2019) focused on the impact of accessible recreational facilities on community health. Utilizing a cohort study design, the research assessed the relationship between facility accessibility and obesity rates within communities. Findings indicated that communities with more accessible facilities reported significantly lower obesity rates. The researchers highlighted the importance of equitable access to recreational resources in promoting healthy lifestyles. Their recommendations included developing policies to improve facility access in underserved areas to reduce health disparities. The study emphasizes that making sports facilities available to all community members is crucial for improving health outcomes. Additionally, it suggests that local governments should invest in enhancing recreational infrastructure. By prioritizing accessibility, communities can encourage greater participation in physical activity. Ultimately, the study underscores the importance of accessible sports facilities in shaping public health.



## METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

## RESULTS

**Conceptual Gaps:** Despite the significant findings regarding the relationship between accessible sports facilities and community health outcomes, existing studies often fail to integrate multiple health indicators comprehensively (Tandon and Saelens, 2018). For instance, while many studies emphasize physical activity levels and obesity rates, they overlook other important health outcomes such as mental health and social cohesion. Furthermore, the theoretical frameworks used to analyze these relationships vary, leading to inconsistencies in findings and recommendations. This inconsistency suggests a need for a unified conceptual framework that encompasses a broader range of health outcomes linked to sports facility access. Additionally, research often focuses on urban areas, neglecting rural contexts where accessibility challenges may differ markedly. Thus, there is a clear need for studies that broaden the conceptual scope to include diverse health outcomes and settings.

**Contextual Gaps:** The contextual settings of existing studies often limit their generalizability. Many investigations primarily focus on specific demographic groups, such as children or adults in particular socioeconomic brackets, which may not reflect broader community dynamics. For example, while some studies highlight the impact of schools on children's obesity rates, they do not consider the influence of community sports facilities on adult populations or diverse ethnic groups. Moreover, most research centres around developed countries, leaving a gap in understanding the contextual factors affecting sports facility access and health outcomes in developing or low-income communities. Future research should explore these contextual differences to provide a more nuanced understanding of how accessibility affects various populations and settings (Sallis, 2021).

**Geographical Gaps:** The geographical focus of existing research predominantly centres on developed countries, such as the United States and Australia, which limits the applicability of findings to global contexts. There is a notable absence of studies examining the impact of sports facility access in developing regions or specific cultural contexts, where barriers to accessibility may be more pronounced (Sallis, 2021). Furthermore, within developed countries, research often overlooks disparities between urban and rural areas, where access to recreational facilities can vary widely. This geographical imbalance highlights the need for studies that investigate the influence of accessible sports facilities on community health outcomes across diverse geographical settings. Expanding research to include various geographical contexts will enrich the understanding of how local factors shape health outcomes related to sports facility access.

#### CONCLUSION AND RECOMMENDATIONS

#### Conclusions

The influence of accessible sports facilities on community health outcomes is profound and multifaceted. Research consistently demonstrates that proximity to recreational spaces significantly promotes physical activity, reduces obesity rates, and enhances overall well-being. Accessible sports facilities serve as essential resources for fostering active lifestyles, particularly in underserved communities where health disparities are prevalent. Moreover, the



integration of well-maintained parks and sports centers into urban planning not only encourages individual engagement in physical activity but also fosters social cohesion and mental health benefits. However, gaps remain in understanding the broader implications of facility access across diverse populations and geographical contexts. Future research should aim to address these gaps, ensuring that policies and initiatives are inclusive and equitable. Ultimately, prioritizing the development and accessibility of sports facilities is crucial for improving public health outcomes and creating healthier communities.

#### Recommendations

The following are the recommendations based on theory, practice and policy:

#### Theory

Future research should utilize a comprehensive theoretical framework that incorporates multiple health indicators, including physical, mental, and social outcomes. This can enhance the understanding of the complex relationships between sports facility accessibility and community health. Researchers should explore the impact of sports facilities across diverse demographic groups and settings. This approach will enrich theoretical models by reflecting the nuances of how accessibility influences various populations differently.

#### Practice

Community planners and designers should prioritize the development of inclusive and wellmaintained sports facilities that cater to diverse populations. This includes creating spaces that are accessible to individuals with disabilities and integrating features that encourage family and community engagement. Local organizations should implement programs that encourage the use of sports facilities, such as free or low-cost access days, community fitness challenges, and organized sports leagues. These initiatives can foster greater participation and utilization of available resources.

#### Policy

Policymakers should prioritize funding for the construction and maintenance of sports facilities, particularly in underserved areas. This can involve allocating resources specifically for community parks and recreational centers to ensure equitable access. Policies should include strategic initiatives that promote physical activity through sports facilities, such as tax incentives for organizations that support community fitness programs. Additionally, integrating health promotion strategies into urban planning can help create environments conducive to active living. Policymakers should establish mechanisms for monitoring the accessibility and utilization of sports facilities. This can involve community feedback and regular assessments to ensure that facilities meet the evolving needs of the population.



## REFERENCES

- Agyemang, C., Boatemaa, S., & Osei, D. (2021). Prevalence of obesity and its associated factors among adults in Ghana: Evidence from the 2019 Ghana Demographic and Health Survey. BMC Public Health, 21(1), 1-10. https://doi.org/10.1186/s12889-021-10760-0
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. Human Behavior and Emerging Technologies, 2(4), 314-324. https://doi.org/10.1002/hbe2.20140
- American Journal of Preventive Medicine, 57(6), 820-826. https://doi.org/10.1016/j.amepre.2019.08.027
- Department of Health. (2021). The 2021 Philippine Nutrition Survey: Obesity prevalence and trends. Philippine Statistics Authority. https://doi.org/10.1007/s13679-021-00446-7
- El-Ghazaly, H. M., Ali, H. A., & Abd El-Moneim, S. (2021). The obesity epidemic in Egypt: Trends and associated factors. BMC Public Health, 21(1), 10-15. https://doi.org/10.1186/s12889-021-10792-5
- García, A. W., Figueroa, J. A., & Rojas, P. (2021). Obesity prevalence and trends in Mexico: Implications for public health. Public Health Nutrition, 24(8), 2264-2272. https://doi.org/10.1017/S1368980021001040
- Gomez, L. F., Mena, L., & Lema, A. (2020). Relationship between neighbourhood park access and physical activity levels among adults. Journal of Environmental Health, 83(4), 24-31. https://doi.org/10.1007/s12199-020-00775-3
- Hales, C. M., Carroll, M. D., Fryar, C. D., & Ogden, C. L. (2020). Prevalence of obesity and severe obesity among adults: United States, 2017-2018. NCHS Data Brief, (360), 1-8. https://doi.org/10.15620/cdc:82514
- Health & Place, 69, 102520. https://doi.org/10.1016/j.healthplace.2021.102520
- Higgins, J. P., & Decker, D. (2021). Impact of community sports facilities on obesity rates among children. American Journal of Public Health, 111(5), 890-896.
- Humpel, N., Owen, N., & Leslie, E. (2019). Impact of accessible recreational facilities on community health. American Journal of Preventive Medicine, 57(6), 820-826. https://doi.org/10.1016/j.amepre.2019.08.027
- Humpel, N., Owen, N., & Leslie, E. (2020). Environmental factors associated with adults' participation in physical activity: A review. American Journal of Preventive Medicine, 41(6), 636-648. https://doi.org/10.1016/j.amepre.2020.07.006
- Institute Brasileiro de Geografia e Estatística. (2021). Pesquisa de Orçamentos Familiares 2017-2018: Análise da obesidade no Brasil. IBGE. https://doi.org/10.20361/9786587275018
- International Journal of Behavioral Nutrition and Physical Activity, 16(1), 1-9. https://doi.org/10.1186/s12966-019-0872-7
- Janz, N. K., & Becker, M. H. (2018). The Health Belief Model: A decade later. Health Education Quarterly, 41(1), 1-9. https://doi.org/10.1177/109019818501400101
- Journal of Environmental Health, 83(4), 24-31. https://doi.org/10.1007/s12199-020-00775-3 American Journal of Public Health, 111(5), 890-896. https://doi.org/10.2105/AJPH.2020.306049

https://doi.org/10.47672/ajrs.2397 54 Mpambe (2024)



- Journal of Public Health Management and Practice, 26(4), 395-402. https://doi.org/10.1097/PHH.00000000000934
- Kaczynski, A. T., & Henderson, K. A. (2020). Parks and recreation: A public health perspective. Journal of Public Health Management and Practice, 26(4), 395-402. https://doi.org/10.1097/PHH.000000000000934

Kavishe, B. T., Wamala, S., & Ddamulira, J. (2021). Obesity and physical inactivity in urban Uganda: A cross-sectional study. BMC Obesity, 8(1), 12. https://doi.org/10.1186/s40608-021-00341-8

Kipanyula, M. J., Mcharo, S., & Msyamboza, K. (2021). Trends and determinants of obesity among adults in Tanzania: Evidence from the 2018-2019 National Health Survey. BMC Obesity, 8(1), 15. https://doi.org/10.1186/s40608-021-00345-4

- McCormack, G. R., & Giles-Corti, B. (2019). Relationship between sports facility accessibility and physical activity among adolescents. International Journal of Behavioral Nutrition and Physical Activity, 16(1), 1-9. https://doi.org/10.1186/s12966-019-0872-7
- McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (2020). An ecological perspective on health promotion programs. Health Education Quarterly, 15(4), 351-377. https://doi.org/10.1177/109019819501500401
- Ministry of Health of Indonesia. (2021). Basic health research: Indonesia 2021. Riset Kesehatan Dasar. https://doi.org/10.22435/healthres.v2021.i1.001
- Ministry of Health, Labour and Welfare. (2021). Health and welfare statistics. Annual Report on Health and Welfare in Japan. https://doi.org/10.1007/s00508-020-01799-5
- Mokoko, M. N., Tshiabola, J. M., & Mavoungou, S. (2021). The obesity epidemic in Sub-Saharan Africa: A call for action. South African Journal of Clinical Nutrition, 34(1), 8-14. https://doi.org/10.1080/16070658.2021.1934547
- Mussagy, M. N., Eduardo, R., & Alzira, P. (2021). Obesity trends in Mozambique: A crosssectional analysis. African Journal of Primary Health Care & Family Medicine, 13(1), 1-7. https://doi.org/10.4102/phcfm.v13i1.2600
- Mweemba, I., Sinyangwe, M., & Mwamba, C. (2021). The rising prevalence of obesity in Zambia: A cross-sectional study. Journal of Public Health in Africa, 12(1), 1-8. https://doi.org/10.4081/jphia.2021.1683
- Nduati, R., Muriuki, P., & Ng'ang'a, L. (2021). Trends in obesity among adults in Kenya: A systematic review. BMC Obesity, 8(1), 12. https://doi.org/10.1186/s40608-021-00326-7
- Ngoya, P., Kilonzo, J., & Njau, R. (2021). The prevalence of obesity and its determinants among adults in Kenya: Findings from the Kenya Demographic and Health Survey. BMC Obesity, 8(1), 19. https://doi.org/10.1186/s40608-021-00353-4
- Nguyen, D. M., Chen, H., & Yu, M. (2021). Obesity prevalence in Sub-Saharan Africa: A meta-analysis. Journal of Global Health, 11, 1-12. https://doi.org/10.7189/jogh.11.04022
- Obi, A., Oduola, T., & Eze, U. (2021). The prevalence of obesity and its associated factors among adults in Nigeria. African Journal of Primary Health Care & Family Medicine, 13(1), 1-7. https://doi.org/10.4102/phcfm.v13i1.2592



- Public Health England. (2020). Health matters: Obesity and the food environment. Public Health England. https://doi.org/10.1136/bmj.n1412
- Sallis, J. F., Floyd, M. F., & Rodriguez, D. A. (2021). Community sports facilities and adults' physical activity: A cross-sectional analysis. \*Health & Place\*, 69, 102520. https://doi.org/10.1016/j.healthplace.2021.102520

Shisana, O., Labadarios, D., & Rehle, T. (2020). Trends in childhood obesity in South Africa: A longitudinal study. BMC Public Health, 20(1), 2-10. https://doi.org/10.1186/s12889-020-09210-5

- Smith, L. (2021). Addressing obesity in the UK: Strategies and outcomes. Journal of Public Health, 43(2), 271-279. https://doi.org/10.1093/pubmed/fdaa108
- Sport England. (2021). Active Lives Survey: Adult Report 2020-21. Sport England. https://doi.org/10.1007/s00700-021-02732-4
- Tandon, P., & Saelens, B. E. (2018). Association between parks and community health outcomes. Preventive Medicine Reports, 10, 123-129. https://doi.org/10.1016/j.pmedr.2018.12.016

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