Abstract: Qatar is one of the few countries in the world with a dedicated national sports day. Qatar believes that sport is one of the best tools to promote a healthy lifestyle to help curb the growing burden of non-communicable diseases (NCDs). With the well-established positive health effects of soccer on cardiovascular, metabolic, and musculoskeletal conditions, the vision of the FIFA World Cup 2022™ hosted by Qatar to use the power of soccer to “open the door of an amazing world experience” is praiseworthy. With NCDs accounting for 70% of deaths in Qatar, there exists a perfect opportunity to promote healthy lifestyles to prevent, treat, and reverse NCDs. We believe that the FIFA World Cup 2022™ presents an opportunity that could contribute to generating valuable evidence on the lifestyle benefits of such large-scale events. This event comes at an opportune moment for countries in the region to make their health systems lifestyle-sensitive. FIFA World Cup 2022™ could just be the tipping point in the region that establishes the role of sports in mitigating the burden of NCDs. With the impact of COVID-19 on persons with pre-existing NCDs, the urgency for addressing the “syndemic” cannot be overemphasized and sport can be the lifestyle medicine.

Keywords: soccer; physical activity; world cup; non-communicable diseases; health policy

Introduction
Qatar, India, Iran, Japan, and Malaysia are known to have a dedicated national sports day. Although the primary reasoning for celebrating sports day varies among countries, from honoring sportspersons to commemorating the successful commencement of Summer Olympics, we see a common message for the future generations: the burden of non-communicable diseases (NCDs) in these countries is profound, and sport is one of the best tools to promote a healthy lifestyle to help curb the growing burden of NCDs. Qatar makes this explicit as a goal in its celebration of the national sports day. Since 2012, Qatar has celebrated national sports day annually on the second Tuesday of February.1 With the onset of the COVID-19 pandemic, the country
sports (running, swimming, and cycling).²

According to the Qatar National Health Strategy 2018-2022, chronic conditions account for 69.7% of deaths in Qatar, 70.1% of Qatari adults are overweight and 43.9% of Qatari adults have low levels of physical activity.³ A study commissioned by the Supreme Council of Health in the State of Qatar in 2013 identified that the top 5 non-communicable diseases that would affect Qatar in terms of the economic burden and disability-adjusted life years were cardiovascular diseases, mental health and behavioral disorders, cancer, respiratory diseases, and diabetes—a vast majority being lifestyle-related.⁴ Physical inactivity, high calorie diet, and tobacco use were among the most common risk factors identified as a significant threat to public health in the country. The study concluded that “The total direct and indirect costs to the Gulf Cooperation Council (GCC) calculated for the above 5 NCDs were $36.2 billion in 2013, which equates to 150% of the officially recorded annual healthcare expenditure. If this trajectory is maintained, spending per head of population in Qatar will reach $2778 by 2022."⁵ An urgency to advance lifestyle medicine as a cost-effective public health intervention to save lives and resources would seem well-justified within the context of Qatar and other GCC countries. With the impact of COVID-19 on persons with pre-existing NCDs, the urgency for addressing the “syndemic” cannot be overemphasized.⁶ FIFA World Cup 2022™ hosted by Qatar could just about be what the doctor ordered.

With the well-established positive health effects of soccer on cardiovascular, metabolic, and musculoskeletal conditions, the vision of the FIFA World Cup 2022™ hosted by Qatar to use the power of soccer to “open the door of an amazing world experience” is laudable.⁶ The sustainability strategy launched as part of the FIFA World Cup 2022™ is an example of how soccer and national commitment to sports can help generate momentum in combating the chronic disease burden in the country.⁷ The strategy makes an explicit commitment to prevent NCDs such as diabetes, cancer, and cardiovascular diseases through health checks, healthy nutrition initiatives, worker health initiatives, and its flagship Generation Amazing’s Health Generation program that aims to develop a green, inclusive, and healthy generation. This mission is synergistic with the goals of lifestyle medicine. In this commentary, we discuss how Qatar, a small nation of 2.8 million people, is on the road to using the power/attractiveness of soccer to combat the NCD burden.

**Soccer and Lifestyle Medicine**

Lifestyle medicine is a rapidly evolving field that uses lifestyle therapeutic approaches leveraging a whole food plant-based diet, physical activity, sleep, emotional well-being, and avoiding tobacco and risky substances to prevent, treat, and oftentimes reverse lifestyle-related chronic diseases.⁸,⁹ Lifestyle medicine may have found its perfect ally in soccer (although referred to as “football” in some countries, in this article, we prefer referring to the sport as “soccer”). A 2019 systematic review by Sarmento et al¹⁰ demonstrates the benefits of recreational soccer on cardiovascular and bone health, body composition, type 2 diabetes, and prostate cancer. This evidence strengthens the case for utilizing FIFA World Cup 2022™ as a flagship event to promote healthy lifestyles to prevent, treat, and reverse NCDs and further promulgate the field of lifestyle medicine.

As a physical activity, soccer is a comprehensive package that encompasses the whole range of physical fitness, including strengthening cardio-respiratory endurance, muscle strengthening, muscle endurance, flexibility, and balance. A recent systematic review and meta-analysis identifies the positive effect of recreation soccer in improving the bone mineral density of lower limbs when compared to control measures.¹¹ Soccer is known to reduce risk factors for cardiovascular disease, type 2 diabetes, and osteoporosis.¹² It remains an effective tool to fight childhood obesity when coupled with healthy nutrition. Soccer is also known to promote social connectedness and foster relationships. Strong evidence continues to emerge on soccer’s benefits for almost all people, and across their lifespan.⁶,¹² These attributes resonate closely with the pillars of lifestyle medicine.

**FIFA World Cup 2022 and Promoting Healthy Lifestyles**

The sustainability strategy of FIFA World Cup 2022™ has a dedicated section on strategic alignment with the sustainable development goals.⁷ Major commitments outlined in the FIFA–Qatar sustainability partnership agreement include promoting the healthy lifestyle and well-being of workers involved in construction and the service industry, strengthening air pollution control initiatives, and implementing FIFA’s tobacco-free policy. The other global initiative, the sustainability partnership, focuses on the launch and scaling up of the Generation Amazing program, which was first established during Qatar’s bid to host the FIFA World Cup 2022™.¹³ Utilizing soccer as an entry point, the healthy generation component of the program propagates the message of healthy living and promotes sustainable healthy living and promotes healthy living and promotes healthy living and promotes sustainable behaviors in the young generation of Qatar, the Middle East region, and beyond. Where promoting public health could be considered as a claim being asserted by FIFA World Cup 2022™, the above actions taken by FIFA and
Qatar demonstrate a serious commitment to follow through. Apart from the individual level health benefits, sports and sporting events such as the FIFA World Cup 2022™ can aid campaigns for health promotion and disease prevention. The aura of a grand event, national or international, coupled with powerful messages from national and international stars and sporting champions can have an immediate influence, with the potential for long-term benefits on populations. However, it is important to distinguish between competitive and recreational sports. The intention of the ongoing health promotion campaign in Qatar is not just to inspire the younger generation to become professional soccer players but to give the message of soccer and sport as a tool for healthy lifestyles. It is generally rare for an individual not to have played any sport in their life; however, while sport is considered a fun activity during childhood, individuals lose the fervor owing to the day-to-day stressors of adult life. Hence, it is important that the campaigns not only inspire young soccer players but also be able to generate interest among adolescents and adults to maintain/regain interest in sports.

**Sports and FIFA 2022 in a Public Health Context**

Given the evidence-base pertaining to the impact sport has on individuals’ well-being, a comprehensive approach to advancing sports in a public health context should follow the ecological systems model focusing on socio-cultural environments, informational environments, built and natural environments, perceived environments, and policy environments. Policy actions will have a central role to play in facilitating a supportive environment, including tailoring those actions to marginalized communities that are often left behind.

When combined with national advocacy days such as the national sports day, the FIFA World Cup 2022™ provides an opportunity to lay the perfect foundation for packaging the benefits of soccer and other sports as methods of fighting the NCD burden. In their systematic review of the health and social impacts of major multi-national events (1978-2008), George McCartney et al were not able to confirm or refute expectations about the health benefits for the host population of previous major sporting events. However, Qatar is on course for not only holding such an event but also showing the world that sporting events of such a nature can leave behind a legacy for the benefit of its own people, the region, and the world.

Qatar’s approach to leaving a legacy is different from those used in past events in our analysis and hence a way to setting itself for success. First, Qatar’s vision 2030 outlines provision of a world-class healthcare system assuring universal coverage of preventive and curative health care to its people, which is reflected by having one of the world’s lowest mortality rates due to COVID-19. This overall vision has inspired the national health strategy 2018-2022, which places high emphasis on reducing the burden of NCDs in the Qatari population.

Further granularity comes through the Qatar National Nutrition and Physical Activity plan. No plan is useful without clear guidelines and standards, and Qatar has developed and implemented national dietary and physical activity guidelines to advance the plan. Although there are no globally accepted standards for sports as physical activity, the Qatar national guidelines recognize sport as a form of physical activity and sets standards for its citizens.

In their article on sport and exercise as contributors to the health of nations, Khan et al (2012) concluded that system-wide changes should complement the role of the sporting sector to achieve the end goal. These system-wide changes include support of transport agencies, park and recreation areas, city planning, and schools. With the launch of its new metro rail, including a tram service, Qatar is bringing about a paradigm shift in the way its people move in their day-to-day business. The consistent addition of state-of-the-art parks and associated recreation areas and the education department’s active efforts to improve healthy behaviors among schoolchildren are all measures that synchronize with the lifestyle medicine guidebook. What gives greater confidence in Qatar’s pursuit for leaving a sustainable impact on its citizens is that it has also developed the Aspire zone, a modern complex that hosted the 2006 Doha Asian games, which stands today as the hub for physical activity in the country. This modern complex includes Aspetar, the first specialized orthopedic and sports medicine hospital in the Gulf region.

**Conclusion and Recommendations**

Soccer’s benefits for almost all people are well known and described. It may be too early to estimate the full spectrum of benefits from the FIFA World Cup 2022™ on people’s lifestyles from a broader public health perspective. However, it presents an opportunity that could contribute to generating valuable evidence on the lifestyle benefits of such large-scale events on an entire society/country. Establishing a baseline (although distorted by the COVID-19 pandemic) for lifestyle behaviors among the population and putting in place a physical activity surveillance system to monitor the change in the lead-up to the event and beyond will be steps in the right direction. This can also be compared
with a “control” country with similar socio-economic characteristics. These data have not been historically available, while such events happen frequently. Additionally, this could serve as a stimulus to sports and lifestyle medicine research that can amplify and better define the benefits of the sport in promoting healthy lifestyles. We believe that FIFA World Cup 2022™ in Qatar provides a unique and timely opportunity to advance lifestyle medicine goals in the wider region. We conclude this commentary with 5 recommendations for consideration.

1. The FIFA World Cup 2022™ is an opportune moment for Qatar and countries in the region to adapt their health systems to effectively implement lifestyle medicine programs with a focus on preventive care and behavioral counseling to address poor health behaviors among the population. Additional resources must be allocated to train health professionals in lifestyle medicine skills and competencies, which can be incorporated in routine medical practice and public health programs, thereby fostering and nurturing a culture of health-enhancing lifestyle programs.

2. With an immense interest for soccer among children, adolescents, and young adults, schools and colleges could play a pivotal role in promoting healthy and active lifestyles. Incorporating physical activity, nutrition, and other health topics relevant for optimum health—as required coursework—in school/college curricula should be given serious consideration.

3. Countries should consider collecting specific sport—health data to better understand and define the population health benefits of various sports/sporting events. Such data could be collected as part of national health surveys in a cost-effective manner. This will aid in chronic disease prevention and improving the quality of life among populations.

4. While it is customary to see famous soccer stars promote the sport and raise awareness on social issues, a decade of action for lifestyle medicine can be initiated coinciding with the kickoff of FIFA World Cup 2022™. Soccer stars from Qatar and other nations could serve as goodwill ambassadors of the much needed/timely lifestyle medicine movement.

5. With increased life expectancy and an aging population worldwide, soccer and other sports should be customized to meet the needs of this growing population. Age-friendly outdoor environment, parks, and playgrounds should be designed and built to promote recreational soccer and to maintain an active physical lifestyle. The growing popularity of softer version of soccer such as Futsal can be capitalized in the region. The soccer stadiums built for the tournament can also be used in the future to promote soccer and other sport interests among middle-aged adults and older people of both sexes.

FIFA World Cup 2022™ could just be the tipping point that establishes the role of soccer and sports in mitigating the burden of NCDs. The goalpost has been set, the game is on, and it is an opportune time to score lifestyle medicine goals.

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