

A Comprehensive Strategy of the Primary Health Care Corporation (PHCC) in Qatar Addressing Obesity and its Impact on Qatari Population, Seeking Cooperation Between Various Stake Holders

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Abstract

Review Article

Obesity poses a critical public health challenge in Qatar, with prevalence rates reaching 70.1% among adults and nearly half of children affected. The Primary Health Care Corporation (PHCC) plays a pivotal role in addressing this epidemic through an integrated, multi-sectoral strategy aligned with the Qatar National Health Strategy 2024–2030. This paper outlines a comprehensive approach to obesity prevention and management, incorporating public awareness campaigns, school-based interventions, healthy eating initiatives, physical activity promotion, healthcare provider training, family support programs, workplace wellness initiatives, research, and policy reform. A detailed SWOT and PESTLE analysis highlights organizational strengths, available resources, and supportive national policies, while identifying barriers such as environmental constraints and sedentary lifestyles. Implementation plans emphasize cross-sector collaboration, culturally sensitive interventions, and continuous monitoring through the Health Information System. By leveraging PHCC's extensive infrastructure, workforce, and strategic partnerships, the proposed plan aims to reduce obesity prevalence, improve health literacy, and enhance population well-being in Qatar.

Keywords: Obesity, Primary Health Care, Qatar, Public Health Strategy, Health Promotion, Policy Implementation.

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INTRODUCTION

Qatar is a one of the smallest countries of the world with a total area of 11,586 square kilometres. It is a wealthy oil producing country with very little indigenous population which has resulted that the locals are very rich. Its population is 2.53 million people 11.6% of whom are Qatari and 88.4% are expats professionals [1]. Diabetes in this country is highly prevalent. In 2018 the prevalence of diabetes was 16.7% and the prevalence of overweight and obesity was 70.1% [2]. On 20 February 2012 the Primary Health Corporation (PHCC) was officially established [3]. Since then, more health centres have been built and more services have been added (figure 1). Currently the PHCC has 31 big health centres, and it employs 7179 manpower [4].

The relevantly strategic objectives of the PHCC regarding obesity are:

- 1- Increase focus on preventative health and wellness.
- 2- Strengthen the integrated model of care.
- 3- Increase patient health literacy and brand awareness.

In the PHCC Health Centres are very big compared to the UK GP practices because they host multiple specialties such as dental clinics, diagnosing services, physical therapy, maternity care, child vaccination clinic, dietician services, dermatology, ENT and ophthalmology outpatient clinics. That indicates an area between primary and secondary care to reduce health care expenditure and improve patients' satisfaction by providing more specialistic services in the primary care a practice well known in the Netherlands [5].

One of the positive aspects of the PHCC is that it provides nursing services in all governmental schools in Qatar. This gives the PHCC a powerful tool to promote health awareness and health education in early ages of school children. In the school year 2022-2023 the total number of the public schools was 214 schools providing lessons for 124,192 pupils. The number of public nurseries was 65 taking care of 7,936 children. [6].

Nevertheless, the objective of this paper is to define the need for strategic planning related to obesity

to serve as a guideline for achieving a healthy population and reduce the prevalence of obesity in the country. The paper will be divided into three sections: section one identifies the importance of strategic plan in to address obesity, section 2 will analyse the factors that impact the change when implementing the strategy, section three will include my personal reflection on the development of the strategy and finally We conclude the paper with a conclusion section.

In this section We will start with defining what is obesity and its causes. Obesity is defined by the WHO as abnormal or excessive fat accumulation that presents a risk to health [7]. "Obesity is a complex chronic disease process resulting from the interaction of various factors including genetic susceptibility, high energy-dense nutrition, low physical activity and stress" [8]. While obesity is now recognised as a disease it took scientists long time to recognise it as a disease because of its complexity and the multifactorial aspect of it. In some countries like the USA financial aspects played a role in that recognition as well. In 1977 USA the American Health Care Financing Administration decided obesity was not a disease [9]. Obesity was recognized as disease by The American Medical Association as a disease in 2013 [8].

Al-Thani *et al.*, in 2016 investigated prevalence of overweight among students in Qatar. They discovered that overweight and obesity prevalence was 44.8% and 40.4% among males and females respectively. They established that 45.6% Qatari and 40.9% non-Qatari students were obese [10]. There is rising concern that children in Qatar are becoming more obese as well.

CAUSES OF OBESITY:

Research has indicated that there are many causes that lead to obesity in the population. Obesity ensues when an individual's body accumulates abnormal amount of fat. This takes place when energy intake exceeds energy expenditure over time. Many factors could contribute to the rising obesity prevalence. [12]

A. Genetic factors: several studies have proven genetic susceptibility to weight gain. In those studies where identical twins were subjected to different diets for 100 days resulted in weight gain between 4-10 kg. The response to the same experiment was different when the studies twins were not identical. [11]

B. Extragenetic causes of weight gain: this is divided to several subcategories

B-1 weight gain due to medical conditions: known examples of that are Cushing Disease, Hypothyroidism and polycystic ovary syndrome. [11]

B-2 individual socioeconomic factors, these factors influence was clearly demonstrated when comparing Pima Indians living in Arizona USA with Pima Indians living in Mexico. While sharing the same

ancestry origin, being subjected to different diets has resulted in different BMI in both groups. [11]

C. Environmental factors, the effect of workplace environment on obesity is well studied. Long working hours result in low physical activity and high calories intake which result in obesity. Long working hours can affect the quality of food that individuals consume shifting towards higher amounts of processed food versus health one. [11]

Section One:

Importance of strategic planning and how it is important when designing it to fight obesity

Strategic planning is defined as "deliberative, disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why" [12].

Using the current resources of the PHCC my suggested strategic plan to encounter obesity should contain:

- 1- Announce the PHCC strategy and promote it to employees and to the public intensively emphasizing its alignment with the national strategy of health.
- 2- Use relevant appointments of patients with PHCC professionals to raise awareness about obesity, such as well women clinic, well baby clinic and Non-Communicable Disease (NCD) clinic.
- 3- Intensify proper documentations obesity parameters such as BMI, other risk factors and comorbidities in the health information system to generate reliable data.
- 4- Enhance the awareness of the staff about obesity by conducting frequent lectures and provide data of the prevalence of obesity worldwide in comparison with Qatar.
- 5- Encourage evidence based on long lasting research to investigate obesity and monitor prevalence and trends.
- 6- Synchronize efforts with other stakeholders like secondary, tertiary lines and the Ministry of Public Health by arranging quarterly meetings to evaluate plans and to test the strategy which should be flexible to adjust.

Rationale for the strategic plan for obesity. Why is obesity a priority target for this strategy?

The high prevalence of obesity among the Qatari and Non-Qatari population raised the alarm to develop this strategy (Figure 2). The Qatar National Health Strategy (NHS) 2016 - 2022 has established that overweight and obesity among children is raising rapidly. Obesity is a priority for this strategy because of its big impact on various health outcomes. It can lead to an increase in the prevalence of diabetes, musculoskeletal problems, mental issues, subfertility and other health conditions. It has a huge impact on health

expenditure and general wellbeing of the population. Preventing obesity therefore is of great benefit for individuals and the health system in general.

To address obesity in Qatar the PHCC as a governmental primary health care provider should take in consideration the national health strategy and all other health care providers strategies to align all efforts and plans towards this goal. It should also establish communication channels with governmental, semi-governmental health care providers and the private sector

as well. It should share ideas with other governmental and non-governmental entities that have indirect influence on health outcomes like ASHGHAL which is responsible for infrastructure and how to make inner cities walkable and create bicycle routes to encourage the population to cycle or suitable walking paths enabling people to walk freely and safely. Other entities like the Ministry of commerce should set sharp rules on the amount of sugar in fizzy drinks and clearly mention the number of calories that those drinks contain.

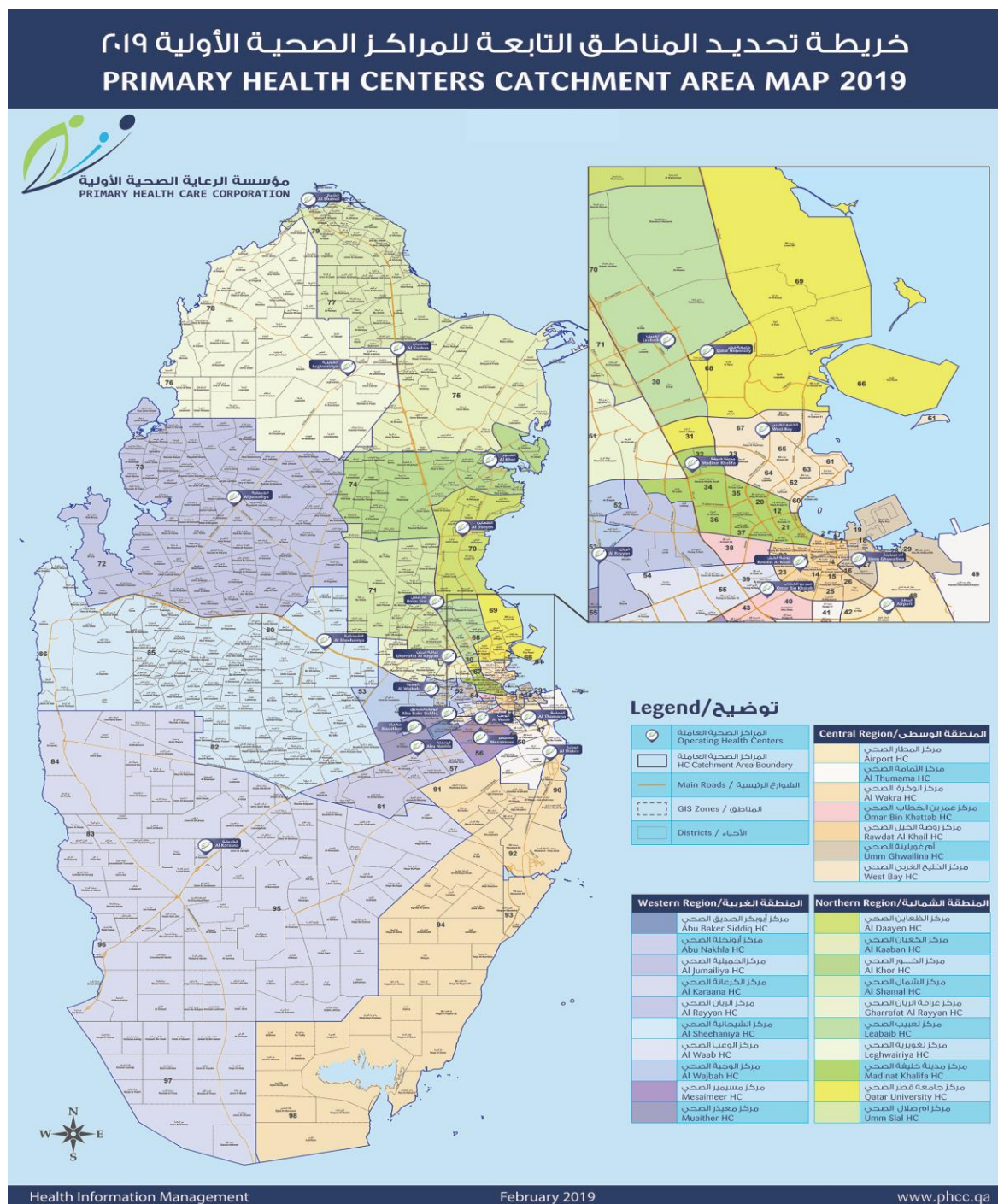


Figure 1: Health Centers Locations in Qatar 2019



Figure 2: Overweight and obesity in Qatar is 70.1%

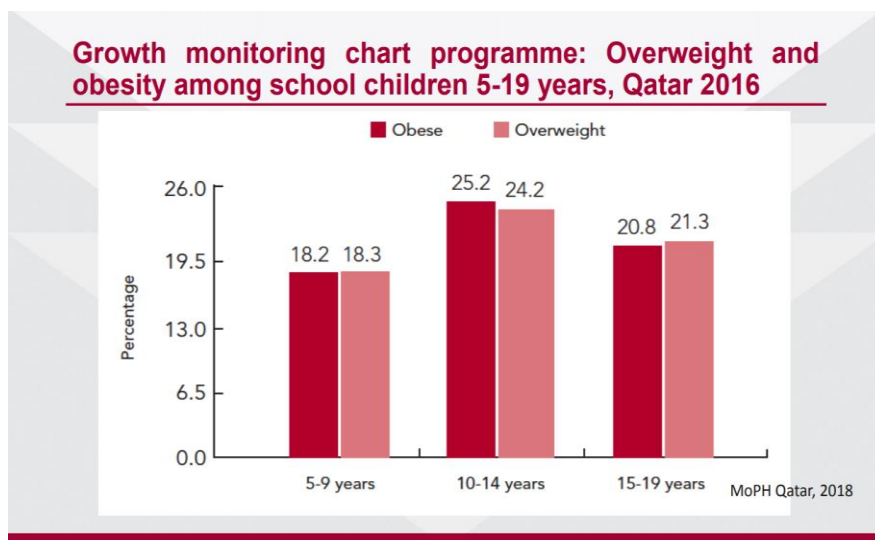


Figure 3: Overweight and Obesity in among children in Qatar

1- Developing PHCC strategy to address obesity in Qatar.

Section 2

Aspects of PHCC strategy to address obesity in Qatar

While treating comorbidities associated with obesity such as diabetes, musculoskeletal problems and hypertension is well established in the PHCC. There is little emphasis in developing a complete strategy to encounter obesity itself. From my experience in the PHCC for the last 10 years I can summarize several reasons for that. The most important reason is that treating obesity in Qatar was always in the secondary line. Medication that reduces weight can only be prescribed in secondary of tertiary line. In the PHCC as family physicians our task was referral to secondary line for medical treatment or general lifestyle advice in co-operation with dieticians in primary care. Implementing

change and building a strategy requires thorough analysis of the strengths and weaknesses of our organization in dealing with that.

Factors that can affect developing the strategy for obesity in the PHCC

Strengths internal organizational factors:

1. Resources, 31 well equipped health centers and internationally accredited primary care services.
2. Manpower 7,179 well trained international professionals had experience in western and nonwestern health systems.
3. Health information system (HIS), which is available in all health centers and all public schools, which allows nurses working in those schools to enter data directly into the system. In

Qatar the HIS is shared between the primary and secondary line hospitals allowing professionals to view medical records documented in the primary and the secondary line directly.

Weaknesses internal organizational factors

1. Staff training is directed to deal with obesity and the way of communicating with patients affected by it.
2. A need for more professionals to organize and run obesity clinics.
3. Providing medications needed for treating obesity in the PHCC when needed.

Strengths external factors:

1. Rules and regulations, the national health strategies prioritized obesity and put it high on the agenda.
2. Financial resources enable the country for providing the most advanced treatment medications to the public like GLP1 weight reducing injections although it is still only for

the Qatari nationals yet from the previous gained experience those treatments can soon be available for expatriates as well.

3. Improved infrastructure: the country has invested heavily in creating walking and cycling paths for the populations. Besides that, several big national parks were paved which made practicing sport much easier.
4. The population is more aware of the link between obesity and multiple diseases affecting people with obesity

Weaknesses of the external factors:

1. Environmental factors, extreme heat especially in the summer months where temperature can reach up to 48 degrees centigrade.
2. The initial design of the city in the American design which is more car friendly than for the pedestrians.
3. Sedentary lifestyle is worsened by the wealth of the populations.

SWOT analysis

Internal factors	Strengths	Weaknesses
	Resources Manpower Health Information System (HIS)	Staff training in obesity. Number of extra staff needed. Lack of appropriate medications.
External factors	Opportunities	Threats
	Rules and regulations are in favor. Financial resources for health care Improved infrastructure Population awareness	Environmental factors (heat). Walkability of the cities (more car friendly) Sedentary lifestyle worsened by wealth.

Personal reflection on SWOT analysis

There are significant factors that strengthen the implementation of the strategy such as resources and power and HIS. The weaknesses can be solved by training and recruiting of extra staff. The vast resources and the alignment of the project alongside the national health strategy will provide great support for the project.

Hot weather in the summer will always be an obstacle for outdoor activities. Luckily there are enough indoor facilities which provide solutions in the hot summer months.

PESTLE analysis

Factor	Description
Political	Qatar Government supports initiatives in tackling obesity
Economic	The country has vast resources and provides healthcare free for its citizens and for expatriates at a very low cost.
Social	There is increasing awareness supported by repeated campaigns.
Technological	Science has developed various obesity treatment options, surgical and medical.
Legal	No legal obstacles are facing strategies that aim to reduce obesity
Environmental	Summer hot whether forms an obstacle to sport in open air still there are enough indoor facilities

PESTLE analysis provides a good insight into political, economic, social, technological, legal and environmental factors that can affect strategy.

Implementation strategy

1.1 Public Awareness and Health Education

In this domain we will launch a repetitive campaign - once every 3 months- about the risks of

obesity for the public. During this campaign we will utilize our -well visited- health centers towards promoting healthy lifestyle and the importance of sport and fitness. We should encourage our physicians to actively refer patients with obesity or overweight to health educators and dieticians. Other health care professionals in the health center should be aware of these ongoing campaigns awareness campaigns.

Brochures about obesity and its risks will be printed in several languages especially Indian, Bengali and Urdu hence those nationalities form biggest population groups in Qatar. It is known that Southeast Asian population are at higher risk when it comes to cardiovascular diseases exacerbated by obesity [13].

1.2 School health and physical activity:

The prevalence of obesity among children in Qatar is one of the highest in the world. Almost half of the children (46%) in Qatar are either overweight or obese [14]. It is well researched that obesity in childhood is linked to increased risk of cardiovascular diseases in adulthood [14]. Encountering childhood obesity in the early stages can help to mitigate the impact on adulthood obesity. We should utilize nursing staff in schools to register the weight and height of children into the HIS. This will enable health care professionals to monitor the development of obesity among school going children and to raise the alarm timely for the child and his parents. One important aspect is the promotion of healthy food in school canteens and vending machines. Promoting healthy food in those venues will limit access to fizzy drinks and high-calorie snacks. This requires cooperations between school management and PHCC campaigners. Those awareness activities should be extended also to private schools who employ their own nurses who are not linked to the PHCC nursing staff. Private schools could be approached by the Ministry of Public Health and The Ministry of Education to be engaged in those campaigns as well.

1.3 Healthy eating initiatives:

This is a broad aspect which requires cooperations between several governmental and legislative institutions. Through this initiative the PHCC will promote healthy food for patients and children. The government's role will be regulating advertisements targeting unhealthy food for children. The Ministry of Commerce and Industry (MoC&I) can impose regulations on food processing companies to mention accurately the exact components of the processed food and the nutritional value of it. Consumers are then empowered to make well informed decisions about which food they will buy based on accurate information. The government of Qatar has already a good control mechanism of food prices [15], but some stimulants could be used to assure that blue collar laborers with relatively low income can afford to buy fresh fruits and vegetables which are rather expensive because most of those products are imported. The challenge is to coordinate efforts between two totally different government entities, hence the point of view of the two ministries can be totally different because imposing more regulations on companies can limit the growth of

business due to tight regulations. Therefore, some policy changes might take too long to draft and to impose them.

1.4 Physical activity promotion:

While this seems a straightforward task, nevertheless it is a hard initiative to promote for various reasons:

1. Qatar is one of the hottest countries on the planet with temperatures reaching round 48 degrees Celsius in the Summer months (May-October) which makes walking very difficult.
2. The infrastructure and the city design were less pedestrian friendly 10 years ago compared to other countries in Europe and Asia for instance. In the last 4 years more pedestrian bridges have been built all around the capital city which enables people to walk more and reach parks. (Image 1,2 and 3 a bridge between a high-density populated area and a big national park).
3. The Government has built 6 health wellness centers for the PHCC in the last years which have large swimming pools and gym facilities but those cannot cover the need of the whole population.
4. It needs high cooperation between health authorities and other governmental entities to carry out population targeted sport projects.

1.5 Health Care Provider Training

One of the most important aspects of encountering obesity is to train healthcare providers in effective obesity management strategies, including counseling and referral to nutritionists and fitness experts. This training will be from top up to all professionals in the organization. We should design special courses to train our staff to recognize and diagnose obesity. Then patients should be scheduled for obesity clinics either in the PHCC or referred to HMC when medication or surgical operation is needed. The patient should go through a loop of professionals starting with nurse educator who will take measurements and vital signs. Then patients will see a physician discuss the disease and the comorbidities that accompanies obesity. When agreed to a certain treatment plan, patient will be referred to a dietician in the same setting to get dietary tailored advice. Patients will be seen regularly every 8 weeks to monitor progress and to encourage them when they fail to achieve their treatment goals. The government will provide medication which are needed to support patients in their journey to lose weight such as GLP1 injections and oral drugs. If mental issues are detected, the patient will be seen by a psychologist when support is needed or psychiatrist if medication is required. If the case of the patient is too complicated a multi-disciplinary team will be formed to discuss those cases and a tailored advice will be issued. Training of 7179 employees is a gigantic task and will require extra resources and good trainers.

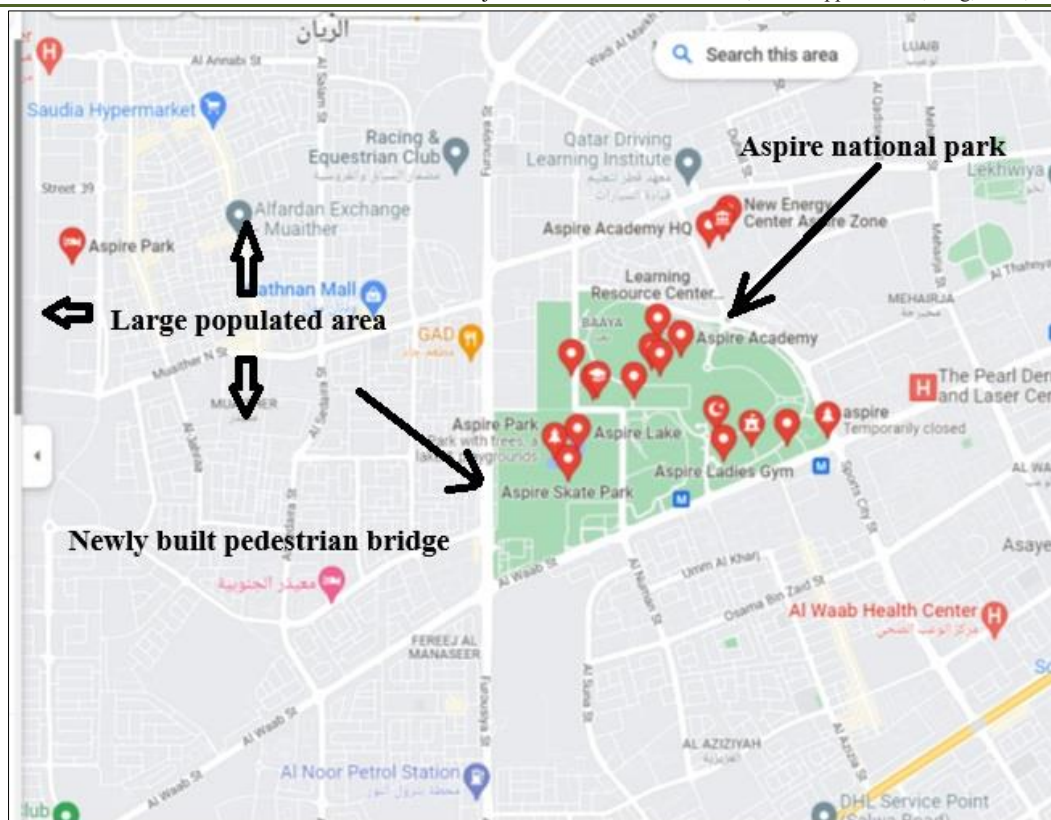


Image 1: Aspire National Park and the heavy populated area



Image 2: The bridge linking population area to Aspire National Park



Image 3: the bridge in a closer look

1.6 Family support plans:

When an individual is diagnosed with obesity the professional will explore whether other family members have the same problem. Partners should be

involved in the treatment plan of the patient. If patients affected are young children, parents should be involved and asked whether other children are also affected. If all family members are affected, system therapy will be

initiated with dieticians and social workers who can support the family in healthy food orientation and how to make sure that good choices are made when it comes to buying healthy food. The challenges of those approaches are the unique social system of the local Qatari families

where people live in extended family environment where 3 generations live in the same house. Taking those aspects in consideration Qatari social workers can be of great value.



Image 4: Vending machine in a health center in Qatar

1.7 Workplace Wellness Programs:

In the workplace several issues will be tackled. First, vending machines should not provide unhealthy snacks like fizzy drinks and high calorie snacks (Image 4 vending machine in a health center in Qatar).

Second, wellness centers should be available in more health centers. Currently only 6 health centers out of 31 and the headquarters have wellness centers. Third, employees should be reminded about the importance of healthy lifestyle via online workshops which can be made mandatory as other mandatory training courses such as basic life support courses. If the wellness capacity is not enough a collective contract with private gymnastic centers providers with good, negotiated discounts should be provided. This can be as challenging as treating obese patients themselves. Moving staff to do more sport will require more time and resources but it will have more extended impact on the families of the PHCC staff as well.

1.8 Research and Monitoring:

Data Collection: In our suggested strategy we should create a data collecting system for monitoring obesity rates and the effectiveness of interventions. We should start with baseline registration in all the above-mentioned aspects. After that we will gather data

regularly to assess the impact of the suggested improvement. Those data will be as indicators which will show us the improvement achieved. National obesity monitoring data will be collected and analyzed periodically. Data about child obesity should be specifically collected and reviewed. Besides that, the PHCC will invest in research and assign scholars to do that. Research will help the PHCC and other stakeholders to better understand the specific causes of obesity in Qatar and evaluate the effectiveness of various implemented intervention projects.

1.9 Policy and Regulation:

National Health Policies: As PHCC we will approach other stakeholders and policy makers to develop policies that support long-term health improvements, such as taxation on sugary drinks and high-calorie foods. We will share information with areas with the highest prevalence of obesity in the country with other stakeholders and governmental entities like ASHGHAL for infrastructure and transportation. This can lead to creative solutions in areas with less sport facilities and walking paths. We should further establish partnerships with other similar organizations who face the same challenges in the region or worldwide to learn from each other's experiences. Besides that, we will

collaborate with local and international organizations to leverage resources and expertise.

1.9.1 Implementation and Evaluation:

Pilot Programs: We should start with pilot programs to assess effectiveness and scalability. **Feedback Mechanism:** We should establish a feedback system to adapt strategies based on community needs and outcomes. By combining education, community engagement, and policy reform, this strategy aims to create a supportive environment for healthier lifestyles and ultimately reduce obesity rates in Qatar. This strategy should be a flexible one and modifiable as we move forward. This flexibility will make it easier to modify projects when we notice that they are not giving the outcomes we expected.

Expected outcome:

The implementation of this strategy can run aside with the Qatar National Health Strategy 2024 – 2030. Hence the national strategy is aligned with the PHCC strategy, the long run outcome should be positive. For instance, in November 2024 the governmental stakeholders, the PHCC, Hamad Medical Corporation and the ministry of Public Health have created an obesity course for 60 family physicians to train them in dealing with stage 1 and 2 in the Edmonton obesity classifications. Patients with higher stages will be treated in the secondary and tertiary line.

CONCLUSION

Since the last 5 years obesity in Qatar has increased especially among children. Despite the vast resources the problem seems to increase. Yet the emphasis from the health authority and the determination to reduce prevalence is very evident. Aligning all efforts will make this effort easier. Developing a strategy for the PHCC that is synchronized with other active stakeholders will make those efforts more effective. It is important to engage patients, professionals and care givers to achieve the targeted objectives. We should be aware of the relapsing nature of obesity which makes us design long lasting strategies that enable us to address obesity disease properly.

REFERENCES

1. CIA, (2021). "Qatar" <https://www.cia.gov/the-world-factbook/about/archives/2021/countries/qatar/#people-and-society> (accessed 11 October 2024).
2. Bashir M, E Abdel-Rahman M, Aboulfotouh M, Eltaher F, Omar K, Babarinsa I, Appiah-Sakyi K, Sharaf T, Azzam E, Abukhalil M, Boumedjane M, Yousif W, Ahmed W, Khan S, C Konje J, Abou-Samra AB. Prevalence of newly detected diabetes in pregnancy in Qatar, using universal screening. *PLoS One*. 2018 Aug 3;13(8):e0201247. doi: 10.1371/journal.pone.0201247. PMID: 30074993; PMCID: PMC6075760.
3. Almeezan (2023) Emiri Resolution No 15 of 2012 establishing the Primary Health Care Corporation , <https://www.almeezan.qa/LawArticles.aspx?LawArticleID=59567&LawId=4503&language=en#>. (Accessed 21 September 2023).
4. Corporate Strategy (phcc.gov.qa) (Accessed 16 October 2024).
5. Health care and business international (2023). "Strategies for university hospital" <https://www.healthcarebusinessinternational.com/how-maastricht-umc-is-moving-into-population-health-management/> (Accessed 17 October 2024).
6. Overview of the Department of Schools and Student Affairs (edu.gov.qa). (accessed 18 October 2024).
7. https://www.who.int/health-topics/obesity#tab=tab_1. (Accessed 24 November 2024).
8. Okunogbe A, Nugent R, Spencer G, et al Economic impacts of overweight and obesity: current and future estimates for eight countries *BMJ Global Health* 2021;6:e006351
9. Bray, G. A., Kim, K. K., & Wilding, J. P. H. (2017). Obesity: A chronic relapsing progressive disease process. A position statement of the World Obesity Federation. *Obesity Reviews*, 18(7), 715–723. <https://doi.org/10.1111/obr.12551>
10. Al-Thani M, Al-Thani A, Alyafei S, Al-Chetachi W, Khalifa SE, Ahmed A, Ahmad A, Vinodson B, Akram H. The prevalence and characteristics of overweight and obesity among students in Qatar. *Public Health*. 2018 Jul;160:143-149. doi: 10.1016/j.puhe.2018.03.020. Epub 2018 Apr 25. PMID: 29704956.
11. Omer, T. (2020) 'The causes of obesity: An in-depth review', *Advances in Obesity, Weight Management & Control*, 10(4), pp. 90–94. doi:10.15406/aowmc.2020.10.00312.
12. Bryson, J. M. 2011. *Strategic Planning for Public and Nonprofit Organizations*. San Francisco, CA: Jossey-Bass.
13. Vafaei, P. et al. (2023) 'Heart health for South Asians: Improved cardiovascular risk factors with a culturally tailored health education program', *BMC Public Health*, 23(1). doi:10.1186/s12889-023-15667-y.
14. Alisi M. Obesity among children and adolescents in Qatar: protocol for a scoping review. *BMJ Open*. 2022 Feb 16;12(2):e057427. doi: 10.1136/bmjopen-2021-057427. PMID: 35173008; PMCID: PMC8852752.
15. <https://www.moci.gov.qa/en/our-services/consumer/commodities-daily-prices/%e2%80%8b%e2%80%8bdaily-vegetable-prices/> (viewed 18 October 2024).