

## THE PUBLIC POLICY HUB

# Combating the High Prevalence of Obesity among Egyptian Households A Pilot Study: Port-Said Households A Policy Paper



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June 2021



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June 2021

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Published by:

**The Public Policy HUB  
The School of Global Affairs and Public Policy (GAPP)  
The American University in Cairo (AUC)**

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## Executive summary

Obesity is a major public health issue in Egypt and its repercussions are not only limited to the health dimension, but also extend to affecting the productive capacity of the citizens. This adversely affects the overall fundamentals of the Egyptian economy. Moreover, there is a current political interest in promoting the health and well-being of the citizens which is reflected in the recent “100 Million Seha” massive initiative that measured the weight and height of millions of Egyptians.

According to the “100 million Seha” initiative, 39.8% of Egyptian adults suffer from obesity. Obesity prevalence can vary according to the geographical location, gender, and socio-economic class. In addition, obesity is a risk factor for numerous Non-Communicable Diseases (NCD) such as diabetes. This has prompted us to study how to combat obesity among adult Egyptians in urban communities particularly in Port Said governorate. Targeting obesity in adults in Port Said can help Egypt reduce the escalating NCDs among adult Egyptians and enhance the workforce. Therefore, we aim to reduce the obesity rate in Egyptian adults by 5 percentage points in the coming 5 years.

Four stakeholders were targeted in this study: the Ministry of Health and Population, the Ministry of Supply and Internal Trade, the National Food Safety Authority, and the Supreme Council for Universities. Furthermore, four alternatives are proposed: adjusting the Egyptian subsidy system, organizing nutritional follow-up services within family medical centers, providing Nutritional Facts Labels by the National Food Safety Authority, and organizing university sports championships for fitness.

By applying the decision-making rule, which is equity, administrative and political criteria, we recommend adjusting the Egyptian subsidy system.

Solving the problem of obesity requires intensive efforts at the level of the state, the regional community, and even the interna-

tional level. Utilizing the current resources of the Ministry of Supply and Internal Trade is considerably convenient for controlling and preventing obesity in Egypt. The proposed recommendation, which is adjusting the Egyptian subsidy system, depends primarily on the role of Ministry of Supply and Internal Trade in securing healthy food items in the ministries' different distribution channels, along with providing healthier variants in the list of subsidized goods.

## Section I. Background

### Global context

The World Health Organization (WHO) defines obesity as “abnormal or excessive fat accumulation that presents a risk to health”. The body mass index (BMI) measures weight-for-height and is used to measure obesity. The BMI classifies weight into three categories: underweight, overweight, and obesity in adults. Individuals are recognized as overweight for BMI over 25 kg/m<sup>2</sup>, whereas they are obese for BMI of 30 kg/m<sup>2</sup> or above (WHO, 2003). According to the WHO, the total prevalence of obesity among adults is 13.1 in 2016. The prevalence is remarkably changing when being segregated into males and females; it is 11.1 in males and 15.1 in females (WHO, 2016).

It is worth mentioning that reducing obesity rates is a cornerstone towards achieving the 17 sustainable development goals (SDGs), since 14 of these goals address issues that are relevant to obesity. Reducing obesity rates is substantially required to achieve the sustainable development goals (SDGs) (Lobstein & Cooper, 2020). Controlling and preventing obesity will help reduce Non-Communicable Diseases (NCDs) which in turn will help achieve SDG 2030 goals (Lobstein & Cooper, 2020).

### International experiences:

#### *The United States of America:*

US Obesity rates have been dramatically increasing in the last 40 years in the USA (Chan, 2013). The Center for Disease Control and Prevention (CDC) stated that the USA age-adjusted prevalence of obesity in adults in 1999- 2000 was 30.5%, while in 2017–2018, it increased to 42.4% (Craig M. Hales, 2020). The escalating obesity prevalence can be attributed to the overconsumption of food in addition to the reduction of physical activity (Chan, 2013). In order to reduce these rates, the USA has applied diverse laws, strategies and legislations on the local, state and national levels to prevent and control obesity (Chan,

2013; Chriqui, 2013; Dietz et al., 2009). On the national level, the federal government has invested in the Food, Conservation, and Energy Act of 2008 which substantially increases food supply and availability (Dietz et al., 2009). This bill allotted 54% of the funds to launch nutrition programs which helped increase fruit and vegetables consumption (Dietz et al., 2009). The bill also directs 15% of its funds to subsidize soybean and corn production, widely used in food production such as feeding for cattle. As a result, this helps consumers obtain beef and other products at lower prices (Dietz et al., 2009).

However, subsidizing soybean and corn can increase the consumption of high caloric beverages such as high-fructose corn syrup which may contribute to the prevalence of obesity (Dietz et al., 2009). The USA has also applied the Safe, Accountable Flexible Efficient Transportation Equity Act to influence citizens' physical activity (Dietz et al., 2009). This bill contributes to metropolitan transportation planning by allowing transportation users to walk approximately for 30 minutes daily (Dietz et al., 2009). State- and local- level legislations have also contributed to obesity prevention and control. For instance, New York City and California states have forced chain restaurants to label the calorie content of their meals on their menu boards. Furthermore, the National Committee for Quality Assurance has approved the 'Healthcare Effectiveness Data and Information Set' (HEDIS), which assists in providing nutrition and physical activity counseling for adults, children, and adolescents. These regular counseling sessions help healthcare providers raise citizens' awareness of their body mass index (BMI) changes (Dietz et al., 2009).

## Section I. Background

### State of Obesity in Egypt

#### *Egypt Rankings of Obesity:*

Obesity is a growing problem in Egypt given its ranking vis a vis other countries in the world. Based upon the World Population Review 2020, Egypt ranked as the highest 19th country in the world and the 7th highest country in the Arab region, with a 32% obesity rate. However, given the high population density in Egypt comparable to its

peers with population equal to 102 million people in 2020, Egypt ranks the 7th country in the world and the 1st in the Arab region regarding the most obese population. (Review, 2020) For more clarification, table (1) indicates Egypt's ranking corresponding to its peers concerning obesity statistics.

**Table (1): Egypt's Ranking according to Obesity Statistics**

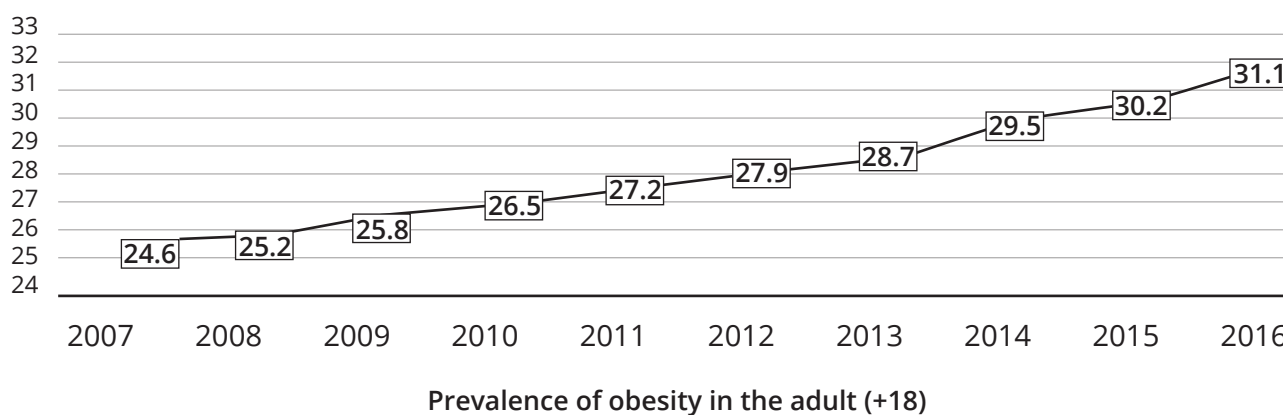
Obesity Statistics	Obesity Rate	Density of Obese Population
Egypt Ranking/World	19 <sup>th</sup>	7 <sup>th</sup>
Egypt Ranking/Arab Region	7 <sup>th</sup>	1 <sup>st</sup>

**Source:** World Population Review. 2020.

<https://worldpopulationreview.com/country-rankings/obesity-rates-by-country>

While obesity is highly prevalent in Egypt, it varies significantly across gender, age, and socio-economic status. On examining the evolution of obesity in Egypt, Figure (1) shows that the obesity rate in Egypt had an increasing trend during the period (2007-2016). As

indicated in the figure, the obesity rate in Egypt in 2016 has increased by 6.5 percentage points comparable to 2007. This emphasizes that efforts on the ground to control obesity prevalence are not enough.



**Figure 1.** Obesity Prevalence in the Adult Population (18+ Years)

**Source:** Statista. 2020. (Date of Access 26th January, 2020)

<https://www.statista.com/statistics/979509/egypt-prevalence-of-obesity-adult-population-aged-18-years-and-older/>



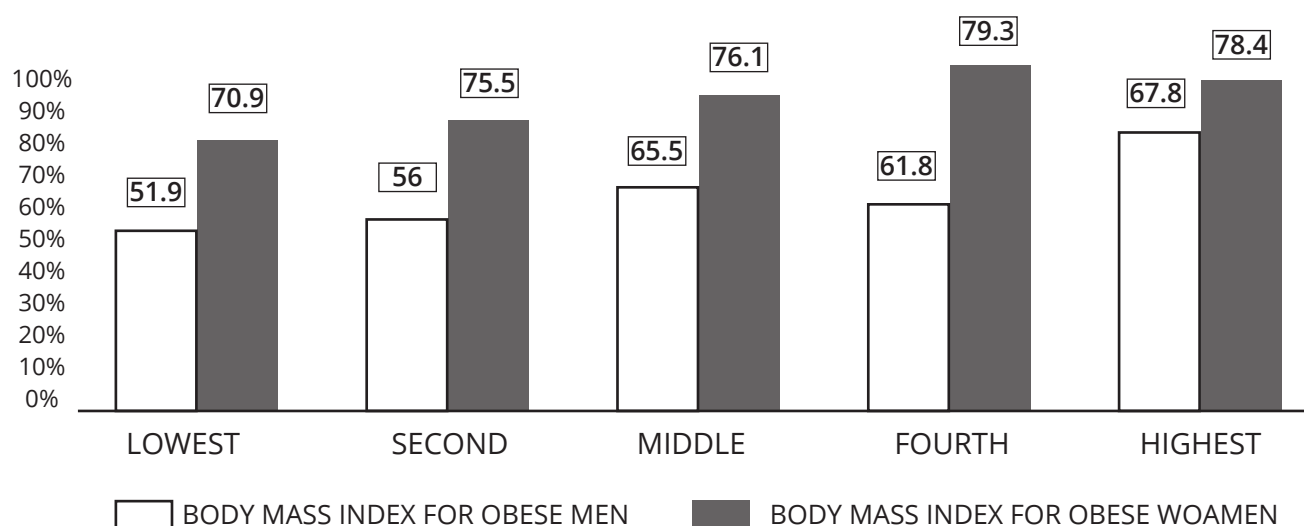
## Section I. Background

### Causes of Obesity in Egypt

The existence of obesity in Egypt is attributed to many factors at the top of which is the cultural ones. Media plays a key role in influencing people's preferences towards food consumption. Promoting for calorie rich food consumption and unbalanced diets has been extended from the television to social media. "Kersh Keepers" is the most famous page on Facebook that promotes fatty food consumption. Moreover, the basic Egyptian lifestyle does not encourage the practice of sports or regular physical activities. For females, especially in the rural areas, it is not socially acceptable to practice sports in

the streets. In addition, the general lifestyle does not promote the consumption of fruits and vegetables.

According to the results of the Demographic Health Survey (DHS) of the year 2015 (the most recent published results), as shown in figure (3), obesity is widespread among low economic classes due to the existence of the food subsidy system that provides food products high in calories and unbalanced health diets (Ecker et al., 2016). On the same token, the wealthier people tend to consume white bread and carbonated drinks (Wassef, 2004).



**Figure 2. Obesity Status by Gender and Wealth Quintile in 2015**

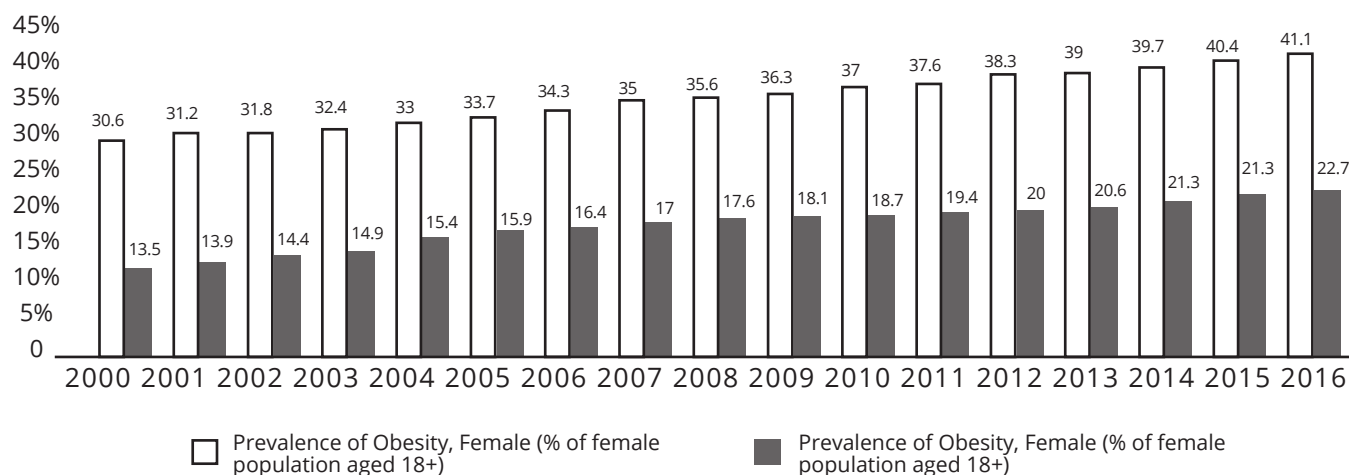
**Source:** The Demographic Health Survey Program. 2015. Egypt Health Issues Survey 2015. MOHP and El Zanaty and Associates. <https://dhsprogram.com/pubs/pdf/FR313/FR313.pdf>

According to the UNICEF, around 15% of children under five years old are classified as overweight (UNICEF, 2015), which indicates the incidence of obesity earlier in the family cycle. As demonstrated by figure (2), the incidence of obesity among both males and females has an increasing trend during the period (2000-2016). Moreover, the prevalence

of obesity among females is nearly as twice as that among males, as indicated by figure (3). Tadros (2019) mentioned various reasons behind this like the absence of sport activities in the educational institutions, women considering obesity as a sign of beauty, social barriers on practicing physical activities by females.

<sup>1</sup> Unicef. <https://www.unicef.org/egypt/nutrition> (Access Date, 26th January 2020)

## Section I. Background



**Figure 3. Prevalence of Obesity by Gender (2000-2016)**

**Source:** World Bank, World Data Atlas: <https://knoema.com/WBGS2019/gender-statistics>

In a nutshell, the roots behind the incidence of obesity in Egypt are various and intertwined which may explain the increase in the obese segments over time, despite the decrease in the obesity rate. Table (1) in the appendix presents the roots behind obesity problem in Egypt based on empirical evidence.

### National policies to combat obesity in Egypt

Managing and controlling obesity in Egypt is undertaken by the government, the private sector, the non-profit organizations and the international organizations (Shahin, 2015).

#### 1. Government Interventions:

Government Interventions to prevent obesity during the last decade in Egypt could be classified into three broad categories:

A. Implementing nationwide programs for raising public awareness and/or tracking and monitoring the state of general health, promoting physical fitness and promoting general fitness. The government depends heavily on media advertisement for communicating its message to the citizens and encourages their participation in such national initiatives. An explicit example of this was the propaganda for the “100 Million Seha” and “Alreyada lel Gami”

program that was applied earlier.

- B. The engagement of government institutions like the National Nutrition Institute is an example in supporting nutritional and health education through organizing educational seminars, brochures distribution, conducting evidence-based research in the field of nutrition, and the dissemination of health and nutrition information through the institutions’ websites.
- C. Partnerships with international stakeholders in the field of nutrition and health for providing consultancy services, technical support, and finance necessary for optimizing the effectiveness of obesity prevention programs. For example, Egypt’s action plan for controlling the spread of noncommunicable disease during (2021-2017) was set based on the mutual efforts of the Egyptian Ministry of Health and the World Health Organization (Eman Ellabany, 2006).

On reviewing the previous government interventions to control obesity in Egypt, the following remarks can be noticed:

## Section I. Background

- Direct interventions to combat obesity hardly exist since preventing obesity is only considered within a wider vision of controlling the diffusion of non-communicable diseases (Shahin, 2015). This raises a question about the effectiveness of these programs compared to the programs that target obesity directly.
- Efforts to prevent obesity are scattered. Consequently, their impact on controlling obesity is still limited given current Egypt's rank of obesity prevalence.
- Some initiatives are still under implementation, so we could not assess their overall impact on obesity prevention.
- There are no key performance indicators to monitor and evaluate the impact of that intervention. For example, the national action plan for controlling the spread of noncommunicable diseases declared halting the rise in the increase of obesity prevalence as one of its targets without quantifying the target numbers.
- Alongside movement towards Sustainable Development Goals (SDGs), it is supposed that Egypt pays much more attention to controlling obesity since it is considered as the key to achieving most of the 17 SDGs (UNICEF, 2017).

### 2. Private Sector Interventions:

The private sector contributes to controlling obesity through implementing business ideas for healthy food catering, applying general fitness programs and certifying fitness trainers (Shahin, 2015).

- There is a growing business in the field of catering diet and healthy food. For example, Antifat is a small company specialized in healthy food catering. Its value proposition is to provide a full day meal that allows weight loss up to 3 kilos a week (AntiFat).

### 3. Community-Based Interventions:

Non-profit organizations like alashanek ya balady are involved in efforts towards controlling the spread of obesity through raising the public awareness and endorsing educational programs for controlling obesity (Shahin, 2015).

## Section II- Problem Statement

### Significance of the Problem:

Obesity is a major health issue in Egypt. According to the latest mass-study of “100 Million Seha” , 32% of Egyptian adults suffer from obesity. Obesity prevalence can vary according to the geographical location, gender, and socioeconomic class.

Such high prevalence rates of this problem and the heavy burden of disease, disability, death that can be caused due to obesity can lead to a devastating financial burden on the country along with an overwhelmed health regime. Moreover, obesity is linked to other diseases like diabetes, coronary heart disease, hypertension, gallbladder disease, colon, breast, and endometrial cancers, and osteoarthritis.

As per the statistics released from the results of “100 Million Seha” initiative, 45.74% of the participants in Port Said were found to be obese and those in Cairo represented 41.28%. Therefore, urgent action is needed to address this alarming and growing problem and simultaneous action by several government departments in addition to the Ministry of Health, which should have an important coordination and monitoring role, is highly required.

### ***The Economic Cost of Obesity***

Alongside the movement towards achieving sustainable development goals, halting the increase in obesity prevalence become at the top priorities due to its linkage to the majority of the SDGs (Cambridge University Press, 2020).

Lehnert et al. (2013) mentioned the negative implications of obesity on the economy as a whole. On the one hand, obesity raises the health care costs due to preventive diagnostic and health care services. This affects the allocation of the individual's and the government's budget. Moreover, it is assumed that the productivity of obese people tends to be low, this consequently affects their overall productivity.

### Problem Statement:

Based on the demonstrated analysis, it is quite apparent how crucial it is to address the high levels of obesity in Egypt and the precarious consequences associated with its prevalence. It is also important for public policy making to focus on the well-being dimension of the citizens' lives, given the importance of having a healthy and productive workforce for the economic development and success of the country. As mentioned before, there is a simultaneous current growing presidential and governmental interest in exerting efforts to improve the health sector in Egypt.

The main concern for the Ministry of Health is the lack of financial resources to tackle the obesity problem, especially given the current pressures on the Ministry's capacities and staff in light of the COVID19- pandemic. Hence, this paper aims at providing policy alternatives that could be feasibly implemented by the Ministry's bodies, in collaboration with the Ministry of Supply and the National Food Security and Safety Authority, as illustrated in the stakeholders' analysis section.

It is also worth noting that one of the main obstacles to obesity reduction is the lack of health and nutritional awareness among most Egyptian households, particularly when it comes to the segment of the population below the poverty line. Values related to food consumption habits and lifestyles, nutritional facts, and related diseases should all be well addressed to effectively spread awareness that leads to areal on-the-ground change in the Egyptians' daily food intake. Therefore, obesity in Egypt is a multi-dimensional problem where awareness, the availability of resources and a special focus on the poorest group in the country should all be effectively tackled in order to successfully reduce the prevalence of obesity.

The pilot governorate which is chosen to implement the proposed policy alternatives

## Section II- Problem Statement

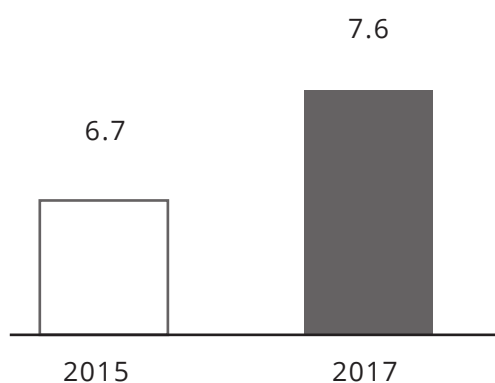
comprised in the paper is Port Said, given that it was the governorate proposed by the Ministry of Supply as well as the governorate where new policy measures are mostly implemented. Moreover, the economic indicators of Port Said are favorable compared to other governorates in Egypt, as illustrated in the graphs below.

### Target Beneficiaries

**Egyptian adults residing in Port Said (65-18 years old).**

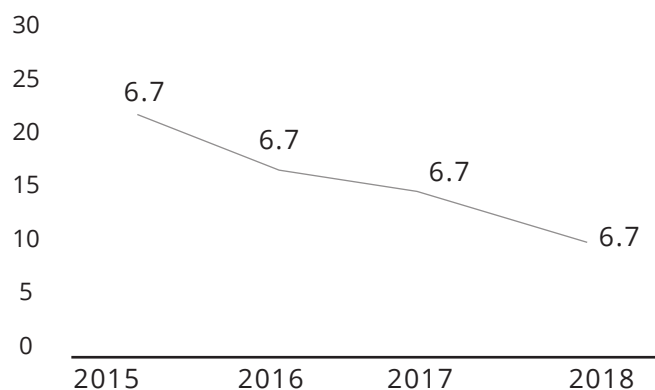
Egyptian adults residing in Port Said from 18 to 65 years of age can benefit from the proposed policy. The policy is not limited to a certain gender.

### Poverty rates in port said



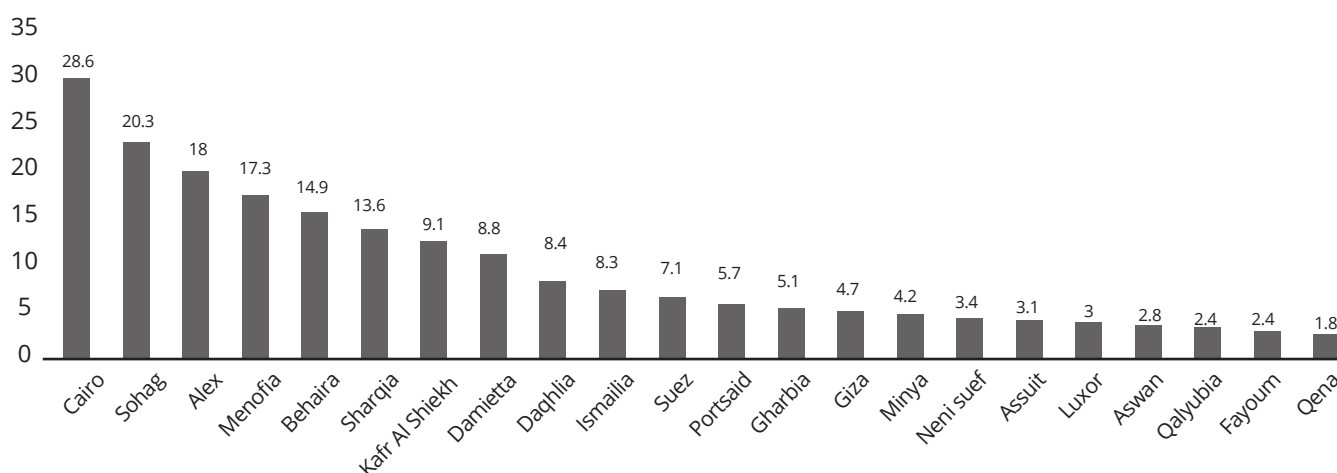
Source: Egypt Statistical Year book (CAPMAS)

### Unemployment rate in port said



Source: Egypt Household Expenditure Survey for 2017

### Percentage of obesity among children under 5



Source: The National Statistical Report for the Sustainable Development Goals 2030

## Section II- Problem Statement

**Objectives:** The main objective of this paper is to design policy alternatives that can be generalized to all Egyptian governorates to help reduce obesity prevalence among Egyptian adults by 5 percentage points in the upcoming 5 years. In addition, the paper also targets designing techniques to spread effective awareness about health and nutrition that can substantially impact food consumption habits among Egyptian citizens. Finally, the novelty of this paper is that it focuses on the poorest segments of the Egyptian population that are economically vulnerable and have a higher chance of suffering from obesity.

### **Stakeholder Analysis:**

We identified the key stakeholders for this research, then we conducted interviews with some of them. In addition, we used a qualitative research to get grounded expert feedback. We prioritized the stakeholders according to their power and interest in the problem.

#### **A. The Ministry of Health and Population:**

The Ministry of Health and Population (MOHP) is responsible for improving the health of Egyptian citizens through preventive and curative services (Population, Vision of the Ministry). The Ministry is the key stakeholder as it has the strongest power, authority, and interest to control the obesity epidemic. It is capable of designing and implementing policies and programs to prevent and control obesity, especially after the outcome results of the "100 Million Seha " initiative, which demonstrated that approximately %40 of adult Egyptians are obese. As a result, this has encouraged the deputy Minister for Public Health Initiatives to focus on adopting effective policies to fight obesity, with plans to launch a nation-wide campaign for four years 365 tons. However, the MOHP faces multiple challenges such as very limited monetary resources, and a centralized approach.

#### **B. The Ministry of Supply and Internal Trade:**

The Ministry of Supply and Internal Trade is responsible for nation-wide food security. More specifically within the Ministry, the General Authority for Supply Commodities provides basic commodities for low-income families at affordable prices, with around 64 million Egyptians benefiting from these programs in June 2020 (Trade, 2020). The Ministry is considered a primary stakeholder as it plays an essential role in food accessibility and security. The Ministry has a strong power in controlling the obesity by changing the subsidy system, which predominantly relies on carbohydrates, but it has a low interest as these policies may contradict their efforts toward food security.

#### **C. The National Food Safety Authority**

The National Food and Security Authority protects customers' health through upholding the maximum safety and health criteria for food products. The NFSA is in charge of licensing, inspecting, and supervising the handling of food, granting compliance certificates required for exporting locally produced food, issuing mandatory rules to ensure food safety and hygiene, monitoring and inspecting imported food, adopting rules and regulations associated to advertising and the labeling of food products, and regulating the use of food additives and substances (LYNX).

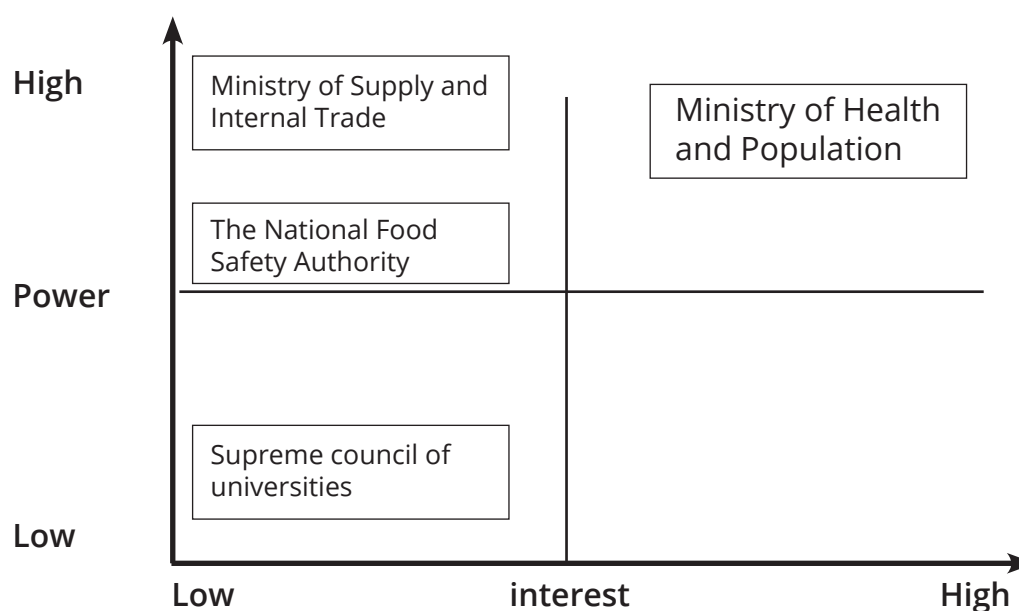
We consider it a secondary stakeholder as it has the regulatory authority to raise the consumers' awareness of the nutritional information of food products. However, the sub-departments of the Authority do not implement regulatory roles to control and prevent obesity, as it will require overhauling the system to standardize nutritional labels. In this case, the Authority will have a low interest in changing its current policies.

## Section II- Problem Statement

### D. The Supreme Council of Universities

The Supreme Council for Student Affairs guides all Egyptian universities on how to organize physical activities for their students. The Council does not have specific programs for obesity control, but indirectly offer sports facilities and support programs. However, the main challenges include enough sports facilities

and their maintenance, which universities like Port Said University are not able to sustain (Farag, 2019). We consider the Council a secondary stakeholder as it has a moderate power and low interest in implementing and maintaining direct health initiatives.



## Section III: Policy Alternatives:

This section aims at demonstrating innovative and applicable policy alternatives that could effectively help mitigate obesity prevalence in Egypt and address it from different perspectives. Such alternatives focus on the different groups of the governorate's population and are diverse in nature in order to effectively help reduce obesity in Egypt.

### Alternative 1: Adjusting the Egyptian subsidy system:

Since its establishment in the late fifties, the main objective of the subsidy system in Egypt was to cover the basic nutritional needs for the largest possible number of households (Trego, 2011). The list of subsidized items includes 28 goods which are mainly rice, flour, oil, sugar, cheese, beans, lentils, etc. We can realize that such food items are chosen because they have a high-calorie intake and therefore achieve the highest possible level of dietary satiation, in a country where pov-

erty elimination has always been an important concern.

According to the Ministry of Supply, the number of subsidized products' beneficiaries is 63 million. In addition, the number of citizens who have access to subsidized bread is about 72 million. Such figures indicate the huge scale of the population covered by the Ministry and highlights the importance of this policy alternative, which has to do with making the list of subsidized items more comprehensive and inclusive of healthier food variants. This could have a significant impact on the health and nutritional habits of the large number of households who mainly rely on subsidized food items in their daily nutritional intake. Accordingly, it could help mitigate the prevalence of obesity among Egyptian households.

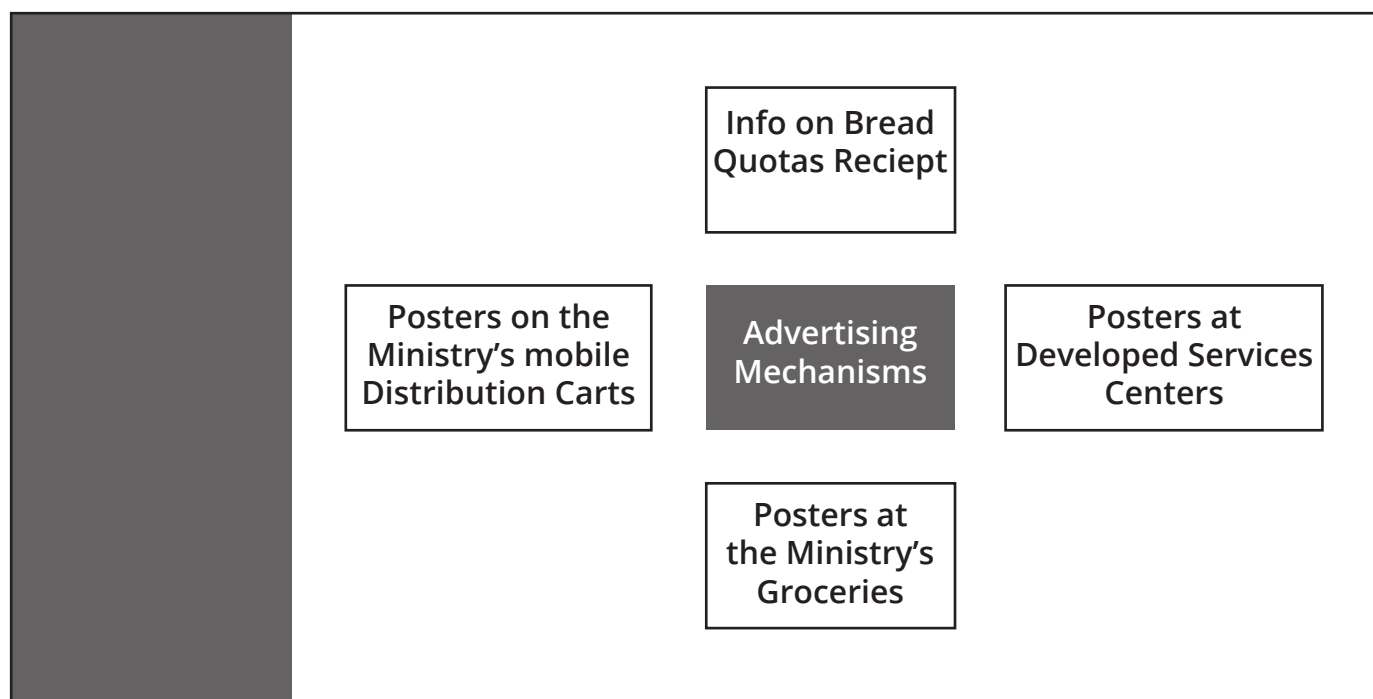
<p><b>Description</b></p>	<p>This alternative rests on two main cornerstones. The first is increasing the availability of healthy food items (like vegetables and fruits) in the Ministries' different distribution channels, along with providing healthier variants of the goods included in the list of 28 subsidized goods (like olive oil besides regular oil, brown rice, brown pasta, and brown sugar which are healthier and more nutritious). The second element is launching awareness campaigns for the subscribers to the subsidy system who represent more than 60% of the population, inside the Ministry's groceries and service centers.</p>
<p><b>Advantages</b></p>	<p>One of the most important advantages of this alternative is that it gives special emphasis on the poor. The percentage of the poor in Egypt is about 32% according to the latest Household Income, Consumption &amp; Expenditure survey (HIECS) in 2017 (Economic Research Forum, 2018). This group is considered the most vulnerable in the Egyptian population and represents the most important segment of the subsidy system beneficiaries. This is mainly because the poor lack both the financial resources to shift their consumption towards healthier food items (vegetables and fruits) and more importantly, they lack awareness of the nutritional content of different food items and their health-related repercussions.</p>



## Section III: Policy Alternatives:

	<p>Therefore, by implementing such an alternative and availing these healthier options, the food consumption habits of such group may drastically change and as a result their chance of suffering from obesity and its related health complications could be considerably reduced..</p>
<p>Disadvantages</p>	<p>This policy alternative needs coordination between the Ministry of Supply and the Ministry of Health for the sake of designing the content of the nutritional awareness campaign and its monitoring. Moreover, it needs an in-depth study of the different incentives that could be offered to the Ministry groceries' merchants to provide fruits and vegetables.</p> <p>Another issue has to do with the cost of printing needed for the awareness campaigns. However, these concerns could be successfully addressed by the ministries and are not costly.</p>
<p>Political Feasibility</p>	<p>As per the Ministry of Supply's figures, the allocated budget for subsidized food items for the current fiscal year 2020 -2021 is 85 billion compared to 89 billion in the previous year. Such decline is due to the decrease in the international wheat prices, along with the screening of the subsidies' beneficiaries. Moreover, there are no government plans to reduce the funds allocated to the subsidized items(Kamal, 2021). Designing incentives for the groceries' suppliers could include increasing the number of their allowed subscribers, along with other financial incentives that could be feasibly designed by the Ministry of Supply's technical team.</p> <p>Consumers could purchase brown pasta and rice that could be made available by the Ministry's suppliers. Also, they could buy vegetables and fruits from the supply units using "the points system" embedded in the current subsidy' scheme. This system allows beneficiaries to buy goods, even if they used up all their assigned monetary which is 50 LE per individual, using the difference from the bread subsidy's assigned monetary amount.</p> <p>The awareness element of this alternative could also be easily and successfully achieved, thanks to the Ministry's large number of groceries, bakeries, and service centers. Moreover, there were campaigns (with other objectives) that were previously launched by the Ministry. The Ministry has 30,000 bakeries, 36,000 groceries, 1400 service centers (of which 300 centers are fully developed), and 232 Mobile Distribution Carts. The awareness campaigns could include basic information about the health benefits and satiation achieved by brown pasta and rice for instance, about the implications of consuming too much sugar on a daily basis, the health benefits of consuming vegetables and fruits and so on.</p> <p>The main means of spreading this information and such awareness is summarized in the diagram below.</p>

## Section III: Policy Alternatives:



### Alternative 2: Organize nutritional follow-up services within family medical centers.

The Ministry of Health and Population will offer nutritional follow-up services for adults in Port Said governorate. The regular check-up of weighing participants' bodies will help

them reduce their weight. These services will raise the awareness of the participants about obesity and its serious complications.

#### Description

Establishing clinics for obesity follow-up in government medical centers which are distributed according to geographical areas and population. The project will be implemented in Port Said governorate as a pilot trial under the umbrella of comprehensive health insurance.

Citizens use the medical centers for regular health services such as following up with their family doctor. Nutritionists, such graduates of the Egyptian fellowship nutrition programs, will join these centers. In addition, pharmacists and dentists who have pursued postgraduate studies in nutrition can join to compensate for the shortage in the number of physicians.

The BMI will be periodically monitored for all citizens visiting the centers, especially higher risk group patients who suffer from Non-Communicable Diseases. The nutritionists will design appropriate nutrition plans for all visitors. In addition, the medical centers will conduct awareness campaigns to educate citizens on the complications of obesity.

The centers will give more attention to pregnant mothers, as infant obesity can start during pregnancy. As a result, nutritionists will offer special follow-up services for expectant mothers during pregnancy.

## Section III: Policy Alternatives:

<p>Advantages</p>	<ul style="list-style-type: none"> <li>• Medical centers are distributed according to geographical areas and population which ensures fairness and equality.</li> <li>• The actual existence of these centers does not impose additional costs for the Ministry.</li> <li>• The greater probability of patients' commitment and compliance to the follow up services in the medical centers. This is predicted from the compliance of participants of "100 Million Seha" initiative.</li> </ul>
<p>Disadvantages</p>	<p>The shortage of human resources of physicians in the MOHP</p>
<p>Political Feasibility (Sabawie, 2020)</p>	<p>According to the interview with the Deputy Minister for Public Health Initiatives, there is a great interest from the political leadership in controlling obesity through preparing health initiatives and organizing media campaigns to raise awareness..</p> <p>The Ministry of Health and Population is looking forward to any proposals to solve the obesity problem in Egypt, but the most important factor is that the Ministry will not have additional financial burdens.</p> <p>According to "100 million Seha" screening, 50 million undergone screening with age group of 18 and above. Obesity prevalence was found to be 39.8%. All the 50 million participants were screened and 28 million were found to have Non-Communicable Diseases NCDs such as hypertension, diabetes, and obesity. Those patients had been referred to regional medical centers for management of chronic diseases.</p> <p>The Ministry of Health and Population do not have established projects for managing and controlling obesity yet. However, they plan to cooperate with pharmaceutical companies to conduct massive awareness campaigns called (365 Tons Initiative). The campaign will encourage all the participants to lose 365 tons in a specific duration.</p> <p>The MOPH is encouraging all the proposals trying to control and prevent obesity in Egypt. Nevertheless, the Ministry does have financial constraints; therefore, they prefer low-cost proposals.</p> <p>The Ministry welcomes to use the already-established medical centers, to provide nutritional services to citizens who suffer from obesity.</p>

## Section III: Policy Alternatives:

### Alternative 3: Provide Nutritional Facts Labels by the National Food Safety Authority

Recognizing unhealthy calorie-rich foods as one of the major reasons behind the prevalence of obesity in Egypt emphasizes the need to a regulatory framework for nutritional labelling. The proposed strategy helps in providing nutrition facts about food products which may encourage individuals for diet food consumption. The implementing institution is the National Food Safety Authority (NFSA) as its main role is to track food monitoring and safety<sup>2</sup>.

Moreover, other Egyptian government institutions that are concerned with regulating food safety exist under the authority of the NFSA. Processing nutritional labelling will widen the consumption choices based upon science-based facts about the nutritional ingredients. Over the long run, this may affect the consumption habits of Egyptian individuals. They will be keener on consuming healthier food items.

<p><b>Advantages</b></p>	<p><b>Feasibility of implementation:</b></p> <ul style="list-style-type: none"> <li>• Ease of communication and coordination among various governmental institutions concerned with food safety in Egypt since they are under the control of the NFSA.</li> </ul> <p><b>Effectiveness:</b></p> <ul style="list-style-type: none"> <li>• Provide nutritional facts will push the consumption of foods towards healthy foods which in turn help in improving the overall health of the people.</li> </ul>
<p><b>Disadvantages</b></p>	<p><b>Governance issues:</b></p> <ul style="list-style-type: none"> <li>• There is a real need for pre-market control to guarantee the compilation of products to safety standard requirements.</li> </ul> <p><b>Irrational food consumption preferences:</b></p> <ul style="list-style-type: none"> <li>• Consumers may still prefer purchasing unhealthy food.</li> <li>• Consumers may be misled by promotional words as signs of healthy diet foods like "Sugar Free Product"</li> </ul>

<sup>2</sup> The National Food Safety Authority  
[https://www.nfsa.gov.eg/\(S\(otw2pwwgkxkicpstc3nyujxx\)\)/App\\_PP/DeskTop/App\\_Web/App\\_Custom/1/Default.aspx?TabID=10000000](https://www.nfsa.gov.eg/(S(otw2pwwgkxkicpstc3nyujxx))/App_PP/DeskTop/App_Web/App_Custom/1/Default.aspx?TabID=10000000)

## Section III: Policy Alternatives:

### Alternative 4: Organizing university sports championships for fitness:

Some studies examined the importance of extracurricular physical activities in reducing obesity prevalence. According to a longitudinal research that studied the impact of physical activities on the obesity of adolescents in the US, the authors suggest that obesity is inversely proportional with

extracurricular physical activities (Drake et al., 2012). As a result, the prevalence of obesity would decrease by approximately 26% if all adolescents played on 2 sports teams per year (Drake et al., 2012).

Description	<p>The Supreme Council of Universities will organize extracurricular physical championships including public and private universities. These championships will secure financial incentives for participants. The championships will be funded by multiple sources such as sponsors and businessmen. Accordingly, the championships will be a good source of funding for the universities.</p> <p>Each university should recruit players in various sport teams such as football, volleyball, handball, etc. Therefore, undergraduate students will have a bigger opportunity to join those teams and exert higher physical effort.</p>
Forecasted consequences	<p>Including most university students in the country will help the average BMI rates to decrease among the participants which will eventually reduce overweight and obesity prevalence of the participants. In addition, the championships will eventually assist in raising the well-being of the participating students.</p>
Advantages	<ul style="list-style-type: none"> <li>• The championships do not only control the current obesity phenomenon, but also it acts as a protective tool in preventing obesity.</li> <li>• Targeting the young can help them control their weight in the future on their own.</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Requires a high budget to organize the championships and the required infrastructure.</li> <li>• Does not ensure gender equity as the society may burden young girls to join the championships.</li> <li>• Championships will only direct age 18-23 years old and university students.</li> </ul>
Constraints	<p>All the universities should construct the required infrastructure to organize the championships such as building and maintaining sufficient playgrounds.</p>
Political Feasibility	<p>Low. The Supreme Council of Universities does have a busy agenda and numerous topics to manage. A separate entity should be established to focus on sports in universities.</p>

## Section IV- Recommendation and Conclusion

The thorough treatment of the obesity problem in Egypt in this paper highlights the paramount importance of tackling this crucial problem and placing it on top of the government's health policy agenda. Addressing obesity has also become increasingly important in light of the COVID-19 era. This is because suffering from obesity increases the chance of suffering from diabetes and heart diseases that tend to complicate COVID-19 symptoms and mortality rates. Moreover, empirical investigation has endorsed the link between considerable investment in the population's health and promoting economic growth and development (Alsan et al., 2006).

Hence, in the ongoing process of achieving economic reform, special attention must be paid to the problem of reducing obesity among the segments and socioeconomic groups in the Egyptian population.

There is an urgent need to deal with the high prevalence of obesity in Egypt to reduce the risk factors for chronic non-communicable diseases, which occur as a result of obesity, unhealthy diets and consequently exert further pressures on the Egyptian health sector to provide medical services to patients suffering from such chronic diseases.

When it comes to evaluating the proposed policy alternatives, it is important to resort to the different policy criteria that need to be considered in this context. If we focused on the equity, administrative and political criteria, we can conclude that the alternatives of the subsidy system and medical centers are the plausible and applicable ones.

As for the first alternative which has to do with the subsidies' system and the Ministry of Supply, we can realize that this alternative fulfills the equity criteria since it provides awareness to more than 60% of the population and helps the most vulnerable groups to reduce their chance of suffering from this problem.

And when it comes to meeting the **political criterion**, it is also fulfilled given the capacities and huge coverage of the Ministry of Supply, their demonstrated interest in the implementation of this alternative as was demonstrated in the interview process, along with the fact that they launched a previous campaign as mentioned before. Moreover, the current presidential concern about the health dimension lays strong foundations for implementing this alternative. This means that the **administrative criterion** is also met, given that the distribution channels and groceries are all monitored by the Ministry of Supply and its services centers are currently undergoing renovation and development.

Regarding the medical centers alternative, the equity criteria are satisfied in light of equal distribution of hospitals and family medical centers, according to population density and geographical distribution and this provides equity in the service distribution to all population.

Also, the interest that the political leadership and the government are currently offering for the health file, which is evident through the many health initiatives that take place under presidential supervision, suffice the political criterion of this alternative. The Ministry of Health and Population has invested financial resources in the Egyptian fellowship programs, including the Nutrition Fellowship. Graduates of these programs may work to manage the nutrition departments in health facilities, and this in turn helps fulfill the administrative criterion.

Finally, when it comes to the future of policy making with regard to tackling the obesity problem, a higher national committee should be established for this purpose with the executive authority.

## Section IV- Recommendation and Conclusion

This committee should be composed of representatives from all relevant government institutions and representatives from the private sector and professional unions related to nutrition and the healthy lifestyle.

The committee rules should focus on conducting research on the health, nutritional, social and economic factors associated with the occurrence of obesity using the most reliable available data & evidence, rather than waiting to collect surplus information. Moreover, sustainable programs and activities (with a long term vision) should be conducted, bearing in mind that changing unhealthy behaviors takes a great deal of time and effort. However, there should be programs that can be achieved in the short and medium term that contribute to reducing risk factors associated with obesity.

Another important dimension that needs a strong emphasis in the future is the rehabilitation of healthcare facilities (including hospitals, treatment centers, and centers

for obesity and other chronic diseases such as diabetes and heart disease) in order to improve the medical know-how and the capacities of the centers to provide adequate methods for treating obesity. In addition, programs for early detection of risk factors associated with obesity (diabetes, high blood pressure, blood lipids, and cardiovascular diseases) should be established, along with upgrading and training physicians on treating obesity. Moreover, the centers should focus on increasing awareness among the patients attending these facilities on how to prevent and control obesity and its associated health repercussions (Musaiger et al., 2011).

Finally and most importantly, expanding the implementation of the two selected alternatives to the rest of the Egyptian governorates and preparing adequate budgetary plans for the purpose of achieving such expansion is of crucial importance for reducing obesity across all the country's cities.

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# THE PUBLIC POLICY HUB

## Where Rigour Meets Creativity

The Public Policy HUB is an initiative that was developed at the School of Global Affairs and Public Policy (GAPP) in October 2017. It was designed to fill in the policy research gap in Egypt. It provides the mechanism by which the good ideas, plausible answers, and meaningful solutions to Egypt's chronic and acute policy dilemmas that are proposed by the country's best minds, the experienced and the creative from different age brackets, can be nurtured, discussed, debated, refined, tested and presented to policymakers in a format that is systematic, highly-visible and most likely to have a lasting impact.

It is designed to develop a cadre of well-informed and seasoned policy developers and advocates, while simultaneously fostering and promoting creative solutions to the challenges facing Egypt today. The project provides a processing unit or hub where policy teams are formed on a regular basis, combining experienced policy scholars/mentors with young creative policy analysts, provide them with the needed resources, training, exposure, space, tools, networks, knowledge and contacts to enable them to come up with sound, rigorous and yet creative policy solutions that have a greater potential to be effectively advocated and communicated to the relevant policymakers and to the general public.

Since its establishment, the Public Policy HUB has been supported by Carnegie Corporation of New York, UNICEF Egypt, and Oxfam. The Hub had partnerships with different ministries and governmental institutions like the Ministry of Social Solidarity, Ministry of Planning, Ministry of Health, Ministry of Trade and Industry, Ministry of Local Development, Ministry of Education, Ministry of Environment, National Council for Childhood and Motherhood, National Population Council, and General Authority For Transportation Projects Planning.

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