

# Understanding The Social Marketing Techniques to Improve Health Behaviours in Egypt

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## Abstract

Developed countries have a growing use of social marketing tools to improve the public health sector. This study explores whether nudging can replace traditional marketing instruments like broadcast (TV, Radio) in developing countries, as long as nudging considers a process of communicating marketing messages that encourage desired behaviour, appealing to the psychology of the individual. So, we evaluated the first phase of one of Egypt's most extensive public health campaigns, which aimed to improve the population's public health. To achieve that, we conducted a theoretical study. We conducted thirteen interviews with doctors and one with a policymaker in the health ministry in Egypt, which allowed us to understand the social marketing techniques that the Egyptian government used. We found that community leaders played a considerable role in impacting people's behaviours with the support of using 'choice architecture', which refers to the setting or environment of choice, while nudges are changes in the design of this choice environment to push Egyptian citizens to do health check-ups. Community leaders and choice architecture effectively impacted Egyptian citizens' decision to have health check-ups. We discuss some government interventions, like choice architecture, to understand their impact on public health behaviour in Egypt, to understand if it would be an effective and cheaper tool for policymakers regarding Egyptian citizens' behaviours.

**Keywords:** Changing Behaviours\ Social Marketing\ Nudging\ Developing country\ Public health.

## 1. Introduction:

The field of social marketing uses human behavioural sciences and commercial marketing tactics to attain a specific social aim that benefits the public, so marketers, sociologists, psychologists, dietitians, and healthcare experts have been interested in social marketing since the 1950s (Todua & Jashi, 2018). Social marketing is the most effective tool for effecting social reforms since it focuses on solving social, ecological, and public welfare issues. On the other hand, social marketing strives to solve social problems and plan, formulate, and promote new social products (Kumar & Preetha, 2012).

On the other hand, behavioural science and social marketing research provide crucial insights for more effectively integrating people's roles into conservation solutions and achieving targeted behavioural results (Green, Crawford, Williamson, & Dewan, 2019). Even public health practitioners have used focused campaigns; social marketing initiatives are precious in the health care system. Social marketing strives to solve major social problems and plan, formulate, and promote new social products. As a result, health behaviour modification programmes have successfully inspired people to eat healthy, exercise, and refrain from harmful behaviour (Grier & Bryant, 2005).

Furthermore, social marketing techniques have been improved. Their use changed over time, which can help the policymaker improve the behaviours better and more effectively. So, we are looking to evaluate the use of those tools in developing countries to see if the nudge can replace the traditional means of social marketing. To answer this question, first, we must understand the social marketing techniques to improve sustainable health behaviours by the policymakers because nudge activities are lower cost than traditional marketing, which can help policymakers improve societies with the available tools (Wymer, 2011).

Even though governments worldwide should understand human behaviour because it is at the heart of developing interventions to address significant social and health challenges ranging from public health to climate change, crime, and active participation in the political process, governments must do so. According to the World Health Organization (WHO), the world faces a massive increase in chronic disease, economic and social challenges associated with inequalities between regions, countries, and within countries and growing threats to the environment and sustainable development, as stated in 2008. As a result, according to WHO, social marketing is a tool for changing public health, political, and economic behaviour (WHO, 2017).

When Thaler and Sunstein (2008), in their book *Nudge*, coined the term "nudge" that refers to any aspect of the decision environment "that alters people's behaviour predictably without forbidding any options or significantly changing their economic incentives" (Hausman & Welch, 2010) so nudge means giving a positive choice for the individual in the external environment. However, choices can be positively altered by changing the choice

architecture through nudges, driving real and lasting behavioral change (Leal, Branco-Illo, Oliveira, & Esteban-Salvador, 2022).

Also, choice architecture has been used to refer to these interventions, but ultimately nudging has become the most popular label for describing this type of intervention (Marchiori, Adriaanse, & De Ridder, 2017). Hence, nudging helps improve decisions about health, wealth, and happiness (Marchiori, Adriaanse, & De Ridder, 2017).

Moreover, in recent years, both private and public institutions have shown mounting interest in nudges because they generally cost little and have the potential to promote economic and other goals (including public health) (Sunstein C. R., 2014). (Moseley & Stoker, 2013) consider Nudging as an active exchange where people rationally assess the exchange, weighing the pros and cons of the benefits and costs compared to the traditional policy tools including financial incentives, bans and mandates, information campaigns, and more recently. Hence, we formulated the research question Can nudge replace traditional policy tools in developing countries?

This study will look at the strategies the Egyptian government has begun using in recent years to improve citizens' public health habits. The study will concentrate on the first phase of the 100 million Seha (health) program because it took place and ended before the corona pandemic. Moreover, it aims to improve the health of Egyptian citizens by checking hepatitis C and offering a medical cure. Also, measuring the blood pressure and diabetes and following up with the patients. We aim to understand if nudging effectively influenced Egyptian citizens' behaviours toward public health. Hence, we explore the strategies that policymakers did to influence Egyptian citizens' behaviours. Also, exploring if the Egyptian government used it on purpose by choosing architecture or was all based on the media. By answering the research question, the research will be constructive for the Egyptian government and other developing countries to conduct a better public health campaign that can significantly impact citizens' health and do at a lower cost.

## 2. Literature review:

### 2.1. Social marketing and public health:

According to many writers and researchers, the fundamental goal of social marketing is to develop marketing principles and combine them with other ways to influence behaviour that benefits individuals and communities for the greater good (Lee & Kotler, 2011). Kotler and Zaltman (1971) described social marketing as a tool for changing social beliefs and behaviour

“Social marketing is the design, implementation, and control of programs calculated to influence social ideas' acceptability and involve considerations of product planning, pricing, communication, distribution, and marketing research. (Kotler & Zaltman, 1971, p. 5).”

And it is based on past thoughts on the limits of marketing to solve social problems (Andreasen, A. R., 2012a). Several social marketing programmes that promote public health have shown effective (Velema, Vyth, Hoekstra, & Steenhuis, 2018).

As a result, all governments and civil society organisations are constantly working to understand better how and why people behave in the ways they do, to develop and implement social interventions that have the best chance of assisting citizens in having a positive life experience following WWII, the populations of most major countries and an increasing number of emerging countries saw dramatic changes, resulting in what is now known as the new citizens. As a result, Jeff French stated that governments are frequently legitimately paternalistic because part of their role is to guarantee that residents are safeguarded and improve their living environment (French 2010).

According to the comprehensive definition of social marketing, “Social marketing is the adaptation of commercial marketing technologies to programs designed to influence the voluntary behaviour of target audiences to improve their welfare” and that of the society of which they are a part (Andreasen, 1994) marketing is a strong driver of behaviours in both commercial and social non-profit settings. It has also aided in modifying public health habits (Andreasen, 2012a; (Helmig & Thaler, 2010). On the other hand, understanding social and behavioural change is essential for the social marketing intervention (Kheireddine, Soares, & Rodrigues, 2021). Furthermore, according to (Andreasen, Some implications, 2003), determining social marketing performance is challenging due to various external factors such as pricing, policies, and media attention. As a result, marketing has behavioural influence as a strategy, whether in commercial or social situations.

On the other hand, social marketing is distinct in that it uses what has been learned in the commercial sector to solve social and health issues (Andreasen, 2012b). Social marketing could affect settings, systems policies, products, and services and how markets are governed and controlled by shifting attitudes, perceptions, values, and social norms. It has the potential to change behaviour in the long run. Social marketers can also expect to improve perceptions of trustworthiness by having a consistent marketing message, one logo, one slogan, and one positioning approach, which also contributes to a unified communications strategy that can work in all mediums and promotional elements (Key & Czaplewski, 2017).

Social marketing is not a new subject. It is a well-established one that has evolved to incorporate learning and evidence from various ways and approaches. According to some research, social marketing uses marketing concepts and procedures in conjunction with other ideas and techniques to attain specific behavioural goals for social good (French, Dip, & Blair-Stevens, 2006). It is a method of influencing target audience behaviours that benefit society and the individual by employing standard marketing ideas and strategies (Wymer, 2011). Marketers and politicians can also use social marketing in various ways, like marketing, to better people's lives. It happens in the commercial sector, where marketing sells a product or service to people.

Social marketing was created as a new way to achieve significant population changes and favourably impact people's health and well-being (Todua & Jashi, 2018). On the other hand, social marketing is at the heart of health improvement in several countries. And both upstream and downstream social marketing aims to change behaviour. Upstream social marketing targets policymakers (e.g., legislators, regulators), educators, and the media, so a strategic approach for an upstream social marketing endeavour means that marketers are focused on a long-term, well-researched strategy that will bring more realistic expectations and effectiveness (Key & Czaplewski, 2017).

The term upstream refers to the upstream target audience that will be an obvious choice, depending on the overall decision/policy change in question. It is essential for those who shape the structural and environmental conditions within society, including politicians, policymakers, civil servants, decision-makers, regulators, managers, educators, and the media is stage to understand outside influences that may affect this choice (Key & Czaplewski, 2017). When the downstream audiences are individuals directly targeted for impact. For example, the Centers for Disease Control and Prevention (CDC) targets smokers in hopes of influencing them to quit smoking and/or refrain from smoking around children's fields. When the audience for upstream can be demanding to target because the members are themselves a source of influence through their ability to make decisions and create policies, social marketers can hope to achieve a multiplicative impact from individual promotional efforts by carefully managing the six elements of IMC. These coordinated activities improve the prospect of behaviour change by increasing the effectiveness as understood through the response process (Key & Czaplewski, 2017). So, it leads us to upstream social marketing, which could be the best approach to public health behaviours campaigns.

The concept and practice of social marketing have now expanded to the developed world; For example, in the United States, social marketing is increasingly being promoted as a critical public health tool for influencing voluntary lifestyle habits such as smoking, drinking, drug use, and nutrition (French & Blair-stevens, 2015). In addition, the UK Department for International Development released research detailing the effectiveness of social marketing in influencing various health behaviours in developing nations (Stead, Hastings, & Mcdermott, 2007). Researchers have discovered that advertising and other types of tobacco marketing encourage young people to start smoking and adults to continue smoking, much as commercial marketing can affect behaviour that is typically hazardous to health. Alcohol marketing appears to play an essential role in increasing and maintaining drinking. SM is based on the premise that the same techniques can promote health (Stead et al., 2007).

(Jones, 2012), on the other hand, stated that research with systematic evaluations evaluates social marketing as a successful public health intervention. In addition, politicians have adopted many social marketing measures to combat HIV/AIDS infection worldwide.

Moreover, it is commonly acknowledged that social marketing is a powerful and successful instrument that, when used appropriately, can transform people's behaviour for the betterment of individuals, communities, and society. As a result, any successful social marketing campaign's communications must capture and hold the target audience's attention while motivating people to modify their present attitudes, beliefs, and actions (Casais & Proença, 2022).

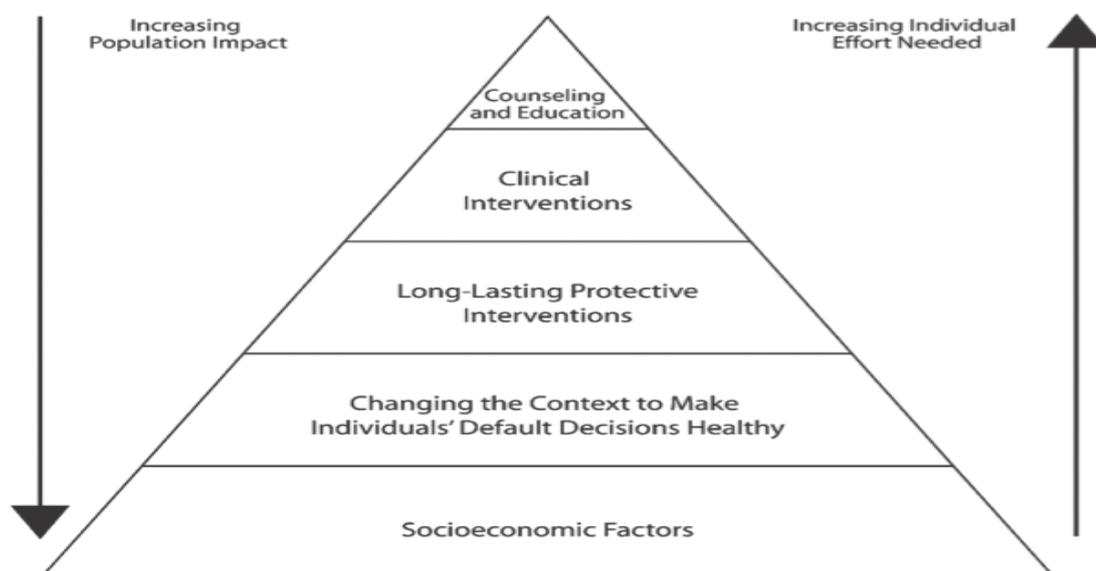
A 5-tiers pyramid has been proposed to describe the impact of different types of public health interventions (Frieden, 2010).

At the bottom of the pyramid are efforts to address socioeconomic determinants, followed by public health interventions that change the context for health (Frieden, 2010), such as clean water and safe roads, protective interventions with long-term benefits (immunisations), direct clinical care, and counselling and education at the top. On the other hand, the pyramid base represents public action and interventions that involve less effort and have the most significant population impact. Prevention is more valuable and less expensive than cures; health promotion is critical for public policies (Frieden, 2010). The elements of the pyramid are as follows:

- Socioeconomic factors (poverty reduction and improved education) are a strong determinant of health within and across countries. Although the exact mechanisms by which socioeconomic status exerts its effects are not always apparent, poverty, low educational attainment, relative deprivation, and lack of access to sanitation increase exposure to environmental hazards. Academic status is also tightly correlated with cardiovascular risk factors, including smoking. However, poverty increases ill health within society.
- The context to encourage healthy decisions: it represents interventions that change the environmental context to make healthy options the default choice, regardless of education, income, service provision or other societal factors that create more beneficial environmental contexts and design communities, like promoting physical activity, enacting policies that encourage public transit, bicycling, and walking instead of using their cars. According to the prospect theory, people respond differently depending on how messages are framed, exposing the consequent gains or losses of behaviours.
  - Positive and negative emotional appeals may be tools for changing behaviours in different situations with different responses depending on an individual's motivation or self-regulation to change. So, negative appeals describe the losses and unintended consequences of certain attitudes and behaviours by creating a disincentive to behave in a certain way, adopting threats. However, negative appeals do not reveal long-term effects because fear-based ads become predictable and boring and may stop working with

repetition and provoke viewer reactions such as fear, guilt, and shame (Casais & Proença, 2022).

- Long-lasting protective interventions represent protective interventions that do not require ongoing clinical care; these generally have less impact than interventions represented by the bottom two tiers because they necessitate reaching people as individuals rather than collectively. (Brennan and Binney, 2010; Helmig and Thaler, 2010; McKay-Nesbitt *et al.*, 2011).
- Clinical interventions represent ongoing clinical interventions. Field Frieden (2010) mentions in his study that the interventions to prevent cardiovascular disease have the most significant potential health impact. The aggregate effect of these interventions is limited by lack of access, erratic and unpredictable adherence, and imperfect effectiveness. Also, the interventions can be determined even in systems that guarantee health coverage for all. This is a significant problem in the United States and other countries without universal health care coverage. This goal is more likely to be attained if electronic record-keeping is implemented and changes in financial incentives and physician practices support preventive care and proactively control chronic diseases.
- Counselling and educational interventions represent health education (provided during clinical encounters and education in other settings), perceived as the essence of public health action but are generally the least effective intervention. Educational interventions are often the only ones available, and when applied consistently and repeatedly, they may have a large impact on (Frieden, 2010).



A 5-tires pyramid Figure 1 (Frieden, 2010).

Whenever social marketing has been used in health-related areas, it may reduce traumatic symptoms in people who have already suffered from the diseases. Because it usually expresses the gains and the direct benefits of behaviour change as an incentive to adopt a specific behaviour with coping information based on humour, irony, hope, the exploration of help, and the use of celebrities or social models who activate the coping response of behaviour (Casais & Proença, 2022).

However, Moseley & Stoker (2013) mentioned a challenge to policymakers to approach citizens differently. One of them is social marketing which seeks to influence behaviour change amongst citizens through targeted and segmented campaigns which increase the acceptability of specific ideas and provoke action and behaviour in tune with those ideas. Also, attitudinal campaigns may change individual attitudes that reinforce unhealthy behaviours, such as distributing free condoms for birth control and nicotine gum as a substitute to quit smoking (Wymer, 2011). TRUTH campaign used counter-marketing branding to tackle the smoking issue (Evans & McCormack, 2008).

## 2.2. Nudging:

Nudge is a simple intervention in choice design to guide individuals using particular psychological effects or to overcome them. Nudges are a favorable intervention because they maintain the full freedom to choose (Thaler, 2008). However, nudge does not try to change one's value system or increase information provision; instead, it focuses on enabling behaviours and private decisions that are beneficial for society and usually in the individual's long-term interests. Policymakers have applied nudges to increase policy effectiveness (Lehner, Mont, & Heiskanen, 2016). Also, they called a "Nudge" for cognitive strategies to make a person do something, especially to make good choices for herself (Oullier, Cialdini, Thaler, & Mullainathan, 2010). Lehner et al. (2016) also gathered data to help us judge how nudges effectively change behaviour. Nudges are thus likely appropriate for routine behaviours and complex decisions that are usually too overwhelming for human beings' cognitive capacity.

However, nudging is not new; it is built on psychological and sociological theories dating back over a century. It shows how environments shape and constrain human behaviour, often far more than we like to believe. Firstly, it draws on behavioural economics and social psychology to explain why people behave in ways that deviate from rationality as defined by classical economics. Secondly, it is embedded in libertarian paternalism, political philosophy in which people's choices actively guide their best interests, but they remain at liberty to behave differently. However, like many other policies that reduce freedoms and choices, nothing is necessarily light touch about behaviour change policies. The original definition of nudging excludes legislation, regulation, and interventions that alter economic

incentives. Aside from these exclusions, nudging could include various approaches to transforming social or physical environments to make certain behaviours more likely (Roland, 2011).

Lehner (2016) mentioned that Thaler & Sunstein's book about nudges works because they correct for biases and errors in human behaviour, which occur when the situation does not support cognitive effort. Moreover, they also suggest that nudges are appropriate when choices have delayed effects when they are complex or infrequent. Thus, learning is impossible when feedback or the relationship between intention and outcome is unavailable. Also, Lehner et al. (2016) mentioned that we could say nudge in any attempt at influencing people's judgment, choice, or behaviour predictably because to change behaviours, it is not essential to change minds.

However, nudging is like many other policies that limit freedoms and choices; behaviour change strategies are not always gentle. Aside from these exclusions, nudging could entail various methods for altering social or physical surroundings to encourage certain behaviours (Roland, 2011). As a result, corporate and governmental organisations have become increasingly interested in using nudges in recent years, owing to their low cost and ability to promote economic and other goals, including public health (Sunstein, 2014). Because nudging is a method for influencing decisions without limiting the choice set, it falls within the category of "libertarian paternalism," as Thaler and Sunstein (2008) define it (Hausman & Welch, 2010); it is also regarded as the philosophy that underpins the nudging strategy (French, 2011). Nudges are libertarian paternalism because they leave the options available to agents substantially untouched. The most public policy attempts to elicit behavioural change in government initiatives to achieve government objectives (Howlett, 2016). To clarify, paternalism necessitates a technique to guide people's decisions to promote their well-being.

In contrast with libertarian character, respect the freedom of each person to act or even decide to change their opinion as they see fit (Oullier et al., 2010). Hence, it is true that some nudges are appropriately described as a form of "soft paternalism" because they steer people in a particular direction. Nevertheless, nudges are designed to preserve total freedom of choice (Sunstein, 2014).

Although, the nudging starting point is when the citizens lack knowledge or information and can process all the complex and multiple information sources thrown at them. Also, Thaler and Sunstein identified the types of tools that governments can use to engage in nudging practices and considered three intervention points: framing, persuasion, and norm-creation. They help governments when they seek to translate ideas about general micro foundational mechanisms affecting behaviour into deliverable policy measures. Also, describing persuasion entails changing people's opinions or views while stating merely

bringing specific dimensions of an issue to the fore, thus directing people's attention and consideration toward these dimensions. However, Thaler & Sunstein (2008) identified the light nudge as a framing, not a persuasive activity, since citizens, rather than governments, must be the ultimate choosers (Sunstein & Thaler, 2008; Moseley & Stoker, 2013).

Moreover, governments are increasingly adopting behavioural science techniques for changing individual behaviour in pursuit of policy objectives. The types of nudge interventions governments are now adopting alter people's decisions without coercion or significant changes to economic incentives (Benartzi, et al., 2017). It is essential to see that the goal of many nudges is to make life simpler, safer, or more accessible for people, like disclosure of health-related or finance-related information, educational campaigns, paperwork reduction, and public warnings. The nudge would be about presenting the information about an economic stimulus and how the incentive is structured rather than the motivation itself (Sunstein, 2014).

Many nudge interventions involve regulatory changes, such as changing the defaults for organ donations when citizens pay their vehicle taxes or altering the rules on payroll giving. (Peter, 2013). Even though nudges are not necessarily intended to benefit those whom they nudge. Because nudge can influence them to behave appropriately and comply with government wishes through many means, like fines and penalties, such as financial incentives, as efforts at moral suasion and education, which governments may have in higher or lower levels of supply (Hausman & Welch, 2010; Howlett, 2016). The problem with making strong judgments about the success of behaviour change policies is that it is difficult to maintain a hard and fast distinction between 'soft' and 'hard' tools of government (Peter, 2013).

### **2.3 Social marketing and nudging:**

However, policymakers need to understand the different ways in the social influence can exert and select the social influence tactic that leads to the most ethical, practical, and lasting behavioural change because social marketing is considered a high-cost tactic to influence consumer behaviours (Mols, Haslam, Jetten, & Steffens, 2015). When nudging attractiveness point is the low cost, much more pertinent in an era of fiscal austerity, and it complements conventional policy instruments, such as legislation and regulation (Peter, 2013). When social marketing consultant Jeff French raised the question of 'why nudging is not enough' (2011), Philip Kotler (2011) challenged the popularity of behavioural economics, which he regards as a mere 'branch of marketing and, as he implies, an embarrassment to most economists. Kotler claimed that social marketing is more advanced than behaviour change in its disciplinary history and methodological rigour. Changing policy in social marketing programs can motivate individuals to change their behaviours, but that is difficult to sustain unless the environment supports that change in the long run (Weinreich, 2006).

Social marketing is associated with the loose political philosophy of libertarian paternalism. The popularisation of behavioural economics (Sunstein&Thaler,2008) suggests that consumers are influenced by people they trust. The key to a successful nudge is applying it to situations where people have already made up their minds and are willing to act on a question; this may limit the range of actions that nudges are capable of fostering, leaving out, for instance, issues that are more controversial or require more sustained consideration (Moseley & Stoker, 2013). In addition, the interventions have been delivered using various methods, including social marketing campaigns and giving feedback in groups and individuals, shown in letters or through the internet. While there is evidence of the effectiveness of internet feedback, there is little for the other fields(Roland, 2011).

The crux of the matter is to discern what "form" of exchange will work in which situation with a specific target audience (French, 2011). So, (Titmuss, 1970) argued that monetary compensation for donating blood might reduce the supply of blood donors. He suggested that paying for blood would undermine cherished social values and reduce or destroy people's willingness to donate blood. However, framing in the context of policymaking refers to how a policymaker may present an issue to encourage target groups to respond in specific ways.

Moreover, Howlett (2016) mentioned that different targets have different resources, capabilities, and attitudes when determining whether they will comply and how they will not. In many cases, nudges work in concert with other tools, making it easier for individuals to take advantage of beneficial programs and subsidies(Howlett, 2016). Sometimes, but often not, as externalities reveal, nudges are not always the best tool for pursuing policy objectives, and prohibitions and mandates have their place (consider the problem of violent crime).

There are competing paradigms around the challenge that policymakers approach citizens differently. Social marketing seeks to effect behaviour change amongst citizens through targeted and segmented campaigns that increase the acceptability of specific ideas and provoke action and behaviour in tune with those ideas (Andreasen, A. R., 2002). Social marketing campaigns have been most widespread in public health. They include, for example, those aimed at getting citizens' to respond to the symptoms of cold and flu appropriately and smoking cessation programs (Moseley & Stoker, 2013). However, Thaler and Sunstein mentioned that nudge is one of the powerful mechanisms that policymakers can use because it alters choice architecture by shifting the default position to maximize the social welfare (Sunstein&Thaler, 2008). Moreover, for that importance, the United Kingdom established a nudge unit in 2010. It was soon followed by other countries, including Australia, Germany, the Netherlands, Singapore, and the United States. An Executive Order issued in September 2015 directed federal agencies to incorporate behavioural science into

their programs (Benartzi, et al., 2017). Also, automatically enrolling citizens in pension savings programs or onto organ donor registers are areas where changing defaults has been advocated to increase contributions. Both cases receive empirical support from (Moseley & Stoker, 2013).

#### 2.4 Nudging and Public health:

Many authors have claimed that nudging is an effective tool, and it has been successfully applied by governments, for example, in savings accounts and public health campaigns. Also, nudge can be a promising tool for promoting a broad range of pro-environmental and sustainable consumption behaviours (Oullier et al., 2010; Sunstein, 2014; (Thaler, 2004).

Moreover, evidence suggests that nudges work best when citizens know that something is right and just need to have that choice brought to their minds. Policymakers can use nudges in two ways; firstly, it is to counteract the negative impact of other actors (business, media) attempts to influence human behaviour subconsciously and thus reduce undesirable behaviour (consumption of fatty, salty, and sugary food). Moreover, secondly, to promote certain behaviours and thus increase behaviour considered desirable, the consumption of healthy food (Lehner et al., 2016; Moseley & Stoker, 2013).

Scholars and policymakers may underappreciate nudging in the absence of cost-effectiveness calculations; self-regulation by the food, alcohol, and tobacco industries has historically been less effective than legislation to improve population health; the highly cost-effective nudges do not always create significant absolute shifts in behaviour. So, some nudges do produce self-evidently substantial behavioural changes. However, the absence of legislation holds particular appeal for governments and others wanting a minor role for the state in shaping the behaviour of its citizens (Benartzi, et al., 2017); (Benartzi, S.; Thaler, R. H., 2013); Roland, 2011).

However, the evidence to support the effectiveness of nudging to improve population health and reduce health inequalities is weak. However, few nudging interventions were evaluated for their effectiveness in changing behaviour in general populations. None of them was assessed for their ability to achieve the sustained change of the kind needed to improve health in the long term. Even though Roland,(2011) mentioned two approaches to improving population health. The first involves targeting people at high risk, for example, by identifying and treating individuals with high blood pressure to reduce their risk of stroke. The second consists of shifting the population distribution of a risk factor, for example, by reducing population salt intake and mean blood pressure to reduce the overall incidence of stroke.

The growing interest in nudging stems from the fact that they usually impose low (or no) costs because they sometimes deliver prompt results (including significant economic savings), maintain freedom, and is highly effective. In some cases, nudges have a more

substantial impact than more expensive and coercive tools. For example, default rules, simplification, and uses of social norms have sometimes been found to have even larger effects than significant economic incentives (Sunstein, 2014). However, nudging implies that none of the choices should be difficult to avoid, made mandatory, incentivised economically or socially, and significantly more costly in terms of time or trouble (Marchiori et al., 2017).

### 3. Research methodology:

#### 3.1 Research Goals:

This paper aims to understand the social marketing techniques used in the public health sector in Egypt to answer the research question (Can nudges replace traditional policy tools in developing countries?). So, firstly, we must understand whether the Egyptian government used the nudge as an intervention tool or not and evaluate what the success factors of the first stage of the 100 million SIHA campaign were, which happened for three months from November 2018 to January 2019.

- Highlighting the health campaigns, their value and importance, and knowing the extent of the public's desire for these campaigns and obstacles in this regard (Mahfouz, 2019).
- Clarify the contribution level of nudging (choice architecture) and the other success factors in motivating citizens to checkups on ongoing campaigns and follow-ups.
- Make use of community leaders to promote community issues and national campaigns and provide information on current events in the health field immediately and effectively in small cities and villages to raise the level of health awareness of citizens.

#### 3.2 The case:

We focus on the 100 million SEHA campaign. This was a large-scale nationwide health campaign to screen Hepatitis C viral infection (HCV) and non-communicable diseases (NCDs) supported by the World Health Organisation as part of an ongoing transformation change aiming at implementing Universal Health Coverage in Egypt (WHO 2022). Because Egypt used to have the highest prevalence of Hepatitis C viral infection (HCV) in the world, with an estimated 6 million people living with HCV, most of them unaware of their status. Since 2016, Egypt has been proactively working towards identifying people living with HCV and supporting them to access treatment. Early initiatives led to the diagnosis and treatment of 1 million patients. However, by the end of 2018, many people were still left behind; still yet to be diagnosed and unlikely to seek treatment on their own. In response to this, and in line with a more sustainable UHC approach, Egypt picked up the momentum of the HCV program with the highest level of political commitment, making hepatitis elimination a priority. Though we focus on the first stage from November 2018 to February 2019. We chose this stage because it all started and ended before the coronavirus pandemic.

### 3.3 Research design:

It is exploratory research because we need to explore which social marketing techniques that were effective and have been used in the public health sector in a developing country, what success factors helped the campaign to achieve the target, and understand if the policy maker applied nudge in the public health campaign in Egypt and if it had an impact in citizens behaviours,

#### 3.3.1 Data collection:

We collected the pilot study's data using fourteen semi-structured interviews. The interviews were done with a phone call; because of the time and the period of the pandemic, the phone call duration was from fifteen to twenty minutes.

Furthermore, get a better understanding of how the government can use the success factors for any future behaviour change.

#### 3.3.2 Population and interviewees:

The interviewees were doctors and employees working in the Egyptian health ministry to understand their role in the 1<sup>st</sup> stage of the campaign and the success factors. These medical workers have interacted with the citizens directly to motivate and encourage citizens to do check-ups and change their behaviours. Thus, 14 interviews were conducted with five first-line doctors, five community leaders (Raadat), three middle managers, and one interview with a top manager in the health ministry in Egypt. Data collection took place from April 2021 to June 2021; the interviews were phone-call interviews with an average of 10 to 20 minutes. The questionnaire guide aimed to (appendix 1). understand their role and impact on Egyptian citizens' health behaviours and explore more about the Egyptian government's techniques to encourage citizens to check up.

### 3.4 Data analysis:

Interviews were transcribed to review the entire interview's data and take notes. This allowed preliminary ideas for codes that could describe the content. Also, we made the coding by taking notes on a printed transcript. The regulations will be themes because the answers were clear and straightforward; even the codes are coherent and distinctive with the literature review and transcript.

By using thematic analysis, following the steps of the six-phase framework for doing a thematic analysis, the author analysed the answers to the interview's questions by:

Step 1: Become familiar with the data, by well reading of the transcript many times, Step 2: Generate initial codes by organized my data in a meaningful and systematic way as it mentioned in (table-1), concerned with addressing specific research questions and analysed the data with this in mind, Step 3: Search for themes, by examined the codes and some of them clearly fitted together into an article so we divided and high lighting the same answers

with the same colour at the end of this step the codes had been organized into broader themes that seemed to say something specific about this research question, Step 4: Review themes, at this point it is helpful to gather together all the data that is relevant to each piece we efficiently do this using the 'cut and paste' function in any word processing package, by taking a scissors to the transcripts and by reading them and make sure it is well connected to factors in the literature, Step 5: Define themes, by collecting to count and analyse the answers based on the coding that used in the interview guide-line, and Step 6: Write-up (Maguire & Delahunt, 2017).

Coding guideline: Coding is divided into four codes, as shown in the following (Table 1)

Social marketing role	Success factors	Choice architecture	The success of choice architecture
(Andreasen, A. R., 2012b)	Andreasen (2003)	(Hausman & Welch, 2010) p;125)	Moseley & Stoker, (2013)
(Johnpillai, Fuselli, Smith, Watson, & Speechley, 2018)	(Stead, Hastings, & Mcdermott, 2007)	(Lehner et al., 2016)	(Sunstein & Thaler, 2008); Moseley & Stoker, 2013)
(Andreasen, 2012a; Helmig & Thaler, 2010; )	(Frieden, 2010)	(Oullier et al., 2010)	(Sunstein, 2014)
(Todua & Jashi, 2018)	(Mols et al., 2015)	Lehner et al. (2016)	(Sunstein, 2014)
Jones, (2012)	(Moseley & Stoker, 2013)	(Howlett, 2016)	(Marchiori et al., 2017)
(Kheireddine et al., 2021)		(Benartzi, et al., 2017)	(Lehner et al., 2016; Moseley & Stoker, 2013)

## 4. Results

### 4.1 Social marketing role:

Questions have been asked about the participant's role in motivating citizens and if they played any role in encouraging citizens or just the medical part. Most of the respondents (9 out of ten participants) mentioned their role as increasing awareness for Egyptian citizens; only 1 of the first line mentioned that she does not have any role in motivating citizens when only 1 participant of the middle managers out of 3 participants said that yes, she had a role in motivating criticizes. Moreover, 2 of them said that it was the community leader's role, and the only function they had was training the first line and making an agreement with corporate to achieve the campaign target.

So, the importance of the community leaders appeared to motivate Egyptian citizens who agree with what happened in the Ebola epidemic during 2014-2015 in Sierra Leone, when the importance of the community leader's role in social marketing cannot be denied, especially in the public health sector, as the community participation has been promoted as an essential feature of primary health care.

Since the landmark Alma Ata conference in 1978 (The conference called for urgent and effective national and international action to develop and implement primary health care throughout the world and particularly in developing countries, in a spirit of technical cooperation and keeping with a New International Economic Order), which stated that people have the right and the duty to participate individually and collectively in the planning and implementation of their health care.

Even more, the importance of the community leaders shows more significance in low-income countries because these countries rely on community volunteers and health committee members to support the formal health system by engaging in the health service such as referrals and health education, and it proved the importance of their role (El-Akel, et al., 2017). Also, it agrees with the interview result with Participant 3: Miss Aisha, the Team leader for the community leaders, said that.

"The role of the community leaders was important as the role of medical teams to achieve the campaign target or maybe was more important because the community leaders were one of the people and all the people trusted her, and she used to go to their houses to encourage them to check up their health and telling them the benefits of the campaign. as it was the free medical care and the importance of having the campaign card to allow them to travel abroad to work easily and renew their official papers."

#### 4.2 Successful factors:

Questions about success factors gave the participants choices and let them choose one or two or all and explain why, out of their experience, most of the achieved targets came to check-ups. Most of the answers for the first-line and middle managers were selected. A (free check-up & medical care), B ( campaign card to renew the official papers) C (Medical Teams); five out of the 15 answers selected (A) as the main reason that leads the citizens to come to do the check-up, which agrees with what mentioned previously in literature clinical intervention represented ongoing clinical interventions (Frieden 2010) when 10 out of 15 noted that A\ B and said B went to the second reasons for the youth and males citizens to go to check-up even the first-line manager who explain that A\B were the two reasons behind that success they mentioned

"most of the old and low-income people came to check up and make sure that they are okay when the youth and males in low-income people came to be able to renew their official papers to allow them to work as microbus drivers and renew their passports to work abroad, also she added that they cannot identify which reason of this two was the most important as the two reasons were essential and mentioned from the citizens who came to checkups themselves"

Participant 1: Dr Shaimaa Tahoon,  
one of the supervisors on the campaign.

Policymakers can use four different modes of governance: hierarchy, markets networks, and persuasion, one of how governments have sought to persuade citizens are through social

marketing, but the main problem is that social marketing campaigns are costly, and this may explain why some turned have turned to a cheaper way of influencing behaviour which is nudging which is the choice architecture that alters people's behaviour predictably without forbidding any options or significantly changing their economic incentives (Eltahir & Xing, 2021), and is assumed to have their effect because people are sensitive to social norms when social marketing has arguably the instrument of choice for governments seeking to persuade citizens (Mols et al., 2015).

#### 4.3 Choice architecture:

The questions for this code were about the training process that the first line, community leaders, and middle line managers had already taken (Quigley, 2013) if they were informed that using the information of the campaign card is essential to renew their official papers. Five out of ten first-line managers and community leaders mentioned that they were informed to use this information to motivate citizens to achieve the campaign target in their training program. They used it to inspire and encourage the citizens with information that agrees with the literature. Thaler and Sunstein mentioned that nudge is one of the powerful mechanisms that policymakers can use because it alters choice architecture by shifting the default position to maximise social welfare. Choice architecture refers to the context in which we choose and make decisions (Quigley, 2013).

Even participant 1 mentioned

"Yes, I have been informed in my training to use this information to motivate more people to come in for a check-up, and even with that, I needed the campaign card to renew my driving license."

Dr Doaa Elbatrawy was a doctor and was responsible for data entry

Moreover, to make sure that this was a choice architecture from the policymakers, the question for the policymakers was to explore if they had planned to use the choice architecture to change Egyptian citizens' health behaviours, and the answer was that

"yes, I have been informed by this information, and we had to inform our employees to use it, but I do not know if it was part of the minister's plan or not"

Participant 15: Dr Saher Zayed

head of health office in Giza

#### 4.4 The success of choice architecture:

Success of choice architecture have been proved that it has an impact in many health campaign all over the world but measuring that impact in Egypt is not clear yet, that's why the research was to explore the successful factors of the social marketing campaign in public health by using the choice architecture as tool, and by asking the interviewees if they used this tool to improve the citizens to check up, even 7 out the 15 interviewees from the different levels of management mentioned that most of young people came to check up

because they need the campaign card to renew their official papers, when seven of first line managers 5 of the community leaders, 2 of the doctors and, one out of 3 middle managers mentioned that they used to motivate the citizens mentioned that they encourage the citizens to check up by telling them the importance of the campaign card to renew their papers which agree with the concept of choice architecture that have been mentioned previously in literature review that mentioned choice architecture is where our behaviors change due to some aspects surrounding us, can be said to have been nudged (Quigley, 2013), when the 15 interviewees agreed on that most of old people came to check up because the checkup was for free and the medical care was for free which agree with clinical intervention that have been mentioned before by Frieden (2010), when one of the top manager said that:

"All the government sectors were working together to make the campaign achieve its target because it was the first health campaign under the president's name."

Participant 15: Dr Saher Zayed  
head of health office in Giza

## 5. Conclusion:

After interviewing one policymaker and 15 doctors, as well as community leaders in the Egyptian health ministry, we discovered that choice architecture was one of the social marketing tools used in the first stage of the 100 million Siha campaign. After interviewing five community leaders, we discovered that using the campaign card's rumour (choice architecture) motivates Egyptian citizens to check up. The community leaders and first-line managers mentioned that they used it. It impelled them to do so; when one of the policymakers stated that "all government organizations were working to achieve the campaign target because it was the first health campaign under the name of the Egyptian president and it had to reach its target, that's why choice architecture was one of the social marketing tools that the government relied on to achieve its target," he meant that. When we discovered the importance of community leaders' role in influencing health behaviours in Egypt's small towns and villages, we found that because people trusted them since they are usually people from these towns, they could affect people's behaviours more than ads on television and radio. As a result, the researcher believes that providing more training to community leaders and involving them more in public health campaigns will have a massive impact on consumer behaviour. And the thing that the researcher discovered the impact of choice architecture on citizens' behaviours and the huge impact of using it from the policy maker, which can lead the policy maker to develop or improve any kind of behaviours by using a cheap and affordable tool for the government in developing country.

## 6. Limitations and future research:

This paper explored the productive tools in health behaviour in Egypt from the governmental side. However, we still need to understand the success factors to motivate the Egyptian citizens from them. So, the second study will go in-depth on the impact of using social marketing tools on the behaviour of the citizens based on their demographic.

So, we still need the impact of the demographic on the use of nudges and community leaders to understand the how-to impact behaviours in developing countries productively.

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