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Implementing Universal Health Insurance: Case Study of Stakeholders' Perspectives in Port Said, Egypt

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IMPLEMENTING UNIVERSAL HEALTH INSURANCE: CASE STUDY OF STAKEHOLDERS' PERSPECTIVES IN PORT SAID, EGYPT

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Contents

List of Figures

List of Tables

List of Acronyms

ETUF	Egyptian Trade Union Federation
GAH	General Authority for Healthcare
GAHAR	General Authority for Healthcare Accreditation and Regulation
HIO	Health Insurance Organization
IR	Implementation Research
LMICs	Low-and-Middle-Income Countries
MDGs	Millennium Development Goals
MENA	Middle East and North Africa
MoH	Ministry of Health
NDP	National Democratic Party
OOP	Out-of-Pocket Expenditures
PHC	Primary Healthcare
PPP	Purchasing Power Parity
SDGs	Sustainable Development Goals
SDS	Sustainable Development Strategy (Egypt Vision 2030)
UBMIS	Universal Basic Medical Insurance System
UHC	Universal Health Coverage
UHI	Universal Health Insurance
UHIA	Universal Health Insurance Authority
UN	United Nations
USSR	Union of Soviet Socialist Republics
WHO	World Health Organization

ABSTRACT

This research delves into the multifaceted dimensions of healthcare access through the lens of stakeholders in Port Said, Egypt, following the implementation of Universal Health Insurance (UHI) policies. The central research question explores the impact of UHI policies on healthcare access in Port Said. A set of investigative questions guides this exploration, focusing on beneficiary experiences, healthcare staff perspectives, and the alignment of UHI system implementation with beneficiaries' healthcare needs. This study seeks to comprehend the institutional and policy context of UHI in Egypt, providing insights from policymakers, healthcare workers, and beneficiaries. Port Said serves as a case study, given its status as the pioneering governorate in UHI implementation within Egypt. Framed around "accessibility," this research assesses how the implementation environment influences access experiences from the viewpoints of these stakeholders. This research generates stakeholder-informed policy recommendations for the continued expansion of the UHI system and contributes to the broader literature on Universal Health Coverage (UHC) and healthcare access in Low- and Middle-Income Countries (LMICs), offering a unique framework rooted in stakeholders' perspectives. The research findings underscore several key recommendations including restructuring incentives to encourage private sector and community-based provider participation is crucial for expanding service availability. Secondly, a revision of enrolment criteria and channels is warranted to ensure inclusivity. Lastly, the introduction of independent performance monitoring mechanisms is recommended to enhance accountability and performance within the UHI system.

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I dedicate this work to you all, and to every hopeful human seeking to create a more just world.

1 INTRODUCTION

This research examines the implementation of the new 2018 Universal Health Insurance law in Port Said, Egypt, as a case study. Despite attempts to universalize and expand access to healthcare in Egypt through the legacy health insurance system since the 1960s, effective and affordable access to healthcare has persisted as a policy challenge for the Egyptian government. However, the health sector has regained prominence on the government's political agenda recently. First, with the adoption of the Sustainable Development Strategy (Egypt Vision 2030), then with the promulgation of the new 2018 Universal Health Insurance (UHI) law.

The UHI law's implementation is the first major reformation of the health sector in Egypt, requiring a massive scale of investments in developing appropriate infrastructure, human resources, as well as governance and regulatory mechanisms. Research shows that governments face various challenges during the implementation of similar health system reforms. Thus, this case study examines the current implementation of UHI in Port Said, as the first governorate to benefit from the new law's roll-out in Egypt. The case study of Port Said focuses on the impact of the current implementation of UHI on beneficiaries' access to healthcare. By adapting several conceptual frameworks from the literature, and adopting four primary data collection methods within the case study, the research examines access to healthcare from three foundational angles: service availability, service utilization and service effectiveness.

Chapter 1 examines the historical trajectory of universal health coverage (UHC) policies at a global scale. Furthermore, it highlights the persisting disparities in access to healthcare especially in the Global South, despite the multitude of international conventions urging governments to expedite the adoption of UHC policies. Then, it presents a comparative view of Egypt's health system indicators in contract to other similar regions, and reflects on the government's renewed commitment to reforming the health system. Chapter 1 concludes with the problem statement, and the research question which is: How is the implementation of UHI policies affecting access to healthcare in Port Said?

Chapter 2 provides an overview of some major themes in the literature on universal health coverage policies. This includes the multi-layered concept of 'access' and the diverse enablers and barriers that shape experiences of access to healthcare. It also presents the politics of UHC reforms and the impacts of political systems' degree of centralization or authoritarianism, in addition to different types of UHC policies that can be adopted by low-

and-middle-income countries and the associated implementation challenges. Finally, the chapter highlights a number of studies on access to healthcare in Egypt.Chapter 3 illustrates different conceptual frameworks from the literature and the framework that was adapted to conduct this research.

Chapter 4 delves into the case study design of this research and details the four research methods deployed to answer the research questions. It also highlights the key limitations and ethical considerations of this study.

Chapter 5 provides an in-depth background of Egypt's health policy context, the politics influencing it, and the evolution of health insurance policy challenges since the 1960s. It also gives a brief synopsis of the new policy levers informing Egypt's commitment to universalizing access to affordable, quality healthcare services to citizens.

Chapter 6 presents the findings of this research, which are divided into three main sub-sections: service availability, service utilization, and service effectiveness. These sub-sections deconstruct the aforementioned three themes and demonstrate stakeholders' perspectives on how the implementation of the new UHI law is contributing to them.

Chapter 7 concludes with a summary of this research's main findings and ends with a set of policy recommendations, informed by the stakeholders' perspectives, and framed around enhancing access to healthcare through the implementation of the new UHI law.

1.1 Background on the Evolution of Universal Health Coverage Globally

> *"The existing gross inequality in the health status of the people particularly between developed and developing countries as well as within countries is politically, socially and economically unacceptable and is, therefore, of common concern to all countries."* – Alma Ata Declaration (1978, p.2)

Access to healthcare has evolved as a right in many international conventions, and gain political importance in country's social protection policies and programs. The most-widely acknowledged definition of access to healthcare is the definition proposed by the World Health Organization, known as the "UHC Cube", which defines access on the basis of three axes: 'the depth of coverage' that determines the services that populations benefit from; "the breadth of coverage" which defines who has the privilege of benefitting from these services; and the

"height of coverage" reflecting the level of financial protection that citizens have (Ochalek et al., 2020). This definition of access to healthcare supports policymakers in its operationalization, and in determining key policy implementation levers that may impact these three dimensions of healthcare access. Universal Health Insurance (UHC) is the term that has gained global recognition as a necessary mandate in order for governments to accelerate the promotion of population health and protect vulnerable populations from the financial burdens of seeking care.

The 19th century ushered in statutory, contributory social protection programs, which were modeled on the system pioneered by the German Empire (Sigerist, 1999). These programs emerged in response to the shift from a feudal society, marked by paternalistic conceptions of social protection, where the landlords were partly responsible for the well-being of their laborers, to a rapidly industrializing economy (Sigerist, 1999); one where the flow of capital dictated the state of the economy, controlled wages, and limited individuals' ability to protect themselves from illness, old age, and other life-time risks. Despite being cited as the father of contributory social protection, Bismarck's conception of the system was borrowed from pre-existing solidarity-based mutual funds that were dominant among different guilds in the middle ages (Busse et al., 2017; Sigerist, 1999).

The new system was mandatory, whereby contributions deducted from workers' wages translated into their entitlement to access several social protection benefits including health insurance, regardless of socioeconomic status, geographical location or financial ability (Busse et al., 2017). This policy paradigm came in response to political discontent that culminated in the German revolution in 1848, and more social unrest in 1874, led by a discontent middle class, including physicians, who perceived the degradation in their well-being as a direct outcome of rapid industrialization (Sigerist, 1999). The discontent also reflected an increasing inclination towards Socialist ideals by the population of the German Empire, as workers yearned for economic security. This was the impetus for Bismarck's spearheading of an effort to introduce the Sickness Insurance Act that passed in 1883 (Sigerist, 1999). The Bismarckian model mandated the payment of premiums by workers and employers within certain occupations into sickness funds, whose disbursement of benefits and investment decisions were regulated by the law (Sigerist, 1999). And while the Bismarckian model was the first "state-operated health services system", other national systems included "the Soviet 'Semashko system'; the British National Health Service adopted after the issuance of the 'Beveridge

report' on the five ills of society; and the Canadian National Health Insurance system"(Tulchinsky, 2018).

In 1946, more than half a century after Bismarck's model, the World Health Organization (WHO) set out to reshape international cooperation on global healthcare challenges and adopted its constitution. This post-World War II era, was marked by a rising movement towards multilateralism, and a view that social services, including health, were an integral part of reconstruction and state-building (Kehr et al., 2023). As a result, the WHO constitution recognized health as "*one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition*" in its opening remarks. (WHO, 1946, p.1) As this principle suggests, individuals' economic conditions or income levels should not be determinants of their ability to enjoy and lead healthy lives. The fundamental principles enshrined in that constitution were ratified by 61-member states on the same year (Constitution of the WHO, 1946, p.1). Central to this idea, was the concept of financial access to healthcare.

Nearly twenty years later, in 1978, the universal health coverage movement was reignited on a global scale, albeit under a different name: "Health for All". This arose with the Alma Ata Declaration, that was the outcome of the Alma Ata Conference held in the USSR, in a post-colonial world with a renewed focus on social protection, as a means of gaining legitimacy for the newly-declared states that promised more inclusive citizenship (Kehr et al., 2023). While the Alma Ata was built upon the same principles of the WHO constitution, it went a step further in an attempt to operationalize WHO's principles. It did this by setting an ambitious target of extending primary healthcare to all peoples by the year 2000 (Alma Ata Declaration, 1978, p. 3). The endorsement of primary healthcare as a central part of this movement was justified as a result of it being the most geographically- and socially-accessible level of healthcare to communities; and therefore, should be well-equipped to extend services to all communities at a cost-effective rate, and achieve truly 'universal' services (Alma Ata Declaration, 1978, pp. 3-4).

While 134 countries made commitments to advancing the declaration's goals, progress was halted globally as a result of poor overall funding, disparities in funding channeled to urban and rural regions, disagreements on what set of services constituted primary healthcare, as well as political opposition to the concept at large (Kehr et al., 2023). In the US, for example, the concept has continued to face criticism, while in European welfare states and some Latin

American countries the concept continues to be of significant importance, and was adopted and is believed to have had an impact on population health outcomes (Kehr et al., 2023). Kehr et al (2023) argue that the Alma Ata Declaration gained traction in some countries as a result of its language, which framed health in the context of solidarity and justice. But this traction remained somewhat limited in its impact, due to health systems' financing mechanisms which remained a function of market dynamics of supply, demand, and profitability, in many countries.

In the post-millennium development goals (MDGs) world, Universal Health Coverage (UHC) resurfaced in 2012 when the United Nations (UN) General Assembly passed a resolution urging expedited adoption of UHC, as a key development pillar (United Nations, n.d. (a)). Subsequently, in 2015, the United Nations adopted the *2030 Agenda for Sustainable Development*, which advocates for 17 *Sustainable Development Goals (SDGs)* as well as 169 targets to be achieved by 2030 (United Nations, n.d. (b)); goal 3.8 of the agenda is to achieve UHC by 2030: "*achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.*"

The common challenges that have hindered progress towards UHC despite these global movements, has ranged from politics, to technical expertise, as well as the economics of these proposals. Therefore, in the aftermath of the COVID-19 pandemic, a growing consensus on the importance of building resilient, sustainable and inclusive health systems drove the WHO to re-ignite the proposal on "Health for All", by establishing the *WHO Council on the Economics of Health for All* in 2020, which is an all-female council of experts in economics, policy, finance, development and public health, aiming to integrate planetary and human health as mutually exclusive goals of economic development, establish a framework for public sector investments in health, and define the parameters of engagement with the private sector to attract financing for health (*Health for All*, 2023.). The final report, published by the Council in May 2023, aims to promote the creation of a "*new political economy"* centered around Health for All (*Health for All*, 2023). Perhaps another key difference in this framework is that it invites all government agencies to take part in shaping healthy societies whose well-being is a result of policies and programs across different departments within government. The impact of the report on shaping economic and health-related policies is yet to be explored.

Despite these ambitious global movements aiming to advance UHC, data from the WHO's legal assessment in 2017, suggests that only 73 countries out of 194 had passed a UHC legislation (WHO, 2017a). And despite the progress on promulgating legislative frameworks for UHC adoptions, gaps in policy implementation, and a lack of progress towards desirable health outcomes remain omnipresent. According to the World Bank (2021), given the current state of policies, "*up to 5 billion*" individuals will remain "*unable to access healthcare by 2030*". However, the 2017 Global Monitoring report, issued by WHO and the World Bank, suggests that different international definitions of UHC, including that of the United National Sustainable Development Goals (UN SDGs) implicitly include meanings of quality and effectiveness of healthcare. Therefore, while financial barriers are only one side of the key barriers to entry into the health system, quality is a necessary pre-condition to meet the population's diverse health needs.

1.2 Health Inequality in the Global South

Gaps in access to healthcare are especially severe in the Global South, where disparities in access to healthcare services not only pose a threat to human well-being, but also impose grave, intersectional, economic and social risks on underprivileged populations. By examining the World Bank's most recent data on life expectancy at birth, the global average is 71 years, whereas North America and the Euro Region's averages are 77 and 82 respectively, and 64 years in least developed countries, 62 in heavily-indebted countries, and 60 in low-and middle-income Sub-Saharan Africa (*World Bank Open Data*, n.d.).

The WHO (2017b) estimates that 800 million people around the globe pay around 10% of their household income on healthcare services, and these expenses are large enough to push around 100 million people into extreme poverty. Such large out-of-pocket (OOP) expenses are often denoted as "catastrophic" expenditures due to their economic impact on households' livelihoods.

Low- and middle-income countries (LMICs) are also disproportionately affected by this global challenge. It is estimated that while Africa represents around 17% of global population, it disproportionately contributes to the global disease burden, which is estimated to be 23% (Barasa et al., 2021). And while a financing gap of $176 billion exists annually for the poorest 54 countries in the world, to invest in essential health services, it is noteworthy that Gee and Button (2015) estimate the global losses in healthcare spending annually to be $455 billion due to fraud and corruption (UN Press Release, 2019; (National Academies of Sciences et al.,

2018). These figures further clarify the nature of the problem, as one centered around policy, politics, governance and resource allocation, rather than one of fiscal insufficiency.

In Africa, the UHC Index published on 2017 data reveals that the continent had the lowest coverage index, which stood at 44, while the Americas, Europe and the Western Pacific Regions were between 77 and 78 (WHO, 2017c). Barasa et al. (2021) reveal, based on WHO data, that impoverishing healthcare services continue to be a challenge in Africa, with the Egyptian population being one of the most disadvantaged. As of 2019, it was estimated that 26.2% of the Egyptian population bore catastrophic OOP health expenditures (Barasa et al., 2021).

Egypt's Disadvantaged Health Status

Egypt also fairs poorly on service availability indicators, when compared to other low- and middle-income countries' averages. Table (1), compiled from the most recent data available through World Bank Data, highlights these disparities. In fact, the table shows that Egypt consistently underperforms on service availability and health expenditure metrics, when compared to its LMIC peers, or its regional Middle East and North Africa (MENA) with comparable income levels. The availability of hospital beds and number of physicians per 1,000 population impact the quantity of physical infrastructure and human capital that shape the health sector. Egypt is almost half the global average on both metrics. Furthermore, when analyzing health expenditures per capita, invested by the government, the Egyptian citizen only receives around 33% of what is spent by the LMICs and comparable MENA countries, 6.4% of the global average, and 1.2% of high-income countries. The low level of government investment on health per capita impacts the level of OOP expenditures per capita in Egypt, which are also higher than comparable LMICs and MENA countries.

It is worth clarifying here that high-income countries have a larger absolute figure when it comes to OOP expenditures per capita, but this is due to the higher cost of healthcare in high-income countries overall, and does not indicate that these countries underperform on that metric. This becomes clearer when that indicator is juxtaposed against the metric on OOP expenditures as a percentage of current health expenditures; this indicator shows that although Egyptians spend around $311 OOP per capita, it represents around 59% of health expenditures, whereas high-income countries spend $843 of OOP per capita but it only represents 12% of their health expenditures. Therefore, this table shows that Egypt's health system suffers from a shortage of infrastructure, as well as high costs of access. An important caveat here is that

these figures do not account for the urban-rural divide, which is expected to show greater inequities in Egypt, if this data is examined.

Table 1: Egypt's Service Availability and Health Expenditures Compared to Other Regions

Indicator	Egypt	Low- & Middle-Income Countries	Middle East & North Africa *	Global Average	High Income Countries
Hospital Beds per 1,000 population	**1.4** (2017)	**2.3** (2017)	**1.4** (2017)	**2.9** (2017)	**5.3** (2017)
Physicians per 1,000 population	**0.7** (2019)	**1.3** (2018)	**1.2** (2018)	**1.6** (2018)	**3.2** (2018)
OOP as a % of Current Health Expenditures	**59.3** (2020)	**33.7** (2020)	**30** (2020)	**16.4** (2020)	**12.1** (2020)
OOP Expenditures per capita, PPP (Current international $)	**$311** (2020)	**$203** (2020)	**$270** (2020)	**$301** (2020)	**$843** (2020)
Domestic General Government Expenditure on Health per Capita	**$48** (2020)	**$148** (2020)	**$146** (2020)	**$747** (2020)	**$4,067** (2020)

** Excluding High Income Countries in the Middle East and North Africa Region*

Expanding access to healthcare via UHC is increasingly gaining prominence as a policy solution that governments are prioritizing. However, its implementation is complicated by fiscal constraints, limited infrastructure, shortages in human resources, and often times the absence of governance and regulatory capabilities within the country (Cisek & Saracino, 2022). These challenges are commonplace around the globe, and especially in low-and-middle-income countries. Therefore, Egypt's adoption of this policy route in 2018 with the promulgation of the Universal Health Insurance Law is a challenging path, requiring a large magnitude of funding and developing institutional capabilities. The success of the new law in

truly changing Egyptians' access to healthcare services, reducing OOP expenditures, and maintaining service quality as the program evolves, will be functions of the program's implementation process.

1.3 Problem Statement: First Large-Scale Reform of the Health Sector with No Policy Implementation Precedent

In January 2018, Egypt promulgated a new Universal Health Insurance (UHI) Law, namely Law 2 of 2018. The UHI Law seeks to improve access to healthcare by setting a new unified legal framework to tackle the structural challenges of access and quality of healthcare services, more holistically. According to the law, the new system's implementation will occur through a gradual roll-out plan over six phases. The six phases correspond to six different geographic regions in Egypt, each comprising a number of governorates. Additionally, quality and efficiency of healthcare facilities will be rehabilitated and revamped gradually in each of the six regions, before implementation of a new UHI system according to accreditation requirements. However, it has remained unclear how this policy implementation has taken place, as few studies have been conducted on the application of the new system and the response on the ground. The replacement of public administrative systems with new policies has always been considered a dilemma that requires an in-depth understanding of the operationalization of the UHI system on the ground. Especially that this is Egypt's first major reformation of health insurance policies, with no precedent in implementing a similar large-scale, multi-faceted policy in terms of developing the necessary infrastructure, institutional capabilities, and regulatory frameworks.

1.4 Research Question and Objectives

This research examines the perspectives of stakeholders in on the implementation of UHI law in Port Said, and how it is affecting their experiences of access to healthcare, as a multi-layered and multidimensional concept. The main research question is thus: How is the implementation of UHI policies affecting access to healthcare in Port Said?

Through the research design and data collection process, the following investigative questions will be answered:

1. How is the UHI system affecting beneficiary's service utilization experience (alleviation of financial, personal, perceived quality barriers)?

2. How is the UHI system contributing to increasing service availability from medical staff and health workers' perspectives (certification requirements, quality control, technology)?

3. To what extent is the UHI system's implementations meeting beneficiaries' healthcare utilization needs?

The objective of this research is to develop an understanding of the institutional and policy context of the implementation of UHI in Egypt, in light of Egypt's unsuccessful attempts to expand health coverage in Egypt in the last few decades. Thus, this research aims to discuss insights from the stakeholders co-creating the system, policymakers, health workers, and beneficiaries. Additionally, it focuses on Port Said as a case study, as it was the first governorate to have this system, and thus has the most mature UHI system currently in the country. By adopting an "accessibility" lens, this research examines how the implementation environment is affecting experiences of access from the aforementioned stakeholders' perspectives, with the aim of developing stakeholder-informed policy recommendations that can guide further implementation of the system.

This study also contributes to the literature exploring UHC and access to healthcare in LMICs, with a framework that leverages stakeholders' perspectives. Additionally, as the literature review section demonstrates, UHI's implementation parameters and effects remain under-researched. From a policy perspective, few studies have examined the implementation of the new UHI system, which is gaining increased interest from policymakers before the law goes into effect in the second geographic regions of Egypt. In fact, the UHI executive committee, headed by the Minister of Health and Population and the Minister of Finance, has recently announced the creation of a task force to assess the success factors, and learned lessons from the implementation of the law in the first geographic region, in order to improve the adopted mechanisms in the second phase (Youm7, 2023).

1.5 Thesis Outline

This research is organized into seven chapters. This first chapter has presented the history and emergence of UHI, the attempts of UHI in Egypt, as well as the research problem statement and questions. Chapter two provides an overview of the literature on access to healthcare, the political economy of universal health coverage (UHC); pathways to extending health coverage in low-and-middle-income countries (LMICs) including tax-based financing, exemption from user fees, community-based insurance, and social health insurance; implementation challenges

of UHC initiatives in LMICs; and finally, some background on the recent studies examining the health policy landscape in Egypt.

Chapter three reviews various conceptual frameworks that have been used in the literature to examine health systems from an 'accessibility' stand-point, and explains the conceptual framework that was used in this research.

Chapter four elaborates on the research methods that were used to answer this study's research questions, including information on the case study and the selection of Port Said. Additionally, this section presents the limitations and ethical considerations of this research.

Chapter five delves into the policy background of healthcare policy and health insurance in Egypt, and gives an overview of the new UHI law's mandates.

Chapter six presents the research findings which are organized under three main subsections that reflect the study's main research questions: service availability, service utilization, and service effectiveness.

Chapter seven concludes with the policy recommendations and pathways to ensuring effective UHI implementation.

2 LITERATURE REVIEW

The literature on access to healthcare and UHC can be organized thematically into three main areas: definitions of access, linkages between UHC and access, empirical research on access to healthcare globally, and research on healthcare access in Egypt.

2.1 The Definition of "Access to Healthcare" as a Multi-Layered Concept

Access to healthcare is a concept characterized by progression and multi-dimensionality. It can also be viewed from various qualitative and quantitative angels. When reading the literature on access, it is evident that access can be illustrated as a hierarchy, with successive levels of increased effective access that contributes to social justices. In fact, the literature on access to healthcare suggests that there are four key levels whereby each one builds upon the previous, and paves the way for a greater extent of true access to healthcare. This chapter will explore the intricate components of the four main layers of access to healthcare, in the following progressive order: service availability, service utilization, service relevance, and service equality. For the sake of visualizing the concept, this research will refer to it these levels as the 'access hierarchy'.

Service Availability

At the base of the hierarchy is service availability, which can be viewed as a quantitative and objective concept. Gulliford et al. (2002) equate availability with abundance of entry points to the healthcare system. This involves the geographic proximity, configuration and dispersion of medical facilities, their staffing, beds per capita, and the presence of primary and specialized services (Gulliford et al., 2002). Other definitions emphasize the importance of viewing availability as that which is present "*whenever and wherever*" it is needed by the patient, and that the "*entry to the system is well-defined*" (Bodenheimer, 1970; Freeborn & Greenlick, 1973). On the other hand, Mooney et al. (1991) perceives service availability from an economic perspective, as representing the supply-side of healthcare. Accordingly, Mooney et al. (1991) theorize that individuals bearing similar costs to receive healthcare have the same level of access to healthcare. As long as individuals have similar costs of travel, or opportunity cost of obtaining healthcare, the researchers would posit that these individuals face the same healthcare supply curve, reflecting the same level of service availability.

Service Utilization

The second, and densest, layer in our 'access hierarchy' is service utilization. Service utilization addresses the idea that access to healthcare is not only a matter of quantitative deficiency in healthcare services, which service availability is concerned with (Gulliford et al., 2002). While services may be available, Donabedian (1972) claims that "proof of access is use of service, not simply the presence of a facility". Similarly, Penchansky and Thomas (1981) identified some qualitative barriers that may limit individuals' ability to benefit from the availability of healthcare services, and thereby limit their access. These barriers may include elements spanning: personal, financial, organizational, social and cultural, and previous experiences at health facilities (Penchansky & Thomas, 1981; Mechanic, 1978). Personal barriers include individuals' needs, attitudes towards healthcare, knowledge about their healthcare needs and willingness to engage with the healthcare system (Mechanic, 1978). Organizational barriers include the administrative operations within healthcare facilities including the referral processes, lines, and waiting times to obtain services (Gulliford et al., 2002). Such internal processes of managing the hospital's medical resources, and staff have the potential of creating service bottlenecks that could adversely affect patients' access (Rogers, 1973; Gibson et al.,1970).

On the other hand, financial barriers reflect the costs of gaining access to needed services. Lundberg et al. (1998) examined patients' sensitivity to medication prices, and explained that costs play a significant role in determining individuals' ability to access healthcare. They note that for some patients, these "*costs may represent a significant deterrent*". Evidence of this was clear in practice, as demonstrated in the introduction, whereby catastrophic OOP expenditures have an impoverishing effect on certain households. For this reason, Culyer et al. (1992) criticized Mooney et. al's (1991) conceptualization of access to healthcare as being merely a function of equal costs. They theorized that income and educational barriers may limit individuals' ability to leverage the availability of healthcare services. Furthermore, Culyer et al. (1992) noted that policymakers should be concerned about underprivileged households to whom preventive healthcare services are available, but do not utilize them due to their lack of awareness of the associated utilization benefits. Somers (1971) also emphasizes the importance of a "*good doctor-patient relationship*" as an element that forms patients' awareness and drives healthcare utilization.

In their paper, McKee et al. (2013), examined the rise of UHC, the concepts informing it and the political, economic, social, and global dynamics that have been associated with countries' adoption of UHC policies as means of alleviating financial barriers to access. They note that the dominance of UHC in Europe has been driven a combination of the aforementioned factors, with a particularly large role for political ideology. Additionally, they conclude that while rhetoric on the need for UHC has increased in the past decades, little has been achieved as other private sector dynamics, individual incentives, and public finance constraints limit emerging countries' ability to progress on UHC. McKee et al. (2013) cite the World Health Organization's definition of UHC as:

"*Universal coverage is defined as access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access. The principle of financial-risk protection ensures that the cost of care does not put people at risk of financial catastrophe. A related objective of health-financing policy is equity in financing: households contribute to the health system on the basis of ability to pay. Universal coverage is consistent with WHO's concepts of Health for All and Primary Health Care*." – McKee et al. (2013) citing WHO

Similarly, WHO and the World Bank (2017) incorporate meanings of financial barrier alleviation, healthcare quality and effectiveness in their definition of UHC, and note that its achievement is one of the United Nation's Sustainable Development Goals (SDG 3.8). Coleman (1971) explains that while UHI systems seek to alleviate the financial burdens of healthcare, they perform very differently in terms of organizational efficiency, and their limitation of other barriers-to-entry in the healthcare system. Additionally, Gulliford et al. (2002) note that utilization of specific healthcare services or access to medications may be hampered if there's no coverage scheme for them in the system.

Service Effectiveness

Going beyond utilization leads us to the third level of access, which is concerned with the relevance of healthcare services to their users (Gulliford et al., 2002). Mooney (1996) suggests that utilization is an ineffective measure, given that higher utilization rates do not necessarily correlate with higher access. In fact, higher utilization may suggest deficiencies in the healthcare system, due to its inability to tackle the root cause of health problems. Such systematic deficiencies could lead patients to overly-engage with the health system, but this only reflects the extent to which service utilization is ineffective. Thus, a more holistic

approach of conceptualizing utilization is by mapping it vis-à-vis health outcomes (Mooney, 1996). Consequently, optimal healthcare is that which is capable of delivering positive results, leading to a decrease future utilization due to individuals' ability to lead a healthy life. Therefore, augmenting utilization with quality, ensures that access to healthcare is relevant and effective in delivering patients' needs. Beck (1973) proposes that patients' medical needs can be visualized as a "medical iceberg", whereby the more medical needs surface and are addressed by doctors, the more individuals are said to have effective access to healthcare. On the contrary, increasingly submerged, unaddressed needs indicate lower levels of access.

Service Equity

The last and highest form of access is equitable access. It is worth noting that the literature distinguishes between vertical equity and horizontal equity. Vertical equity pertains to the equitable provision of services to diverse populations who possess equivalent health needs, ensuring that equal access and quality are maintained. In contrast, horizontal equity pertains to the equitable distribution of resources and treatments in response to varying health needs, recognizing the necessity to tailor interventions accordingly (Mooney, 1996). Van Doorslaer et al. (2000) quantitatively demonstrate evidence of vertical inequity, and note that there is little empirical evidence demonstrating horizontal inequity. Equity may be viewed from the perspective of any of the preceding levels of the 'access hierarchy'. However, equity is a more subjective notion and is more difficult to operationalize in research.

2.2 The Politics of UHC Policies

Political commitment to UHC and expanding access to healthcare is a result of the conceptualization of health as a common good whose benefits affect the overall welfare of the whole society, and thus warrants public investments. As a policy decision, that requires orchestration of a national budget, passing of legislations, building institutional capacity for implementation and more, achieving UHC is a political endeavor at its core. Greer & Méndez (2015) argue that UHC is not a goal that enjoys consensus and merely required technical follow-up, but a politically-contentious policy. By applying the analytical methods of Political Science, some researchers provide informative insights into the politics shaping UHC policies and pathways for successful implementation.

Ho et all. (2022) argue that political change, including that within the realm of health policy, does not merely occur because of evidence of the magnitude of the social problem, or the benefits of the policy's implementation. The policy process is politically-shaped by the

ideas, interests and institutions, which is often overlooked in favor of scientific, technical and administrative examinations of UHC (Ho et al., 2022). Accordingly, the researchers conducted a systematic literature review to understand how political factors affect UHC implementation. Their research shows the intersection between ideas, institution and interests, when they are combined with some degree of political power (Ho et al., 2022). For example, political actors often seek to maximize their interest, and thus are likely to lean towards ideas that would garner electoral support. Depending on the socio-economic fabric of a society, the most powerful electoral groups may be the wealthy class who oppose the redistribution of income taxes towards expanding social protection programs, including UHC, which is the case in the United States (Ho et al., 2022).

However, in Latin American countries and the UK, leftist voters and labor unions impacted the political behavior of the parties they backed in elections, which led to the expansion of means-tested social policies in Latin American countries, and the birth of the National Health Service in the UK (Ho et al., 2022). But while these political movements contribute to the inclusion of some segments of society in political actors' policy agenda, they may simultaneously exclude others. For example, Ho et al. (2022) note that labor unions in the UK were dominated by men and the interests of women, who often work in the informal economy, are not represented.

Ho et al. (2022) also note that the path to UHC requires examining vested interests in society, as race and class continue to influence policy preferences in the US, for example, regardless of whether the voter may benefit from the policy. Furthermore, non-political actors play a pivotal role in influencing UHC policy and legislation, such as physicians in Thailand who believed in the principles of UHC as a social value not out of political or economic interests, and mobilized to influence the political process (Ho et al., 2022). Technocrats in Indonesia were also key players in the push for UHC by mobilizing international pressure to garner executive political support for a policy reform (Ho et al., 2022). Once this was attained, political commitment from other ministries and bureaucrats was gained due to the political pressure that was induced by executive commitment. Therefore, Ho et al. (2022) posit that bureaucrats also play a critical role in setting the policy agenda. This is in line with other researchers' findings, who conducted a narrative systematic review of the literature on UHC, and found that coordination and buy-in from different actors in the health governance space are essential to realizing progress towards UHC to materialize (Rizvi et al., 2020).

The achievement of UHC also depends on the political regime and degree of power centralization or decentralization. For example, Ho et al. (2022) show the varying academic discourses on the effect of democratic institutions on health outcomes and health policy as being more favorable; while other scholars note that democracy also opens door to buying votes to serve the vested interests of politicians. Additionally, authoritarian regimes such as those of China and Vietnam have taken considerable strides towards UHC reform, and some may argue that it was possible due to limited opposition (Ho et al., 2022). However, Greer & Méndez (2015) argue that authoritarian regimes only respond to the demands of politically-salient groups whose dissatisfaction with government policies may threaten political stability such as public sector and strategic industry workers in Southern Europe, who enjoy extensive health benefits, as compared with other populations.

From a centralization perspective, the highly decentralized political process in the US, for example, continues to hinder UHC legislation and expansion of healthcare access to the least privileged populations (Ho et al., 2022). Other researchers show that the governance of political institutions, and the increased number of potential "veto" points can also decrease the likelihood of adopting policies that promote expansive access to healthcare, which is the case in the US and Switzerland, despite being high-income countries (Greer & Méndez, 2015).

Onoka et al. (2015) conducted in-depth interviews, stakeholder analysis and document reviews, to examine the political determinants of UHC in Nigeria, which has a decentralized government, and they found that the most successful phase of UHC implementation was that where sub-national leaders were involved in implementation rather than being directed by the central government. Furthermore, stakeholder mapping is necessary to outline the roles and interests of varying actors in the health system, and can be used as a the basis of forming a governance structure that ensures the system's sustainability, regardless of time-variant stakeholder interests (Onoka et al., 2015).

While there is a political window of opportunity that invites the introduction of UHC reforms and legislation, building institutional capacity and establishing the necessary infrastructure is necessary for UHC to materialize, which requires not only stakeholder buy-in but large financial resources; this is where donors may have political influence on UHC adoption (Rizvi et al., 2020). Borgonovi and Compagni (2013) refer to these governance structures as necessary for the political sustainability of UHC, which they argue is often overlooked in favor of research on its economic sustainability. One suggested governance

model, adapted from a structure in the US that brings together stakeholders involved in the mental healthcare ecosystem , is a federal steering committee that includes representatives of different government agencies (Borgonovi & Compagni, 2013). This structure ensures that government agencies are aligned on a common political health agenda, and can engage with external stakeholders such as advocacy groups and members of civil society on the same goal.

2.3 Types of UHC Reforms in LMICs

2.3.1 Tax-based Financing Models

As their name suggests, tax-based financing models rely on general tax revenues to fund a universal health coverage system. In their paper, Onoka et al. (2015) examine the viability of a tax-based models in Nigeria where high rates of informality within its economy, and a high incidence of poverty is limiting the government's ability to reach its UHC by 2030. Notably, Nigeria's nationwide social health insurance initiative, operational since 2005, has covered less than 5% of the population as vulnerable, impoverished and informal workers constitute 70% of the country's population (Onoka et al., 2015). Therefore, the researchers posit that policymakers should consider the adoption of a tax-based, non-contributory, universal health-financing framework as the principal means to expedite advancements towards UHC. The proposed taxes include those on sugar, tobacco and alcohol. Whereas social health insurance mechanisms, along with their devolution to states for formality-employed individuals, should function as supplementary components only (Onoka et al., 2015).

2.3.2 User Fees Exemption Policies

User fee exemption policies are meant to alleviate the financial barriers to the utilization of health services by underprivileged and poor families (Etemadi & Hajizadeh, 2022). According to the researchers, this policy mainly relies on government's financing of the cost of heath services at the point-of-service to encourage higher levels of service uptake by families who may otherwise opt out of receiving care altogether due to the impoverishing effects of OOP expenses. Therefore, LMICs deploy a number of strategies in implementing user-free exemptions, either to promote the utilization of health services at large by specific target populations selected based on their income levels; or to promote the utilization of specific health services for the full population (Honda, 2006; Newbrander et al., 2000). In 2016, Burkina Faso adopted user exemption fees to advance the adoption of maternal, new born, and child-targeted health care in order to mitigate the impact of violent political conflicts in the country on these groups which are most vulnerable at times of conflict (Offosse et al., 2023).

Offosse et al (2023) adopted a quasi-experimental quantitative study to estimate this policy's effectiveness and they found some statistically significant evidence of increases in the number of new consultations.

2.3.3 Community-Based Insurance

In response to sustainability challenges in health care systems of low- and middle-income countries (LMICs), community-based health insurance (CBHI) systems have emerged in Sub-Saharan Africa to enhance access to health care by distributing financial risks among members (Conde et al., 2022). Despite efforts, CBHI schemes face significant challenges, particularly low enrollment rates that threaten their financial viability (Conde et al., 2022). While studies have explored factors influencing CBHI participation in West Africa, Conde et al (2022) to identify common findings from different studies that adopted diverse methodologies, to support public and private actors that would like to advance CBHI in LMICs and West Africa in specific. According to the researchers, community-based health insurance (CBHI) is a not-for-profit entity managed by its members, founded on the concepts of solidarity and mutual assistance among individuals who willingly and voluntarily partake in it. However, despite endeavors to establish CBHI initiatives, the persistent scarcity of members, encompassing both initial enrollment and membership renewal, persists as a challenge to their financial sustainability (Conde et al,. 2022). However, the researchers' review of the literature shows that countries like Ghana, Rwanda and India have reached high coverage rates with CBHI programs. They found that government support in creating a favorable policy landscape and providing some financial support, as well attracting international aid, remain key factors to the success of CBHI.

2.3.4 Social Health Insurance

Social health insurance (SHI) is a healthcare system financing mechanism aimed at expanding coverage and improving the system's overall efficiency. In essence, SHI can be defined by three key features (Jamal et al., 2022). First, enrollment is mandatory, and participants are required to pay a specified premium or contribution. However, in practice, contributions may initially be voluntary, due to various implementation considerations. Second, only registered individuals are eligible to receive benefits once they have paid their premiums. Lastly, SHI involves the establishment of legislation that outlines the specific benefits participants are entitled to [a benefits package] (Jamal et al., 2022). In essence, SHI supports the pooling of risk among different members of society on that basis of solidarity.

2.4 Challenges with Universal Health Coverage Reform Implementation in LMICs

2.4.1 Infrastructure, Governance and the Health Workforce

Public hospitals are an important component of the healthcare system in many countries, particularly in low- and middle-income countries where a significant portion of the population relies on public healthcare facilities for their healthcare needs. Therefore, any efforts to improve the quality and efficiency of public hospitals can have a significant impact on the overall health outcomes and UHC. For example, Fu et al. (2017) evaluate the effectiveness of the "Sanming Model" of healthcare reform in China, implemented in 2013 to address inefficiency, poor quality of care, and high healthcare costs in public hospitals. These reforms came within the context of China's goal to attain UHC by 2020, which viewed enhanced governance and efficiency in public hospitals as critical to providing affordable care, since these hospitals delivered more than 80% of outpatient care in China (Fu et al., 2017).

The researchers' aim was to test the impact of simultaneously restructuring physicians' remuneration system, reforming public hospitals' governance structures, and introducing new hospital payment systems on the aforementioned variables. They used the Difference-in-Difference (DID) quantitative analysis method to analyze data collected from 22 public hospitals in constructing their findings. Their findings suggested that the Sanming Model was associated with a significant increases in hospital efficiency, as measured by the ratio of outpatient visits to healthcare providers, and a significant decrease in hospital costs, as measured by the ratio of costs to revenue (Fu et al., 2017). The researchers conclude that the Sanming Model provides a promising example of healthcare reform that could be replicated in other contexts in low- and middle-income countries. These findings portray the complex nature of reforming public hospitals' operations, whereby the impact was achieved due to the implementation of three simultaneous interventions related to financial management, workforce remuneration and governance within the hospitals. However, successful implementation of the intervention alone requires institutional capabilities that are often challenging to build in LMICs, and are often difficult to replicate without contextualizing the program, in order not to develop capability traps (Andrews et al., 2013).

China's reforms to attain a Universal Basic Medical Insurance System (UBMIS) entailed efforts to integrate the fragmented health insurance system in the country. Several studies have been conducted to evaluate these efforts. For instance, Shan et al. (2018)

conducted a quantitative study to understand the level of satisfaction among insurance units' administrators in relation to the integration policy. They achieved this by conducting a cross-sectional survey among 1644 administrators in three districts from 2014 to 2015. Additionally, the researchers conducted a regression analysis to understand the associations between levels of (dis)satisfaction with other features of the insurance integration reform policy. The findings of the study indicated that 47.6% of the administrators were dissatisfied with the reforms (Shan et al., 2018) . Moreover, they perceived the reforms as ineffective at improving the units' management system, and were seen as inadequate in expanding health insurance coverage and reducing inequity. The researchers were able to provide some policy recommendations based on their findings, to support the roll-out of the integration policy, including the recommendation to establish a central insurance unit that can support the decentralized units' fund management. Thus, this knowledge creates an operational understanding of the policies and programs aimed at expanding health insurance coverage and access to services.

2.4.2 Community and Cultural Norms

As outlined in chapter 2.1 of this research, cultural and social factors can greatly influence populations' access to health services, and thereby hinder UHC reforms, especially in LMICs where community ties and social capital inform interaction within the system. In 20019, China introduced its comprehensive health reform program, which aimed to expand basic health coverage to the full population by 2020 (Xu & Mills, 2019). Accordingly, Duckett et al. (2016) aimed to measure the level of beneficiaries' trust in hospitals and primary healthcare clinics within the health system, three to four years after the comprehensive reform program was initiated. They adopted a quantitative approach by conducting a survey on a nationally-representative survey of 3680 adults. Then the researches relied on different regression models to understand the association between the level of distrust in the system, and citizens' healthcare utilization patterns. The researchers specifically looked at whether the sentiments of distrust affected the respondents' visits to hospital and primary care clinics, when they had headache or cold symptoms, as well as the sequence of their visits.

The researchers controlled for a number of demographic features including gender, education and age, as well as income levels, insurance status, and their health status. The study concluded that respondents had higher levels of trust in the hospital system, and high levels of distrust in the clinics which caused respondents to seek care at hospitals regardless the severity of their symptoms. These insights are significant given that clinics serve as the primary care

facilities and the first line of support for communities. Thus, this research contributes to the literature on healthcare utilization in low- and middle-income countries, where community trust plays a critical role in defining communities' utilization, and thereby access, to healthcare services.

The insights from Duckett et al.'s (2016) study also provides lessons that can enhance the overall efficiency of the public health system. Since primary healthcare (PHC) is meant to act as the gatekeeper and regulator of patient traffic into the secondary layer of healthcare, a distrusted PHC system is likely to disrupt operational processes, and add strain on the secondary health system's capacity.

Another study that reflects the interplay between beneficiaries' trust of the system, and reforms aimed at changing physicians' behaviors is the research conducted by Wu et al. (2017). An important aspect of the 2009 reforms in China, were targeted towards increasing beneficiaries' utilization of primary healthcare services, reducing profit-oriented practices among public hospitals. Thus, the researchers conducted focus groups and interviews from 2014 to 2015 with patients and physicians, and then followed up by conducting surveys to examine the effect of the policy. The findings indicated that 36.8% of the physicians considered profit-making motives, which they recognized as a potential breach of medical ethics, but justified it on the grounds of poor remuneration and incentive systems (Wu et al., 2017).

The study further reports that physicians believe these practices would most likely fuel patients' belief that they are being overprescribed with medications and tests. The research also shows that patients preferred hospital care as opposed to primary care due to mistrust in primary care providers, which is in line with the research conducted by Duckett et al. (2016). Finally, the researchers demonstrate that personal connections between patients and physicians were used to access hospital care, which confirms scholars' understanding of the definition of access to healthcare as encompassing a social and cultural component. Wu et al.'s (2017) research found that on the one hand hospital physicians reported that patients are more likely to seek care as a result of personal connections to physicians, than primary health providers reported; but on the other hand, 64.5% of the surveyed physicians also admitted being more dedicated to service provision when a personal connection with the patient existed (Wu et al., 2017).

2.5 Studies on Access to Healthcare in Egypt

The recent emergence of Egypt's UHI legislation, combined with the ongoing unfolding of the system's implementation may serve to explain the limited literature on this new policy's impacts or implementation. The literature can be thematically organized into studies that examine the governance mechanisms within the new system, as well as its financing and purchasing strategies.

Khalifa et al. (2021) conducted a qualitative analysis of the articles of the UHI Law to disentangle different stakeholders' responsibilities within the financing processes of the system. Their findings indicate that in order to reach effective UHC, the law requires improvement in specifying "*benefit design and provider payment methods*". The researchers acknowledge that the UHI Law significantly improves healthcare financing mechanisms in Egypt, but the lack of clarity on provided payment systems may lead to misalignment of incentives in the system. Such misalignment may result in providers' "*engagement in resource-shifting and cream skimming of patients*". Therefore, this may hinder effective universal coverage.

Khalifa et al. (2021) also conducted in-depth interviews and analyzed legal frameworks guiding the government purchasing processes under the new law. The researchers were affiliated with the WHO and their research's main objective was to identify recommendations to enhance the government's ability to embrace a strategic purchasing process that maximizes the law's welfare effects while ensuring efficient allocation of the system's funds (Khalifa et al., 2021). Their study's recommendations were organized into four main categories related to benefit design, provider payment methods, information systems, and governance arrangements (Khalifa et al., 2021). The researchers' main recommendations that have an impact on access conditions include: the need to define clear referral lines from primary care to specialized private sector doctors as this will impact provider payments as well as beneficiary choices; imposing higher copayments if beneficiaries choose to bypass the primary level of care and prohibiting private insurance from covering the cost of this bypass; induce competition between primary health care units and clarify the role of private clinics in the referral process to as to ensure service harmonization (Khalifa et al., 2021).

Faseeh et al. (2022) conducted a systematic literature review on papers examining Egypt's Total Health Expenditures (THE) from 2009 to 2019, and analyze the financing challenges that they foresee given past research. They concluded that although THE in Egypt had witnessed

steady declines, they expected the reversal of this trend as a result of UHI implementation (Fasseeh et al., 2022). Another pre-UHI study focused on the implementation of a nation-wide program to train medical staff on infection control in Egypt, which was found to affect 6-17% of hospitalized patients in Egypt according to some studies (Talaat et al., 2006). Talaat et al. (2006) defined the institutional, human and financial resources challenges that affected the program's implementation in Egypt, but also offer guidance and lessons for other countries with limited infection-control programs.

Moreover, Pande et al (2017) conducted a mixed methods study to explore pathways to advancing social justice in the healthcare sector in Egypt. Their study included engagement with patients, providers, policymakers and civil society organizations which is one of the most recent studies of its type. Their recommendations included the need to adopt minimum accreditation standards for service providers, engaging citizens in the delivery of services in underprivileged regions, establishing grievance redress mechanisms that protect patients against malpractice, as well as other financing reforms to improve the efficiency and coverage of the system (Pande et al., 2017).

Therefore, while recent studies on the healthcare sector in Egypt examine issues of financing, social justice, and system management, there is a gap in research studies assessing the impact of the UHI law of 2018 on health spending, access, quality, and social equity. Thus, there is an opportunity to enrich the literature on healthcare in Egypt with assessments of the system's implementation. Furthermore, stakeholder engagement and qualitative methods deploying a case study design remain limited. This research aims to fill this gap and contribute to the literature on Egypt's post-UHI healthcare system. Further studies can also include examining the broader spillover effects of the law on employment or household choices for example, as well as the system's impact on the most vulnerable communities.

3 CONCEPTUAL FRAMEWORK

Public health policies in LMICs are often faced with implementation challenges that affect the government's ability to reach target segments, induce utilization of health services, and bridge the gap in health coverage. Thus, these policies and programs are only as effective as their on-ground implementation unfolds. And while structural, legislative, and funding challenges cannot be disregarded especially in the context of LMICs, examining implementation gaps holds the promise of gaining clarity on why some health policies fail in their specific contexts (Sheikh et al., 2020). Therefore, it is critical to analyze policy implementation in their embedded social and political contexts, to understand implementation gaps and pathways for future reform.

Empirical studies of access to healthcare are as diverse as the contexts, processes, and methods used to explore the concept. However, many recent studies have relied on a conceptual framework, known after the researcher who published it in 2013, "Levesque's conceptual framework". This framework conceptualizes access as a continuum with five dimensions in the health system, that are linked with five levels of population capabilities that make access at each health system dimension possible (Levesque et al., 2013). The five levels of access within the health system are: "*1) Approachability; 2) Acceptability; 3) Availability and accommodation; 4) Affordability; 5) Appropriateness.*" Moreover, the population's complementary abilities, which allow them to make use of the health system effectively at each level, are: "*1) Ability to perceive; 2) Ability to seek; 3) Ability to reach; 4) Ability to pay; and 5) Ability to engage.*"

The power of this particular framework is that it is able to simultaneously incorporate aspects of the health system as well as social determinants of access from the population's perspective, which has enabled the framework to gain momentum since its publishing (Cu el al., 2021). As such, Cu et al. (2021) conducted a scoping review to analyze all empirical research papers that have used Levesque's conceptual framework to study access to healthcare. They identified a total of 31 studies that used Levesque's framework to either develop their research measures, or to synthesize their findings. Eleven studies did the first, while twenty studies did the latter. Fifteen studies relied on qualitative methods, eight studies used quantitative methods, and another eight used a mixed methods approach. Only nine studies were conducted in Low- and Middle-Income Countries (LMICs), and none were in the Middle East and North Africa region. Most quantitative questions focused on access to primary

healthcare, while qualitative studies also explored access to maternal and child care extensively.

As a part of Cu et al.'s (2021) scoping review, the researchers obtained more detailed accounts regarding the shortcomings of this framework from the perspectives of the researchers who conducted the 31 studies within the review. The first challenge is that some dimensions or abilities related to access could not be categorized into the strict buckets that Levesque's framework underpins. In fact, some elements of access are cross-cutting and one question could be used to assess more than one measure within the framework. While this does not necessarily affect the validity or reliability of the framework and its measures, it provides insight into a potential dilemma that researchers must attend to. According to Neuman's (2000, p. 217) guidance, this can be achieved by formulating different measures for the same phenomenon to test the construct validity of the different measures.

Furthermore, Cu et al. (2021) identified measures that researchers incorporated in their studies, on geographical proximity and wait times, which were not necessarily related to "availability of service" as defined in Levesque's framework. Due to the complex nature of access, the researchers note that most studies relied on qualitative methods to gain in-depth insight into access barriers. However, quantitative measures were used, in mixed methods analysis, to reflect availability and affordability of services. Based on their analysis, Cu et al. (2021) recommended that more studies should be conducted in LMICs, and that time should be accounted for in patient journeys as it is not reflected in Levesque's framework. Therefore, this analysis is useful for the purpose of enhancing future research and filling in gaps in conceptualization of access to healthcare.

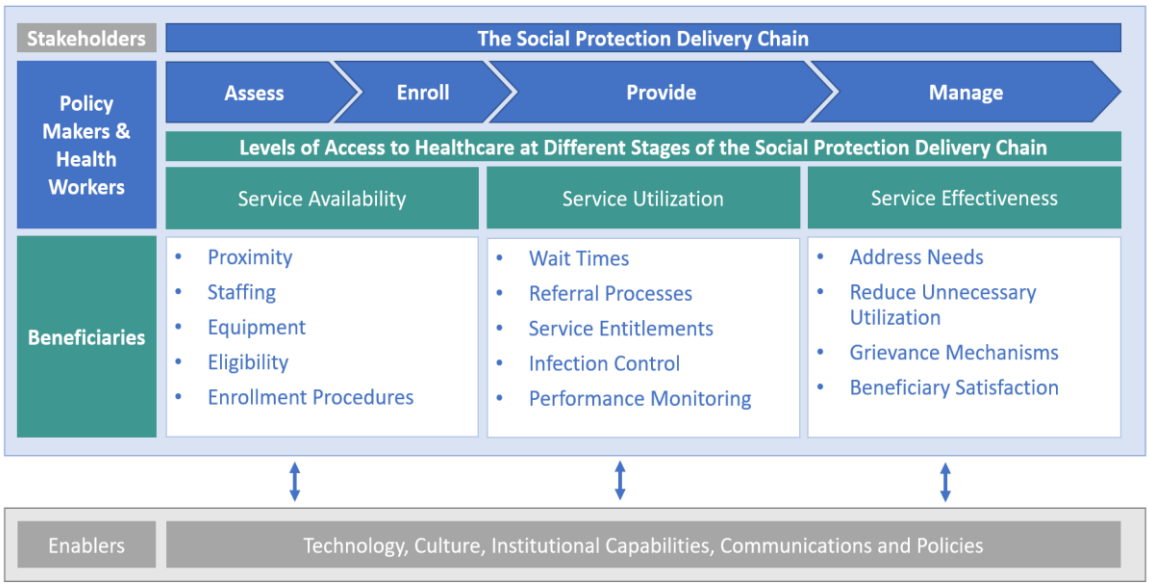
From a local perspective, Luqman and Khan (2021) attempted to analyze access to healthcare in Egypt by conducting a geospatial study which tackles the service availability aspect. Their study indicates that are "*337 clinics and 233 hospitals*" in Egypt, and 75% of Egyptians did not have access to hospitals by walk. Based on previously reviewed literature, this low hospital proximity necessitates that households bear financial costs of transportation to merely attain the entry point of the healthcare system.

Thus, some of the most cited conceptual frameworks in the literature on access to healthcare include: Aday and Andersen (1974), Penchansky and Thomas (1981), Peters et al. (2008), and Levesque (2013). All of these frameworks build upon one another, and share similar elements in their conceptualization of the stakeholders, barriers, enablers, and processes

that inform our understanding of access to healthcare. The World Bank's Social Protection Delivery Chain framework also provides another lens to explore the stages of government's provision of social protection programs (Lindert et al., 2020). This framework focuses on how social protection benefits are delivered in a citizen-centric, inclusive mode that fosters coordination among government stakeholders (Lindert et al., 2020). Thus, this framework is concerned with mapping citizen's journey, and monitoring the performance of the service delivery chain to ensure effective and efficient delivery (Lindert et al., 2020).

Figure (1) demonstrates the conceptual framework that I will follow in this research, which is informed by all the aforementioned frameworks. It combines some elements from the World Bank's framework as well as prominent conceptual frameworks on access to healthcare, most notably the one proposed by Levesque (2013) (Lindert et al., 2020). The adapted model clarifies that the service availability element of access coincides with the assessment of beneficiaries' entitlement to healthcare benefits and their enrollment into the system. It also clarifies that this process of assessment and enrollment involves two types of stakeholders: policymakers or bureaucrats, as well as health workers. The implementation of that process shapes beneficiaries' experiences and perspectives around service availability, which constitutes factors like proximity to service entry-points, the availability of essential staff and equipment, and the enrollment conditions and procedures.

Figure 1: Proposed Conceptual Framework



Source: Constructed by Researcher

The third step in the social protection delivery chain is the provision of services, which is shaped by the institutional structures that policymakers set and is implemented by health workers and staff. Mechanisms of service provision affect beneficiaries' experiences with healthcare utilization, which can be influenced by factors like wait times and referral processes at different levels of the health system. The final stage of the delivery chain framework is managing the performance of the system, grievance redress mechanisms, and ensuring beneficiaries' compliance with service conditions. This stage, which is also informed by policymakers, bureaucrats and health workers in the system, shapes beneficiaries' experiences of the degree of service effectiveness. As an outcome of all the previous stages, service effectiveness reflects whether beneficiaries' access to healthcare meets their utilization needs. However, by also borrowing the World Bank's notion of managing citizen's grievances, it can be argued that appropriate management of a complaints system and tracking beneficiaries' satisfaction are integral parts of service effectiveness (Lindert et al., 2020).

Based on the World Bank framework, social protection delivery systems can be viewed as having different enablers, which I have added to the proposed conceptual framework of this research: technology, institutional capabilities, and communication. Additionally, I have added policies and culture as two additional enablers as they highly impact the implementation and access to healthcare services, as shown in the literature review section.

4 METHODOLOGY

4.1 Study Design

This research is a case study of the implementation of the new Universal Health Insurance law in Port Said. It contributes to the field of health policy research by shedding light on the policy implementation landscape of the new Universal Health Insurance System in Port Said, Egypt, which remains under-researched. Given the multidimensional characteristics of access to healthcare, I have used different qualitative methods to investigate my research questions. This allowed me to gain a detailed portrayal of stakeholders' experiences in the UHI system.

This case study combined various methods of inquiry to answer the research questions : in-depth semi-structured phone interviews with three cohorts of stakeholders; a field visit that included observations, field notes and interviews; a small-scale survey for 30 random beneficiaries at Primary Healthcare Units in Port Said; study of the UHI law's content; and

content analysis of historical Al-Ahram Newspaper articles to gain an understanding of the policy context of the legacy health insurance system in Egypt.

In line with a study by Fisher and Hamer (2020), several qualitative research methods can be, and are often used in health policy and health systems research to study 'policy content', program context and environment, program implementation, and a 'system's operations'. The researchers found that this body of research includes the deployment of methodologically-diverse set of methods including in-depth interviews, observations, as well as analysis of program and policy documents (Fisher & Hamer, 2020). Additionally, by diversifying methods, participants and data sources, triangulation was achieved in accordance with Denzin's (1978) recommendations.

4.2 Case Study

This research relies on Port Said as a case study, whereby data collection lasted 4 months from April to August 2023, and all the collected data was focused on Port Said. Port Said is the first governorate that the system was implemented in, and therefore has the most mature implementation thus far. Additionally, Port Said is an urban governorate with only one city, which simplifies the research process given the constrained time and budget. Port Said's health sector landscape is dominated by the public sector, with limited private sector presence, as will be detailed Chapter six on research findings.

To understand the beneficiaries' journey, I conducted a field visit to Port Said, in July 2023, where I visited two Primary Healthcare (PHC) units, in two different neighborhoods, that usually experience high traffic of beneficiary visits. Visiting a secondary or tertiary care facility was unnecessary given that 80% of care occurs at the PHC-level, according to the officials who accompanied me on the visit. During these visits, I was able to form my own impressions by observing the beneficiaries' journeys, taking field notes, and taking a few photos. Although the accompanying officials were welcoming and asked me to take as many photos as I liked, I was mindful of patients' privacy and comfort and did not want to disturb their surroundings. The officials also provided anecdotal and contextual background information before we visited each PHC. Additionally, they helped me approach the beneficiaries, doctors and PHC management teams, for short interviews. During the field visits I used a convenience sampling method, by handing out the surveys to a sample of beneficiaries in the waiting area, and collected them at the end of my visit. This survey is available in Appendix 9.4.

4.3 Research Methods

4.3.1 In-Depth Interviews and Field Visit

I conducted guided in-depth semi-structured interviews, with the main stakeholders in the health system: beneficiaries (as the system's users), medical staff (as users and providers), and administrators within the government agencies implementing the UHI system (as drivers of policy interpretation and implementation). Each of these groups provided complementary insights that collectively allowed me to gain an in-depth understanding of the UHI implementation landscape in Port Said and its effects on service availability and utilization. Table (2) shows the different cohorts of interviewees that I conducted semi-structured in-depth interviews over the phone, or spoke with during my field visit to Port Said.

Table 2: Interviewees

#	Pseudonym (Cohort)	Data Collection Method	Description
1	Beneficiary 1	In-depth interview	A woman in her early 30s, a master's student, and a resident of Port Said who lives in Cairo for work and educational purposes. Her enrollment in UHI is a result of her retired fathers' government pension.
2	Beneficiary 2	In-depth interview	A retired engineer, the mother of Beneficiary 1, and the wife and caretaker of a retired government employee who has been utilizing dialysis services in the old system and the new system.
3	Beneficiary 3	In-depth interview	A mother in her early 50s, lives between Port Said and Cairo, and is enrolled in UHI through her husband's membership. Her son is a PwD and goes to a neurologist through UHI.
4	Beneficiary 4	In-depth interview	A mother in her late 30s, and wife of a government employee who is enrolled in the UHI system. The family moves back and forth between Cairo and Port Said.
5	Beneficiary 5	In-depth interview	Retired pediatrician, previously employed in the legacy Health Insurance Authority, who has many social connections.

6	Beneficiary 6	Field visit	A woman over 60, with limited mobility, who was visiting the PHC unit for her routine diabetes check-up.
7	Beneficiary 7	Field visit	A man over 60, who had done blood tests and was visiting the PHC unit to get his results.
8	Beneficiary 8	Field visit	The wife of an independent worker, who was visiting the PHC unit for a dental appointment.
9	Beneficiary 9	Field visit	A woman in her late 20s, who was visiting the PHC unit to get a referral to the dermatologist.
10	Beneficiary 10	Field visit	The husband of Beneficiary 9.
11	Policymaker 1	In-depth interview	A senior official at the central office of GAHAR, in Cairo.
12	Policymaker 2	In-depth interview	A senior official at GAHAR's branch in Port Said.
13	Policymaker 3	In-depth interview	A senior official at GAH's branch in Port Said.
14	Policymaker 4	In-depth interview	A technical officer at GAH's branch in Port Said.
15	Policymaker 5	Field visit	A Survey Manager at the Patient Satisfaction Department in GAH's branch in Port Said.
16	Policymaker 6	In-depth interview	A senior official at the central office of GAH in Cairo, with previous experience in a senior position at the Ministry of Health.
17	Health worker 1	In-depth interview	Dentist, in his early 30s, and is the Manager of a Primary Healthcare Center 1 in Port Said.
18	Health worker 2	Field visit	Doctor, in her early 30s, and is the Manager of a Primary Healthcare Unit 2 in Port Said.
19	Health worker 3	Field visit	An employee at PHC Unit 2, in her 50s, sits on a desk near the beneficiaries' waiting area and enthusiastically goes around the unit to speak to beneficiaries about their experience and asks them to complete surveys.
20	Health worker 4	Field visit	Doctor, in her early 30s, and is the Manager of a Primary Healthcare Unit 3 in Port Said.
21	Health worker 5	Field visit	Nurse, in her 50s, who was walking around the PHC unit 3 with her tablet, to capture visiting beneficiaries' information, and was exhausted by the number of digital forms she had to fill out.

The in-depth phone interviews followed the same semi-structured interview guide, whereas the field visits were focused on understanding the utilization experiences as unfolded at the PHC

Units, with a focus on understanding the meaning behind different visual cues at the units, the roles of different individuals, and the experiences of beneficiaries on the day of the field visit.

Ten out of the eleven in-depth interviews were fully-recorded as audio files on my personal computer using anonymized serial codes that cannot be used to infer the identity of the interviewees. Additionally, during the interviews with policymakers I ensured not to mention their names during the recording process in order to further protect their anonymity, as per their requests. The eleventh in-depth phone interview occurred as a follow up after Policy Maker 6 had provided written responses to my interview questions. Thus, during that call, I captured Policy Maker 6's comments and clarifications via note-taking. During the field visit, all the interview data was captured in the form of field notes, which I later referred to during the coding process.

All the interviews, whether in-depth or during the field visit, were conducted in Arabic. I referred back to the recordings and field notes in order to translate the interlocuters' insights while ensuring that I translate their statements as accurately as possible to reflect their sentiments based on the precise wording they used in Arabic. The transcribed interviews were all saved on my personal computer in a manner that allowed me to complete the coding process.

4.3.2 Beneficiary Survey

In order to triangulate the sources of data further, I used a small-scale survey to examine the key drivers motivating beneficiaries' utilization of the UHI system. As such, the survey focused on asking beneficiaries about their age, household income, gender, employment status, their spending on healthcare and the savings that UHI utilization contributes. Additionally, the survey asks the respondent to rank the factors that are most influential in their decision to utilize the system. I used a convenience sampling method by handing out 17 surveys to beneficiaries in PHC Unit 1, as well as 13 beneficiaries in the waiting area at PHC Unit 2. In total the 30 respondents responded to the questions on age, gender, and utilization drivers. However, there was high non-response on household income, and healthcare cost savings, as most female respondents were unemployed and were unaware of these figures. Additionally, due to time constraints at PHC Unit 1, I asked the beneficiaries to merely focus on the questions about age, gender, and top utilization driver. These questions were also fully-answered by respondents in PHC Unit 2. Accordingly, the scope of analysis that is presented in the findings section covers the top utilization driver according the respondents.

4.3.3 Content Analysis

In order to understand the experiences of stakeholders during the first implementation of a national health insurance system in Egypt, I relied on Al-Ahram Digital Archive which provides accounts of implementation challenges during different phases of the policy's implementation. By analyzing news articles written by former heads of the Health Insurance Authority, independent contributors, and beneficiaries, I was able to gain an understanding of the issues that have plagued the health system as a result of its roll-out during its first three decades. I believe the significance of this analysis cannot be undermined, as present and future policy must be informed by the pitfalls of the past, and guided by its success as well. As such, I searched the Al-Ahram Digital Archive for articles on health insurance from the period of 1970 until 1994, and analyzed 22 news articles thematically to formulate the first sub-section of the Contextual Background chapter.

4.4 Data Analysis

Data collected from the field visits, in-depth interviews, qualitative surveys and content analysis were all analyzed using coding practices of qualitative research. An open-coding approach was used in the early stages of the data collection, by adopting a deductive coding approach in the first-stage analysis of the transcribed data. I simultaneously coded all interviews, which mixing and matching between different cohorts in order to ensure that I was considering applying new codes where that was warranted.

These diverse codes were then grouped into more coherent themes such as "public sector providers", "private sector providers", and "infection control" by following a deductive process as well. Then all the arising themes were grouped under three main inductive themes based on the literature on the layers of access to healthcare which are service availability, utilization and effectiveness. These themes are also aligned with the conceptual framework of this study which is anchored in the accessibility of the health insurance as a social protection system.

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4.5 Limitations

Overall, this methodology is meant to obtain valid and reliable data that can be used to generate predictive and generalizable findings to inform UHI Law implementation. While the research methodology incorporates triangulation of methods, data sources and contexts, it also has a few

limitations, mainly due to the short time horizon of this study. First, the interviews were conducted in specific medical units due to time and budget constraints. However, since this study examines overall characteristics of access, the focus on particular medical units should not affect overall beneficiary experiences drastically. It may be argued that the types of patients and challenges that medical staff face in different hospitals and health units, in other governorates, may be compounded by context-specific factors in these governorates, which would require further investigation. Finally, since Port Said is an urban governorate, and does not grapple with the complexities of the urban-rural divide present in other governorates, it is inaccurate to conclude that perspectives of stakeholders in Port Said are transferable to other governorates. While this limits the research's generalizability to specific experiences of populations in rural Egypt, there are common experiences that can be extrapolated to other contexts in Egypt, due to their embeddedness in the system's implementation processes.

4.6 Ethical Considerations

Conducting in-depth interviews with patients from underprivileged income groups requires a high level of sensitivity to the psychological and economic frustrations that may arise due to discussion of access to healthcare services. Additionally, I was cognizant of my positionality as a privileged, able-bodied, healthy female from Cairo as I spoke with participants, especially beneficiaries and staff. To mitigate this, the questions were constructed as not to do any harm unto the patients, and informed consent was requested for their participation. Additionally, in the face-to-face field visit, I was accompanied by fellow staff from the units, who were familiar with the patients and were able to ensure that they did not feel uncomfortable with my presence. Since all interviews were conducted in Arabic, transcription and translation were carefully performed in order to ensure that participants' accounts reflect their own sentiments and ideas rather that my own dispositions and interpretations. To ensure objectivity, I maintained field notes and reflections to serve as a separate repository of my views throughout the whole research process, thereby employing researcher reflexivity as recommended by Creswell and Miller (2000). Finally, obtaining IRB approval was essential to ensure that subject matter experts, with extensive research experience, approved the used methods.

5 POLICY BACKGROUND ON HEALTH INSURANCE IN EGYPT

This chapter examines some of the implementation challenges of Egypt's first attempt at adopting a national health insurance system in the 1960s. It illustrates the politics informing the social and health reforms in Egypt, then delves into the public policy debates that surrounded these reforms. The next sub-section introduces Egypt's renewed commitment to health policy reform by passing the Universal Health Insurance Law in 2018. And the following sub-section gives an overview of the key government agencies driving the law's implementation.

5.1 The History of Health Insurance in Egypt

5.1.1 The Evolution of Government Policies

The post-1952 revolution era in Egypt marked the beginning of a new social contract. Led by Former President Gamal Abdel-Nasser, the government sought to rebuild Egypt's national identity as an Arab state, part of a larger regional fabric, after the fall of the monarchy. This started with the establishment of the United Arab Republic of Egypt and Syria in 1958 (Vatikiotis, 1962). Additionally, Nasser sought to reshape government social protection policies by embracing Socialist ideals, and to reverse the impacts of imperialism (Vatikiotis, 1962). These ideals contributed to the birth of contributory and non-contributory social protection systems in Egypt, and have continued to shape government policies since then. Thus, it is critical to understand the history behind the emergence and evolution of health insurance policies in Egypt, as we critically examine the present policy landscape. I have chosen to collect these insights from Al-Ahram Newspaper's digital archive, which is the Middle East's oldest daily newspaper and was a private newspaper prior to its nationalization in 1952 (Al Ahram Establishment, n.d.; Media Ownership Monitor, n.d.).

Pre-1952, the government of Egypt did not prioritize establishing any form of health insurance scheme to protect the most vulnerable, low-income households from the financial hardships induced by illness (Al-Ahram, 1970). However, 1959 marked the state's first attempt to protect the working class from the financial burdens of healthcare, by issuing the Labor Law of 1959 (Al-Ahram, 1970). This law mandated that workers in large companies, constituting of more than 500 employees, have a right to health coverage by their employers (Al-Ahram, 1970). However, this coverage remained unequitable as service provision was subject to approvals by employers, which often involved favoritism and nepotism (Al-Ahram, 1970).

In July 1961, just a few months before Syria seceded from the United Arab Republic, Nasser passed a number of socialist laws aiming to reignite the spirit of the socialist revolution in Egypt and accelerate social reform (Vatikiotis, 1962; Al-Ahram, 1970). These reforms included the nationalization of various, mostly industrial, companies (Al-Ahram, 1970). This move indirectly introduced a new mandate for the government, as it found itself obliged to provide the health coverage that the formerly-private employers were extending in accordance with the 1959 Labor Law (Al-Ahram, 1970). As such, the 1964 Health Insurance Law number 62 was passed, as well as a Presidential Decree establishing the Health Insurance Organization (HIO), under the supervision of the Ministry of Health, as the body mandated with implementing the system (Presidential Decree, 1964). HIO was to become the service provider, payer and auditor, simultaneously (Presidential Decree, 1964). HIO's legal mandate as provider included establishing medical facilities, contracting or renting private facilities, availing drugs for beneficiaries, partnering with pharmacies, and determining the salaries of the health sector workforce (Presidential Decree, 1964). This law covered public sector employees, which were defined as those employed in government, public authorities, public enterprises, and local administration (Presidential Decree, 1964). However, the law's implementation adopted a phased approach, with the pilot program starting in the governorate of Alexandria, which was selected based on its financial and human resources' readiness (Al-Ahram, 1970).

The phased implementation was not only geographically-based, but also categorical in terms of the beneficiaries who were prioritized. Laborers *('ommal)* of Alexandria's state-owned enterprises were the system's first beneficiaries, followed by the greater Cairo region as it had a large pool of laborers as well (Al-Ahram, 1970). The next three decades witnessed the expansion of the beneficiary pool to include government employees, pensioners, railway employees, and later school children (Al-Ahram, 1970-1994). This can be attributed to the continued political commitment to the system by President Sadat following his predecessor's death, as well as President Mubarak, especially during the first decade of his presidency (Al-Ahram, 1982). The system was contributory in nature, whereby contributions were deducted from employees' and pensioners' monthly salaries and pensions, and allocated to HIO. Furthermore, the government depended on deducting contributions from children's school fees to cover that particular segment of beneficiaries. Government budgets were also part of the system's financing mechanism through various earmarked taxes, which included sin taxes on cigarettes (Al-Ahram, 1970).

Throughout the first decade of its roll-out, the law was framed in a socialist light, as a part of the "socialist transformation" in the healthcare sector; and a natural outcome of the government's commitment to protecting the *'ommal*, who are the backbone of the state's productivity and economic prosperity (Al-Ahram, 1970). The principle of solidarity and equality was also emphasized, as the system shifted access to healthcare from an income-based privilege afforded only by the wealthy, to a rightful need-based entitlement for all citizens covered by the law regardless of their socio-economic status (Al-Ahram, September 1971). In later years, public discourse on the cost of care, and efficiency of the system became more pronounced, marking the shift from a purely socialist worldview to one influenced by neoliberalism (Al-Ahram, July 1994).

5.1.2 Public Policy Debates Around Health Insurance Implementation in Egypt

Since its implementation in Egypt, the national health insurance system has been a subject of interest among the general public. Perhaps, most relevant to this research are the articles that shed light on the opinions of the various stakeholders who were contemporaries of the time witnessing the evolution of the system. The implementation challenges voiced by these diverse groups, have remained consistent from 1971 to 1994, and can be thematically categorized into four groups: governance challenges, financial sustainability of the system, attrition of competent medical staff, and deterioration in service quality.

Governance Challenges

In 1971, it was noted that after five years of the law's promulgation, the system required some reforms (Al-Ahram, September 1971). Furthermore, it was recommended that the Ministry of Health plays a regulatory and supervisory role, without intervening in service pricing. Payer-provider separation was recommended so that the public insurance scheme remains available to citizens, but service provision would remain within the purview of other public and private healthcare providers, independent of HIO. In fact, at the time, Egypt had three types of providers: public organizations providing free services, private facilities, and facilities providing insurance-based care. Accordingly, it was recommended that the government establishes a 'Higher Council for Health Services' to oversee these organizations and ensure policy coordination. However, gradual roll-out of the national health insurance system was recommended so as to shift all organizations to insurance-based in the long-run, as coverage expands in the country.

This perspective was echoed in 1983 and 1994 (Al-Ahram, November 1983; Al-Ahram, July 1994). In 1994, Al Ahram featured the opinions of medical doctors on the state of the healthcare system in Egypt. One doctor reiterated that the government should assume the role of payer and regulator. While another conveyed that all insurance systems with a unified payer-provider structure have failed, as accountability is jeopardized in these systems (Al-Ahram, July 1994). The merging of the payer and provider functions in Egypt have led to what the doctor refers to as a "cancerous outgrowth in HIO" from an administrative perspective (Al-Ahram, July 1994). Furthermore, the lack of separation of duties has contributed to the inefficient allocation of HIO's funds, which was reported to have 200 million EGP in surplus in the 70s, and instead of investing them in a fund they were allocated to construction projects of healthcare facilities (Al-Ahram, July 1994). In a system where the payer and provider are distinct organizations, these funds would be invested to cover beneficiaries' cost of care, while the providers allocate their own budgets towards expanding their footprint.

A third doctor was concerned due to the lack of an overarching "philosophy" or framework governing the healthcare system in the post-1964 era, as health providers were driven by socialist ideals in the past, but hadn't coped with the need to transform to economically-driven organizations (Al-Ahram, July 1994). In fact, he recommends that the state's role in the health sector should be limited to providing preventive care, treating endemic diseases, setting the overall public health strategy, setting public health systems, and determining low-income and vulnerable groups who should benefit from social assistance (v). Additionally, he believes that the government should engage with providers on a contractual basis in order to spur competition among the different providers, contain healthcare costs, and ensure performance monitoring (Al-Ahram, July 1994).

Another concern was the fragmentation of the health insurance system due to the various legislations governing its provision to public sector and private sector employees in Egypt (Al-Ahram, July 1994). In 1971, Al Ahram reported that efforts were underway to establish a unified regulation to serve as a common framework for public and private sector beneficiaries, which was estimated to lead to 24 Million Egyptian Pounds in productivity gains for the national economy (Al-Ahram, September 1971). However, this unified framework never materialized until the 2018 Universal Health Insurance law was passed.

Financial Sustainability of the System

From the first years of its implementation, there was recognition that successful implementation of a national health insurance system requires sustained political will, strong public awareness, as well as a consistent flow of financial resources (Al-Ahram, August 1970; Al-Ahram, September 1971). However, several factors have afflicted the system's financial sustainability and contributed to the persistent deterioration in quality of care, as will be presented in the next sub-section. The first challenge is a natural outcome of the dual payer-provider role that HIO has played, which has led to criticism of the organization's investment decisions. This is demonstrated by concerns over HIO's channeling of its 200 Million Egyptian Pounds surplus towards investments on establishing healthcare facilities, instead of investing those funds (Al-Ahram, July 1994).

This operating model left HIO with two inherently conflicting organizational objectives: to expand access to healthcare by spending on facilities, staffing, and medication; but also, to ensure that it was collecting enough contributions to warrant this spending. However, contributions, insurable income and eligible beneficiaries were set by law and HIO did not have the autonomy to change these parameters. In 1983, the National Democratic Party's (NDP) health committee recommended that the government introduces some parametric reforms by considering adding a 50% co-payment to the cost of care, in light of the reduction in funds allocated to the Ministry of Health and HIO from the national budget (Al-Ahram, April 1983). The NDP justified this recommendation on the basis that HIO would be incapable of serving its 2.75 million beneficiaries otherwise, due to financial deficits (Al-Ahram, April 1983). But the idea of increasing contributions or introducing co-payments was later criticized by the Egyptian Trade Union Federation, who conveyed their uncertainty on whether the system's financial hardships are indeed because beneficiary contributions are limited, or rather a function of HIO's poor investment decisions (Al-Ahram, December 1983).

More than ten years later, financial sustainability continued to be one of the concerns voiced in the news. One doctor expressed his concern by pointing out that HIO's resource pool had not changed since it began in 1964 with 144,000 beneficiaries, until 1994 when it had reached 5.5 million beneficiaries (Al-Ahram, 1994). And although beneficiary contribution rates had already increased by law from 1% to 3% of insurable income, he noted that no increases in contribution rates or insurable income would be able to compensate for the rising cost of care and HIO's dwindling resources (Al-Ahram, July1994). Nevertheless, he also

claimed that the lack of co-payments on medications was adding strain to HIO as many patients were requesting subscriptions, and doctors did not have a disincentive to oversubscribe medication (Al-Ahram, July 1994). In fact, this doctor pointed out that cost of medication amounted to 65% of the total cost of healthcare for every beneficiary in Egypt, whereas this rate did not exceed 20% in the U.S., which he used as a benchmark (Al-Ahram, July1994). On the other hand, socialist political parties such as the Arab Democratic Nasserist Party were heavily opposed to any legislative changes that would increase contribution rates or co-payments (Al-Ahram, July 1994).

From the beneficiaries' perspective, one pensioner wrote a complaint through Al-Ahram in the same year, expressing his concern that the cost of medication had increased 50-fold (Al-Ahram, June 1994). This was further exacerbated by the fact that pharmacies within the national health insurance system had suspended dispensing medications to all beneficiaries until HIO was able to pay its outstanding debts to them (Al-Ahram, June 1994). The pensioner ended his complaint with the Egyptian proverb "El-Darb fil Mayyit Haram", which translates to "beating the dead is proscribed", an allusion to the overall living conditions of Egyptian citizens at the time.

Medical Staff Attrition

The first five years of health insurance implementation were defined by the beneficiaries it targeted. As such, discussions related to medical staff were concerned with the extent to which medical staff should have sectoral experience in work-related injuries and occupational illnesses in order to preemptively treat workers (Al-Ahram, August 1970). However, as the system's roll out proceeded, attrition started surfacing as a major challenge. It was primarily attributed to the remuneration structure within the health insurance system, which was pushing doctors to work for private hospitals where they could earn a better income (Al-Ahram, July 1994; Al-Ahram November 1983). Furthermore, the brain-drain among doctors had started as early as 1982, as one of the key challenges that the Ministry of Health was grappling with (Al-Ahram, 1982). And shortages of medical staff across most specializations was prevalent in rural governorates (Al-Ahram, November 1983).

Overall, the effects of this phenomenon not only lead to the deterioration in service quality, but also made the urban-rural divide in Egypt more pronounced. For example, when the government sought to expand coverage to all 10 million K-12 students in Egypt, its plans were delayed for the 2.3 million students residing in villages and rural areas, due to shortages

in the availability of medical staff (Al-Ahram, July 1994). While the government resolved this issue by contracting with private provider and availing mobile clinics, it did not address one of the disincentives that was known to doctors at the time (Al-Ahram, July 1994). Initially, the government had indicated that doctors participating in the health program at schools would be paid 500 Egyptian Pounds per month and permitted to have their private practice, which served as a financial incentive for doctors (Al-Ahram, July 1994). However, having dual practice was later rejected by Egypt's Central Agency for Organization & Administration, and the government did not change doctor's remuneration scheme to resolve this disincentive (Al-Ahram, July 1994). As such, this compounded the existing inequities in access to healthcare services in rural Egypt, which the 1952 regime aimed to correct when health units were established in villages for the first time (Al-Ahram, July 1994).

Deterioration in Service Quality

The structural challenges presented have all directly and indirectly led to a deterioration in service quality. This was compounded by the accelerated roll-out of the health insurance system without necessary evaluations of the system's effectiveness, and shortfalls in order to take corrective measures. These concerns were raised by key stakeholders including doctors, and beneficiaries represented by the Egyptian Trade Union Federation (ETUF) (Al-Ahram, 1970-1994). ETUF had urged government authorities to assess implementation before proceeding, but were surprised with the rushed roll-out that surpassed HIO's capacity (Al-Ahram, November 1983). The head of ETUF further noted that the federation had established a specialized health taskforce to conduct an investigative study on service quality, including the number of beds in facilities and their adequacy, as well as the adequacy of healthcare services and their relevance to beneficiary needs especially workers (Al-Ahram, December 1983).

More opinions suggested that a comprehensive evaluation of the quality of care was necessary before extending coverage from 2.7 million beneficiaries in 1982 to 5.5 million in accordance with the government's 5-year plan at the time (Al-Ahram, November 1982). It was suggested that the evaluation assesses the number of facilities, number of beds per facility, wait times, medical staff's behaviors and conduct, as well as the "*strange*" policies governing the dispensing of medications (Al-Ahram, November 1982).

From the stakeholders' perspective, the conduct of doctors in the health insurance system was sometimes questionable. For example, in 1982 there was a complaint on the attitudes of

doctors who conduct home visits to patients who had performed operations at their private expense or at the expense of their employer. These patients request a home visit from national health insurance doctors, so that they can receive the needed certification for their paid sickness leave. However, one person reported that doctors are often skeptical of these patients who have "*escaped*" the insurance system, yet want a certification (Al-Ahram, November 1982). Doctors may go as far as to harshly peel off the patient's bandages to verify that they are truly ill (Al-Ahram, November 1982). Furthermore, beneficiaries had a perception that doctors were insensitive to their financial capabilities, and were prescribing medications sold by the pharmaceutical company whose sales representative had last visited the doctor (Al-Ahram, July 1994).

Overall, the quality of care deteriorated to an extent that the financial cost of care was no longer the key barrier to access, which was the impetus for Nasser's social reforms. In 1983, it was reported that the cost of private healthcare was "*beyond the means of humans*" and public hospitals were no longer capable of treating people (Al-Ahram, November 1983). The Egyptian Medical Syndicate attributed this decline in quality to the system's failure in maintaining the minimum quality standards defined in the Ministerial Decree 140 of 1976 (Al-Ahram, November 1983). As a result, the syndicate pointed out that the quality of service had become "*incommensurate with beneficiaries' human dignity*" (Al-Ahram, November 1983).

Ten years later, this had not changed, with the following headline appearing in 1994 "*Healthcare and health insurance… amidst the jungle of diseases and the flame of prices*" (Al-Ahram, July 1994). Interestingly, the deterioration in quality of service was not a function of the healthcare system's overutilization. When asked "*what does the capacity utilization rate of 50% or less in hospitals indicate? Do we no longer have patients? Or are they incapable of bearing the cost of service?*", a doctor responded "*it means there is inefficient resource allocation in Egypt… public hospitals' service quality is a barrier to access, and private hospitals' high costs are beyond the means of average citizens*" (Al-Ahram, July 1994).

Despite government attempts to engage with system stakeholders, there seemed to be ongoing discontent with the system, suggesting that the government was not truly listening to stakeholders perhaps, or taking corrective actions. For example, in October 1982 headlines surfaced about former President Mubarak's meeting with labor leaders "*qeyadat 'omaleyya*", to discuss social issues including health insurance implementation (Al-Ahram, October 1982). Shortly after that meeting, an Ahram article titled "*Health Insurance… delight and agony*"

urged the government to listen first to the many stories of delight and agony that health insurance beneficiaries have, before proceeding with the system's roll-out (Al-Ahram, November 1982).

Some doctors had recommendations to improve the quality of care, including the need to manage hospitals as economic organizations that prioritize cost containment (Al-Ahram, July 1994). Additionally, prioritization of expanding the pool of general practitioners was viewed as a key measure (Al-Ahram, July 1994). More doctors called for the need to embark on modernization projects that would enable digital integration between service providers, especially given that the government was already developing a modern national ID system at the time (Al-Ahram, July 1994). Finally, another view highlighted that healthcare sector in Egypt was missing a "*centralized brain that has data and information*" that would enable the government to make data-informed decisions based on demographic trends and citizens' diverse needs in different geographic locations. Perhaps the lingering question throughout the past decades is captured by one of Al Ahram articles' sub-heading *"the healthcare market in Egypt… chaotic or reparable?"* (Al-Ahram, July 1994). Given the new attempts to reform the healthcare market in Egypt in 2018, it remains open to research and investigation whether how the landscape will change for citizens.

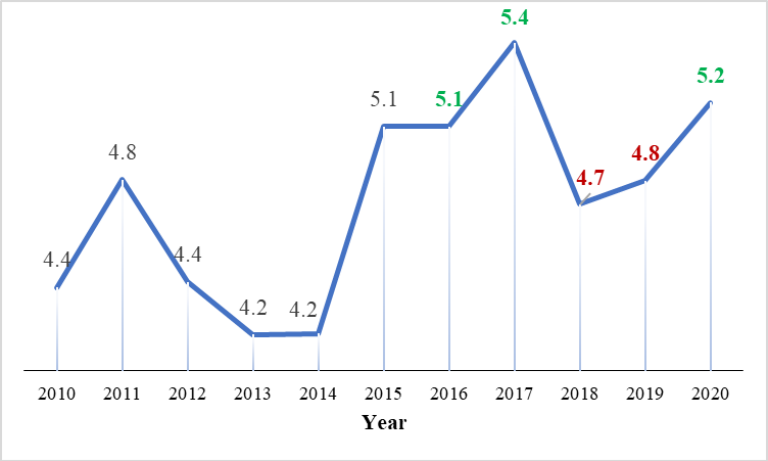
5.2 Renewed Commitment to Healthcare: The New 2018 Legislative Framework

In 2016, Egypt formulated the Sustainable Development Strategy 2030 (SDS) in line with the UN SDGs. Egypt's SDS included a pillar on healthcare with six main objectives, and a number of sub-goals and target key performance indicators (Ministry of Planning, 2015). These objectives include enhancing health governance, by relying on accountability measures at all levels of care, including the implementation of electronic medical records (EMRs); improving public health indicators such as the usage of tobacco and prevalence of addiction; enhancing the safety and quality of healthcare services including the proper disposal and management of health waste; boosting government investments on health to 5% of government expenditures especially primary and preventive healthcare; improving equity in health outcomes by targeting some of the social determinants of health; and availing universal access to affordable, quality care (Ministry of Planning, 2015).

Perhaps the most relevant pillars to this research are the targeted increases in government spending on health, and the government's commitment to expand universal access to

healthcare. World Bank data suggests that the government delivered on its spending commitment in 2016 and 2017, and then missed the 5% target, only ramping up spending again in 2020 during the COVID-19 pandemic, as shown in Figure (2).

Figure 2: Government Spending on Health as a Percentage of General Government Expenditures



As for the universal access element, Egypt's SDS sets specific targets to improve the availability of health facilities, reduce wait times, enhance equipment and medication availability, reduce OOP and catastrophic OOP expenditures, expand private sector engagement opportunities, and invest in training and retaining the health workforce.

To operationalize the access pillar of the SDS health objectives, the parliament promulgated a new Universal Health Insurance (UHI) Law 2 of 2018, in January. The UHI Law seeks to improve access to healthcare by setting a new unified legal framework to tackle the challenges of access and quality of healthcare more holistically. Prior to its promulgation, healthcare regulations in Egypt were fragmented among a number of laws. However, once the UHI law comes into effect, nation-wide, eight other laws, which included citizen entitlements to healthcare services such as the labor law, will be repealed (UHI Law, Article 3).

The UHI law defines its beneficiaries as encompassing of all Egyptians residing in Egypt, excluding Armed Forces personnel and their families, who receive care in accordance with different regulations (UHI Law, Article 1). In defining its scope, Article 2 indicates that the law covers primary, secondary and tertiary care across various specializations. Public health, preventative care, family planning, crisis and epidemic health services are granted to all citizens at no expense, regardless of citizen's enrollment in the UHI system. Chapter 1 of the

law outlines these services which will remain fully-funded and provided by the government, through the Ministry of Health.

As for its implementation, the law sets a gradual roll-out plan over six phases. Each phase corresponds with a different geographic region in Egypt, composed of a mix of governorates. Additionally, quality and efficiency of healthcare facilities will be revamped gradually in every one of the six regions, before implementation of new UHI system according to accreditation requirements. Until implementation of the new UHI law, current laws will apply to the governorates where implementation has not started.

The first phase of implementation includes the governorates of Port Said, Suez, Ismailia, South Sinai and North Sinai, which is also the order of implementation in these governorates. Whereas the Greater Cairo region (Cairo, Giza, Qalyubia) is in the last phase. According to CAPMAS, 2017 Egypt population data indicate that while the population of Port Said was around 750 thousand citizens (less than 1% of the population), the Greater Cairo region accounts for approximately 25% of the Egyptian population (2019). Additionally, the implementation timeline, as stated in the Executive Regulations (Cabinet of Ministers, 2018) implies that this process will continue until the end of year 2032.

5.3 Key Government Institutions Governing the 2018 New UHI System

The law establishes three new regulatory authorities in Egypt to manage and reform the healthcare system. These administrative bodies are the Universal Health Insurance Authority (UHIA), the General Authority for Healthcare (GAH), and the General Authority for Healthcare Accreditation and Regulation (GAHAR) (UHI Law, Article 4,15,27).

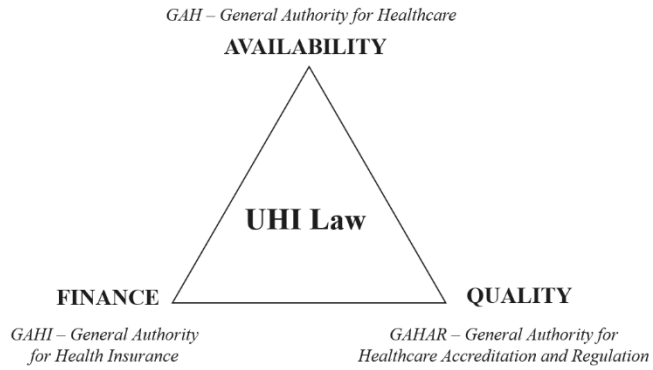
UHIA is affiliated with the Cabinet, and overlooks the actuarial and financial aspect of the healthcare system, whereby it is responsible for collecting mandatory contributions from employers and citizens, except for legally exempt citizens, in order to ensure the financial sustainability of the health insurance system (UHI Law 2018, Article 4-10). UHIA is also mandated to establish a database of all beneficiaries, that is to be integrated with the databases of the Social Insurance Organization and the Civil Status Organization, among others (UHI Law, Article 47). This allows UHIA to have a 360-view of its beneficiaries and maintain detailed records.

GAH is affiliated with the Ministry of Health, and is responsible for the enrollment of public and private universities in the UHI system (UHI Law, Article 15-23). Additionally,

GAH can establish its own hospitals, healthcare units and other medical service outlets, as well as pharmacies. GAH is meant to foster public-private collaboration in the healthcare system and enrich the ecosystem of providers. GAHAR is under the supervision of the President of Egypt, and is responsible for ensuring quality of healthcare, continued improvement of services in line with international standards, as well as accreditation of hospitals and medical staff in the UHI system (UHI Law 2018, Article 26-36).

The contribution of each government authority in improving access to healthcare, within the framework of the UHI Law, can be visually summarized in the below figure.

Figure 3: UHI Government Authorities and their Role in Access to Healthcare



Source: Constructed by Researcher based on Law No. 2, 2018 (GoE)

6 RESEARCH FINDINGS

This research aims to develop an understanding of stakeholder's perspectives on UHI implementation in Port Said, Egypt, guided by three research sub- questions detailed in the introduction on beneficiary's service utilization experience, medical staff ad health worker's perspectives on service availability, and perspectives on meeting healthcare utilization needs. To address these research themes, the present study employed a theoretical framework informed by Implementation Science Research, which is designed to analyze the contextual factors that influence the implementation of the Universal Health Insurance (UHI) policy in Port Said, as well as the experiences of the stakeholders involved in this process. The research utilized content analysis to decipher the qualitative insights that were derived from in-depth interviews and observations.

The findings are divided into three main subsections that simultaneously reflect UHI implementation from an institutional perspective, as well as its effects on Port Said's beneficiaries' access to services, by qualitative insights from all cohorts in every subsection. The first subsection on service availability presents how the UHI law's implementation is changing the landscape of service providers, and shaping choices for beneficiaries. The next subsection unpacks drivers of service utilization by beneficiaries and ways in which the UHI system has simplified or complicated those experiences of access. The last subsection explores what service effectiveness may mean in the context of the newly-implemented system, informed by qualitative survey results from beneficiaries as well as beneficiaries' accounts.

6.1 Service Availability

The first implementation milestone of the UHI policy is concerned with service availability, in terms of ensuring that the physical buildings, equipment, hospital beds, medication, nursing staff, physicians, and technicians. This milestone also reflects the first layer of accessibility to health care services. Given Egypt's current landscape of public and private providers, the UHI system will ultimately become the single payer within a multi-provider landscape. Thus, when UHI enters into effect in a governorate the General Authority for Healthcare (GAH) is responsible for hiring personnel, certifying them from the General Authority of Healhcare Accreditation and Regulation (GAHAR), and ensuring that any infrastructure requirements are fulfilled in order for the facility to obtain certification. On the other hand, private sector providers are responsible for conducting that process themselves, including obtaining both types of certification: personnel, and facilities.

6.1.1 Public and Private Providers' Infrastructure

The government's announcement of UHI implementation in a specific governorate leads to the unfolding of several procedures. The first is that the Ministry of Health (MoH) commits to revamping its health units, hospitals and other non-public health or preventative-services, state-owned facilities within the governorate, ahead of handing over these assets to GAH. Public health and preventative care facilities are excluded out of this asset-transfer process, as they remain within the purview of the Ministry of Health, and are funded through the state budget. Whereas assets handed over to GAH become under the sole ownership and management of GAH, which has financial autonomy as an independent legal entity. The overhaul process includes infrastructure upgrades, rehabilitation of old buildings, as well as investments in medical equipment, following a set of guidelines and standards that GAHAR issues. This process was described by Policymaker 3 as follows:

> *The Ministry of Health is responsible for revamping hospitals, units, and centers and hands over these facilities to GAH, with a decent infrastructure. Then GAH establishes the administrative structure for these entities, improves their existing human resources, pays their wages according to pay grades that are in the GAH's executive regulations. And then we start operating these facilities, to register the hospitals and get accreditation. – Policymaker 3, July 2023*

The facilities that GAH manages include Primary Healthcare (PHC) units and centers, as well as hospitals that provide secondary and tertiary care. One of the main changes in this new system, is the shift towards a tiered healthcare system that places family doctors at the center of the healthcare provision landscape. The logic behind this is captured by the senior official at Port Said's GAHAR:

> *The Health Unit has family doctors, a dentist, radiology lab, and some offer services like family planning, and awareness campaigns. The units provide primary care, and we've set the system up this way because we want to reduce traffic at hospitals. Because a lot of people who simply wanted to check their blood pressure etc., were going to hospitals. So, the monthly follow-up on diabetes or high blood pressure for example can now be done through the health unit. – Policymaker 2, May 2023*

This change was necessary in view of the high levels of strain that was placed on secondary and tertiary care facilities in Egypt, prior to the implementation of the UHI system, which reduced patient satisfaction according to the historical background detailed in Chapter 5. This model also allows PHC units to act as a form of gatekeeper to contain health costs, by ensuring that only severe cases are receiving highly-specialized, and costly care. Whereas routine check-ups can be handled through the more geographically-distributed PHC units. This is especially important given the high incidence of chronic Non-Communicable Diseases (NCDs) which account for 82% of deaths and 67% of pre-mature deaths in Egypt, according to the WHO (WHO, 2023). As such, having physically-accessible spaces to conduct routine checks is indispensable to availing effective access to healthcare services. Thus, the geographic distribution of health facilities, especially PHC units, is a critical element of the service availability dimension of access to care. This foundational level of availability is also recognized within GAHAR's standards, which the senior official at Port Said's GAH highlights:

> *The first thing is we divide beneficiaries and affiliate them with a particular health unit based on its geographic proximity. According to the standards as well, there should be 1 family doctor for every 5,000 beneficiaries. This is like the system in the UK and elsewhere. – Policymaker 3, July 2023*

The mapping of beneficiaries' accessibility to health units, and family doctors was also acknowledged by several beneficiaries who attributed this proximity to Port Said's relatively small-town, walkable nature. For example, Beneficiary 1 noted:

> *There's something called the geographic distribution, where I'm in the Eastern district…So I'm affiliated with the El-Arab Health Unit in July 23rd Street, which is the closest to my place of residence. Locations are generally very close from one another. Port Said is a small town, you can drive all around Port Said in thirty minutes… Port Said is urban and is generally very safe to get around. – Beneficiary 1, April 2023*

This mapping of beneficiaries across primary care facilities is coined an 'empanelment' within health insurance literature, and is one of the key practices in managing population health (Bearden et al., 2019). Beneficiary 2 also noted that "*Port Said has eight districts and we're all divided based on the units closes to our district*". The same sentiment on proximity was

echoed by Beneficiary 4, who upon being asked about how she learned of the new system, responded as follows:

> *I learned about the new system from TV and the internet, plus the nearest unit is only two blocks away from my house. Everyone knows about the new system. – Beneficiary 4, June 2023*

The infrastructure upgrades are a mandatory first step in order for health providers to finalize their registration at GAHAR, which is the quality gatekeeper that maintains full discretion over determining the service providers eligible for entering a contractual agreement with UHIA, from a quality-of-service perspective. While the revamp process described above was completed for previous MoH-affiliated facilities in Port Said, the UHI system does not restrict service provision to public sector providers only. As a matter of fact, the UHI system can be described as a single-payer, multi-provider system in which UHIA is the sole payer for healthcare services, but the providers may be the public sector providers affiliated with GAH, or private sector providers. Thus, the only condition for providers' enrolment in the system is their ability to register with GAHAR and receive accreditation. However, Port Said's healthcare landscape is largely dominated by public sector providers, and private sector providers seem to be facing several challenges in registering with GAHAR. According to GAHAR's published data, only one private sector pharmacy and four private test labs have been accredited in Port Said. The remaining providers, including hospitals, and PHC units are wholly public sector facilities affiliated with GAH.

Provider-accreditation is mandated in the UHI Law of 2018 (Article 36), for both public and private providers, with a three-year ultimatum that starts with the announcement of UHI roll-out in the governorate. However, this mandate's implementation is only enforced on public sector providers, due to political leverage. Whereas there is no existing mechanism, in the law, or in practice to enforce accreditation upon private sector providers who may face challenges or limited incentives to get accreditation. The reasons behind this public sector domination in Port Said, was attributed to several reasons, namely: accreditation requirements and UHIA's cost-saving incentives. The next sub-sections unpack the comparative advantages of public sector providers in Port Said, and the barriers hindering private sector participation in Port Said.

6.1.1.1 Public Sector Providers' Domination in Port Said

The size and scale of public sector providers that GAH oversees, depends on the number of providers that were previously affiliated with the Ministry of Health (MoH), and were part of the asset-transfer to GAH. In Port Said, this was described by the Policymaker 3:

> *GAH is the one responsible for the delivery of health services, whenever a governorate is added to the roll-out plan, all of the hospitals that are affiliated with the Ministry of Health automatically become assets of GAH…regardless of which entity within the Ministry of Health they were affiliated with before whether the Specialized Medical Centers (Amanet El Marakez), the Health Affairs Department (Edaret El Sho'oon El Seheyya), Educational Hospitals (El Mostashfayat El Ta'limeya), or Mental Health Hospitals (El Seha El Nafsiya) later on but not in Port Said. – Policymaker 3, July 2023*

These entities all represent curative organizations, whereas the preventative or public-health-related resources will continue to be managed and funded by the MoH. This delineation in the roles and responsibilities of the MoH and GAH is defined by the law and in Port Said this manifested as follows, according to the senior official from GAH:

> *GAH has oversight and management over all the [public] hospitals in Port Said, except for the Port Said Fever Hospital (Mostashfa El Homiyat), and the Port Said Chest Hospital (Mostashfa El Sadr) because these are considered preventative care hospitals, and the law did not mandate those. Also, ambulatory services, preventive health, epidemic services and health crises-related facilities are the responsibility of the Ministry of Health, whereas GAH is responsible for the rest. So, we have 9 hospitals and 35 units and centers that are affiliated with GAH in Port Said. The units and centers are 35, and they deliver 80% of all health services. The remaining 20% are delivered through hospitals for secondary and tertiary care. – Policymaker 3, July 2023*

During the field visit, GAH officials noted that some of the 35 units were new constructions specifically established to increase the PHC footprint in Port Said, whereas other units were old revamped units. The overall investments on GAH providers' infrastructure in Port Said partly reflects the power and comparative advantage that public sector providers have. The senior official from GAH noted:

The 9 hospitals were all affiliated with the Ministry of Health, and they were all revamped and fully-equipped through the Ministry of Health, with total investment of 7.6 Billion EGP, including medical and non-medical equipment for 1.4 Billion EGP, and infrastructure for 5.6 Billion EGP. – Policymaker 3, July 2023

Beneficiary 1 recounts her experience with the infrastructure upgrades at one of the old hospitals in Port Said that was revamped and notes the positive change, as she witnessed it before and after its rehabilitation:

Old hospitals in Port Said were built based on old Greek architectural style similar to the style of the Deliverande Hospital… they are like school buildings in some ways. They did not have waiting areas, and only had one registration window for entry so the lines were extremely long. The orthopedist's clinic was in the third floor for example and the hospital did not have an elevator, which is absurd because if you're going to an orthopedist you're barely even walking [let alone can climb stairs]. The design of the whole service was very messy... you'd find people sitting on the floor because there were no proper waiting areas with chairs. If you want to receive a service, you keep going around the building, upstairs, downstairs, and upstairs again... you just run around. Whereas now it's different. Of course, the building is still the same as a structure but it has been rehabilitated. All the walls have been painted, and the flooring has changed in order not to attract so much bacteria, and there are good chairs. There's air-conditioning now in the building, whereas before there wasn't even a fan. In the old system the buildings used to have a fire detector, but I'm sure it wasn't working because if it was, it would have detected the fumes from our overheated bodies because of how hot the buildings were (says sarcastically). – Beneficiary 1, April 2023

The overall changes in infrastructure and their impact on beneficiaries' satisfaction and utilization of the new UHI system will be elaborated on in the next section. Following the infrastructure revamp process, which is necessary to register at GAHAR, service providers must work through over a thousand requirements which need to be embedded in the providers' operations, including: certifying their personnel, and maintaining certain performance metrics. This process is supported by technical teams from GAHAR who support organizations in conducting technical assessments of their pre-accreditation infrastructure and capabilities, in relation to GAHAR's target standards. This gap analysis, based on the observations of

GAHAR's technical teams, enables service providers to form an action plan to attain certification. The senior official from Port Said's GAHAR describes this process as follows:

> *We have a department dedicated to Technical Support for Service Providers, and its role always comes in before a service provider is accredited. This is a free service that GAHAR offers to help them perform a technical assessment of their status quo. We work with the service provider's management on this, so that they know where the gaps are, and the provider can work on addressing them. – Policymaker 2, May 2023*

This process also varies by the scope of service offered by the provider. PHC units, pharmacies, test labs, radiology labs and hospitals all have different requirements according to GAHAR's book of standards. The senior official from GAHAR notes:

> *The standards are fixed for both public sector and private sector facilities. However, the standards themselves differ by the type of facility. Hospitals are different from, PHC units, pharmacies, ambulatory services, private practice clinics, mental health hospitals, and labs. So, the standards are different to account for the variance in the types of activities within each facility, but at the end of the day the public sector and private sector face the same standards. – Policymaker 1, April 2023*

While this policymaker notes that standards vary by provider type, and are equal across the public sector and private sector providers, the private sector in Port Said is at a disadvantage when it comes to implementation.

6.1.1.2 Private Sector Providers' Enrollment Challenges in Port Said

GAH's competitor, once the UHI system is fully-implemented will eventually be the private sector. However, in Port Said, GAH has full hegemony over the healthcare market. In fact, this was pointed out during my field visit, as I walked past a pharmacy with the Technical Officer from Port Said's GAH (Policymaker 4) and his colleague from the Patient Satisfaction Department at GAH. The technical officer noted that the pharmacy had shut down, and that a lot of private pharmacies in Port Said were following suit because they are losing large sums of business. He spoke with a sense of victory, which can be rationalized on the grounds of his organization gaining market advantage over its competitors. However, from a policy-perspective integrating private sector providers in the UHI system is not only one of the law's

mandates, but is also essential to ensuring the availability of more diversified service providers to beneficiaries.

Limited Scale and Financial Capabilities

The limited participation of private providers in Port Said can be attributed to two reasons: scale and capabilities. First, the private sector in Port Said is small in size and scale, in comparison to GAH, as the senior official from GAH pointed out:

> *There are two private hospitals in Port Said, and a third that is affiliated with the Church, called the 'Deliverande Hospital'… The other two are Al Sulaiman, and Al 'ataa Hospital… these are the three hospitals. After the UHI system started and the hegemony of (haymanet) GAH over the [public] hospitals, I believe the private health sector in Port Said has diminished significantly and their operations have decreased so much that they are almost non-existent. – Policymaker 3, July 2023*

The limited number of private providers also seems to be a feature of the all the governorates of the UHI system's first phase of roll-out, as the senior official from GAHAR explained:

> *The first-phase governorates don't have many private hospitals to begin with, and Port Said has 3-4 with poor infrastructure. One of the most important aspects for us is that the hospital building is fire-resistant. The private hospitals in these governorates are still far from having these capabilities. – Policymaker 1, April 2023*

The senior official from GAH also iterated that he suspects the infrastructure aspect of GAHAR's standards to be a sizeable barrier for private providers in Port Said, due to the large capital investments required to attain them:

> *In order to become part of the UHI system, they [private providers] have to at least get a registration certificate. And they are unable to get the registration certificate because their hospitals didn't get the civil protection certificate to begin with… civil protection requirements are tough to implement and its requirements are very many, and very costly to implement… but the state (El dawla) was able to fulfill those requirements, but the private sector still doesn't have the processes or budgets to expend that much just to register. – Policymaker 3, July 2023*

GAH's senior official clarified that these civil protection requirements are considered a fundamental aspect of ensuring employee and patient safety, and are mandated by GAHAR. It is noteworthy that during the field visit to El Gawhara PHC Unit, while we walked around the second floor, the Patient Satisfaction Officer from GAH, pointed to the fire extinguisher and the emergency evacuation exit and stairs. He noted that this is what they meant by civil protection requirements. These costly upgrades would be economically-viable if private providers account for the nearly-guaranteed revenue streams that they would earn if they enrolled in the system. However, when asked about whether this logic holds true for the private providers or not, the senior official from Port Said's GAHAR (Policymaker 2) noted:

> *I think some of them [private providers] did not envision UHI growing as it has, and some may just want to avoid the hassle of having government bodies inspecting their facilities every now and then. I think another reason may be that some providers suspect that accreditation costs will be high. – Policymaker 2, May 2023*

Another senior official at GAHAR (Policymaker 1) believed that large scale providers, such as hospitals will not find the accreditation process particularly difficult, as many of them already have 'JCI accreditation'. However, the senior official from GAH (Policymaker 3) notes that GAHAR's standards are stricter than those of JCI, so hospitals will still have to invest to be compliant.

> *GAHAR's conditions are very difficult, they may be even more difficult than JCI criteria… so the fact that we were able to do this at GAH is a great on-ground achievement for the Egyptian state (El Dawla El Masriya) and it is now a reality. – Policymaker 3, July 2023*

The sense of achievement that he relayed in his speech is due to the massive effort that accreditation requires, which he clarified:

> *Registration is only 30 metrics… let alone the accreditation is made up of 1,300 metrics, so for you to be able to fulfill all these requirements you need large sums of money… you need doctors registered at GAHAR, lots of things, verification of the certificates of all individuals working at the hospital, starting from the janitor until the hospital manager, so this is a high cost, and a large effort that requires*

collaboration among everyone in the hospital. It's not easy for the private sector. – Policymaker 3, July 2023

But GAHAR's official (Policymaker 1) believes that for large-scale providers, compliance is remains less challenging than for small-scale providers such as pharmacies and labs, which she believes are the most vulnerable. These facilities' limited human and financial resources as well as the lack of a "quality culture" in their organization, are some of the barriers that she outlines:

The problem was with smaller-scale facilities like pharmacies and labs at the beginning, because they don't know what quality means, or what the standards are. They don't have the mindset of quality. Imagine a pharmacy with a staff of 4 pharmacists or so… they wouldn't know how to deliver on the mandate for 'quality'. At the beginning we found that people didn't even know how to set a workplace policy, let alone get certified. – Policymaker 1, April 2023

The other GAHAR official from Port Said (Policymaker 2) believes that enrollment in the system is a matter of financial incentives, and if pharmacies were confident of their ability to deliver services and benefit economically, they would learn, develop and enroll. Accordingly, she has a different interpretation of the challenges facing private sector providers enrolment, which she predicts will hold true for private providers outside Port Said as well.

Integration Challenges between Private Providers and UHI Systems

The challenges facing hospitals and pharmacies are different, and neither are related to the difficulty of the standards. According to the official from Port Said's GAHAR (Policymaker 2), the lack of integration in IT systems between the public sector facilities and the private pharmacies is the main barrier to pharmacies' enrolment.

But the problem with pharmacies is not so much the standards. It is the fact that they [the government] are still figuring out how to transfer prescriptions to private pharmacies, which is causing pharmacists to withhold from enrolling in the system. But this is supposedly being resolved through the concerned government departments. We haven't gotten complaints about the accreditation standards though. The complaint is usually about how to benefit from the system after

certification. Because for example there must be a digital system that integrates the all hospitals with the private pharmacies. – Policymaker 2, May 2023

This lack of integration in IT systems between the public sector and private sector providers implies that even if the pharmacies were to get certified, they would not be able to render any services, as medications are only dispensed based on the electronic prescriptions issued on each beneficiary's electronic medical record. The senior official from Central GAH (Policymaker 6) indicated that the problem's root cause is that small pharmacies do not have the necessary IT systems to integrate with the UHI system, but that resolving this was a priority, given that it was one of the World Bank's recommendations to the government agencies implementing UHI.

Low Financial Incentives to Enroll in the UHI System

As for the large-scale providers, such as hospitals, the senior official from Port Said's GAHAR believes that their lack of enrolment can be attributed to UHIA's cost-saving imperative. According to the law, beneficiaries have the right to choose their providers, which can be affiliated with GAH or with private sector providers (Article 10). However, according to the aforementioned official, UHIA is not raising awareness about this entitlement, in order to save costs.

Another problem is that UHIA is not performing its role, as it is not allowing beneficiaries currently to choose whether to go to a public or private provider. If it opens the door to choices, then some beneficiaries will request private facilities, and UHIA will find itself obliged to contract with private providers. So, there are many factors related to the three implementing government agencies. – Policymaker 2, May 2023

UHIA's silence about beneficiaries' freedom to choose their health provider is justified by Policymaker 3 as a result of the flexible pricing policy which allows private providers to set their own rates.

There's a price list between GAH and UHIA to govern our contractual relationship. But the private sector providers will not adhere to the same price list. GAH is the state's vehicle to provide health services, and accordingly, we may be told to treat patients, and when you have a budget deficit, Dr. Maait (The Minister

of Finance), will cover that deficit for you. They'll tell us 'you are the state, GAH' (Enta el dawla). But you cannot force the private sector to adhere to this at all. They'll tell you [UHIA] an appendix surgery costs me 10,000 EGP… if you want to come and have it performed at 10,000 EGP you're most welcome, but if not, then we won't perform it. – Policymaker 3, July 2023

Thus, UHIA can negotiate with private providers, but cannot enforce the same price list that it enforces upon GAH, according to the quoted senior official. As such, understanding this contractual relationship between UHIA and the public and private service providers is essential to gaining a full understanding of the drivers behind service availability in Port Said, and beyond, in the UHI system. Another senior official from Central GAH explained that while UHIA has the flexibility to contract with providers on different terms, in accordance with its rules and regulations, it continues to offer the same price list to all providers at the current time. Commenting on UHIA's price list, this senior official (Policymaker 6) said:

The price list is not that bad by the way… in fact UHIA has updated its price list four times since the inception of the system's implementation, and it's been what? Four years now? Four amendments in four years is not bad. In my opinion the private sector issue is not a matter of pricing… it's the costly and difficult standards. – Policymaker 6, August 2023

His remarks came after sharing information that the latest price list was approved in July 2023 and although it has improved significantly, it remains below the necessary level given the high rates of inflation, devaluation in the Egyptian Pound and foreign exchange shortages that Egypt has been grappling with since the Russia-Ukraine conflict erupted. For example, according to the latest price list, UHIA commits to paying 231,440 EGP to cover the costs of a cochlear implant. The main component of this operation is the cochlear itself, which he notes costs 220,000 EGP to import given current prices, without adding other costs such as wages, disinfectants, and other materials necessary to perform the operation. The senior official gave another example for a 'flexible ureteroscopic renal stone extraction' which is priced by UHIA at 21,400 EGP, but the one-time flexible endoscope used to conduct this operation costs 25,000 EGP alone, notwithstanding labor and other material costs. Consequently, the economic situation with rapidly rising inflation rates may be yielding UHIA's efforts to update its price lists ineffective.

Shifting back to the barrier of GAHAR's standards, this Policymaker 6 believed that hospitals and large-scale providers will not have problems receiving their certifications. In his view, hospitals don't constitute the largest portion of healthcare providers in Egypt. He believes that private clinics are where accreditation will be very difficult. He elaborated on this:

> *The health sector in Egypt has lacked proper regulation for so long, so you find private centers and clinics that perform very diverse standalone services. This is the bulk of private providers and they will find GAHAR's standards costly to implement. We've already noticed that in governorates where UHI kicks off, doctors start trying to work around the fact that they are losing lots of business. Less people are willing to pay OOP once they have registered and their premiums are deducted. – Policymaker 6, August 2023*

This longstanding deregulation will require interventions from the government and civil society organizations to raise awareness on the accreditation standards, as well as the financial and human resources that can be leveraged to obtain certification. From an insurance standpoint, UHIA is the single payer within the system, that should provide a diverse set of providers to accommodate for beneficiaries' needs. Despite not being an issue in Port Said, it may be worth investigating private employers' demands from UHIA once UHI is implemented in more affluent governorates like Cairo, where the private sector has higher bargaining power. Since employers and employees will be obliged to pay their premiums, these organizations will likely expect UHIA to have contracts with well-regarded private providers, in order to avoid incurring supplemental insurance costs which may be demanded by a certain segment of employees. Further investigation is required to understand how the implementation in governorates with these characteristics may affect UHIA's policies.

6.1.2 Medical Staffing and Human Resources: Enhanced Remuneration and Flexible Contracts

At the center of any system, are the human resources operating it, and creating value for the clients or citizens they serve. The health sector is one where the competence of human resources is amplified, as their capabilities and culture impact the whole system's value chain, and affect directly affect beneficiary satisfaction. Additionally, state-of-the-art infrastructure, with accredited facilities would have no contribution to citizens' access to healthcare services without the necessary administrative, technical and medical staff. Therefore, staffing constitutes a main component of the service availability pillar within the concept of healthcare

access. As no private providers were enrolled in Port Said's UHI system, this research focuses on the implementation, staffing and experiences within GAH's facilities in Port Said.

Historically, Egypt has suffered an enduring brain drain among its health workforce. While many studies tackle this phenomenon, especially in Global South countries, some of the factors leading to that push are believed to be remuneration schemes, and the work environment of physicians and nurses in the old system, as noted by several interviewees. Thus, it was incumbent upon GAH to provide the financial and organizational incentives that would retain enough competent health workers to operation the UHI system. According to the UHI law, GAH can take over staff from MoH's facilities that were transferred to it, as well as to hire its own staff. The senior official from GAH (Policymaker 3) comments on this as follows:

> *GAH establishes the administrative structure for these entities, improves its existing human resources, pays their wages according to the tables of wages that are in the executive regulations of GAH… we of course take the team that's already in the hospital. – Policymaker 3, July 2023*

He further notes that GAH modifies the scope of service of its facilities based on the health map (*El Khareeta El Seheyya*) of the governorate it is operating in. This specification of the facilities' scope helps GAH's management identify its hiring needs, especially for specialized physicians, as he notes below:

> *But there are usually some shortages in intensive care, or in some specializations… so we restructure the organization and fill in the shortages in physicians in specializations that are rare. – Policymaker 3, 2023*

To mitigate these shortages, the UHI law gave GAH the authority to set its human resource policies as well as its administrative and financial regulations, without being constrained by the government's regulations and bylaws (Article 18). Consequently, GAH's management have changed the remuneration scheme for all employees. Policymaker 3 explains:

> *The pay scale of GAH has improved the salaries of everyone who is part of the organization already, at all levels. In the old system, a consultant physician used to earn around 4-5,000 EGP per month… maybe 6,000 EGP. Today, a consultant physician working with GAH earns 25,000 EGP. When you look at doctors who are fresh graduates, they used to earn 3,000 EGP. Today, from their first work*

day, they earn 10-11,000 EGP. The same for pharmacists, and family doctors who earn around 9,000 EGP. Technical individuals earn around 7,000 EGP. These figures were previously non-existent, and would have taken us lightyears to attain them. – Policymaker 3, July 2023

These changes in remuneration were enough to maintain high morale among staff, the senior official explained, as I was concerned that having a pay scheme for full-time employees different from the contractual agreements that GAH rendered with specialists, would lead to dissatisfaction. However, his justification was that the increases were enough to warrant their retention as GAH employees. Nonetheless, one of the challenges that I expect to arise as UHI is implemented in more governorates will be GAH's inability to hire full time specialists whose full-time remuneration may be beyond GAH's means, or UHIA's willingness to pay. As such, while specialists from outside Port Said may have an incentive to work with GAH on a part-time basis in Port Said, I do not expect this dynamic to change when UHI is implemented in a governorate like Cairo where many specialists reside. Having flexible contracts with private providers and GAH will allow specialists to maximize their incomes, which may be affected by their inability to get certification for their private practice. This challenge will not affect service availability, insofar as GAH's costs will be covered by UHIA. But if UHIA objects to service pricing, or mandates below-market prices, GAH will find itself unable to avail these highly-skilled specialists in its facilities.

Apart from part-time specialists, the aforementioned changes in full-time doctors' remuneration were also recognized by the PHC Unit Manager, when I asked if there were any changed to pay grades in the new system:

Remuneration has changed significantly; some doctors' salaries have tripled because of the new system. Everyone has witnessed salary increases and of course it varies by specialization but the least that people have seen is a duplication in their salaries. – Health worker 1, May 2023

The technical officer at GAH (Policymaker 4) also added that the new schemes have a performance element, where there's a base pay, and incentives that are disbursed based on a grading system, which he described:

Every month all the doctors and nurses are assessed by their department managers on several criteria including their adherence to safety and infection control

requirements, as well as their patient-satisfaction scores. So, each element is five points… if there was a complaint filed against the doctor for example, then their manager would deduct a point… or if they weren't wearing their gloves or a face mask or their coat… things like that, based on their specific assessment forms. Then the department managers report the results to the HR department, who in turn present these assessments to the employee to get their sign-off, and then the facility manager approves all employees' monthly salaries for disbursement. – Policymaker 4, July 2023

These assessments are designed to ensure that staff are compliant with GAHAR's standards, in order for the facility to maintain its accreditation status. As such, GAHAR also plays another critical role in the roll-out phase, by offering training to management teams and employees at GAH's health facilities, on its specific accreditation requirements, which vary based on the type of service provider. The senior official at GAHAR (Policymaker 1) explained the importance of this training process:

We have a unit within GAHAR responsible for training facilities. If the facility is looking to become certified, then we train them on the relevant standards, which are more than those requires for registration. So, the training program differs by the type of facility, as well as that facility's target (whether its aiming for registration or certification). This training is done for the staff that will be responsible for quality control within the facility, for example like the head nurse, the head of quality, the head of occupational and health safety, the HR manager... so we train the key persons responsible for being stewards of quality within their organizations. The facility chooses the personnel that it wants to train. – Policymaker 1, April 2023

Medical and nursing teams also receive training on the new Electronic Medical Records (EMR), and Enterprise Resource Planning (ERP) systems that are systematically being rolled out in Egypt's healthcare system, for the first time. The Manager of PHC Unit 3 logged into the ERP system to show me how she could get to dashboards with the whole organization's dashboards, and track the beneficiaries that visited the unit on any given day. Furthermore, the Manager of PHC Unit 1 explained that all staff had received a month-long training by the company that implemented the digital infrastructure for the UHI system in Port Said.

Additionally, all staff are trained on occupational health and safety standards, which are a part of their monthly assessment.

In contrast to the past, when assigned doctors did not attend their shifts, Beneficiary 2 says she has noticed "*the doctors from surrounding cities, such as Mansoura, come in for their shifts in a timely-manner and they have to work... they cannot sit around not checking on patients*". The effectiveness of the change in pay grades is reflected in the surge in GAH's ability to resolve the shortage in nursing staff which was experienced prior to the new UHI system. Policymaker 3 comments:

> *All over Egypt there's a shortage of nursing staff. But today, nursing professionals are scurrying to get into GAH, which I think is one of the major advantages of the new system. When I get letters requesting mentioning that people want to come work in Port Said to enhance their income, and their personal living conditions, this makes me feel gratified. The person sending me this request perhaps doesn't realize the significance of the letter, but to me it has such a profound meaning [reflecting the importance of what GAH is doing]. So basically, GAH in Port Said is like Kuwait, to them. – Policymaker 3, July 2023*

Commenting of the staff's perception of the new pay schemes, the senior official draws an analogy of GAH being 'Kuwait' to those seeking employment at GAH. This analogy stems from the era when gulf countries' economies, including Kuwait, were booming as a result of their growing oil sector. That boom was attracting labor from different countries in the region, including many Egyptians, who still recall what it meant for the whole family when one of its members was awarded a work contract in Kuwait. This scheme did not only increase GAH's ability to hire nursing staff, but also to attract a large number of family doctors, in order to be in line with GAHAR's standards, which also follow international standards as noted earlier by the GAHAR official. The senior official from GAH (Policymaker 3) comments:

> *In fact, in Port Said today, we have a surplus of family doctors. The international standard is to have 1 doctor for every 5,000 individuals, GAH in Port Said has a surplus of around 70 family doctors, whether through fellowships or assignment to Port Said, or contracts… It is very important for us to have an adequate number of family doctors to serve the 695,000 beneficiaries in Port Said. We have 235 family doctors… but I should have 177-180 family doctors, I think, according to*

international standards… so I have more than the normal range. – Policymaker 3, July 2023

The availability of family doctors is considered an achievement by GAH, given the scarcity of family doctors in Egypt in the past, which the Manager of PHC Unit 1 in Port Said attributes to the following reasons:

Especially family doctors are few because it's a relatively new specialization in Egypt... people only used to specialize in family medicine to travel and work abroad. – Health worker 1, May 2023

Despite the ability to avail a large number of family doctors, some beneficiaries were dissatisfied with their level of expertise of competence. While some beneficiaries were dissatisfied because they wanted to have an appointment with a specialist without the 'middlemen of family doctors', others were concerned that the doctors did not have the necessary skills to diagnose them. The dissatisfaction of the first group of beneficiaries will be discussed in the Service Utilization section of the findings as this level of dissatisfaction is more related to the referral process and organizational structure of the system, rather than dissatisfaction with the skills of those doctors. Furthermore, the dissatisfaction with family doctors' competence will be elaborated on in the Service Effectiveness section of the findings as this directly impacts beneficiaries' perceptions of the value that they derive from the system.

Another implementation challenge pertaining to service availability and staffing, was the attraction of specialized consultants to provide tertiary care services at GAH's hospitals. To mitigate the shortage of specialists in Port Said, GAH was able to enter into various contractual agreements with specialists from other governorates. Such arrangements were not allowed in the old system, which led to the emergence of private practices and private hospitals as a parallel system to the government-run health facilities. In contrast, the UHI law has given public sector providers, managed by GAH, the flexibility to determine their staffing needs and to manage them accordingly. Policymaker 3 elucidates:

As for hospitals, I was able to overcome this [shortage of staff] through contracts and protocols with Egyptian universities. Now, the executive regulations and bylaws allow me [GAH] to compensate doctors with salaries that could keep them from traveling abroad. The salaries are very adequate… very adequate. I want to attract specialists to Port Said, or Luxor, or South Sinai [other governorates in

Phase One], so what are the benefits that would entice a reputable heart surgeon come to these locations? Well, if you go, you'll have a flight to take you there and a hotel for accommodation. As for your monthly pay, some people's salaries reach 60, 70, 80, and 90 thousand EGP per month. For reputable consultants, this is a fair bargain. And I [GAH] monitor their performance. I don't give him the 80 or 90,000 EGP and don't monitor his performance…No! I pay you 80,000 EGP… and ask, well how much have you contributed to GAH? So, I don't just pay the consultant for the sake of paying that money, I pay it based on a level of productivity that is expected from them in the contract. – Policymaker 3, July 2023

The manager of a PHC Unit 1 in Port Said also confirmed that GAH has contracts with specialists sometimes on a case-by-case basis or by number of shifts per month. Indeed, beneficiaries have also noticed that physicians in certain specializations that did not exist in Port Said prior to the new system were now available. Beneficiary 5 noted that tertiary care has seen the most significant improvement under the new system, partly due to the newly-found availability of specialized physicians and surgeons.

Surgeries are what have really witnessed improvement under the new UHI system. For example, doctors from the Magdi Yacoub Center now visit the Children's Hospital in Port Said, and I've seen cases of children from other governorates who came to Port Said to get congenital heart surgeries, and other surgeries. This is all in the Nasr Hospital [one of the UHI hospitals]. – Beneficiary 5, May 2023

Named after its acclaimed founder, the Magdi Yacoub Global Heart Center is popular among Egyptians for its excellence in children's open-heart surgeries. Beneficiary 3 also has a child with a disability, who has been following up on his case for months through the UHI system, and will be able to schedule a surgery with a visiting specialist. As a mother, she noted that she was grateful for this as it would be difficult and inconvenient for her son to have the surgery outside Port Said.

My son will need to perform a surgery, and in cases like this [highly-specialized surgeries], you're referred to a visiting specialist that comes to Port Said specifically to perform the surgery. – Beneficiary 3, May 2023

Thus, the new system is able to attract medical staff due to more flexible remuneration and contractual policies, while is availing services in governorates that may have been underserved

in the past. In fact, challenges of disparate access to physicians in underserved governorates has been a historical issue in Egypt, which was exemplified by the governments delay in expanding health insurance services to school children in the 1990s, as presented in Section 5. Nevertheless, hiring and training specialized administrative and managerial staff is also paramount to the effective roll-out of the UHI system in Port Said and elsewhere. During my field visit, I noticed that all the management teams were young doctors in their 30s. They proudly showed me around their units and it was noticeable that they felt a sense of ownership for the performance of their facilities, although "*dealing with impatient beneficiaries could be exhausting at times*", as the Manager of PHC Unit 3 noted. Perhaps this sense of ownership is a result of these young medical school graduates' ability to hold managerial positions without restrictions on seniority. Upon asking about how he was selected for his role, the Manager of PHC Unit 1, explained:

> *I was interviewed in order to be selected, because there were specific requirements for those who wished to have a managerial role in the system. After being hired, we received different trainings on leadership and management, as well as on GAHAR's accreditation process. – Health worker 1, May 2023*

Building the institutional capabilities of the UHI system through its human resources seems to be on the policymakers' agenda, given the attention that GAH is to sending its medical and managerial staff on training programs abroad, apart from those offered by GAH. As a matter of fact, the Manager of PHC Unit 1 believed that investments in the system's managers and technical capabilities were not given much priority in the past, perhaps due to budget constraints. He elaborates on the experiences that he has witnesses as follows:

> *I know that some physicians traveled to England and Italy for training. Before the UHI system was implemented 40 family doctors went on a mission to England to learn about Universal Health Insurance systems by learning from the British NHS system. After the UHI system was implemented, some of the nursing staff traveled to Italy as there was a partnership between us and an Italian institute specialized in nursing and this institute provided training programs to us here in Port Said over the past two years. They just finished it about a month ago [ie. April, 2023]. – Health worker 1, May 2023*

The sentiment that the new system was investing in the people running it was not only echoed by PHC unit managers, but also by Beneficiary 5, who is a retired Pediatrician that used to work in the legacy Health Insurance Organization (HIO) before the new system was implemented in Port Said. She explained that the environment in which physicians and unit managers now operate in is incomparable to what they had to endure in the legacy system. She elucidates:

> *Having doctors sit in a nice space is very important... when doctors were previously sitting in hot, dirty rooms, with no fans... how do you expect them to deliver healthcare services? By the way, we used to buy the fans at our own expense! And of course, there was fraud (ser'a) in the old system, because every once in a while, the only thing they would do is change the building's flooring! I think it's because they [the administration] make personal profits from such contracts. I think such practices have disappeared under the new system, because the state's fist is forceful this time around (El Dawla hatta bi edha). – Beneficiary 5, May 2023*

Correspondingly, the new system's ability to attract and retain medical and non-medical staff can be attributed to the restructuring of remuneration schemes, the flexibility in rendering contractual agreements with specialists based on the populations' needs, the investments in training and upskilling medical and non-medical staff, and fostering more attractive work environment for staff.

Overall, section 6.1 illustrated how the implementation of the UHI system in Port Said until July, 2023 has affected different aspects of healthcare services' availability. This includes infrastructure readiness among the public and private providers, UHIA's contractual arrangements with providers to avail a network of providers that beneficiaries can access services at, as well as staffing and hiring practices by GAH to mitigate current shortages in health workers in Egypt and especially so outside Cairo. Next, section 6.2 presents stakeholders' perspectives on how the UHI implementation in Port Said is affecting the next level of 'access', which is service utilization.

6.2 Service Utilization

Service utilization is driven by beneficiaries, and is a direct outcome of their willingness to engage with the health system. Nevertheless, the organizational factors and personal

experiences that shape beneficiaries' utilization vary. This section explores how the UHI system has affected beneficiaries' utilization experiences, starting from enrolment, to appointment booking, organizational efficiency, the role of technology in the utilization experience, as well as cultural nuances that affect the beneficiaries' experiences.

6.2.1 Beneficiary Enrolment Challenges and Financial Accessibility

The family is the unit of enrollment in the UHI system. Consequently, enrolment in the system entails obtaining a medical ID card for the family, whose head is the father, by law. The enrollment process includes all the first-degree family members within the same family record. And supplying the necessary paperwork to prove the first-degree relationship, is the prerequisite for the whole family's enrolment in the new UHI system.

If the father is the sole bread-winner in the family, the premiums covering the insurance of all his family members are deducted from his salary, based on the government's records at the Social Insurance Authority. Whereas if the mother is also formally employed, with records in the Social Insurance Authority, her premium is deducted from her own salary and the premiums of their children continue to be deducted from the father, as the head of the household in all cases, even in the case of a divorce. The premium rates are defined in the UHI Law's Appendix Table Number 1 and the provisions in Article 40, which are re-constructed and summarized in Table (3) below.

Table 3: Beneficiary types and their respective premium rates

#	Beneficiary Type	Premium Rate	Deductible Income*
1	Male head of a household, with formal employment and registration in the Social Insurance Authority, and whose wife is unemployed.	1% for his insurance. 3% for his unemployed wife. 1% for every child or dependent until their employment, or marriage (if the child is a female).	Total monthly earnings excluding transportation, food, travel and other allowances that are paid to compensate the employee for additional work burdens, conditional on the allowances not exceeding 25% of total pay.

2	Married, formally-employed female with registration in the Social Insurance Authority.	1% No dependents.	Same as case 1.
3	Independent contractors or independent workers	5% for themselves. 3% for the wife. 1% for every child or dependent until their employment, or marriage (if the child is a female).	Total earnings on their tax return, or the upper bound of insurable income at the Social Insurance Authority, whichever is larger. This amount is due semi-annually to UHIA.
4	Egyptians abroad	Same as case 3.	Same as case 3.
5	Workers who were covered by the provisions of the Insurance Law 112/1980 (seasonal workers and those employed in agriculture)	5% for themselves. 3% for the unemployed wife. 1% for every child or dependent until their employment, or marriage (if the child is a female).	Insurable income (represents only a portion of the total income), such that the total premiums paid for the whole family must not exceed 7% of the insurable income. And the Treasury bears the differential excess cost.
6	Widows and those obtaining Pension Survivor Benefits	2% for themselves. No dependents.	Monthly pension.
7	Pensioners	2% for themselves. 3% for the unemployed wife. 1% for every child or dependent until their	Monthly pension.

		employment, or marriage (if the child is a female).	
8	Poor families with no ability to pay.	Incurred by the Treasury, after completing the necessary application with UHIA.	5% of the minimum wage.
9	Employers**	4% (3% health insurance and 1% work injury insurance), with a minimum of 50 EGP per month.	Employees' total monthly earnings as defined in case 1 above.

** If there's more than one source of employment, premium rates apply to total earnings from all employment.*

*** Employers are also required to pay a "solidarity contribution" of 0.0025% from their annual top-line, which is non-tax-deductible, according to Article 40 of the UHI Law.*

Table Source: *constructed by the researcher based on Table (1) of the UHI Law, the Definitions section of the law, Articles (40) and (48) or the law.*

Poor families are determined by the government, in an administrative-led process of eligibility determination based on certain means testing criteria that is not published. However, Policymaker 6 explained that the decision to exempt a family from premiums is made collectively with input from different government agencies:

> *Poor families are determined based on targeting criteria that a joint committee determines. This committee is made up of representatives from the Ministry of Social Solidarity, the Ministry of Finance, and the Central Authority for Public Mobilization and Statistics. They take the minimum wage into consideration as well as inflation rates when making that determination and they update these criteria regularly… within a duration that doesn't exceed 3 years. – Policymaker 6, August 2023*

Additionally, any family whose members don't fall within these categories, or are informally employed and are not subject to the Social Insurance Law, can apply for enrolment by supplying their Family Registration Certificate to the Universal Health Insurance Authority (UHIA), which is issued by the Ministry of Interior. While not directly related to utilization of services, these premium rates incentivize women's participation in the formal economy so as to reduce her premium rate, and burden on the family's health insurance deductibles, especially

that a 1% deduction from her salary may be far less than a 3% deduction from her husband's salary if he is the higher earner. In fact, low labor market participation rates and high rates of informality continue to be one the main features of the employment landscape in Egypt (Barsoum & Selwaness, 2022). Thus, allowing women to enjoy health insurance benefits at a lower overall cost to the household, may incentivize some women to seek formalizing their employment. Yet, more research is required to investigate the full effects of that feature within the law.

The enrolment process seemed to be straight forward for the beneficiaries that participated in this research as all participants' households had some form of affiliation with a public sector employer. Thus, their enrolment and on-boarding were completed through a "pull" by the UHIA rather than a "push" from the beneficiaries themselves. The implementation challenges, however, are with independent workers and Egyptians living abroad.

During my field visit to PHC Unit 3, Beneficiary 8, who was waiting for her dental appointment commented that she was unhappy that their semi-annual premium had increased, in comparison to the same period before. She noted that their last payment was 5,000 EGP for the households, whereas they were now required to pay 8,904 EGP for the whole household. I asked her if there was a grievance mechanism, and she said that they were in the process of reducing that amount, based on paper work that they had to present to UHIA.

But this process did not affect the woman's ability to utilize services, as the Manager at this PHC Unit (3), asked her about the services that she has received through the UHI system so far, and she said she had utilized dental services and got medications. She said that she was satisfied with the dental services, but that either way she had no option because they were paying their premiums, which meant that she had to utilize UHI services to get her money's worth. The PHC Unit Manager later commented "*believe me, the only reason they're willing to pay that money is because they are getting value out of this system… otherwise she would not be here and they would not be declaring their income to the government*."

The senior official at Port Said's GAHAR elaborated on one of the challenges that not many policymakers have spoken about yet, which is when the head of a household travels abroad, and there are no means of deducting the family's premiums. Thus, the family is left without Health Insurance, as the mother cannot pay for the children.

This is problematic because imagine that there's a family consisting of a father, mother, and three children, and both parents work. However, the unit of service provision is the family, not the individual. The medical record is established for the family, and the premiums for children are paid through the father's salary, even if the mother also works. And if the mother does not work then the father pays the whole family's premiums, as the father is considered the head of the household in the system. But if the father travels abroad, he's exempt, and thus does not pay the premiums for the children, and the woman cannot pay premiums for the children. Problems of this sort have not been resolved. – Policymaker 2, May 2023

These remarks highlight that even households with formally-employed individuals may struggle to enroll given the condition that the father represents the head of the household. Beneficiary 2 also confirmed that the enrolment application in UHI has to be in the name of the husband. This restriction may hinder eligible households, who need to benefit from UHI services, to be left out. The senior official from the Central GAH commented on this as follows:

If the father hadn't registered in the system before traveling abroad, then the mother cannot issue a health insurance card for her children, even if she is employed. It's like the problem with enrolling children in schools in the absence of the father. Basically, the person who has guardianship over the children can register the children in the UHI system. In this case if the father is abroad he would have to issue the needed paperwork that would render the mother their guardian. – Policymaker 6, August 2023

This dynamic is especially challenging for families where conflict may render the mother unable to communicate with the father or other guardian to register the children, and to register herself. And while digital enrolment services exist online through the Digital Egypt services platform, these services are still only available to citizens residing in Egypt. One potential short-term solution may be to avail this service for Egyptians abroad. However, this solution does not tackle the broader social policy questions on how guardianship should be determined in Egypt, which is not within the scope of this research.

Another enrolment challenge is the mismatch between payers of health insurance premiums and beneficiaries who are eligible to utilize the service. The senior official at Port Said's GAHAR highlights:

Another issue is that we have some factories in Port Said, and the workers in those factories have residence in other governorates but they work in Port Said. So, premiums are being deducted from them, but they are not receiving the service. And you cannot provide the service to them as well, even if you wanted to, because the family is the insurance unit. So, if you issue cards to these employees, you'll have to enroll their family members as well. – Policymaker 2, May 2023

In the above case, the employer is obliged to pay the premiums as the legal entity resides in Port Said. However, these non-Port Said residents remain unable to utilize UHI services as their governorate of residence has not been enrolled in UHI yet. This mismatch is expected to continue until UHI is fully rolled-out nationwide. The mismatch can be likened with an additional tax on the employers of employees whose residence is not in Port Said. Additionally, it represents a forgone cost, as the employers' mandatory contributions to the UHI system do not enhance the wellbeing of all their employees. From a policy-perspective, this may also lead some employers to evade registering their employees at the Social Insurance Organization, in order to evade paying the excess premiums. This may be the case especially for less-skilled and temporary workers. Commenting on this issue, the senior official from the Central GAH said:

This is another implementation issue that we've discovered as we started rolling out the system. This issue was not addressed in the law or in any of the executive regulations, so we're still figuring out how to deal with it. But there's political will to allow the non-resident, full-time regular employees, who are employed in UHI governorates, to enroll in the system. Actually, this has been implemented, for some populations that have been displaced from the Sinai Peninsula to Ismailia. The Cabinet of Minister approved their registration into UHI, despite the fact that they are non-residents of Ismailia. So this can be done, but it has not been formalized yet for the employees, which are a sizeable amount of people in Port Said, as they work in many places like factories and hotels. – Policymaker 6, August 2023

Ismailia is another governorate on the shores of the Suez Canal, and is one of the five governorates in the first phase of the UHI implementation plan, where the system was rolled out after Port Said. The above remarks indicate that the population from Sinai was given exceptional enrollment privilege for political reasons to contain these populations; whereas the

employees of Port Said are less politically-salient and thus have not received exceptional enrolment rights yet.

The enrollment process is followed by recertification process, to update the family's records at the UHIA, whenever the family's composition changes with the birth of a new child or the employment of a child. This process remains dependent on presenting the necessary paper work from the beneficiaries to UHIA. Beneficiary 2 explains:

> *Sometimes you got to GAH for a service and they ask you for your recertification document, which is a document that the UHIA representative in the PHC unit issues for people… It says that you have paid all your due premiums. Because sometimes they find out that some people have not been paying their premiums. I have seen people who had 700 or 1,000 EGP in overdue payments. I don't know why they weren't paying. So I keep this paper… they just want to make sure that you are still alive and paying your dues. – Beneficiary 2, April 2023*

The manager at PHC Unit 3 also noted that they get many beneficiaries who have overdue payments, but they do not deny them the service. As long as they have a payment plan with UHIA, that is for them to handle. Whereas, GAH is concerned with providing health services to enrollees.

Ultimately, the Policymaker 3 and the Manager of PHC Unit 1 both noted that this recertification process will be automated once the government completed the integration between its national databases. The official from GAH commented:

> *What is still missing is the automated data verification, where the Ministry of Communications and Information Technology needs to integrate the databases of births at civil status organization, so that we know if there's a new addition to the family's record, with the deaths and births at health offices, in addition to having a view on social insurance, and pensions, then you don't need more than this. Once this is done, we won't need to do the paper work in the recertification process anymore where people are asked to bring a social insurance print-out… this will be automated. This will occur according to plan, but it is a gradual process of improvement. At the beginning we digitized the units and centers, and integrated them, and now we are able to upload claims on the system. So, it's all a matter of time, but sometimes the companies implementing these projects cause some delay,*

especially with the change in the exchange rate lately, they did not adhere to the agreed timelines. Sometimes there are just operational delays due to different political and market factors. – Policymaker 3, July 2023

The aforementioned PHC Unit manager also commented that one of the necessary reforms that still need to be implemented in the system is this digital verification process, in order to relieve beneficiaries of the recertification process, and to enhance the system's governance.

From a financial-accessibility standpoint, all of the beneficiaries noted that the premiums being deducted from their salaries or pensions were far below the value they were receiving from the system, especially for those who had gone to radiology labs, test labs, dentists, or received their routine medication. Beneficiary 5 told me about her and her friend's co-payment:

All my blood pressure medication is always available. From what I've seen all the medications for chronic patients are available and there are no issues. I pay only 10% of the cost of medications, which is very reasonable. For example, one of my friends also gets medication that is worth 1000 EGP if she were to buy it out-of-network, so UHI saves her a lot of money. – Beneficiary 5, May 2023

These large OOP savings were also experienced by Beneficiary 1 upon being asked about how she viewed the new system from a financial standpoint:

When I did some blood tests through UHI, I paid 50 EGP only, whereas it would have cost me 1,000 EGP in a private lab, and the results were of the same quality as private labs. – Beneficiary 1, April 2023

In line with the above experiences on financial accessibility, Beneficiary 4 commented:

And at the end of the day I did my tests and got medications at a very low cost, but what about the doctor? Where's the doctor that will conduct a proper checkup? – Beneficiary 4, June 2023

Beneficiary 4, as will be demonstrated in other parts of this research, was generally dissatisfied with the long referral process, the long wait times, as well as the lack of specialization at the PHC Unit level. However, despite these concerns, she still pointed out that the system was financially-accessible. But in some cases that accessibility was ineffective to her, as she needed

more specialized checkups, that she was unable to obtain at the PHC Unit, and could not wait two weeks for the UHI specialist's appointment. She recalled this experience with concern:

> *I've had to go to private clinics many times at my own expense because the doctors in UHI don't perform a proper checkup, and because the appointment times are unsuitable in some occasions, especially if they're giving me an appointment two weeks out, whereas I want to visit a clinic on the spot. – Beneficiary 4, June 2023*

Consequently, financial accessibility is not a high concern for the interviewed enrollees in the new UHI system. However, when combined with other service utilization factors, such as organizational efficiency in managing wait-times and the referral process, financial accessibility may be less of a utilization barrier for time-sensitive beneficiaries.

6.2.2 Long Wait Times and the New Culture of Referral Processes

Nearly all the beneficiaries recounted their experiences with the old system, which was vastly different from the new UHI system, especially with respect to the wait times and the referral process. As presented in Section 6.1, the new system has shifted towards a PHC-centered system, where family doctors are always the first stop for beneficiaries, regardless of their need for a specialist at a later stage. Moreover, beneficiaries must make an appointment to go to the PHC unit through a call center, that provides a time a date for the appointment. Then, the beneficiary is advised to arrive 30 minutes in advance in order to have their vital signs taken before entering into the family doctor's office.

This process is in stark contrast with the old system, where individuals did not need to book an appointment, or even go to a family doctor first. All they needed to do was show up at the hospital and buy an "entry ticket" for 1 EGP. This difference has led to the rise of mixed sentiments by beneficiaries, which will be made clearer through their verbatim quotations, next. Beneficiary 1, who is in her early 30s but has had a few experiences with the old system when she needed to see an orthopedist said:

> *There's a big difference between the new system and the old one. In the old one you would get an entry ticket for 1 EGP, and you'd find people … (laughs)… sorry… all over the place as if you're entering a consumers' association (gam'eya Istehalkiya)… people used to crowd out each other to try to enter, and the physicians didn't even seem clean. You'd have go to the facility's window any time*

between 9 am and 12 pm to get the entry ticket for 1 EGP. If you went at 12:01 you wouldn't get one. – Beneficiary 1, April 2023

Additionally, Beneficiary 1 explained that after getting the 1 EGP ticket and joining the crowd, getting express entry to see a doctor depended on patients' ability to negotiate with the nurses who were managing the traffic of patients. Thus, Beneficiary 1 explained that a plead and perhaps a little financial tip would help speed up the process.

The priority of entry used to be based on your connections… if you knew the nurse for example or if you tell her 'please let me in, kind lady' (Wenabi ya setti khalaseeni), and you would give her 10-20 EGP. – Beneficiary 1, April 2023

The elder beneficiaries did not recount their experience with this sarcasm or dissatisfaction. On the contrary, some believed that the convenience of seeing the specialist was more valuable than booking an appointment and having a more "orderly process". Beneficiary 4 complains:

When you call to book an appointment they only give you two options, either the dentist or general practitioner (family doctor). If you want any specialist other than the family doctor, you still have to go through the family doctor first, at the time that they assign for your appointment. Then when you go to the family doctor, he just keeps doing things over their system - which of course we don't understand anything about - and they refer you to the specialist. So you could waste a whole hour that day just waiting to get into the family doctor's appointment, even though you don't need that appointment, all you need is to see the specialist. – Beneficiary 4, June 2023

This statement clarifies the sentiment that several beneficiaries shared, which is that the dissatisfaction with the process is doubled. On the one hand, beneficiaries are not accustomed to the PHC culture, or the idea of referrals. And on the other hand, the wait times within the health units and hospitals can be longer than 30 minutes. In fact, during my field visit to PHC Unit 3, the Manager told us that she has had an exceptionally busy day because their unit had experienced a large number of walk-ins that day. When I asked her why people were not booking their appointments through the call center, and how she handled walk-ins, she explained:

Sometimes an elderly person will call the call center and they would tell them there are no slots today, for example. So that person yells at the call center representative and tells them how come, I'm old and I'm sick and I need to go today. So, the representative just tells them to go, and maybe they'll let you in if you say this. Other times we get people who didn't know they need to make a call center appointment. In these cases, I either check if their case can wait, and if so, we help them make a call to book a different appointment. And if the case cannot wait, I just have to handle it. I coordinate with the nurses and doctors so that we let in one beneficiary from the pre-booked appointment, and then one from the walk-ins. We just keep alternating. Of course, people become dissatisfied but what can you do? Health worker 4, July 2023

She also explained that the long wait times are the most frequent concern she receives. Prior to arriving at that PHC Unit, I asked the Survey Official at the Patient Satisfaction Department about the most frequently-reported complaint, and he mentioned that it was also wait times. He explained that people were willing to wait, when they could just enter before for 1 EGP, and the system was disorganized. But the recent reforms are causing beneficiaries' expectations to be higher. Additionally, he believed that part of that dissatisfaction merely existed because the UHI system is affiliated with the government. He commented:

These same people may go to a private clinic and wait for hours but they don't complain. But because this is a government system, they have to comment on all the negatives. – Policymaker 5, July 2023

This notion that health services are government-delivered was recognized by Beneficiary 5. But she thinks that the reason behind people's dissatisfaction with wait times stems from one main difference between the old system and the new system. The latter was perceived to be established to serve all classes of citizens; whereas the old system was for low-income individuals and thus people had more tolerance for the poor quality of service. She elaborated:

The wait times in the old system were of course worse, but the old system was for a certain class of people, whereas this new system is for everyone. I personally now trust the new system, but I would have never trusted the old system or gotten my medications through it. Today, I get my medication in a sealed container with the same active ingredients that I would have bought at my own expense. The old

system was for certain people... 'the poor' people (El nas El ghalbana)… people that the government is trying to support sometimes. – Beneficiary 5, May 2023

The Manager of PHC Unit 1 has a perception that is more aligned with the official from the Patient Satisfaction Department. He used to work at Ophthalmology Specialized Hospital before occupying his current role and believed people just found it easier to get their 1 EGP ticket, see a specialist, and maybe get their medication dispensed. In the new system, chronic patients who receive a regular dosage of medication from UHI, need to visit the family doctor to get another check-up, before the family doctor marks that they have attended their appointment on the system and generates a prescription to the pharmacy affiliated with the PHC unit. Some beneficiaries find this inconvenient, given that their health status has not changed, so they would rather be able to dispense their medications without the check-up. However, from a service utilization perspective, none of the chronic patients complained that this was a barrier to receiving their medication or utilizing UHI. On the contrary, the remarkable cost savings, and the availability of a large variety of medications, was noted by most beneficiaries. Additionally, from a cost-governance and patient-safety perspective, it is important to ensure that the beneficiary is still in the same state, before re-prescribing the same medication.

The more concerning phenomenon is the long referral process to see a specialist, which has led Beneficiary 4 to incur additional out-of-pocket (OOP) expenses to go to a private clinic, as her daughter was sick and she could not wait two weeks to see a specialist.

When we have to resort to private doctors in Cairo, the minimum check-up fee is 250 EGP, notwithstanding the prescription, so you could easily surpass 2,000 EGP in OOP. This is compared to UHI which you're barely paying anything for, other than the salary deduction. But the difference is that the nearly-free service is associated with a very long wait time and inconvenience in booking appointments. Not everyone can wait for long. They must have exceptions for the elderly, or people who cannot wait. There must be exceptions. – Beneficiary 4, June 2023

Whereas PHCs and hospitals do have emergency services, there is no mechanism to schedule a specialist's appointment faster. In fact, Beneficiary 4 once asked at the hospital why the referral process takes so long, and she was told that it is because the specialist comes from a

different city and only sees a specific number of cases every week. The Manager at PHC Unit 1 explained that doctors who are full-time employees at GAH sometimes see up to 40 cases per day, but the doctor that Beneficiary 4 is referring to must be a consultant that GAH has contracted with on special terms to avail the service in Port Said.

Also, since some specialists are available on certain days, the wait times at hospitals can be more than one hour, Beneficiary 2 noted. In her experience, Beneficiary 2's husband had a special health insurance card, which was a personalized card, not the generic family card, because he was receiving different treatment. As a patient of renal failure, he visits the hospital three times per week for his dialysis sessions. Beneficiary 1, who is Beneficiary 2's daughter, but spoke on a different occasion also made a remark about the availability of a more customized patient experience for those with special conditions at El Mabarra Hospital:

> *Also, another thing that they did for us, is my mom used to bear private costs to transport my father to dialysis center, and she used to need help getting him out of the car and into the hospital. But they suggested that an ambulance car that is covered by UHI would come and pick him up from home, and take him to the hospital, all the way up to his dialysis appointment. Also, my mother used to take things like pillows and blankets for my father every time he goes to his dialysis appointment, but they offered her a locker in the hospital to keep these items. After my father finishes his session, the ambulance takes him back home. – Beneficiary 1, April 2023*

As I was worried that the aforementioned procedures were an exception for Beneficiary 1's father, I asked her if he had seen anyone utilizing these services, and she commented:

> *The ambulance service is used by others, and is covered by UHI, because in fact sometimes the car arrives at our place around 30 minutes late because they had another case before my father. So it's a service that's available to everyone as long as you're insured. But to be fair, the hospital that we go to is 'El Mabarra' Hospital which is need the governor's office, and is in the 'Ifrang' neighborhood, by the sea shore and is more affluent. But if you go to other areas, I know that the health units are also clean but I don't know if patients are treated the same way or not, because patients in those areas generally have a bit more of an angry demeanor*

so only God knows if they get the same treatment that we get here. – Beneficiary 1, April 2023

As Beneficiary 1 highlights, while she trusts that the infrastructure is unified across different locations, she was not entirely sure of the availability of all the system's privileges to fellow Port Said-ians in less affluent districts. These challenges with the availability of specialists on a regular basis, or providing exceptional ambulatory services for beneficiaries with certain conditions may be more pronounced at the UHI system is rolled out in larger, less urban governorates than Port Said.

6.2.3 Patient-centric Management Performance Indicators and Perceptions on theUse of Technology

Patient-centric management and the use of technology are elements that may create organizational barriers to service utilization. Accordingly, unpacking the impact of the UHI system on them is important. It is noteworthy that both were not deployed in the old system at all, so the systems' stakeholders have strong opinions about their implementation. First, the deployment of technology in the new system includes the roll-out of the Electronic Medical Records (EMR) system that all medical staff must use. Policymaker 3 noted that digitization was complete in most of Port Said's facilities:

All primary care centers and units have been digitized 100%, and we are "paperless", there are absolutely no papers, and the hospitals are digitized at 85%. Hospital digitization is being done on phases in collaboration with the Ministry of Communications and Information Technology. – Policymaker 3, July 2023

The digitization at primary care units has affected beneficiaries' utilization experience positively. Since a large portion of beneficiaries mainly depend on UHI in dispensing their regular medications, they find it convenient to be aware of the medications' availability as well as potential alternatives while speaking with their family doctor. Beneficiary 2 commented:

The advantage of the 'information network' and technology is that the doctor knows the available medications and suggests the best option, or an alternative while I'm with her. – Beneficiary 2, April 2023

Beneficiary 5, who is in the same age group as Beneficiary 2 also comments that she appreciates the usage of digital systems in her experience of receiving her monthly medication:

> *The system is very convenient, I get a little paper for my queue at the PHC, then when I do my check up with the doctor, and the doctor directly communicates with the pharmacy through the 'computer'. And then I got to the pharmacy, make my 10% copayment, and receive my medication with the receipt. – Beneficiary 5, May 2023*

Expanding on this further, Beneficiary 4 believes that digitization has helped save beneficiaries the burdens of moving around with papers, and made the PHC's safer during the COVID-19 pandemic:

> *They do not operate unless the system is operating of course because it's all digital now and there's "data" on the computer, so they cannot operate otherwise. It's all digital, so even when I'm getting my medication, there's no paper that I take or anything, I just go to the pharmacist down stairs, tell her my name, and she dispenses the medication. The labs are also the same, I just go in and say my name without any papers, it's all digital. This digitization is positive because it saves us the hassle of paper work of course, and this was also helpful during COVID, because we didn't exchange any physical documents from hand-to-hand. – Beneficiary 4, May 2023*

The digitization of pharmacies and labs' operations was implemented to ensure that the system is governed such that only beneficiaries are receiving these services. One of the implications of this, is that beneficiaries cannot take their lab or radiology reports home, but have to visit the family doctor to receive a diagnosis, and get the necessary medication, if relevant. During my field visit at PHC Unit 3, Beneficiary 7 was arguing with the doctor that he wanted to take his blood tests, and the doctor said she could only give him a diagnosis. When I asked the Unit Manager, she noted that this policy is set to ensure that beneficiaries are not going to private clinics, receiving their tests through UHI, then returning to request certain medication based on the private doctor's diagnosis. Beneficiary 2 also confirmed that it is not possible to request any of their records, at the time being, as it is '*prohibited*', but the doctors can provide a report of the diagnosis, if needed. Perhaps as the UHI system matures, there should be a protocol for data exchange especially where patient consent is available.

Since beneficiaries appreciated digitization, I asked Beneficiary 5, if adding a telehealth to UHI services, would improve her utilization experience, especially since she goes to her check-ups mainly to get her regular medication. Additionally, Beneficiary 5 had a problem with her heal and had to resort to very renowned specialist in Cairo to diagnose it. She said that sometimes there are very specific conditions within certain specializations, that will still require resorting to services outside Port Said. This question was particularly aimed at gauging how a beneficiary who experiences digitization positively, yet would like to access a specialist outside Port Said will perceive the integration of telehealth services into UHI. This is also relevant given the government's plans to integrate telehealth into the health system, and might save beneficiaries in her situation unnecessary OOP. Beneficiary 5 responded:

> *That's a good idea, especially for some specializations where you can get the opinions of a specialist in Cairo. The problem is that people are not well-educated, so they won't be able to deal with the telehealth system. They won't know what to ask. Sometimes doctors fool patients too. For example, a friend of mine needed some medication for pain relief for her knees as they were swollen and pained her. But the doctor gave her anti-depressants, and she would tell me she's feeling better, then in 2 days she would tell me her knee is still swollen. Of course, you could take anti-depressants and feel good and forget about the pain for some time, but you'll be in pain and will complain shortly after the effect subsides. This doctor of course won't tell the specialist that the patients' knee got worse because of the anti-depressants. So, this approach you're suggesting won't work with everyone.*
> *– Beneficiary 5, May 2023*

This conviction that digital technologies affect the service utilization experience positively is shared by Beneficiary 3, whose shares the above sentiment that the problem is often with the people running the system. She clarified:

> *Booking an appointment is a very organized process. The electronic system is good, but the human aspect of the system is hopeless. The human caliber, you know. Nursing for example. I mean recently I had to go to the orthopedist, and the doctor needed a bandage for the patient whose appointment was prior to mine, By the time the nurse got that bandage another potential appointment could have been conducted. Then the room took look to be cleaned up, and I still hadn't entered for*

my appointment… the whole human aspect of the system is hopeless (El Manzooma El Bashareya Mafish Feeha Amal). – Beneficiary 3, May 2023

Beneficiaries' concerns about the human resources within the system are critical in analyzing their service utilization experiences and how this relates to the system's implementation. In fact, beneficiaries had disparate experiences. During my field visit to PHC Unit 3, Beneficiary 10 interrupted Beneficiary 9's complaint about wait times to say:

I just wish the doctors actually spent more time speaking to us and less time looking at the computer screen! They spend three-fourth of the appointment looking at the computer screen and typing things rather than listening to us. – Beneficiary 10, July 2023

While Beneficiary 10 believed doctors needed to give more attention to the beneficiaries and less attention to the digital forms on their computer, the Nurse in PHC Unit 3 overheard this remark and later explained to me the problem. The Nurse, looking exhausted, extended her tablet to me and scrolled down the page, commenting:

The problem is… look at all the digital forms we have to fill out! These are GAHAR's requirements and we cannot ignore them. They are very many and they take time. It is tiring. – Health worker 5, July 2023

Her manager, the PHC Unit 3 manager, was also listening and added:

They (the nurses and doctors) have to fill out all the digital forms in order for them to get their full performance points at the end of the month. If they miss points, they'll have paycheck deductions, and it breaks my heart to deduct points sometimes, but there're no other way. These are GAHAR's requirements and we have to adhere to them to maintain our accreditation. The doctors have found a way to get around it and sometimes have standard templates written in MS Word, that they can easily-copy into the EMR. But the nurses have to do assessments like spiritual assessments and the like. They take time and beneficiaries often do not want to do it. – Health worker 4, July 2023

These remarks indicate that the accreditation standards may be the reason behind some beneficiaries' negative experience in dealing with a provider whom they perceive as being pre-

occupied with receiving a full-mark on their performance KPIs and less concerned with the patients. However, it also points to a problematic prioritization of being superficially-compliant with GAHAR's regulations, rather than prioritizing data accuracy. In a different interview, I had asked the Manager of PHC Unit 1 about his experience in implementing GAHAR's standards, and the organization's perception of the new digital systems, to which he elucidated:

> *Digitization and maintaining EMRs is so much better than the legacy operational model with papers. But the problem is I think some of GAHAR's standards that we follow have some excess requirements (Feeha Hashw Shwaya), that ask for extremely detailed information about the patient (Tafaseel Over). For example, we are required to assess the patient from a spiritual, mental, and religious perspective which is information that may not be required within other accreditation standards. But when you ask patients about these things sometimes they might respond by saying 'what is this?'. Add onto that the load of filling out all these assessment forms, even if they are merely 'electronic' they still take time. It may take an extra five minutes for example. But of course, this all pales in comparison to the paper-based system… they are incomparable. – Health worker 1, May 2023*

The compliance of PHC units to these standards, albeit viewed at excessive sometimes, is motivated by their worries about GAHAR's inspections of providers' facilities. The senior official at GAHAR clarified:

> *Our Accountability Team conducts its inspections on a regular basis… the minimum is twice per year. There are two types of inspections. A technical or clinical inspection, and an administrative inspection. So there are usually two inspections of each type per year. – Policymaker 1, April 2023*

Furthermore, she elaborated that some inspections are *"announced"* and some are *"unannounced"*, and findings from these inspections, whether routine or exceptional, can result in placing a hold on the facility's license.

> *If the inspection team finds a big problem, which is rarely the case, the inspections team notify the registration and certification team who conduct what is called an "unannounced survey", and they conduct a field visit. If the findings are as grave*

as reported, they penalize the facility by putting a hold on their registration for 1-6 months, or it may be revoked altogether. It's all based on the severity of the finding. – Policymaker 1, April 2023

These accountability mechanisms are in place to ensure that all the accredited units adopt a "patient-centric" approach to management and service provision, as explained by the official from the Patient Satisfaction Department at GAH. Additionally, the official from GAHAR affirms that "*the inspections are important because you know how people are, once they get certified, there's a sense of slack. So it's important to ensure that they're not relaxing*". The technical officer at GAH (Policymaker 4) also explained that if and organization has weak performance, points are deduced from their 'institutional assessment forms'. Additionally, performing below a certain threshold warrants a reduction in the whole unit or hospital's monthly incentives. Not to mention, management have to construct a corrective action plan and GAH follows up on its implementation. Whereas the Manager of PHC Unit 1 elaborated on this:

The PHC Unit's Quality Team works with other departments on this. If there's 'deviation' from our target KPIs, we do what is called an improvement plan, also through the quality team. The quality team forms a taskforce in collaboration with the concerned department, and other relevant departments and they follow up on the advancement of the improvement plan over 3-6 months. But if the 'deviation' is minor, about 5% from our targets, we set a 'corrective plan' which is a simpler plan and follows the same methodology, but we monitor its impact over 1 month. If the issues persist, then we incorporate more actions and we transform it into an improvement plan, and we may ask for support from the GAH Branch. – Health worker 1, May 2023

This high level of enforcement is perceived by beneficiaries as well. For example, Beneficiary 1's cousins are pharmacists in the new system and have told her how strict the KPIs are, and how their annual performance review could result in the termination of their contract.

Furthermore, Beneficiary 2 noted that she was aware that there are inspections on staff in the new system, which she approved of, especially for nurses. She commented:

The inspections are making nurses afraid of not doing their job. Whereas before they would leave the hospitals to run some errands then come back whenever they

pleased, or just text on their phones without being concerned about how their patients even feel. But now there's no such behavior, because of the inspections. – Beneficiary 2, April 2023

These inspections have given some beneficiaries a sense of trust in the system that they lacked before, which is positively correlated with the likelihood of beneficiaries to utilize the UHI system's services rather than refrain from them. Beneficiary 1 sums up this notion very illustratively:

In the old system when you see the nurse, you get the impression that she has sworn not to serve anyone (Te'di Maslahet Had)... if you give her 20 EGP she might consider treating you well, but if you don't, she would be very rude and savage (Hamageya) and would just yell at you. But now if the nurse does anything inappropriate and you film her, she could be laid off. That's because nurses were trained on quality standards and how to deal with people, and they have something called "KPIs", so they are accountable for their actions, now. – Beneficiary 1, April 2023

Therefore, the enforcement of GAHAR's standards seems to be implemented such that the system's staff fear missing their performance targets as it would not only affect their monthly salaries, as noted in Section 6.1, but would also affect the organization's certification and ability to deliver services. However, beneficiaries' perception of the new system's governance mechanism is creating more trust in the possibilities of improvement, albeit there was near-consensus on the demand for more doctor-patient time, instead of doctor-screen time.

6.2.4 Cleanliness, Infection Control and New Commitment to Human Dignity

Personal barriers to service utilization can include perceptions of a facility's cleanliness and overall sanitation. According to every beneficiary that has participated in this research, the cleanliness of the UHI system's facilities is incomparable to the old system. In fact, it is rather one of the main factors behind some beneficiaries' willingness to utilize tertiary care services that they would have never contemplated in the old system. Before the new system, Beneficiary 1 had to have an operation performed on her back. She explained that the health insurance at that time would have charged her 15,000 EGP for the operation, whereas a private provider charged her triple that price. But before choosing the private provider, Beneficiary 1 and her mother, Beneficiary 2, inspected the public hospital and 'thanked God' that they didn't have

her operation there because of how dirty it was. She mentioned that during their inspection of that hospital there was a young girl whose temperature was above 38°C after her surgery. Beneficiary 1's exclaimed that it must be due to an infection.

Coincidentally, Beneficiary 5, a retired Pediatrician with employment history in the old system, had an insider's view on the level of sanitation in the pre-accreditation facilities:

> *The biggest difference between the old system and the new system is cleanliness of course. There were lots of infections in the old system because of the lack of sanitation. We, as doctors in the old system, used to sit on broken and worn out chairs. There was no respect for human dignity in the old system. There was lots of negligence when it came to sanitation. We were in a very bad situation where there weren't even any janitors or cleaners to clean the place. Sometimes that janitor would just come in for one day. But now, sanitation is the 'number one' priority in order to limit infections. The system has changed completely... the chairs, the air conditioning, the cleanliness. – Beneficiary 5, May 2023*

Furthermore, she provided an example of a case that she had witnessed with an infection:

> *Even the surgeries under the old system were horrible. I have seen children coming in to change their bandage after a surgery and the stitches would be loose and I would find infections. But now things are clean. – Beneficiary 5, May 2023*

Beneficiary 3's late father had to be hospitalized during the COVID-19 pandemic, which she recalls as follows:

> *The cleanliness of the UHI hospitals is at par with private hospitals to be honest, and I've seen this first hand during COVID when my late father had to go to the hospital. This was the first time that I had any experience with the UHI hospitals and they were very good in terms of cleanliness, and equipment and everything to be honest. – Beneficiary 3, May 2023*

This level of cleanliness is attributed to GAHAR's standards on Health and Occupational Safety, according to the technical officer from GAH, which was beneficial during the pandemic. In fact, during the COVID-19 pandemic, Beneficiary 1 recalled "*before going into our appointments, the nurses were checking our COVID vaccination cards before confirming*

our appointment bookings." But as with systems centered around meeting human needs, several intersecting factors may affect individuals' perception of the relative importance of one element in comparison to another. For example, Beneficiary 4, who was generally less satisfied with the new system believed that cleanliness was 'nice-to-have', but insufficient on its own in motivating her utilization of the system:

> *It is very very clean, but who cares about cleanliness? What really matters is having competent doctors. Even if the doctor's surroundings are not sparkling clean, but you know they're competent, you'll visit them anyway. So that's what matters more than cleanliness. Whereas now, the whole place is spotless but the family doctors are not all that good, so why would you go? They just listen to me talking and ask me what medication I'd like to take! A lot of the time after my appointments, I feel like I didn't get anything out of the visit, and I wonder why I even bothered to make the appointment. – Beneficiary 4, June 2023*

Beneficiary 4's opinion can be reconciled with previous opinions that prioritized cleanliness, when the scope of service is compared. It is clear that beneficiaries who talk about in-patient or surgical procedures prioritize cleanliness, which warrants their ability to utilize specialized services without any fears of attracting an infection. Whereas beneficiaries who are seeking check-up services may perceive cleanliness as supplemental. But the underlying assumption is that specialists performing the surgeries are competent, which was confirmed by the beneficiaries' accounts in Section 6.1, and can be confirmed by the below remark from Beneficiary 5:

> *Surgical procedures are the 'number one' benefactor from this new system, in my opinion. The same with labor and delivery. I know of an elderly woman who had a surgical procedure to treat Uterine prolapse, and it was performed by a very good doctor, and he did the surgery very well. This woman is well-off and could have done the surgery elsewhere at her own expense, but I think people have gained trust in the system because of the good doctors and clean facilities. The labor and delivery hospital that's affiliated with UHI now is exactly like private hospitals. So surgeries are the biggest change that UHI has done. Today, people who need a pelvic joint replacement can get it done in Port Said, whereas previously they had to travel to Mansoura for example, and it's all for a nominal price. – Beneficiary 5, May 2023*

Beneficiary 5 and Beneficiary 1 also commented that these changes reflect more attention to 'human dignity'. I could also recognize this sentiment during my field visit in PHC Unit 2, where I was observing one of the family doctors as he conducted his work. After finishing one check-up, he was notified that the next beneficiary (Beneficiary 6) was sitting downstairs in the emergency room on the ground floor because she told the nurse in the waiting area that she would not be able to climb the stairs. As a result, the Manager of PHC Unit 2 explained that they were allowing patients who could not climb to the second floor enter the emergency room, conditional on its availability. Beneficiary 6 was visiting the PHC Unit for her routine diabetes check-up and mentioned that her motivation for coming was to dispense her medication. However, the staff's empathy with her needs comes in stark contrast to the situation described earlier Beneficiary 1 on nurses' reluctance to support anyone in the old system.

Overall, this subsection shows that there are implementation procedures to embed a culture of patient-centricity and quality in the healthcare system. Nonetheless, beneficiaries have competing preferences that remain unbalanced given the current implementation in Port Said. These experiences and perceptions warrant an examination of patient satisfaction and service effectiveness measures.

6.3 Service Effectiveness

A higher degree of access to healthcare services is the access that is deemed 'effective' by the beneficiaries and reduces their need for additional future utilization. Given that the system's implementation is still in early stages, it is difficult to generalize the results of these qualitative interviews and observations on service effectiveness. I believe understanding this requires a long-term study over an extended time horizon. Despite that, there were some notable implications based on the findings in the two preceding subsections.

The first is that due to the recent emergence of practicing family medicine on a large scale in Egypt, some doctors still lack the expertise to support beneficiaries in gaining an in-depth understanding of their diagnosis. In turn, doctors sometimes yield to beneficiaries' requests for certain medications, or their request to be referred to a specialist. But given the length of the referral process in some specializations, time-sensitive beneficiaries sacrifice the financial savings associated with waiting for UHI's specialist appointment, and opt to bear OOP expenses for the expedited out-of-network alternative.

Secondly, the availability of competent specialists who can carry out non-time-sensitive interventions are a necessary but insufficient condition to fulfilling less financially-sensitive beneficiaries' needs. The lack of sanitation and infection control would render the availability of those services ineffective for this group of beneficiaries, who may also resort to an out-of-network provider to avoid potential infections.

Last, the large proportion of chronic patients in Egypt, overall, and from this research participants' experiences, implies that the availability of medications is as critical to service effectiveness as are the earlier factors. Notably, chronic patients are exempt from all co-payments according to Table 3 of the UHI Law. Thus, medication availability is one of these beneficiaries' fundamental needs. The Manager at PHC Unit 1, mentioned that the new system already covers many more medications in comparison to the old system:

> *In the old system there were only 3-4 types of available medication, whereas now the pharmacy that's affiliated with the PHC unit has 360 types of medicine, including commercial medications that people would otherwise purchase from private pharmacies. So chronic patients come in every two months. For example, insulin is available and it's for free. – Health worker 1, May 2023*

In addition to the large number of available medications, Beneficiary 5, who had an insider view on the legacy health insurance system believes that the quality of medications is now trustworthy. Whereas in the past, she did not even trust the effectiveness of the active ingredients in any of the health insurance medications, including antibiotics. She recollected one of her personal experiences as a pediatrician:

> *I was a pediatrician in the old system, and if I had a child come in with abscess on their tonsils, I would never recommend to their parents the health insurance authority's antibiotics. I would tell them to buy it from private out-of-network pharmacies. Sometimes we would collect money for the parents to help them buy the medication. The whole system was overwhelming and exhausting (Gholb). – Beneficiary 5, May 2023*

Thus, the medications in the new system were recognized as comparable to what beneficiaries would buy at private sector pharmacies, which perhaps further illustrates why private pharmacies' business has not fared well in Port Said. Nonetheless, Beneficiary 4 once noted that her husband's diabetes medication was not fully-dispensed to them one time before as they

were asked to pay the PHC Unit's pharmacy another visit in two weeks to get the remaining quantities. Upon asking about why this would occur, the Manager of PHC Unit 1 explained:

> *This was true during COVID because of the supply chain issues, so what we did was if someone was supposed to get 2-months' worth of medication, we would only give them 1 month, in order to make sure that we can cover the remaining patients, and we would tell that patient to come in again next month for the next dosage. But currently [May, 2023] we don't have any shortages. – Health worker 1, May 2023*

However, the same Beneficiary (4) who had this experience with the rationing of medications, also commented that it is mostly the case that "*whenever there is missing medication, there's always a substitute. The pharmacist can check on 'the system' for available alternatives*". Hence, medication availability can have grave health and financial impact on beneficiaries with chronic conditions, and are a critical element of "service effectiveness" in the context of Egypt.

The next sub-sections provide an overview of patient satisfaction metrics, as well as the complaints process within the UHI system. I believe that tackling service effectiveness and beneficiary satisfaction, must go hand-in-hand with grievance and complaints mechanisms, in same satisfaction and effectiveness are unattained.

6.3.1 Beneficiary Surveys Conducted by GAH

During my field visit, the Survey Manager at GAH's Patient Satisfaction Department (Policymaker 5) explained that their department, through its shadow teams in service-providing facilities. His Manager also noted that the sample size they target is 10% of all beneficiaries every month. Their surveys cover detailed questions about a beneficiary's level of satisfaction with the service they obtained, the doctor they dealt with, nursing, cleanliness, and more, she noted. GAH conducts these surveys to manage the performance of its providers, perform its institutional assessments, and determine where corrective actions are needed. These surveys are also part of GAH's approach to be "*patient-centric*" as the Survey Manager (Policymaker 5) later elaborated. On our way to the PHC Units he added that they were deploying a new survey methodology, with smiley faces that beneficiaries can more easily do, instead of the longer detailed questions. He clarified that providers below 85% satisfaction, were supposed to work on improving their scores through a plan.

After these remarks, we arrived at PHC Unit 2, where the PHC Unit Manager introduced me to Health Worker 3, whom the GAH officials knew very well. In fact, the GAH technical officer (Policymaker 4) and survey manager (Policymaker 5) both noted that they conduct field visits regularly to report back to their management if they see any malpractices. Health Worker 3, a woman in her late 50s, sat on a desk near the front door and the waiting area with two banners: one that mentioned GAH's vision and mission, and another that said 'service desk for senior citizens over 60 years old and PwDs'. She explained that her role was to survey and speak with the beneficiaries at her PHC Unit, and she noted that most of them were senior citizens. Commenting on this, the survey managed clarified that most beneficiaries of UHI are senior citizens as the 'youth have good health' and just usually benefit from dental or optical check-ups.

Health Worker 5's manager, the Patient Satisfaction Manager (PSM) at that PHC, also stepped in as we were moving around to speak with the PHC Unit Manager about an issue that needed to be resolved in the second floor. The PSM Unit Manager were both in their early 30s and seemed too concerned with managing the Unit, over conducting the field visit, which I appreciated. Overall, I could sense that they had a sense of ownership towards their beneficiaries and the Unit's performance. PHC Unit 3 was no different, where the PHC Unit Manager was directly engaging with her employees in resolving issues related to the elongated wait time resulting from excessive walk-ins on that day.

After our return from the visits, the Survey Manager (Policymaker 5) got approval from his manager and the Senior Official at GAH (Policymaker 3), in the presence of the technical officer (Policymaker 4) and his manager, to share GAH's aggregated patient satisfaction results over the months of April – July 2023. While they do not publish these statistics on their website or social media, they welcomed sharing this information for research purposes. Tables (4) and (5) below present a simple, more aggregated representation of the provided data. The full results can be found in Appendix 9.1.

Table 4: Beneficiary Satisfaction Survey Statistics as Reported by GAH

Primary Healthcare Units	**April 2023**	**May 2023**	**June 2023**
Total Appointments	60,771	82,861	94,488
Surveyed Beneficiaries	5,366	6,942	8,924
Sample Size (%)	9%	8%	9%
Average Satisfaction Rate	95%	95%	95%

Table 5: Beneficiary Satisfaction Survey Statistics as Reported by GAH

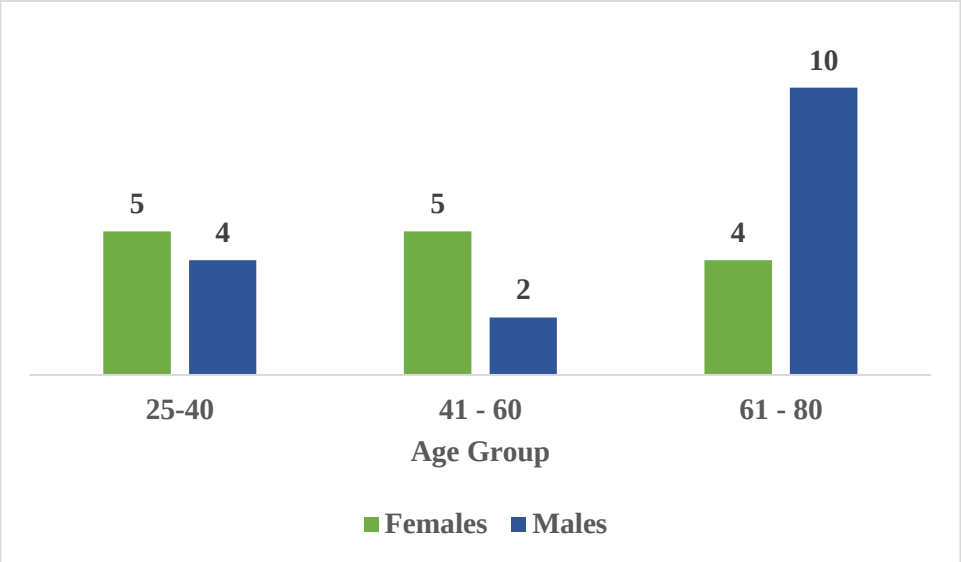
Hospitals	**April 2023**	**May 2023**	**June 2023**
Total Appointments	77,411	167,772	90,958
Surveyed Beneficiaries	6,329	13,188	6,700
Sample Size (%)	8%	8%	7%
Average Satisfaction Rate	94%	94%	94%

The above table show higher levels of service utilization, month-to-month, although the surge in hospital visits in May 2023 is unexplained and would require further investigations to understand its root cause. Interestingly, the overall satisfaction rates have remained constant throughout the three months, for each type of facility. This is despite the Manager of PHC Unit 1 estimating that '*overall satisfaction levels currently stand at 60-70%, if compared to the first stages of implementation*'. The root cause behind these constant figures requires investigation to understand how the sample is selected, to ensure there is no selection bias, as well as the methodology of conducting the surveys themselves. For example, if the responsible employee is helping the beneficiary in responding to the survey, there may be social desirability bias at play. The precise reasons require in-depth investigation. Nevertheless, from an implementation-perspective, it is necessary to ensure that governance and accountability measure such as satisfaction surveys do not turn into a procedure that employees merely want to check-off.

In an effort to get an understanding of the service utilization motivations of UHI beneficiaries, I handed out random surveys to the beneficiaries in the waiting area while we continued the field visit. Seventeen beneficiaries answered the service utilization driver question in PHC Unit 2, and 13 responded in PHC Unit 3. While these descriptive statistics are not meant for generalization, they confirm several key insights that go in line with the findings from the qualitative interviews.

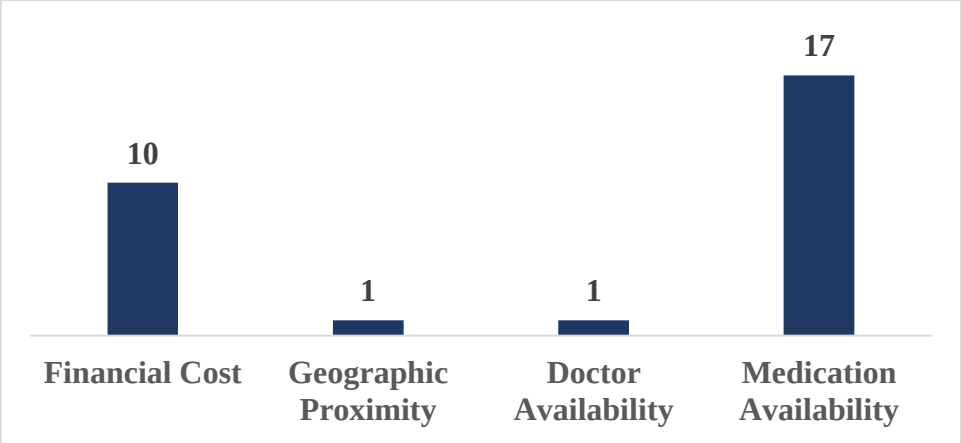
Overall, the sample consisted of 30 respondents, constituting 47% females and 53% males, and nearly 50% of all participants were over 60 years of age. This data is summarized below in Figure (4).

Figure 4: Number of Surveyed Males & Females by Age Group



When asked to rank the different factors that affected their utilization of healthcare services through the UHI system, 57% of the surveyed beneficiaries ranked "medication availability" as the top driver. This is consistent with the findings from the qualitative interviews, which suggest that a large proportion of beneficiaries either have chronic conditions that require regular medications, or they would like to ensure that they get their "*money's worth for the premiums*" they pay, as noted by Beneficiary 4. Figure (5) below shows the number of beneficiaries who selected a particular element as their top utilization driver. It is worth-noting that the total number of respondents to the question about drivers were the 30 respondents, but one respondent indicated all factors mattered equally to her and there was no 'top driver'.

Figure 5: Number of participants that ranked this factor as top driver for service utilization



As a system that hinges upon human experiences, I believe that while statistics can be helpful in understanding the overall landscape, beneficiaries must have a route to provide elaborate feedback about their experiences. This feedback can inform the implementation process and support the government's understanding of the pain points that need to be addressed in the UHI service delivery map. Therefore, the next sub-section highlights beneficiaries' knowledge about complaints mechanisms, and their experiences with them.

6.3.2 Beneficiary Complaints and the Culture of Protectionism

According the government officials that participated in this research, there are several channels to receive beneficiaries' complaints. These channels range from walk-ins to the government agencies' offices, to making a complaint through the appointment-booking call center, speaking with a patient satisfaction officer at one of the health facilities, or filing a complaint using one of the complaint forms within the units. In fact, during my field visit to one of the PHC units, I noticed the complaints box and asked how beneficiaries can file a complaint. The technical officer from GAH explained that this box is opened by the PHC Unit management team on Wednesday of every week. The team checks the nature of the complaint, and they call the beneficiary to investigate it. An image of this box and the standardized complaints form can be found in Appendix 9.2. Nevertheless, Beneficiary 5 said she has seen this box but prefers to make verbal complaints to someone that can respond and interact with her immediately:

> *I've seen the box that they have at PHC units for those who want to give feedback or make complaints, but the problem is there's no interaction with that mechanism.*

There isn't someone to respond to you and tell you how they've addressed your concerns… there's nothing. This lack of responsiveness discourages me from making complaints. We are just obliged to accept the whole system as it is. – Beneficiary 5, May 2023

In addition to the aforementioned channels, the senior official at GAHAR clarified that some complaints may go through other government channels, like the Cabinet Complains Center, whose personnel re-route the complaint to the responsible UHI agency.

Beneficiaries' experiences with these complaints' mechanisms were not positive, however, for various reasons including the perception that UHI staff would rather resolve complaints on a friendly-basis rather than escalate them to their management. Beneficiary 1 conveyed this sentiment:

The complaints mechanism exists but is very weak, so generally people rely on social media groups to convey their complaints. Port Said is fairly small and lots of people know each other, so if you write a complaint on a certain Facebook group, its bound to be seen by someone who works in a civil society organization who may be able to help. The formal complaints mechanism is still weak because people still display some favoritism and are protective of one another as you know … and they cover up for each other (El Nas bet-habi le ba'd). – Beneficiary 1, April 2023

Although Beneficiary 1 believed social media was an effective outlet for complaints, she thought it would escalate because someone from a civil society organization, outside GAH, would seek its resolution. This conveys her lack of trust in the system's complaint mechanism. Contrastingly, Beneficiary 4's experience with posting on social media has been negative as her complaints were deleted:

By the way, we've written a lot on their Facebook page, but they do not respond. I don't think they even accept sharing the post that has negative comments towards them. We've tried a lot, but when you write a positive comment or you ask a question, they respond. But any negative comment is removed. I think I had written this on the PHC unit's Facebook page, because my daughter was sick and when I tried to book an appointment it was 2 weeks out. So I wrote something along the lines of 'why should I wait for 2 weeks to get the appointment when my daughter

is sick? and I cannot go to an out-of-network provider.' They would not allow the post to be shared at all. – Beneficiary 4, June 2023

Thus, Beneficiary 4 has a conviction that the responsible personnel do not want the complaints to be publicized on social media, or perhaps they do not want to receive complaints at all. But Beneficiary 5 had a somewhat different experience, where she was encouraged to file a complaint, but never received any follow-up. She recounted her experience:

I've tried making a complaint before, because I needed to get an MRI done and they referred me to a center that was near Ismailia but when I went there, they did not have the device. So I made a complaint. They're very welcoming of complaints and tell you you're most welcome to file one, but then nobody ever follows up, or calls to understand what the issue was. On the same day, the doctor was speaking in a very disrespectful manner and kept cutting us off as we spoke... Egyptians have not changed... we even filed a complaint against her, but there was no follow up on that complaint. They're just comforting patients by telling them to write whatever they want. – Beneficiary 5, May 2023

Hence, the lack of action or follow-up with the written complaints seems to be acknowledged by several beneficiaries. However, when pointing out specific service-related concerns, Beneficiary 1 and Beneficiary 4 claimed that their problems were resolved. Beneficiary 1 spoke about her mother's experience during her father's dialysis sessions during which the mother complained that the nurses had changed the set-up of the room, which was uncomfortable for the father. During the next visit, the nurses had fixed this problem. Additionally, Beneficiary 4's husband, who gets his monthly diabetes medication through UHI, was unable to book an appointment within the needed time frame. This would have affected his ability to take his medications, if he did not buy them at his own expense. After going to the PHC unit and making a complaint about the available appointments, the PHC unit resolved this problem and were able to find him an appointment in two days instead of two weeks.

When I asked the GAHAR senior official about the types of complaints that they are most concerned with, as the accountability and quality assurance agency within the UHI system, she clarified:

> *The types of complaints that we're most concerned with are ones that affect patients directly because of the way that medical services were delivered to them. For example, one patient recently had a blood clot and he was referred to a different hospital without them being aware of his blood clot and this caused problems. We also have an icon on our website for complaints. – Policymaker 1, April 2023*

In line with this attention to severe medication issues, Beneficiary 1, admitted that she trusts that anyone who commits a severe medical mistake would face the relevant penalties. Whereas in the old system, she says, there was a pediatrician who caused several cases of wrongful death due to things like "*accidentally cutting through an artery*". She mentioned that in the old system he was fined several times, and his private practice would shut down for a month or two, but he would proceed operating afterwards. Whereas under the new system, she confirmed that he was facing charges, and believes that he would never make it to the service provision landscape because he simple would not get accredited.

In conclusion, the formal complaints mechanisms related to beneficiaries' utilization experiences are not as effective as they expect them to be. The most worrisome feature of this, is the lack of feedback on how a complaint has been handled. And although beneficiaries generally believe that medically-related complaints would be resolved, they also demand support in resolving other administrative bottlenecks when they arise, without staff being protective of one another.

7 CONCLUSION AND POLICY RECOMMENDATIONS

7.1 Conclusion

This research aimed to investigate the policy implementation dimensions of the Egypt's UHI Law of 2018 by taking the first city of implementation, Port Said, as a case study. Using various data collection methods, most notably in-depth interviews and a field visit, this research relied on the engagement of the system's key stakeholders to deconstruct how the new system is shaping experiences of access to healthcare in Port Said.

In terms of service availability, the interplay between GAHAR's newly-mandated accreditation requirements, and UHIA's service pricing policies had led to the dominance of public sector providers in Port Said's healthcare landscape. GAH's comparative advantage as the dominant provider in the UHI system is further consolidated by the government's fiscal and political support. And despite GAHAR's mandate to avail technical training to providers and conduct gap analyses that can help management obtain accreditation, small-scale private pharmacies and clinics are struggling to invest in the infrastructure and institutional capabilities mandated by GAHAR. On the other hand, UHIA's service pricing committee has updated its prices four times since the inception of the program's implementation, yet the latest increase fails to keep up with the rapid inflation, devaluation of the Egyptian Pound, and foreign exchange shortages. These economics factors are compounding service providers costs, especially for procedures that require imported or special components like cochlear implants. These challenges are surfacing after decades of limited regulation and oversight on providers' practices in the health sector.

From the beneficiaries' perspective, some implementation challenges have surfaced in the enrolment process. Most notably, the fact that registration in UHI must be completed by the male head of the household means that some unemployed women and their children may be denied access to essential healthcare services, at an accessible cost. This is especially probable if the man travels abroad without registering his children in the system. Another challenge pertains to employees working in governorates where UHI has been implemented, but their residency is elsewhere. And while the government has approved exceptions to enroll populations from South Sinai in Ismailia, non-resident employees in Port Said are still denied enrollment in the system. This mismatch is also affecting employers' health insurance costs, as employers are mandated with paying 4% premiums to cover the employees that are registered within the Social Insurance Organization.

On the service utilization front, the new system's biggest challenge is to shift beneficiaries' culture from one that prioritized seeing a specialist any time, after buying a 1 EGP entry ticket into the legacy HIO facilities; to a PHC-centered system that revolves around family doctors. Service utilization for most beneficiaries was linked to medication needs for a chronic condition. Accordingly, the availability of a large variety of medications within the new system has been cited by many beneficiaries as a key change. Yet dispensing medications still requires visiting a family doctor for a check-up, which many beneficiaries were critical of. Some beneficiaries viewed this as an unnecessary burden, given the often-prolonged wait times. The UHI law gave GAH the authority to have a flexible compensation policy, which it has leveraged in Port Said to attract senior specialists for its tertiary care facilities. The availability of these specialists has impacted Port Said citizens' access to specialized surgeries that were hours away from home in the past. Yet, some beneficiaries remain unsatisfied with the long referral process, which is dictated by the specialists' availability in Port Said, based on their contracts with GAH. Nonetheless, the availability of family doctors and specialists is a result the regulatory flexibility that it allows GAH is setting suitable remuneration packages in order to retain and attract full-time doctors (mostly family doctors), and flexible agreements to contract with specialists based on a certain performance metrics.

The deployment of technology within the system has fueled organizational efficiency from both the beneficiaries' and staff's perspective. Beneficiaries' ability to keep records of their case, and learn about available medications is especially important for patients with chronic conditions, who constitute a sizeable portion of beneficiaries. Additionally, doctors can save the time of obtaining the beneficiaries' full medical record by having access to this information on-screen. But GAHAR's introduction of mandatory standardized digital assessment forms that doctors and nurses are required to fill out during beneficiaries' check-ups are causing some dissatisfaction across both cohorts. These procedures, although viewed as a burden by some staff members, are complied with due to GAHAR's enforcement and audit mechanisms and GAH's strict performance management metrics may lead to penalties in the form of salary deductions for non-compliance. On the other hand, some beneficiaries view the questions as excessive, and would prefer to save the doctor's screen time for the actual check-up.

Service effectiveness at this stage of UHI implementation is a function of beneficiaries' utilization patterns, which suggest that the availability of affordable medication, and specialists

are critical to deriving benefit from the UHI system. GAH's patient satisfaction department deploys standardized surveys to measure beneficiaries' satisfaction with the services they've utilized on a monthly-basis. However, taken at face value these figures do not give a holistic view of the system's bottlenecks of individual cases of distress due to inaccessible appointments resulting from long referral processes. Perhaps another challenge is that since these survey results directly affect staff's remuneration, there may be an incentive to distort the results whether deliberately or by way of selection bias in the sampling process.

The next sub-section provides recommendations to tackle different implementation challenges in this research's focus areas: service availability, utilization and access. Furthermore, since this research was built upon the experiences of the system's stakeholders, I believe their recommendations and perspectives of the changes they aspire to see in the system must be reflected in this research. This serves to amplify their perspectives, as participants in this research and co-creators of the new UHI system in its current form. Therefore, the recommendations section is fully-informed by the accounts of the participants of this research.

7.2 Policy Recommendations for the Implementation of UHI

Literature on national health insurance implementation in LMICs suggests that one of the key challenges is the integration of private health providers in the system, similar to the case of Egypt thus far (Cisek & Saracino, 2022). In fact, the challenges presented in the findings section of this research are not unique to Egypt, as other LMICs also face challenges with private provider licensing and accreditation, contracting with the payer agency, and establishing a mechanism to monitor performance (Cisek & Saracino 2022). In order to ensure proper integration of the private sector in UHI's ongoing implementation, several measures are recommended.

Service Availability (Increasing Private Sector Provider Participation):

1. First, it is advisable to conduct a participatory planning process between UHIA and GAHAR individually, and GAH (representing public providers) and private sector providers in a governorate on the other hand.
    a. Before announcing UHI implementation in a governorate, GAHAR needs to gain an understanding of the landscape of potential private providers, their scope of service, as well as their accreditation challenges. Defining the cadres of personnel that require accreditation within the system can support GAHAR's

development of more specific requirements that can be met by small-scale private providers in the short term.

b. This includes private clinics and pharmacies. Furthermore, GAHAR should extend its training programs to the graduates of health-related fields in these governorates in order to make sure that it can fill the human resources gap related to implementing accreditation standards in small-scale providers. These programs can be scaled in partnership with civil society organizations.

2. UHIA should engage with GAH and private providers to determine how beneficiary empanelment will occur, especially at the PHC-level. This is necessary in order to ensure that both providers can plan for a particular economically-viable capacity within their geographic regions. This is also critical given that private and community-based providers will be necessary in reaching a higher level of service availability in rural communities.
3. On the contractual side, UHIA's current fee-for-service model, while may seem conducive to attracting private-providers in some procedures where the price lists are viable, is limiting the participation of private providers. Accordingly, not only do fees need to be modified regularly to account for market changes, but also must ensure that providers will be able to cover the cost of highly-specialized procedures.
    a. a. Inability to cover their costs may limit providers' ability to attract specialized consultants in the long-term, and lead to the rise of a parallel private insurance programs or the increase in out-of-network utilization, as the UHI system may lose its effectiveness. This is a risk, especially in governorates with an affluent private sector, such as Cairo, where bargaining power is high and beneficiaries are perceived to have higher political salience. Materialization of this risk would void the UHI system of its goal, as it aims to achieve financial accessibility to quality healthcare services to all. Thus, ensuring the adjustment of UHI reimbursement rates is critical to availing the necessary incentives for private providers' enrolment in the system. These adjustments should be flexible in order to keep pace with inflation.
    b. UHIA can consider the adoption of a capitation model on some services, such as primary health care services, which are lower in cost, while maintaining a

fair price list for more specialized procedures. Setting an upfront, known revenue stream that would be paid out based on a PHC unit's number of beneficiaries may support private providers' willingness to have presence in rural communities. While Port Said is urban and does not grapple with challenges of the availability of physical infrastructure, other rural governorates may require providing additional incentives to ensure services are available. In fact, since the UHI law allows the provision of some secondary-care services through PHC units, conditional on the availability of the necessary infrastructure, establishing pricing incentives for the PHC-level providers may speed-up the UHI system's roll-out in underserved governorates.

4. From a technological perspective, UHIA should provide training programs, through its implementing vendors on the usage of the digital platforms serve as an interface between UHIA and all providers.
5. To mitigate small-scale private providers' lack of necessary financial resources for the implementation of such systems, the Ministry of Health should cooperate with multilateral development institutions to establish blended finance vehicles for these providers to offer funding, on concessional terms, based on providers' adherence to specific target accreditation requirements
6. UHIA should focus on developing a communications plan to build awareness around beneficiaries' right to receive care through both private and public providers.
    a. Another recommendation, pertaining to UHIA's communication and service availability is to raise awareness of beneficiaries' entitlement to home visits. This service is necessary for senior or disabled citizens' access to care, and is one that none of the interviewed beneficiaries were aware of.
    b. In some cases, home visits may also service reduce wait-times at PHC units, which can enhance the service utilization experience.

Service Utilization (Simplifying Enrollment Procedures):

There are two challenges currently with beneficiary enrollment, that will enhance beneficiaries' financial accessibility to healthcare, if addressed: guardianship, and non-resident employees' enrollment in UHI governorates.

1. First, with regards to the requirement that the male head of the household, or other guardian registers their dependents into the UHI system, it is advisable to avail this service through the Digital Egypt government services platform to beneficiaries abroad.
    a. This will enable the guardian to enroll the family without the red-tape complications of shifting guardianship, if this procedure is difficult for some families in the short-term.
2. The next challenge will be the deduction of this population's premiums, which the UHI Law identifies as 5% of their tax-return income or the government upper bound of insurable income in Social Insurance. This can be mitigated by introducing a required payment method, linked with one of the beneficiaries' bank accounts, to automatically deduct premiums. Ensuring that a payment mechanism is well-established is key to guaranteeing the system's governance, and financial viability. To achieve this, UHIA may consider offering other innovative premium-collection solutions in partnership with mobile operators, for example.
    a. In fact, Article 41 of the UHI law gives UHIA the authority to outsource its premium-collection process to other public or private organizations.
    b. Thus, UHIA may benefit from establishing agreements with mobile operators as well as the banking sector to avail premium-collection through mobile and e-wallets, which show steadily-rising adoption rates among different classes of citizens (*Egyptian Streets*, 2023). These services may support the integration of more beneficiaries into the system such as Egyptians abroad, as well as informal workers in Egypt that the Social Insurance Organization cannot automatically-deduct premiums from.
    c. This recommendation can help ensure that beneficiaries' premiums are deducted on time, in order to simplify the re-certification process, and support beneficiaries with delayed payments in paying their installments.

The second implementation challenge, that will endure until the UHI system is fully-implemented across Egypt, is the mismatch between residents and beneficiaries of UHI in certain governorates. It remains the case that residency in the governorate is a condition for UHI enrolment. While this one of the mechanisms to govern the system, from a service capacity-mapping and empanelment perspective, it is unjust for residents contributing to a governorates' local economy not to have access to its basic services, by way of premium-deductions. In fact, the employers are already bearing the health-insurance costs of these

employees, which currently represents an additional cost that they may attempt to avoid by minimizing the level of formalization within their workforce, especially for low-skilled workers. As such, this denies some individuals of their social protection net, be it social insurance or health insurance. Therefore, the government should:

3. Consider opening registration to full-time regular employees who are non-residents of a UHI governorate. This requires coordination between UHIA and GAH to ensure that operational capacity is mapped accordingly.

Service Effectiveness (Performance Monitoring and Complaint Management):

The final recommendation, concerning monitoring service utilization and service effectiveness, is to monitor facilities' performance by way of independent surveying mechanisms. In the current system, GAH staff have high stakes in the beneficiary satisfaction process as the results impact their remuneration. As such,:

1. It is advisable to conduct these surveys through digital systems or by phone to a random set of beneficiaries throughout every month.
    a. This system should be implemented by GAHAR, as the primary regulator of the system, and availed to public and private sector facilities alike.
    b. Deployment of this system should be mandatory, and the results of these surveys should be shared with the provider, in order to manage their organization's performance. Having oversight over these results can also support GAHAR's audit process.
    c. Availing this independent channel may limit the current culture of protectionism among staff members at GAH, and can lead to better responsiveness to beneficiaries' complaints.

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9 APPENDIX

9.1 Beneficiary Satisfaction Surveys by GAH

April 2023

First: Total Number of Surveys at Primary Healthcare Units

(Translated without omissions or formatting – read from right to left)

Comments	Beneficiary Satisfaction Score	Sample Size in proportion to Visits	Visits to the PHC	Actual Number of Conducted Surveys	Unit Name	#
	%94	**%11**	**1881**	**200**	Omar Ibn El Khattab	.1
	%92	**%9**	**1300**	**120**	Maysara	.2
	%96	**%7**	**2474**	**175**	5000	.3
	%97	**%7**	**3309**	**232**	Mohamed Mashali	.4
	%91	**%10**	**1600**	**160**	Samar El Sayed	.5
	%97	**%10**	**1428**	**142**	Manakh I	.6
	%95	**%7**	**1330**	**93**	Manakh II	.7
	%95	**%7**	**4005**	**280**	El Arab	.8
	%96	**%9**	**2933**	**270**	El Arab II	.9
	%92	**%10**	**2903**	**280**	Port Fouad II	.10
	%98	**%11**	**2301**	**260**	El Kuwait	.11
	%92	**%11**	**2148**	**240**	El Qabuti	.12
	%94	**%7**	**3351**	**235**	Othman	.13
	%94	**%6**	**2300**	**130**	Ali	.14
	%97	**%11**	**2627**	**300**	Physiotherapy	.15
	%92	**%7**	**4000**	**280**	Mostafa Kamel	.16

	%93	**%10**	**2045**	**200**	Cooperatives	.17
	%90	**%7**	**3559**	**250**	El Gawhara	.18
	%98	**%10**	**1279**	**131**	East Nawadi	.19
	%93	**%12**	**1186**	**139**	Fatema El Zahraa	.20
	%94	**%10**	**1320**	**135**	El Israa	.21
	%97	**%10**	**1150**	**115**	Southern Petrol	.22
	%98	**%11**	**2800**	**300**	North Horeyya	.23
	%97	**%7**	**1597**	**112**	El Safwa	.24
	%88	**%10**	**459**	**45**	El Garabe'a	.25
	%99	**%7**	**1000**	**70**	Emirati District	.26
	%98	**%13**	**190**	**25**	New Bahr El Baqar	.27
	%98	**%7**	**853**	**61**	Old Bahr El Baqar	.28
	%95	**%7**	**1208**	**89**	Belal	.29
	%90	**%27**	**148**	**40**	El Cab	.30
	%96	**%16**	**292**	**46**	El 'asher	.31
	%95	**%10**	**1084**	**110**	Om Khalaf	.32
	%94	**%10**	**342**	**34**	Sahl El Teena	.33
	%100	**%10**	**150**	**15**	Hod Badran	.34
	%96	**%24**	**219**	**52**	Unit of the 44	.35
	%95	**%9**	**60771**	**5366**	Total	

April 2023

Second: Number of Surveys at Hospitals Departments per Hospital

(Translated without omissions or formatting – read from right to left)

Comments	Overall Satisfaction	Actual Sample Size in proportion to Visits	Number of Visits	Number of Actual Surveys for every Department		Hospital Name
	%95	**%12**	**10273**	**1250**	Out patient	El Salam
	%89	**%28**	**545**	**150**	In patient	
	%91	**%9**	**14101**	**1200**	Emergency	
	%94	**%11**	**24919**	**2650**	Overall	
	%97	**%10**	**4018**	**400**	Out patient	Ophthalmology
	%99	**%10**	**290**	**29**	In patient	
	%98	**%8**	**990**	**79**	Emergency	
	%98	**%10**	**5298**	**508**	Overall	
	%90	**%5**	**8285**	**400**	Out patient	Shafa Complex (El Mabarra & El Tadamon)
	%93	**%13**	**394**	**50**	In patient	
	%91	**%7**	**2145**	**150**	Emergency	
	%92	**%6**	**10824**	**600**	Overall	
	%90	**%26**	**569**	**146**	Out patient	Obstetrics & Gynecology
	%90	**%39**	**181**	**70**	In patient	
	%89	**%23**	**800**	**185**	Emergency	
	%90	**%26**	**1550**	**401**	Overall	
	%95	**%18**	**2711**	**500**	Out patient	El Nasr
	%96	**%21**	**314**	**65**	In patient	
	%95	**%7**	**7410**	**500**	Emergency	
	%95	**%10**	**10435**	**1065**	Overall	
	%85	**%4**	**3025**	**132**	Out patient	El Zohoor
	%97	**%18**	**350**	**62**	In patient	
	%93	**%2**	**11614**	**290**	Emergency	
	%92	**%3**	**14989**	**484**	Overall	
	%97	**%5**	**3000**	**150**	Out patient	El Hayah
	%97	**%20**	**250**	**50**	In patient	
	%96	**%5**	**4000**	**200**	Emergency	
	%97	**%6**	**7250**	**400**	Overall	
	%98	**%11**	**448**	**50**	Out patient	June 30 Hospital
	%99	**%10**	**158**	**16**	In patient	
	%96	**%10**	**1540**	**155**	Emergency	

	%97	**%10**	**2146**	**221**	Overall	
	%94	**%8**	**77411**	**6329**		**Average Patient Satisfaction of Beneficiaries at Hospitals**

May 2023

First: Total Number of Surveys at Primary Healthcare Units

(Translated without omissions or formatting – read from right to left)

Comments	Beneficiary Satisfaction Score	Sample Size in proportion to Visits	Visits to the PHC	Actual Number of Conducted Surveys	Unit Name	#
	%93	**%8**	**3015**	**250**	Omar Ibn El Khattab	.1
	%93	**%7**	**2436**	**180**	Maysara	.2
	%96	**%7**	**3328**	**235**	5000	.3
	%96	**%6**	**4655**	**280**	Mohamed Mashali	.4
	%88	**%10**	**2298**	**230**	Samar El Sayed	.5
	%95	**%9**	**1815**	**170**	Manakh I	.6
	%95	**%8**	**2158**	**180**	Manakh II	.7
	%95	**%10**	**5300**	**530**	El Arab	.8
	%96	**%7**	**4057**	**270**	El Arab II	.9
	%92	**%7**	**4144**	**280**	Port Fouad II	.10
	%98	**%8**	**3075**	**260**	El Kuwait	.11
	%94	**%10**	**3837**	**370**	El Qabuti	.12
	%94	**%7**	**2265**	**155**	Othman	.13
	%95	**%7**	**3096**	**230**	Ali	.14
	%96	**%10**	**4339**	**418**	Physiotherapy	.15

	%93	**%7**	**4000**	**280**	Mostafa Kamel	.16
	%90	**%10**	**3050**	**300**	Cooperatives	.17
	%90	**%7**	**5949**	**420**	El Gawhara	.18
	%97	**%10**	**2256**	**227**	East Nawadi	.19
	%92	**%7**	**2170**	**150**	Fatema El Zahraa	.20
	%94	**%10**	**2095**	**210**	El Israa	.21
	%98	**%10**	**2200**	**220**	Southern Petrol	.22
	%98	**%10**	**2900**	**300**	North Horeyya	.23
	%97	**%7**	**975**	**69**	El Safwa	.24
	%96	**%10**	**473**	**47**	El Garabe'a	.25
	%99	**%7**	**1600**	**112**	Emirati District	.26
	%97	**%10**	**274**	**28**	New Bahr El Baqar	.27
	%96	**%7**	**853**	**61**	Old Bahr El Baqar	.28
	%96	**%7**	**1439**	**101**	Belal	.29
	%90	**%16**	**245**	**40**	El Cab	.30
	%93	**%20**	**240**	**48**	El 'asher	.31
	%91	**%10**	**1109**	**108**	Om Khalaf	.32
	%96	**%10**	**535**	**55**	Sahl El Teena	.33
	%99	**%10**	**280**	**28**	Hod Badran	.34
	%97	**%25**	**400**	**100**	Unit of the 44	.35
	%95	**%8**	**82861**	**6942**	Total	

May 2023

Second: Number of Surveys at Hospitals Departments per Hospital

(Translated without omissions or formatting – read from right to left)

Comments	Overall Satisfaction	Actual Sample Size in proportion to Visits	Number of Visits	Number of Actual Surveys for every Department		Hospital Name
	%95	**%22**	**5633**	**1250**	Out patient	El Salam
	%90	**%34**	**437**	**150**	In patient	
	%91	**%9**	**12819**	**1200**	Emergency	
	%92	**%11**	**24919**	**2650**	Overall	
	%97	**%8**	**5886**	**470**	Out patient	Ophthalmology
	%99	**%10**	**440**	**44**	In patient	
	%96	**%8**	**1118**	**89**	Emergency	
	%98	**%8**	**7444**	**603**	Overall	
	%89	**%4**	**10276**	**400**	Out patient	Shafa Complex (El Mabarra & El Tadamon)
	%94	**%11**	**461**	**50**	In patient	
	%91	**%7**	**2255**	**150**	Emergency	
	%91	**%5**	**12992**	**600**	Overall	
	%91	**%34**	**490**	**165**	Out patient	Obstetrics & Gynecology
	%91	**%74**	**112**	**83**	In patient	
	%91	**%25**	**640**	**163**	Emergency	
	%91	**%33**	**1242**	**411**	Overall	
	%95	**%18**	**2841**	**500**	Out patient	El Nasr
	%96	**%33**	**300**	**100**	In patient	
	%96	**%4**	**10126**	**400**	Emergency	
	%96	**%8**	**13267**	**1000**	Overall	
	%91	**%4**	**3025**	**122**	Out patient	El Zohoor
	%94	**%18**	**350**	**63**	In patient	
	%88	**%3**	**11614**	**300**	Emergency	
	%91	**%3**	**14989**	**485**	Overall	
	%98	**%5**	**5920**	**300**	Out patient	El Hayah
	%98	**%10**	**390**	**40**	In patient	
	%97	**%5**	**5960**	**300**	Emergency	
	%97	**%9**	**7250**	**640**	Overall	
	%100	**%10**	**518**	**52**	Out patient	June 30 Hospital
	%98	**%10**	**125**	**13**	In patient	

	%98	**%10**	**1645**	**165**	Emergency	
	%99	**%10**	**2288**	**230**	Overall	
	%94	**%8**	**167772**	**13188**		**Average Patient Satisfaction of Beneficiaries at Hospitals**

June 2023

First: Total Number of Surveys at Primary Healthcare Units

(Translated without omissions or formatting – read from right to left)

Comments	Beneficiary Satisfaction Score	Sample Size in proportion to Visits	Visits to the PHC	Actual Number of Conducted Surveys	Unit Name	#
	%92	**%10**	**2979**	**300**	Omar Ibn El Khattab	.1
	%93	**%10**	**2582**	**260**	Maysara	.2
	%97	**%10**	**3850**	**385**	5000	.3
	%97	**%11**	**4720**	**500**	Mohamed Mashali	.4
	%87	**%10**	**2563**	**260**	Samar El Sayed	.5
	%97	**%8**	**2983**	**230**	Manakh I	.6
	%96	**%10**	**2637**	**264**	Manakh II	.7
	%95	**%7**	**6260**	**438**	El Arab	.8
	%97	**%10**	**4084**	**400**	El Arab II	.9
	%92	**%10**	**3971**	**410**	Port Fouad II	.10
	%99	**%7**	**3820**	**270**	El Kuwait	.11
	%95	**%10**	**3831**	**380**	El Qabuti	.12
	%94	**%10**	**3378**	**330**	Othman	.13
	%95	**%10**	**3718**	**375**	Ali	.14

	%96	**%9**	**5908**	**550**	Physiotherapy	.15
	%93	**%10**	**4000**	**400**	Mostafa Kamel	.16
	%92	**%9**	**3170**	**300**	Cooperatives	.17
	%90	**%6**	**7881**	**475**	El Gawhara	.18
	%97	**%10**	**2332**	**236**	East Nawadi	.19
	%92	**%10**	**1856**	**185**	Fatema El Zahraa	.20
	%98	**%10**	**2505**	**250**	El Israa	.21
	%97	**%10**	**2100**	**210**	Southern Petrol	.22
	%98	**%10**	**3000**	**300**	North Horeyya	.23
	%97	**%10**	**1538**	**154**	El Safwa	.24
	%97	**%10**	**376**	**37**	El Garabe'a	.25
	%99	**%7**	**2200**	**154**	Emirati District	.26
	%97	**%10**	**347**	**33**	New Bahr El Baqar	.27
	%97	**%8**	**853**	**64**	Old Bahr El Baqar	.28
	%95	**%10**	**2366**	**238**	Belal	.29
	%91	**%16**	**244**	**40**	El Cab	.30
	%93	**%10**	**287**	**48**	El 'asher	.31
	%93	**%9**	**1109**	**100**	Om Khalaf	.32
	%97	**%10**	**379**	**38**	Sahl El Teena	.33
	%100	**%10**	**320**	**32**	Hod Badran	.34
	%97	**%82**	341	278	Unit of the 44	.35
	%95	**%9**	94488	8924	Total	

June 2023

Second: Number of Surveys at Hospitals Departments per Hospital

(Translated without omissions or formatting – read from right to left)

Comments	Overall Satisfaction	Actual Sample Size in proportion to Visits	Number of Visits	Number of Actual Surveys for every Department		Hospital Name
	%95	**%14**	**8840**	**1250**	Out patient	El Salam
	%90	**%34**	**445**	**150**	In patient	
	%91	**%8**	**14550**	**1200**	Emergency	
	%92	**%11**	**23835**	**2650**	Overall	
	%99	**%8**	**5841**	**468**	Out patient	Ophthalmology
	%99	**%10**	**465**	**46**	In patient	
	%97	**%8**	**880**	**70**	Emergency	
	%99	**%8**	**7186**	**584**	Overall	
	%89	**%4**	**11241**	**400**	Out patient	Shafa Complex (El Mabarra & El Tadamon)
	%94	**%10**	**498**	**50**	In patient	
	%91	**%7**	**2030**	**150**	Emergency	
	%91	**%4**	**13769**	**600**	Overall	
	%90	**%32**	**587**	**186**	Out patient	Obstetrics & Gynecology
	%89	**%66**	**173**	**115**	In patient	
	%91	**%28**	**602**	**171**	Emergency	
	%90	**%35**	**1362**	**472**	Overall	
	%96	**%10**	**4364**	**420**	Out patient	El Nasr
	%96	**%38**	**397**	**150**	In patient	
	%97	**%4**	**9831**	**360**	Emergency	
	%96	**%6**	**14592**	**930**	Overall	
	%92	**%3**	**4637**	**138**	Out patient	El Zohoor
	%94	**%15**	**409**	**60**	In patient	
	%89	**%3**	**11022**	**302**	Emergency	
	%92	**%3**	**16068**	**500**	Overall	
	%97	**%5**	**5500**	**255**	Out patient	El Hayah
	%97	**%25**	**360**	**90**	In patient	
	%97	**%6**	**5100**	**300**	Emergency	
	%97	**%6**	**10960**	**645**	Overall	

	%99	**%10**	**779**	**78**	Out patient	June 30 Hospital
	%97	**%10**	**126**	**13**	In patient	
	%96	**%10**	**2281**	**228**	Emergency	
	%97	**%10**	**3186**	**319**	Overall	
	%94	**%7**	**90958**	**6700**		**Average Patient Satisfaction of Beneficiaries at Hospitals**

9.2 PHC Unit Complaints Box and Standardized Complaints Form

This box was placed near the beneficiaries' waiting area, and the paper on it can be translated to the following*:

Complaints and Suggestions Box

Dear Beneficiary,

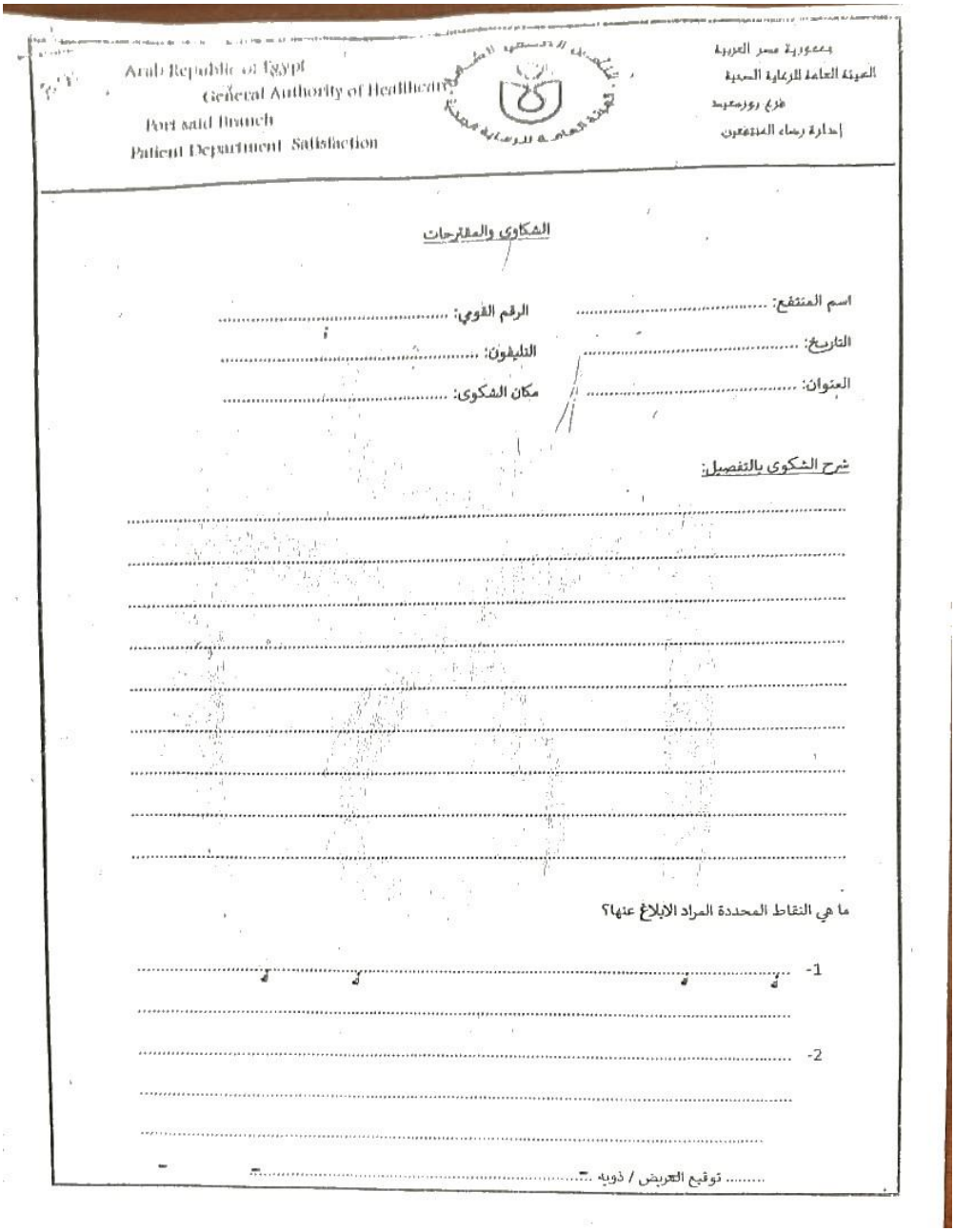
If you have a complaint or suggestion aimed at improving the quality of service, please place it inside this box and write your phone number in order to connect you with the complaints form, or please visit the patient satisfaction department to resolve your problem immediately.

To make a complaint by phone, you may reach us via: (someone's mobile phone number)

** The blurred boxes are to protect the anonymity of the interviewees. The top-right box mentions the PHC Unit name. The middle box contains the mobile phone number. The bottom-left circle has the name and signature of the PHC Unit Manager, and the bottom-right box has the name and signature of the Patient Satisfaction Manager of that PHC Unit.*

Figure 6: Complaints Box

Figure 7: GAH's Standardized Complaints & Suggestions Form



Arab Republic of Egypt
General Authority of Healthcare
Port said Branch
Patient Department Satisfaction

جمهورية مصر العربية
الهيئة العامة للرعاية الصحية
فرع بورسعيد
إدارة رضاء المنتفعين

الشكاوى والمقترحات

اسم المنتفع: ..... الرقم القومي: .....
التاريخ: ..... التليفون: .....
العنوان: ..... مكان الشكوى: .....

شرح الشكوى بالتفصيل:

.....
.....
.....
.....
.....
.....
.....
.....
.....

ما هي النقاط المحددة المراد الابلاغ عنها؟

1- .....
.....
2- .....
.....
.....

..... توقيع العريض / ذويه .....

This form asks for the beneficiary's name, national ID number, the date, their phone number, their address, the location of the service provider subject to the complaint. Then, in the open-ended response space, the first question asks the beneficiary to elaborate on the specific details of their complaint. The second question asks the beneficiary to mention the specific matters that they would like to report. In the end, there's a space for the beneficiary or their guardian or relative to sign.

9.3 Semi-Structured In-Depth Interview Guides

9.3.1 Cohort 1: Medical Staff and Health Workers

1. Introductory questions:
    a. What is your specialization?
    b. How long have you been a practicing physician?
    c. How long have you worked in this hospital?
2. How were you informed about the implementation of the new system?
3. Did the new system require further studies or accreditation on your part? If so, what was the process?
4. If the answer to Q2 is yes:
    a. What was your view on this additional accreditation?
    b. Did your training include anything on ethical practices and best practices for communicating with patients?
5. How is the new system different from the old system, from your perspective? How is it affecting your day-to-day work?
6. Have any new tools or equipment been introduced in the hospital? If so, what?
7. Do you use Electronic Medical Records (EMR)? If so, how frequently? If not, why not?
8. Do you feel adequately trained to use EMR?
9. Did you have prior experience in using EMR?
10. How is the usage of EMRs affecting your job?
11. How has the new system affected wait-times and referral efficiency at the hospital?
12. Are there any incentives for reducing wait-times?
13. Did your compensation scheme change under the new system?
    a. If yes, how?
    b. How has it affected your morale or ability to fulfill your duties?
14. Did the new system affect your work load in any way? How so?
15. What is your opinion about the new system?
    a. What are key areas of improvement? What are key challenges, if any, that you would like to address?
    b. How satisfied/dissatisfied are you with the new system?

9.3.2 Cohort 2: Beneficiaries

1. Is this your first time visiting this hospital/ facility?
    a. If so, why did you choose this hospital/ facility today?
    b. If not, how regularly do you visit this hospital/ facility?
    c. Are there certain physicians you visit?
    d. Are there are other hospitals that you go to in Port Said?
2. What influences your decision to go to a particular hospital/ facility?
3. Is this hospital far away from your place of residence or work?
4. What transport did you use to arrive here? Is it costly?
5. Take me through your journey at the hospital, from the point you step into the door until you've finished…
6. Will you need to visit the hospital again? Why so?
7. How much do you spend per month on healthcare needs, including hospital visits, examinations, medications, and other consultations?
    a. Approximately how much does this represent from your monthly income?
8. Are there other family members who are dependent on you for their healthcare?
9. Did you hear about the new Universal Health Insurance System that was recently implemented in Port Said? How did you learn about it?
10. What has changed under this new system?
    a. From a financial perspective: How much of your regular healthcare expenses has it reduced, if at all?
    b. From a quality perspective: How have the facilities, doctors, or services improved?
    c. From an availability perspective: What would limit your ability to visit this hospital?
11. Have the wait times changed since the implementation of the new system?
12. What is the biggest difference that the new system has made to your experience?
13. Do your doctors use Electronic Medical Records? If so, how has that helped you? If not, did you ask them why they're not using them?
14. What is your assessment of the doctors that are available at the hospital?
    a. Do you feel safe asking all the questions you have in mind?
    b. Do you feel like your healthcare needs are addressed? If so, how? If not, why not?

9.3.3 Cohort 3: Administrators and Policymakers

1. What are the goals of this new UHI system?
2. As an administrator/ policymaker how do you perceive your role in this system?
3. How are you ensuring that doctors, staff and patients are aware of the system's objectives, as well as their rights and responsibilities?
4. Do you have challenges retaining or attracting medical staff? If so, how are you addressing this?
5. Are there formal mechanisms to retain staff within the new system?
6. Is there a way to obtain feedback from patients/doctors within the system? If so, is this formalized?
7. What types of feedback have you received? Was it consequential in any decisions you've made?
8. How do you follow-up on the hospital's performance?
9. How are budgets allocated to your hospital?
10. What is the process of assessing the hospital's need for equipment or other facilities?
11. Do you believe that your hospital has the financial resources to invest in the equipment it needs? If so, how? If not, why?
12. Are there any aspects of the system that have not been implemented yet? If so, what? When will they be implemented? What's holding back implementation?
13. Do you think the system has reached its full potential yet or is there room for improvement, and why/how?

9.3.4 Qualitative Survey

1. How old are you? (numerical response)
2. Male --- Female ---
3. How would you assess your physical health?
    a. Excellent – I rarely need to visit a doctor
    b. Intermediate – I visit a doctor every 3-6 months
    c. Poor – I visit a doctor once a month
    d. Very Poor – I visit a doctor multiple times per month
4. How much do you earn per month? (numerical response)
5. What's your household size? (numerical response)
6. Are you the sole provider of income in your household?
    a. Yes
    b. No
7. How much do you spend on healthcare for you and your dependents per month (including doctor consultations, examinations and medication)? (Numerical response)
8. Do you benefit from the UHI system?
    a. Yes
    b. No
9. How much of your financial burdens does the UHI system alleviate per month? (Numerical response)
10. What is the most important factor in your ability to seek healthcare… please rank them from 1 (most important) to 8 (least important)
    a. Financial cost ---
    b. Proximity to the hospital/ medical facility ---
    c. Hospital/ facility cleanliness ---
    d. Wait times at the hospital/ medical facility ---
    e. Equipment availability ---
    f. Medical staff / doctors' availability ---
    g. Feeling like the doctor will understand your concerns and treat you well ---
    h. Medication availability ---
11. Out of the outlined elements in Q10, which one do you think the new UHI system addressed the most?