AMERICAN UNIVERSITY OF BEIRUT

# FACILITATORS AND BARRIERS ACCESSING HEALTH CARE SERVICES FROM THE PERSPECTIVE OF ADULTS WITH CHRONIC DISEASES (STRESS) IN LEBANON: A QUALITATIVE STUDY

by
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A thesis
submitted in partial fulfillment of the requirements
for the degree of Master of Science in Nursing,
of the Rafic Hariri School of Nursing
at the American University of Beirut

Beirut, Lebanon
August 2023

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# ACKNOWLEDGEMENTS

I would like to express my heartfelt gratitude to the remarkable individuals who have contributed to my academic journey.

First and foremost, I extend my deepest appreciation to my esteemed advisor, Dr. Gladys Honein. Her unwavering support, guidance, and mentorship have been the cornerstone of my pursuit of a Master's degree. Without her dedication and belief in my potential, I would not have been able to embark on this educational endeavor. Dr. Honein's insights and encouragement have consistently propelled me forward, shaping both my scholarly achievements and personal growth.

I am equally thankful to Dr. Nuhad Dumit for her continuous encouragement and support throughout my academic journey. Her guidance and feedback have been instrumental in refining my academic work and enhancing my understanding of the subject matter.

Furthermore, I extend my gratitude to Dr. Mona Osman El Hage for graciously accepting the role of being a part of my thesis committee. Her expertise and insights undoubtedly enriched the quality of my research.

I also thank HSON faculty in general and more specifically Dr. Samar Noureddine and Ms. Nisrine Ghalayini for their unlimited support throughout my Master’s years.

I am profoundly grateful for the untiring support of my family, especially my mother and my husband. Their encouragement, patience, and understanding have been my pillars of strength, enabling me to navigate the challenges of academia with resilience and determination.

Lastly, I extend my appreciation to my colleagues and friends who have consistently uplifted me with their words of encouragement and belief in my capabilities.

# ABSTRACT

# OF THE THESIS OF

Yasmine Bilal El Nahas for Master of Science
Major: Nursing

Title: Facilitators and Barriers Accessing Health Care Services from the Perspective of Adults with Chronic Diseases (Stress) in Lebanon: A Qualitative Study

**Background:** Access to healthcare in communities remains a crucial factor in achieving better health outcomes. In Lebanon, access to health care is of paramount importance, particularly for adults with chronic diseases. Chronic diseases, such as cardiovascular disease (CVD), diabetes, and cancer, are prevalent in the Lebanese population and contribute significantly to the burden of disease. Access to health care services is essential for timely diagnosis, proper management, and prevention of complications associated with these conditions.

**Purpose:** The purpose of this study is to describe the range of services, specialties, and type of reimbursement offered through the primary health care centers (PHCCs) for patients with chronic diseases, and to explore the facilitators and barriers that adults with chronic diseases face in accessing health care services.

**Methods:** A qualitative descriptive design based on a secondary data collected as part of the larger STRESS project that adopted an in-depth interview approach. The World Health Organization Availability, Accessibility (financial, physical, information, administrative and social), Acceptability and Quality (AAAQ) conceptual model was used as a framework to explore the potential facilitators and barriers in accessing services. Twenty-one Lebanese beneficiaries in total were interviewed, 7 were men and 14 women. They were underprivileged adults, aged between 48 and 82 years, with at least one chronic disease receiving services at designated PHCCs.

**Results**: Facilitators to health care access included: range of PHCC services offered to beneficiaries with chronic diseases; the subsidies to cover those services; the geographical location of the PHC coupled with the support from family, friends, and neighbors that facilitated physical accessibility through carpooling and rides; and the health campaigns from non-governmental organizations. Barriers to access to care encompassed shortages in a range of diagnostic services, shortage in health manpower, and chronic disease medications; lack of availability of various specialties for adults with chronic diseases; high cost of hospitals and private clinics when needed; out of pocket payment of medications; lack of insurance and social security (NSSF); and challenges in transportation and high fuel cost.

**Conclusion**: To address barriers and build on facilitators, it is important to develop targeted interventions that aim to improve access to health care services for adults with

chronic diseases in the Lebanese community. A recovery program is needed, and prioritization is a key player in this national health hurdle.

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# ABBREVIATIONS

- AAAQ model: The World Health Organization Availability, Accessibility, Acceptability and Quality conceptual model
- CDP: Chronic Disease Prevention
- CHW: Community Health Worker
- CI: Confidence Interval
- COPD: Chronic Obstructive Pulmonary Disease
- CVD: Cardiovascular Disease
- HIC: High Income Country
- HRH: Human Resources for Health
- IPPC: Inter-Professional Primary Care
- IT: Information Technology
- KPI: Key Performance Indicator
- LMIC: Low and Middle Income Country
- MCCs: Multiple Chronic Conditions
- MOPH: Ministry of Public Health
- NCD: Non-Communicable Disease
- NGO: Non-Governmental Organization
- NSSF: National Social Security Fund
- PHC: Primary Health Care
- PHCC: Primary Health Care Center
- PHCN: Primary Health Care Network
- QI: Quality Improvement
- SMD: Standardized Mean Difference

- UHC: Universal Health Coverage
- UNHCR: United Nations High Commissioner for Refugees
- UNICEF: United Nations International Children’s Emergency Fund
- WHO: World Health Organization

# CHAPTER I

# INTRODUCTION

## A. Non-Communicable Diseases

Non-communicable diseases (NCDs) commonly referred to as chronic diseases are frequently debilitating conditions that are caused by a combination of genetic, physiological, environmental, and behavioral factors. Diabetes, malignancies, chronic respiratory illnesses, and cardiovascular diseases are the four main types of chronic disorders. The majority of deaths and disabilities worldwide are caused by NCDs, with cardiovascular diseases (CVDs) accounting for half of these deaths. Every year, NCDs claim the lives of 41 million people, or 71% of all fatalities worldwide (WHO, 2022).

In their report on NCDs published in September 2022, the World Health Organization (WHO) elicited that the majority of the approximately 422 million individuals with diabetes globally reside in low- and middle-income nations, and diabetes is directly responsible for 1.6 million fatalities annually. Over the past few decades, diabetes cases and prevalence have both been gradually rising. By 2030, this figure is projected to reach 578 million. The leading cause of death worldwide, CVDs, take 17.9 million lives annually. Heart attacks and strokes account for four out of every five CVD deaths, and one-third of these deaths happen before the age of 70.

In Lebanon, located in the Middle East and North Africa region, the burden of NCDs including cardiovascular diseases, diabetes, cancer and chronic respiratory diseases remains the major constituent of the country’s health profile with 91% of all deaths attributed to NCDs (Zablith et al., 2021). Cardiovascular diseases alone account for almost half of NCDs mortality (Saleh et al., 2022). Prevalence of risk factors for NCDs is high in Lebanon, and given the recent upsurge in population size, the financial and social burden of NCDs are expected to grow dramatically in the next years (Saleh et al., 2022).

### B. Impact of Access to Primary Health Care System

Primary health care (PHC) is often referred to as the gateway to the health care system. Primary Health Care Centers (PHCCs) are meant to provide essential, comprehensive, and equitable services (WHO, 2017). Globally, improved access to PHC services for adults with chronic conditions is associated with better management of diseases, reduced hospitalizations (Bauer et al., 2017), improved early detection, and reduced complications (Paskett et al., 2011).

Before the COVID-19 pandemic, half of the world population suffered from lack of access to essential services offered through PHC (WHO, 2017). Universal health coverage (UHC) which “allows everyone to obtain the health services they need, when and where they need them, without facing financial hardship" as defined by the WHO (WHO, 2017) is key for better outcomes. Unfortunately, disparities in availability and accessibility to essential health care services between countries exist. Countries in South Asia and Sub-Saharan Africa have had, and still have huge gaps in health care services availability and accessibility (Racoma, 2019). Alternatively, some countries such as Denmark, Germany, Sweden, Norway, Canada, Switzerland, the United Kingdom, the Netherlands, Finland, and Belgium have robust health care systems, as they have implemented different health care models to achieve their goals and ensure that every citizen has secured access to essential health care services (Johnson, 2022). Countries that had invested in a universal health coverage, such as Canada, Australia and United Kingdom, were top performing countries as they rely on several features to attain better and more equitable health outcomes. These features consist of: a strong primary care system, an emphasis on prevention, an investment in research, a well-trained workforce, and an investment in social services.

In Lebanon specifically, access to health care is of paramount importance for the community at large and adults with chronic diseases specifically since they are prevalent in the Lebanese population and contribute significantly to the burden of disease (Saleh et al., 2020).

### C. Specificities of Primary Health Care and NCDs Situation in Lebanon

The mix of public and private providers that make up Lebanon's health care system is distinctive. Public health care facilities are supervised and governed by the Ministry of Public Health (MOPH), whereas private hospitals and clinics serve individuals who can afford to pay higher prices. Out-of-pocket expenses continue to make up a sizable portion of health care financing, and formal sector employees are required to have health insurance coverage through the National Social Security Fund (NSSF) (Yaacoub et al., 2023).

Lebanon possesses a network of hospitals and clinics, mainly private, PHCCs network, and specialized health care personnel, as well as a generally well-developed health care infrastructure in urban regions (World Health Organization [WHO], 2019). There are currently 237 PHCCs in the network, which serves over 1 million beneficiaries across Lebanon including both poor Lebanese and Syrian refugee populations (Hamadeh et al., 2021). Non-Governmental Organizations (NGOs) (67%), municipalities (20%), academic institutions (1%) and governmental organizations (12%) oversee the PHCCs services. Each center offers the required program from the

Central Department of Primary Health Care (PHC), which in turn provides guidance, support, and monitoring of services. The contracted centers agree to adhere to the rules on the national immunization calendar and necessary medications, to provide the fundamental services needed by the MOPH at a reduced cost, and to provide monthly reports to the MOPH (Hamadeh et al, 2021).

Since 2019, multiple stressors including the COVID-19 pandemic, the August 4th Beirut blast, and the politico-economic meltdown that hit Lebanon in the last three years were detrimental to the health of communities. With the passage of time, the repercussions of the three crises were becoming protracted and gaining in severity, leaving adults in several communities in Lebanon to face serious challenges meeting their health care needs mainly due to lack of availability and accessibility to health services (Hamadeh et al., 2020).

The high cost of the private health care services, prescription drugs and out-of-pocket payments, were significant obstacles and frequently put patients in a difficult financial situation (Saleh et al., 2020), leading to disparities in accessing health care (Mataria et al., 2020). The ongoing economic crisis in Lebanon, which is characterized by high inflation and a declining currency, has increased health care costs and reduced purchasing ability, making it even harder for people with chronic diseases to access essential medical care (World Bank, 2021).

Moreover, due to the current crises, the operating hours in PHCCs were cut in half because of the severe labor shortages brought on by the huge flight of healthcare workers (ILO, 2022) as well as operational constraints brought on by electrical outages that limited the number of service days. Furthermore, the PHCCs were less able to obtain enough of the necessary supplies and drugs due to the increased number of beneficiaries. These pressures on the PHC sector occasionally resulted in service discontinuance, compromising the standard of care and patient outcomes (Hamadeh et al., 2021).

The stressors on the PHC system were coupled with increase in beneficiaries. Prior to the current crises, PHC beneficiaries accounted up 25% of Lebanese, while the 75% were non-Lebanese including Syrian refugees and migrant workers (Hemadeh et al., 2020). The current stressors in the country led many Lebanese to neglect their health conditions (De Schutter, 2022) (Choufany, 2022). Furthermore, what was formerly inexpensive and available in the private health sector is now out of reach for many. As a result, many people went to PHCCs to meet their basic health care needs (Hemadeh et al., 2020). Currently, nearly 75% of Lebanon's poor population use PHC facilities, including the very poor who cannot even afford the subsidized costs (Hamadeh et al., 2020).

In an attempt to mitigate the challenges in accessing primary health care, the Primary Health Care Network (PHCN) has defined a bundle of essential health care services and made it affordable via subsidized packages for all populations resident in the Lebanese territory, despite the difficulties encountered, thereby achieving significant progress toward UHC (Yaacoub et al., 2023). However, the capacity of the health system to maintain vital health care services for an expanding number of disadvantaged persons has been eroded by the compounded shocks that have astounded the nation. These include Syrian refugees who have access to the same health care systems as Lebanese thanks to a network of Primary Health Care (PHC) services woven throughout the complex secluded system (Yaacoub et al., 2023).

Despite all these efforts, Lebanese with chronic diseases were still facing several obstacles accessing those services (Saleh et al., 2020, Mataria et al., 2020). Understanding facilitators and barriers to accessing health care services is an important step towards ensuring better access to health care services, including regular screenings, specialized care, and affordable medications. This is critical for managing chronic diseases effectively and improving the overall health and well-being of adults in the Lebanese community (Zablith et al., 2021).

There is limited evidence that examines the perspectives of beneficiaries as well as local populations' public health needs and priorities. The available evidence in the published literature is primarily focused on the analysis of primary or secondary utilization data collected from health facilities and the MOPH. Hence the importance of this exploratory study which aims at performing a thorough analysis of the existing NCD services coverage, along with the facilitators and barriers accessing health care services from the perspective of adults with chronic diseases living in seven different communities across Lebanon.

### D. The Study's Objectives

The study's objectives are twofold:

1) To describe the range of services, specialties, and type of reimbursement offered at primary health care centers (PHCCs) serving patients with chronic diseases.

2) To explore the facilitators and barriers that adults with chronic diseases are facing in accessing health care services.

# CHAPTER II

# LITERATURE REVIEW

Our literature review on facilitators and barriers to access to health care in different countries yielded significant findings that are relatable and prevalent in our country. Those include personal factors such as health literacy, physical accessibility issues, provider attitudes, cultural barriers, and financial resources, and systemic factors such as availability of services, geographical distribution of health care centers or polyclinics, insurance coverage, and availability of subsidy. The literature showed several health determinants that were key players in the development and management of NCDs in the community. We will list our findings accordingly.

A systematic review by Sikula & Kurpas in 2023 discussed the facilitators and barriers in the implementation of prevention strategies for chronic disease patients. The authors screened databases and included 47 full-text recent studies in the qualitative synthesis. It was found that, in addition to the rising older population, chronic disease and multi-morbidity are becoming more and more of a burden. Many interventions that have been proven successful in health service studies are failing to translate into meaningful patient care outcomes across multiple contexts. Health care professionals, health officials, and other stakeholders in the health care system are reviewing their preventative and clinical intervention methods in light of the rising burden of chronic diseases. In order to tailor prevention tactics and influence effective intervention, the study sought to identify the best practice guidelines and policies. Interestingly, enhancing non-clinical treatments that could enable chronic disease patients to participate more actively in therapy is crucial in addition to clinical care (Sikula & Kurpas, 2023).

Multiple chronic conditions (MCCs) are becoming more of the norm too. A systematic review from 2011 found that one-third of adults globally suffer from multiple chronic conditions, which are indicated by the presence of more than one chronic disease (Foo et al., 2020). Foo and his colleagues (2020) found that many studies conducted in several countries including Canada, the United Kingdom (UK), the United States (US), and the Netherlands, have linked MCCs to lower self-efficacy, a lower quality of life, a greater propensity for depression and other psychological problems, and disability (Foo et al., 2020). MCC patients needed more medical care, including more visits to primary and specialized care. They also had more prescriptions and sustained greater health care expenditures compared to those with one or no chronic conditions (Foo et al., 2020).

During our literature search, it became evident that several key determinants play a pivotal role in shaping the health care experiences of individuals with chronic diseases. Among these were health literacy, health behaviors, and the care pathways and prevention strategies within the primary health care system.

## A. Health Literacy, Health Behaviors, and Coordinated Care Pathways as Crucial Determinants of the Community's Health

### 1. *Low or limited health literacy*

Poureslami et al. (2017) discussed the importance and impact of health literacy in health promotion and chronic disease prevention and treatment. During the expert roundtable, it was acknowledged that health literacy consists of the application of a wide set of skills to access, understand, appraise, communicate and act on health information for improved health and well-being. As a multifaceted concept, health literacy involves multiple participants across a wide variety of contexts. Its complexity has given rise to challenges attaining a standard definition and developing means to measure all its dimensions. The discussion also touched on the general lack of uniformity in appraising health literacy abilities using different evaluation methodologies.

A meaningful definition of health literacy would outline desired outcomes for all actors, such as ready access to information (for the health system), appropriate information dissemination (for providers), and the capacity to comprehend, act upon, and fulfill informational needs (for the general public and patients) (Poureslami et al., 2017).

Mackey et al. in 2016 revealed that a low health literacy was consistently associated with poorer disease-related knowledge across numerous disease categories, including diabetes, respiratory disorders, and others. Additionally, a considerable link between low health literacy and poorer self-efficacy was reported in cardiovascular diseases, diabetes, human immunodeficiency virus, and multiple disease categories. Health literacy was significantly associated with poorer beliefs in respiratory, musculoskeletal, and cardiovascular diseases. Their findings suggest that low health literacy have an impact on behaviors necessary for the development of self-management abilities. Given that self-management strategies are essential components for effective treatment of a range of chronic diseases, low health literacy poses a sizeable health concern (Mackey et al., 2016).

### 2. *Unhealthy behaviors such as tobacco use, sedentary lifestyle, and obesity*

A narrative review conducted by Colditz et al. in 2016 summarizing the overall impact of the Nurses' Health Study (NHS) over the past 40 years (between 1976 and 2016) on the health of its populations through its influences on prevention, translation, and control. The NHS generated from this review significant findings about the associations between (1) smoking and type 2 diabetes, cardiovascular diseases, colorectal and pancreatic cancer, psoriasis, multiple sclerosis, and eye diseases; (2) physical activity and cardiovascular diseases, breast cancer, psoriasis, and neurodegeneration; (3) obesity and cardiovascular diseases, numerous cancer sites, psoriasis, multiple sclerosis, kidney stones, and eye diseases (Colditz et al., 2016).

Moreover, an article published by Kostova et al. in 2017 evoked the need for addressing NCDs, particularly in low-and-middle-income countries (LMICs) because of their limited clinical capacity. They stated that the focus must be on NCD prevention through policies that reduce unhealthy behaviors and risk factors such as tobacco use and obesity. Since tobacco use is involved in all leading NCDs including CVD, cancer, and pulmonary disease, population-level approaches to discourage this behavior are of topmost priorities for public health policy.

### 3. *Insufficient provisions of coordinated care pathways and preventive services within primary health care*

Badora-Musial et al. in 2017 discussed that many official reports have highlighted that the insufficient provision of preventive services within primary health care is impeding proper NCD management. Other weaknesses have been identified such as inappropriate referrals to ambulatory care, which are contributing to long waiting times for specialist consultations. In an attempt to build a recovery program, a new model of PHC organization has been piloted to address some of these weaknesses. It has recourse to the Primary Health Care Act of 2017 and puts much more weight on disease prevention and health promotion within PHC, as well as shifts management of common chronic conditions to multidisciplinary PHC teams (Badora-Musial et al.,2017).

Similarly, in their qualitative study carried in 2022 in Austria, Schwarz et al. stipulated that inconsistent and uncoordinated care pathways have grave implications on the community's health in terms of adherence to therapy and continuity of care (Schwarz et al., 2022). Fragmented care refers to "non-continuous, low-quality, duplicated, or omitted pivotal care from multiple healthcare providers or multiple health care settings, which may lead to worsening of chronic illnesses, hospital readmissions that are preventable, and increased healthcare costs" (Joo, 2023). Fragmented care leads to doctor shopping on the part of patients, self-medication, eluding seeking care, decreasing trust, and inefficiencies within the care process.

## B. Facilitators to Access to Health Care

### *1. Accessing affordable care*

A systematic review of the literature was done by Koch et al. in 2014 to locate studies describing patients' perceptions to facilitators and barriers to the management MCCs. It was revealed that amongst the facilitators stated by the patients, health system support in terms of financial assistance and decreased charges was greatly important to them in that they feel more enabled to continue following up on their care (Koch et al.,2014).

Additionally, a qualitative study was conducted by Foo et al. in 2020 which involved health care providers and users in order to examine facilitators and barriers of managing patients with MCCs in the community in Singapore. Ten out of fourteen patients mentioned that they chose to manage chronic conditions in the polyclinics due to subsidized and affordable fees. Health providers also stated that patients requiring financial and other support could be referred to financial counselors or medical social workers present in polyclinics to ease the process of subsidizations and other applications (Foo et al.,2020).

Similarly, in their cross-sectional survey conducted in Lebanon from 2019 to 2020, and which examined the changes in utilization and provision of essential health care services in the PHCN with the Covid 19 pandemic, Yaacoub et al. (2023) found that 81% of the surveyed beneficiaries reported attending PHCCs because of services affordability.

### 2. ***Receiving safe and quality care and multidisciplinary team collaboration***

In the same study of Foo et al. (2020), the physicians articulated that for safety and quality of care to be preserved, they are required to attend regular continuing medical education and training sessions conducted either by specialists or physician champions. A physician mentioned that by tracing common clinical indicators across polyclinics, physicians could recognize potential gaps and initiate quality improvement (QI) projects.

Moreover, approximately half of the interviewed patients expressed their confidence in the health care that they are receiving, especially because of the proficient collaboration among the multidisciplinary team. Many of the patients verbalized that they were visiting nurses instead of physicians regularly to review their conditions, and were generally supportive of this approach since they trusted the overall system and the team (Foo et al., 2020).

Likewise, a systematic review with narrative synthesis was conducted in 2019 by Wranik et al., whereby quantitative, qualitative or mixed-methods evidence addressing the design of inter-professional primary care (IPPC) teams was synthesized. IPPC teams consist of health care providers from different specialties and disciplines working together to attend to the health needs of populations through the creation of comprehensive care options, increased continuity, and coordination of care. It was found that some trends are observable: collective space, shared vision and goals, clear definitions of roles, and leadership are central to good teamwork. And, as today's health care environment is complex, effective inter-professional teamwork is believed to enhance the quality and safety of care delivery and health outcomes for patients (Wranik et al.,2019).

### 3. *Patient engagement and empowerment*

Krist et al. (2017) conferred the importance of engaging patients in their care. The authors concluded that patients who were involved in making health care decisions were more likely to be satisfied with their treatment, to know more about their conditions, tests, and treatments, to have realistic expectations about benefits and risks, to adhere to screening, diagnostic, or treatment plans, to experience less decisional conflict and anxiety, to undergo tests or procedures that may not be necessary, and, in some cases, to experience better health outcomes.

To be more impactful, Krist and his colleagues proposed a framework (figure 1) for how clinical practices and community programs can collaborate to better engage patients in care. It depicts how funders, policy makers, communities, and clinicians can work together with the support of personnel and infrastructure to link the care delivery systems.

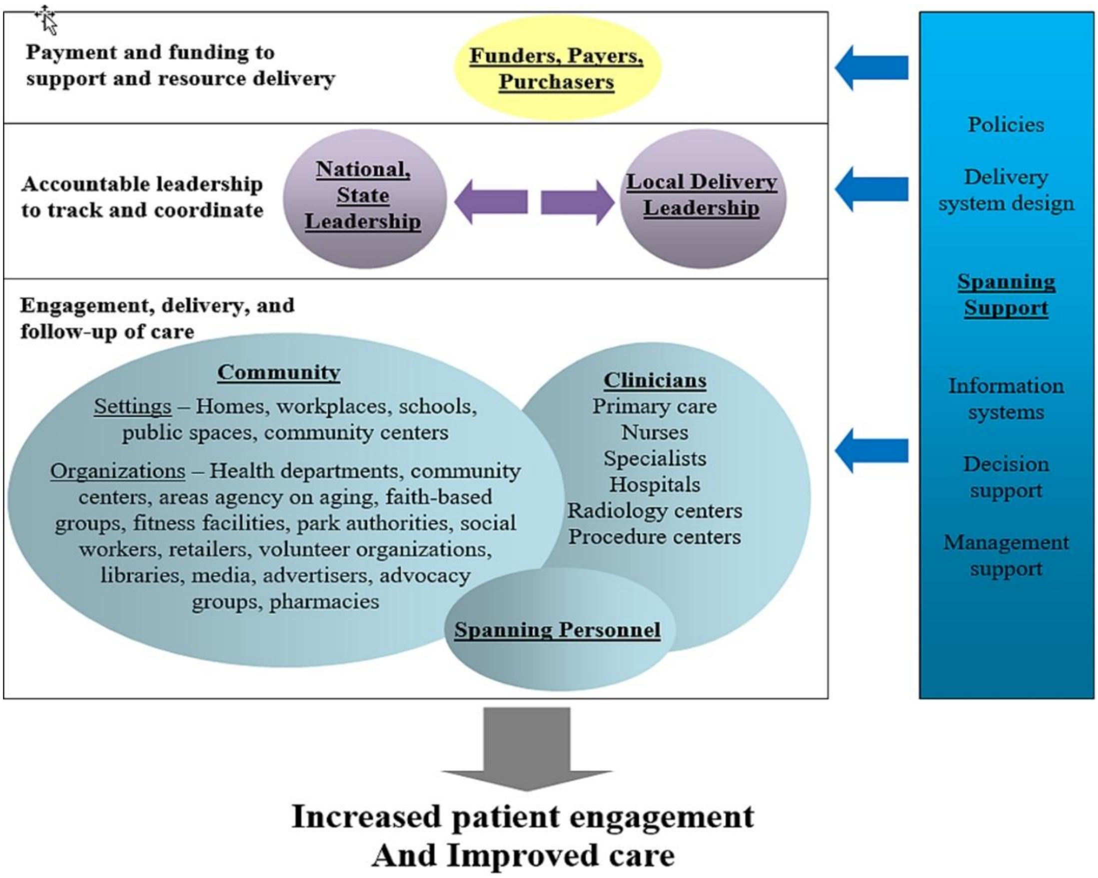

Figure 1

A Framework for How Clinical Practices and Community Programs Can Partner to Better Engage Patients in Care. A framework depicting how funders, policy makers, communities, and clinicians can work together with the support of personnel and infrastructure to link the care delivery systems. (modified from A.H. Krist, D. Shenson, S.H. Woolf, C. Bradley, W.R. Liaw, S.F. Rothemich et al., Clinical and community delivery systems for preventive care: An integration framework, Am J Prev Med. 45: (4) ((2013)), 508–516, Epub 2013/09/21.

### *4. Support from family and social systems*

In order to support and reinforce self-management behavior in the presence of a chronic disease, the family role is fundamental. Many studies on families dealing with chronic illnesses including diabetes, chronic kidney disease, and HIV showed that it is important to increase both the emotional support of patients and caregivers as well as their ability to adjust to the demands of the illness and treatment. It is undeniable that the patient's family is their backbone. When family members are willing to alter their behavior to support the patient, when they have a comparable plan and healthy eating habits, and especially when accompanied with a high patient self-efficacy rate, it has been shown that self-management in diabetic patients increases self-efficacy (Peñarrieta et al., 2105).

In their cross-sectional study in Mexico, Peñarrieta and her colleagues found a significant correlation between patient self-management and family function. Notably, the group with good self-management and good family functioning represented 84% of the sample against 16% of the group with good self-management and poor family functioning.

Similarly, a systematic review and meta-analysis including 37 studies and 7,842 participants conducted by HaGani et al. in 2023, found that an improvement in health care utilization was observed in association with social support interventions (SMD, 0.25;95%CI, 0.04 to 0.45) but not in loneliness interventions.

## C. Barriers to Access to Health Care

### *1. Lack of human resources*

One of the most urgent universal health challenges of our day has been labeled as the "crisis in human resources" in the health industry (Aluttis et al., 2014). According to the WHO, there is a global shortfall of over 4.3 million physicians, midwives, nurses, and other healthcare workers; nurses and midwives represent more than 50% of these deficient workforces (WHO 2017, 2022). This global undersupply threatens the quality and sustainability of health systems worldwide (Aluttis et Al., 2014).

Africa is home to the vast majority of nations with a critical lack of health professionals. Whilst, high- income countries (HICs) in North America, Europe, the Middle East, and Oceania actively 'import' health service labor to maintain their health care systems while the health systems in nations like Zimbabwe, Nigeria, Ghana, Zambia, and South Africa are becoming more and more overburdened by the outflow of health care workers (Aluttis et al., 2014).

A qualitative study done in Argentina in 2020 by Belizan et al., reported barriers to hypertension and diabetes management in primary health care. It was found that many public health care system users remain undiagnosed or face barriers in managing these diseases. The main barriers were not limited to but included lack of human resources, lack of necessary equipment for the treatment of diabetes and hypertension, and shortages of free medication to treat the chronically ill patients. Besides, as primary healthcare has traditionally focused largely on maternity, child, and preventive measures such as immunization, conventional care prioritizes maternal and child health, neglecting adult chronic diseases. Health policies and health practitioners have not changed their objectives despite recent efforts to include chronic illnesses in basic care (Belizan et al.,2020).

### 2. *Fragmentation of health care systems and lack of coordination in care pathways*

According to the World Health Organization (2000, 2007, 2008a), fragmentation of health care, either alone or in conjunction with other factors, can cause problems with service delivery, poor technical quality, irrational and inefficient resource use, unneeded increases in production costs, and low user satisfaction. Lack of coordination between the many levels and locations of care, duplication of services and infrastructure, underutilized production capacity, and the provision of health care in places that are not optimal, particularly hospitals, are all signs of fragmentation. Users are likely to experience a lack of access to services and a break in continuity of care due to the failure of health services to meet their needs (WHO, 2000,2007,2008a).

In 2011, Montenegro and his team identified the following as the leading causes of fragmentation in the region of the Americas:

1) Institutional segmentation of the health system in terms of coexistence of subsystems with diverse modalities of financing, affiliation and health care delivery, each of them specializing in different sections of the population according to type of employment, income level, ability to pay, and social status;

2) health facilities of various levels of care under different decentralized administrative entities (provinces, states, municipalities, health districts, ministry of health, etc.);

3) preponderance within health services of programs targeting specific diseases, risks and populations (vertical programs) with no coordination or amalgamation into the health system;
4) extreme separation of public health services from the provision of personal care;
5) model of care centered on acute episodic care of disease, and hospital-based treatment;
6) weak steering role capacity of the health authority;
7) problems with quantity, quality and allocation of resources;
8) deficiencies in definition of roles, competencies and contracting mechanisms, as well as disparities in health workers’ remunerations;
9) array of payer institutions and service payment mechanisms;
10) legal and administrative obstacles;
and 11) financing practices of some international cooperation agencies/donors that promote vertical programs (Montenegro et al., 2011).

A systematic and integrative review of peer-reviewed literature was conducted by Littlejohns & Wilson in 2019 in an attempt to recognize strengthening complex systems for chronic disease prevention. Some publications noted that one characteristic of effective systems for chronic disease prevention (CDP) involved adopting a comprehensive systems perspective or paradigm. In order to handle the complexity of systems for CDP, this perspective was seen as holistic, ecological, or whole system thinking that required a paradigm change. In order to facilitate the identification of "enablers, accelerants, synergies, and interconnectedness of multiple influences", and facilitate context-sensitive and cross-cutting actions and strategies to strengthen systems for CDP (figure 2), a complex systems paradigm has also been described in terms of strategic, intelligent, and high-level system design (Littlejohns & Wilson, 2019).

Figure 2
Framework for describing, assessing and strengthening systems for CDP as presented by Baugh Littlejohns, L., & Wilson, A. (2019). Strengthening complex systems for chronic disease prevention: a systematic review. *BMC public health*, *19*(1), 729.

### 3. *Financial challenges*

According to Levesque et al. (2013), affordability is the financial ability of the patient to pay for the necessary services such as direct expenses, secondary costs (for commuting to an appointment), and opportunity costs (for taking time off work due to illness). The financial capacity of patients to pay for actual healthcare services is referred to as their ability to pay for healthcare. Utilizing care specifically involves co-payments and waiting periods in the context of patients with chronic diseases, who often demonstrate greater healthcare utilization rates.

In the qualitative study done by Schwarz et al. in Austria (2022), individual co-payments were cited as a barrier by both the patient advocate and the expert in public health management, particularly when it comes to elective medical or therapeutic services such as physiotherapy or psychotherapy. Patients with inadequate financial resources expressed that they are severely harmed by this barrier, as treatment is more difficult or perhaps impossible for them.

Likewise, in the qualitative study carried by Foo et al. in Singapore (2020), many patients expressed dissatisfaction with the adequacy of the Medi-Save program for covering outpatient appointments, particularly in light of the escalating costs associated with certain medications. While non-standard unsubsidized drugs held potential benefits for individuals dealing with chronic illnesses, health care providers expressed reservations about recommending them to patients constrained by financial limitations. Physicians also revealed their practice of adjusting dosages or transitioning to alternative prescriptions for patients who encountered financial constraints. Furthermore, despite the option for patients to seek financial assistance through polyclinics, some faced potential ineligibility due to their failure to meet established criteria (Foo et al., 2020).

In the previously mentioned Lebanese study conducted by Yaacoub et al. (2023), 65% of the respondents specified that the most important interrupted service in essential health care provision was access to chronic medications in the PHCN; and 85% of the beneficiaries reported that the main barrier behind this interrupted service was financial hardship.

### *4. Long waiting time and perceived inadequate consultation duration*

Both Foo et al. (2020) and Schwarz et al. (2022) evoked the problem of long waiting time and inadequate consultation duration during their interviews with physicians and beneficiaries. The majority of physicians stated that having a heavy patient load was a major obstacle to giving their patients the proper levels of care. In addition, doctors had to control patient wait times, which were monitored using operational key performance indicators (KPIs). According to doctors, they could only spend 10 minutes on average with each patient who had a chronic disease. Many believed that this period of time was insufficient, especially for hospital-referred MCC patients. Additionally, there were instances of Information Technology (IT) system slowness and failure, which added to the time strain and stress experienced by doctors. It was reported that insufficient consultation times could leave room for error and cause doctors to overlook important details, which would be bad for patient care (Foo et al., 2020).

In addition, despite having appointments, a lot of patients and caregivers participants reported lengthy consultation wait times that lasted hours. Thus, a number of patients highlighted the need for improvement in the polyclinics' waiting times. It is noteworthy that this was especially true for patients whose socioeconomic situation does not allow them to switch to the private sector (Schwarz et al., 2022).

In this literature review, we explored the most noticeable health determinants that are contributory to NCDs’ occurrence and mishandling, along with the facilitators and barriers in accessing health care for adults with chronic diseases worldwide. In the next chapter, we will discuss our study’s methodology and design.

# CHAPTER III

# METHODOLOGY

In this qualitative study, a rigorous and comprehensive research methodology was employed to investigate and gain deep insights into the experiences and perspectives of individuals with chronic diseases in accessing essential services in primary health care centers in Lebanon.

## A. Study Design

A qualitative descriptive design based on an in-depth interview approach was adopted. The STRESS project was part of the community health needs assessment under the umbrella of the Dynamic and Responsive Needs Assessment (DARINA) of Khaddit Beirut, now called SAIL for Change, and embraced by the American University of Beirut (AUB). This study is considered to be one part of the project. Hence it is a secondary data analysis using partial data from the STRESS project.

## B. Conceptual Framework

The World Health Organization Availability, Accessibility, Acceptability and Quality (AAAQ) conceptual model was used as a framework to explore the potential facilitators and barriers in accessing services (WHO). AAAQ stipulates that the right to health imposes four essential standards: 1) Availability in terms of existence of needed services, 2) Accessibility covering several dimensions including physical accessibility, financial accessibility, bureaucratic/ administrative accessibility, social accessibility, and information accessibility, 3) Acceptability in terms of gender-sensitive, respectful, and culturally competent to beneficiaries services, and 4) Quality in terms of service providers' qualifications, adequacy of supplies, and standards of care (WHO).

In the literature, we found several studies that used the WHO-AAAQ framework and its associated constructs to comprehensively analyze health care accessibility in different communities. One of these studies was the analysis of the National Health Policy of India carried by Dubey et al. in 2021 over three decades. In their study, they stressed on the importance this framework, in which its indices-based approach can help identify the gaps between targeted and needed dimensions and cadres for effective human resources for health (HRH) strengthening. They also insisted on the need to incorporate the AAAQ dimensions in India's health care policies in order to monitor their progress. They concluded that at the global level, the application of this framework and its constructs will allow a comparison of the strengths and weaknesses of HRH-related policies of various nations (Dubey et al.,2021).

### C. Ethics

Ethical approval was obtained from the Institutional Review Board (IRB) at the American University of Beirut (AUB) before proceeding with the recruitment and data collection for the initial STRESS project. Authorization to approach and visit the PHCCs was sought from the Primary Health Care Department at the Ministry of Public Health. For the sake of this study, which is considered a secondary data analysis, an amendment letter was sent to the AUB/IRB in order to obtain approval for involving additional researchers, i.e. graduate students to analyze the data.

## D. Sampling and Recruitment

The following steps were done for the STRESS project:

The MOPH-PHCC list was obtained from the PHC Department website. PHCCs that served the entire Lebanese population, and represented the many geographical regions of Lebanon were specifically chosen. A list of prospective PHCCs in each location that met the requirements was then created.

The managers of each PHCC were contacted by phone and were introduced to the project. Those who accepted the invitation were included in the study. Seven facilities, one from each of Lebanon's regions accepted to participate. The regions were the following: Khaldeh, Der Al Ahmar, Tripoli, Baskinta, Mechmech, Zrariyeh, and Hasbayya.

Then, the PHCCs managers were sent an invitation (Appendix I: Invitation letter/email) that was shared with the following potential participants:

1- Health care professionals, such as doctors, nurses, and other medical personnel, who treat NCD patients at the designated PHCCs.

2- Adults between the ages of 48 and 82 who were extremely underprivileged and were receiving services at the selected PHCCs and had at least one NCD.

Following that, the possible participants were reached to arrange the time and day for the in-depth interviews at the PHCC.

## E. Study Participants

As part of the initial STRESS project, 21 Lebanese beneficiaries in total were interviewed, of whom 7 were men and 14 women. They were adults, aged between 48 and 82 years, with at least one NCD receiving services at the designated PHCCs and who were extremely underprivileged. Because they might have alternative funding arrangements, non-Lebanese people were excluded.

Perspectives of health care professionals, such as doctors, nurses, and other medical personnel, who treat NCD patients at the designated PHCCs and who were also interviewed for the initial STRESS project were not included in this study as our focus here is on the perspectives of adults with chronic diseases.

### F. Data Collection

For this study, we analyzed the existing data from interviews with beneficiaries from the preliminary STRESS project, for which, a semi-structured technique using pre-determined, open-ended questions to guide the discussion was employed based on the AAAQ framework (Appendix III: Interview Guide-Health care beneficiaries).

The semi-structured approach was taken to ensure consistency between interviews, and consequently increase the transferability of findings. Nonetheless, the interviewer was prepared to depart from the planned itinerary if additional questions arose throughout each interview. The initially written in English semi-structured interview guide was translated to Arabic, the native language of both the interviewee and interviewer, thus easing the freedom in the expression of thoughts and eluding confusion due to language barriers (Squires, 2008). Interviews were conducted in a private room at the assigned PHCCs. All interviews in each PHCC were planned on the same day to maximize efficiency. The interviews were audio-recorded upon consent (Appendix II: Consent Form for beneficiaries) of the participants, and each lasted between 30- and 45-min. Participants' confidentiality was preserved by coding each audiotape and transcript.

We provided a code for each center, e.g. PHCC 01. For each participant within each PHCC, we provided a de-identified label. For beneficiaries, the de-identified label would start with BE followed by the PHCC number and then a beneficiary serial number ranging between 01 and 21, the total number of involved beneficiaries; for example, BE01-01.

### G. Data Analysis

All semi-structured interview discussions were transcribed verbatim in Arabic. After that, transcripts were translated into English by YEN, who is proficient in both languages, Arabic and English. We randomly back translated them into Arabic to ensure that during the translation there was no changes in the meanings This process of translation not only verified the accuracy of the content but also safeguarded against potential misinterpretations that can arise due to linguistic nuances (Van Nes et al., 2010).

Two researchers GHA and YEN immersed themselves by reading the transcripts and designed an initial thematic framework for coding (Gale et al., 2013). Then, independently, they coded line-by-line the content of a few transcripts. The codes were then compared and contrasted using constant comparative approach and emerging categories were identified.

All team members (GHA, NYD, and YEN) participated in the analysis and interpretation of the findings in order to limit biases and promote reflexivity, and they agreed to stop collecting data once it had reached data saturation. The analysis of the results followed the AAAQ framework as we were able to identify themes based on its constructs. Following several iterative approaches, the list of themes was subsequently refined and major final themes were agreed upon between the researchers. Findings were then reported in a thematic narrative approach, with examples of interviewees' quotes included under the corresponding themes. We used QUIRKOS software to help us analyze the data (Quirkos 2.5.2), and we used the consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist for reporting the results (see Additional file 1).

To increase rigor, our concentration was on obtaining trustworthiness, as we engaged in a series of rigorous methodologies. The employment of a semi-structured interview technique allowed us to delve deeply into the experiences and perspectives of the participants, capturing their insights in a comprehensive manner. The fact that all interviews were audiotaped enabled us to maintain an accurate record of the participants' responses, which ensures accuracy and reliability. By implementing these comprehensive steps in data collection, transcription, and translation, we aimed to uphold the credibility and dependability of our study, ultimately bolstering the trustworthiness of the findings and conclusions drawn from our research.

# CHAPTER IV

# RESULTS

The findings of our qualitative study generated information about the multifaceted health care experiences and perceptions of individuals living with chronic diseases in the Lebanese community. Through in-depth interviews and thematic analysis, this study unveiled rich narratives, shedding light on the beneficiaries' facilitators and barriers in accessing health care.

## A. Characteristics of the Study Population

Twenty-one in-depth interviews were conducted between July and August 2022. 7 men and 14 women from the seven previously cited regions in Lebanon, aged between 48 and 82 years and who had one or more NCDs participated in the study. The NCDs that were prominent amongst them were: diabetes, cardiovascular diseases (hypertension, stroke, dyslipidemia), chronic respiratory diseases such as asthma, mental health conditions, and injuries.

## B. Thematic Findings

We present our research findings through three overarching themes as follows:

The initial theme, titled "Health conditions and livelihood of the participants," is comprised of the subsequent subthemes:

a) Deterioration of participants' health conditions

b) Mental health issues

c) Unhealthy behaviors

d) Unemployment and financial struggles

e) Food security challenges

f) Water, gas, and electricity shortage

Our second theme, termed "The AAAQ framework findings," delves into the following subthemes:

g) Availability of services/medications

h) Financial accessibility

i) Physical accessibility

j) Information accessibility

k) Administrative accessibility

l) Social accessibility

m) Acceptability

n) Quality

For each subtheme, we meticulously examine both facilitators and barriers.

Our concluding theme is identified as "Recommendations from the beneficiaries," encompassing the ensuing subthemes:

o) Empowerment of PHCCs

p) Expansion of local PHCCs and home care services

q) The necessity for a comprehensive social security and insurance system

### 1. *Health conditions and livelihood of the participants*

#### a) Deterioration of the participants' health conditions

During our interviews with beneficiaries, various significant findings were noteworthy. What stands out is the fact that many of the participants suffered from a decline or deterioration in their health conditions. This implies that their physical well-being weakened or worsened in some way.

*"I have a heart pacemaker. This is number 4. Yes, I did surgery. Now, there is only the right side, as there isn't the left side anymore, as the tubes that were put in calcified"* *BE-03-09*

b) Mental health issues

A big number of the participants stated that they are experiencing challenges related to their mental well-being. Mental health issues could encompass a range of conditions such as anxiety, depression, stress, or other psychological difficulties.

*"Yes, this situation is affecting my mental state, getting me almost depressed, nothing making you happy"* *BE-01-02*

c) Unhealthy behaviors

A remarkable trend that was found among many of the interviewed beneficiaries was their engagement in harmful behaviors, such as cigarette smoking, consumption of unhealthy foods, and neglect of health check-ups and follow-ups. These behaviors appeared to be influenced by limited health literacy, pointing to a crucial intersection between knowledge, behavior, and chronic disease management. The participants' struggles to comprehend the implications of their conditions and the significance of preventive measures often led to suboptimal decision-making.

*"I eat what is available. Yes, this is what is available bread and carbohydrates"*

*BE-05-14*

*"I smoke at least two boxes per day, Involuntarily I feel I have to have to have a cigarette in my hand, but I do not swallow"BE-01-02*

“*Once a doctor asked me “when was the last time that you had a cardiac catheterization?” I told him “12 years ago”. He told me” aren’t you considering to do one now? And why did you wait for so long?” I told him that this is due to laziness and neglect*” *BE-03-08*

Additionally, it was observed that the economic crisis and the country’s downfall situation had put the participants’ livelihood at a great risk. The precipitating factors that were extrapolated are:

d) Unemployment and financial struggles

Many of the participants verbalized that their financial stability has shaken over these past two years. They have no consistent source of income, and they are facing difficulties in meeting their basic needs, paying bills, and supporting their families.

*“I borrowed money to get an echo test done, as I can’t leave my husband in pain. Sold chandelier and fridge for necessities. Health is s priority for me and my husband”*

*BE-01-02*

e) Food security challenges

What was striking is to hear that many of the participants were compelled to change their food habits due to financial constraints, as they are no longer able to afford their previous dietary choices.

*“In very limited amounts, I can eat a very small portion. And sometimes I don’t because there are no fruits here, and I cannot buy them” BE-02-01*

### f) Water, gas, and electricity shortage

All the participants voiced their desperation in grappling with the severe difficulties in accessing basic necessities such as water, gas, and electricity, as the country is experiencing significant shortages and disruptions in these essential services.

*"I put the fridge on a bit and then put it off. I wait for the government electricity to put the fridge and hot water on, which can't be powered from the generator" BE-07-02*

*"We also have the problem of water here. You need to buy water to irrigate the plantations, but the water tank costs about 2,000,000 LBP" BE-03-02*

## 2. *The AAAQ framework findings*

### g) Availability of services/medications

#### i. Facilitators

- The in-house range of PHCC services offered to beneficiaries with NCDs is timely and needed

Amidst the challenging circumstances, most beneficiaries expressed that they find solace and gratitude in the presence of primary health care centers. These centers serve as lifelines, providing essential medical services and medications, and support to individuals in need, enabling them to receive timely treatment and preventive care.

*"Frankly, the physicians that I need are present here, the cardiologist, for my children, dentist, orthopedist" BE-06-16*

*"I did not have a shortage in my medications since I started coming to the center" BE-06-17*

ii. Barriers

- Shortages in diagnostic services

Despite the availability of a range of services, shortages or lack of others were also reported by some beneficiaries. For example, diagnostic tests were a major concern. They required technicians, supplies, and laboratory services, which were costly given that they were often minimally or non-subsidized.

*"What we don't find here, we get it from another place. If there is a medication that is out of stock, we get it from somewhere else, what can we do"*BE-04-12

- Shortages in manpower

Providers' shortage came in many forms, elicited mainly by the economic crisis, where the salary values plunged as inflation increased. Physicians, nurses, technical and administrative staff were not sufficient or lacking.

*"Last time I waited for the cardiologist 2 hours and he didn't come"* BE-05-02

- Shortages in NCD medications

Presence, shortage, and consistency of delivery by MOPH subsidized by international non-governmental organizations (NGO) medications have been an ongoing issue, in addition to brand versus substitute medications.

*"Not always the medications are available. I buy medications then as I cannot stay without my blood pressure medication; my blood pressure would go up"* BE-07-21

*"I get the available meds, and buy meds that are not available. Try to see how to get them. For example, if a med is not available they give us a substitute"*BE-01-01

- Lack of availability of various specialties for adults with NCDs

Some main physician specialties were not available in some centers. The specialties that were sought for the most were ophthalmology, endocrinology, and mental health.

*"We go to another place because they don't have the specialties that I need. It would have been nice to have a PHC that has all the community's needs at a low cost. This is a plus to the village" BE-04-12*

h) Financial accessibility

iii. Facilitators

- Subsidies and low cost of PHCCs

Many of the interviewees uttered that their financial accessibility for primary health care centers in the community is being facilitated through various means.

Firstly, subsidies and low costs offered by these centers enable individuals from all socio-economic backgrounds to overcome the financial barrier accessing essential healthcare services.

*"Yes, right, I paid 3000 LBP and got a consultation. I did not pay for the tests. Yes, got a medication prescription. Got Concor and Aspicot once from the center, and now on the 25th of the month"BE-03-07*

- Support from family, friends, and neighbors

Additionally, support from family, friends, and neighbors plays a significant role in enhancing financial accessibility. They support the beneficiaries financially, thus the community can collectively bear the costs of healthcare, making it more affordable for everyone involved.

*"If you go and ask your neighbor to give you 25,000LBP, they won't say no. Especially if they are well-off, they help you. You know we are like a big family here"* *BE-03-01*

- NGOs campaigns

Moreover, NGOs are offering direct financial aid, further improving the accessibility of primary health care centers. These initiatives serve as a beacon of hope, offering a range of services, including consultations, medications, vaccinations, and health education at low costs.

*"Caritas had a campaign, and they sent us that they will be performing blood tests"BE-04-11*

iv. Barriers

- High cost of hospitals and private clinics

In contrast, some beneficiaries complained of various financial barriers. One significant challenge is the high cost associated with hospitalization when required. The exorbitant fees for consultations, diagnostic tests, and treatments make it difficult for many of them to seek timely and necessary health care services

*"He said that the catheterization is crucial, but I told him that I cannot afford the hospitalization fees if this needs to be done there"* *BE-05-01*

- Out of pocket payment of medications and lack of insurance and social security (NSSF)

Certain medications are not subsidized, hence the burden of out-of-pocket payments for medications added to the financial strain. Without proper insurance coverage or social security through institutions like the National Social Security Fund

(NSSF), a lot of individuals were left to endure the full costs of their medications, often forcing them to choose between their health and financial stability.

*"No NSSF. I have nothing. I can't be insured now"* BE-06-02

*"Sometimes they give me an alternative medication that is expensive. We take the medication depending on our financial abilities"* BE-04-12

i) Physical accessibility

v. Facilitators

- Geographical coverage of the PHC (in the vicinity of a city or a village)

According to the majority of beneficiaries, physical accessibility to health care is facilitated through several means. One key factor is the geographical coverage of primary health care centers, ensuring that they are located in close proximity to cities or villages. This strategic placement allowed them to access healthcare services conveniently, reducing the travel distance and time required.

"*The location of this center is 100% suitable. This center is at the heart of xxx area. It is not a challenge to get to the center and especially if you are used to it, and part of this village"* BE-06-18

- Carpooling, rides with family, friends, and neighbors

Additionally, carpooling is a facilitator that enabled some beneficiaries to share transportation costs and collectively commute to primary health care centers. Rides provided by family, friends, and neighbors played a vital role in enhancing physical accessibility. The willingness of loved ones and neighbors to offer transportation support enabled individuals who may have limited mobility or lack access to private vehicles to reach primary health care centers with ease.

*"I talk with my neighbor; he helps with transportation"* BE-07-21

vi. Barriers

- Transportation options

A few beneficiaries had limited transportation options, particularly in rural areas, which made it more challenging for them to reach primary health care centers.

*"The problem is the transportation. I do not have a car to come here, I had to take a taxi. Few people with whom I come with, some people work, have vans that drive people to this area"BE-07-19*

- High fuel cost

The cost of fuel amplified the financial load, making transportation expenses unaffordable for many. This barrier was affecting individuals with limited resources, who may not have access to private vehicles or public transportation options. As a result, beneficiaries struggled to reach the closest PHCs, leading to delayed or neglected medical care.

*"I cannot take my car. It is parked at home. I may fill it with 20L at the beginning of the month plus pay for one stove gas container and that is it. The salary would be all spent" BE-05-15*

j) Information accessibility

vii. Facilitators

The beneficiaries demonstrated appreciation to the outstanding efforts of the staff, notably the caring and attentive nurses. Most of the interviewees reported having remarkably easy and smooth access to information. The nurses and physicians take the time to connect with patients, whether over the phone or in person at the facility, explaining their health conditions and available treatment options. Additionally, the staff members would help the patients in setting appointments and providing information about the availability of medications, free screenings, blood tests, NGO campaigns etc…

*"There are nurses here who are from this village. I communicate with them to see if the medications have arrived and otherwise, they tell me. And there is the center phone on which we can call and they tell us about the availability of the medications"* *BE-07-19*

### viii. Barriers

Ensuring equitable access to vital information poses challenges for certain beneficiaries, particularly those lacking phones, landlines, or literacy skills. In such instances, information accessibility can be hindered as traditional text-based messages and even regular calls become ineffective modes of communication; thus exacerbating disparities in health communication and burdening beneficiaries with the need to go physically to the PHC when it is not needed.

*"I do not carry a phone. Our house phone is not working; we do not use it to communicate with the center. I come to the center"BE-05-14*

## k) Administrative accessibility

### ix. Facilitators

The procedure of patient registration, test approval, and test findings has been described to be seamless in most of the primary healthcare facilities, proving good internal organization and efficient follow-up. Beneficiaries reported being quickly registered as soon as they arrive at the facilities, resulting in short wait periods and well-organized service. There were specific protocols after which patients underwent the required diagnostic treatments without experiencing undue delays. Additionally, the follow-up offered by the medical staff ensured that patients were promptly informed of their test findings and that any required actions or treatments started the soonest possible.

*"Even at the reception now, I had a paper missing, they took care of me, so they did the tests, though I had prior approval, but did not come at the scheduled time. Yes, they are organized, and take interest of the person" BE-03-07*

### x. Barriers

Within a particular rural setting, the PHCC has become the focal point for health care provision, yet certain beneficiaries have raised concerns regarding administrative coordination and organization. Situated in an area often underestimated by governmental resources, the PHCC faces an uphill battle to establish a robust administrative framework. The administrative team, overwhelmed by multifaceted responsibilities, struggles to maintain effective communication and decision-making processes. This has a negative impact on the beneficiaries living in that village, as they feel that they are forgotten and not heard.

*"I guess the PHCC needs a better administration. Please help this center if you can"BE-04-12*

## l) Social accessibility

### xi. Facilitators

The interviewees were thankful to the equal access to services in primary health care centers, where discrimination on the basis of gender, age, religion, or race was absent. The staff showed a positive and empathetic demeanor, ensuring that all patients received the same level of care and attention, regardless of their background or identity. The beneficiaries were welcomed, and felt secured in an environment nurtured by this inclusive approach, which also created a sense of belonging and faith in the health care system as they were treated with respect and dignity.

*"Every time I want something; I pass by it. The service at the center is very good. Their treatment is very good. No discrimination, nor by age, or gender"* *BE-03-03*

#### xii. Barriers

Although most of the beneficiaries have verbally attested to the lack of discrimination within these centers, certain individuals have voiced concerns about the increasing congestion experienced at the PHCCs. This surge in patient volume is notably attributed to the substantial influx of Syrian refugees seeking health care services at these centers. While the centers' commitment to equality is acknowledged, the mounting challenges posed by overcrowding and heightened demand for services have put a lot of beneficiaries into frustration. Some of the participants even articulated that they feel like the refugees are taking their place in the community.

*"My daughter is coming here also, but unlucky her, she came and waited for 3 hours… What can we do? We are obliged to do so. It is crowded in this center"* *BE-04-11*

*"I hear; people are bothered that others are taking our place. Refugees are having a priority over us. Everyone is bothered"* *BE-01-02*

### m) Acceptability

#### xiii. Facilitators

Lebanon's economic crisis has a silver lining for accepting PHC services. Prior to the crises, a relatively small proportion of Lebanese used PHC services. Currently, with the increase in cost and the inflation, beneficiaries were more appreciative for the services they receive there and intend to stay.

*“Of course, I cannot leave it. Would you leave your home? No, you wouldn’t. This center is like a home to me. It’s better for the PHCC to attend more to the people’s needs, and it’s better for the people to benefit from it”* BE-02-03

### xiv. Barriers

While PHCCs are gaining greater acceptance within the Lebanese community, it remains significant to acknowledge that a subset of beneficiaries still harbors a preference for consulting specialists at private clinics. This inclination is rooted in a cultural tendency to build enduring relationships with physicians of choice. However, financial constraints now pose a forbidding obstacle, preventing these beneficiaries from continuing to seek care from their preferred practitioners.

*“It has not been long since I started coming to the center. Only since the situation started to get worse. Needed to look for dispensaries to find support. Yes, I used to go to private clinics. But now am unable to go to private clinics”* BE-03-07

## n) Quality

### xv. Facilitators

Most of the beneficiaries were satisfied with the PHCCs services, which was a tribute to the effectiveness and quality of the health care provided. There was a combination of factors that contributed to the positive experience of the beneficiaries. Firstly, the administrative side of the PHCCs safeguarded a well-organized and efficient process, from patient registration to appointments and follow-ups, making it easy for beneficiaries to access the services they needed.

*“When the results were out, they scheduled an appointment for me with the physician, so that I can follow up on the issue”* BE-03-07

Secondly, the standards of care implemented at these centers reflected a patient-centered approach, as the health care staff, including physicians and nurses, displayed remarkable qualifications and dedication to their profession.

*"I feel when I come here…I am comfortable. They behave with me in a very nice way. The physician provides a lot of guidance, and the nurse when she gives us the medications, very calm and gives you time. I sit with them comfortably and they tell me how I should take each medication and tell me each medication is for what"* ***BE-06-16***

xvi. Barriers

While beneficiaries often acknowledged the quality of health care offered at PHCCs, a prevailing sense of hopelessness was observed among many individuals due to the prolonged waiting times required to see a physician and the relatively brief durations allocated for consultations. These experiences point to critical challenges in the operational efficiency of these centers.

*"In the center you wait a lot, and there is a big chance that the doctor doesn't show up… They cannot take their time with everybody. Not all of them have sufficient time"BE-04-11*

### 3. *Beneficiaries' recommendations*

o) Empowerment of PHCCs

All the beneficiaries voiced important recommendations intended to safeguarding the sustainability of PHCCs and enhancing services for their communities. First, they stressed on the importance of continuous funding, expansion, and empowering PHCCs with supplementary specialties, and particularly requesting mental health services provision.

*“I want them to stay active, they are smart, and get more support… Have more comforts for the beneficiaries and for them. I hope the center would receive more support. They deserve it”* BE-07-20

*“It is good to have a mental health physician here. Especially at these times. Yes, I could sit with a mental health specialist. Not wrong”* BE-06-16

#### p) Expansion of local PHCCs and home care services

Furthermore, for a few beneficiaries, the need for improved accessibility by establishing more PHCCs in their local living areas was highlighted. This strategic placement would maximize the benefits for all the community, making health care readily available and easily accessible to all. In addition to that, some beneficiaries expressed their desire for home care. By voicing this wish, beneficiaries underscored the importance of tailoring health care delivery according to individual needs, circumstances, and preferences.

*“Many people say if the PHCC was in town, it would be easier than coming here”* BE-07-20

*“I would like home visits, but my neighbor is a physician and he is very good. I call him and he checks my hypertension”* BE-07-21

*“Yes, home health care is very important, especially for the disabled or very sick”* BE-05-14

#### q) The necessity for a comprehensive social security and insurance system

Lastly, the interviewees pinpointed the urgent need for an insurance system designed to protect their health access rights, with an explicit demand to boost the NSSF insurance system, which is a vital step toward attaining an equitable healthcare coverage across the country.

*“I prefer the social security insurance, it used to cover 90% of the expenses. Of course the social security insurance is better”* BE-04-02

Table 1: The AAAQ Framework Findings

| CONSTRUCTS | Facilitators | Barriers |
|---|---|---|
| **AVAILABILITY OF SERVICES/MEDICATIONS** | • The in-house range of PHCC services offered to beneficiaries with NCDs is timely and needed | • Shortages in diagnostic services, manpower, and NCD medications<br>• Lack of availability of various specialties for adults with NCDs |
| | | |
| **FINANCIAL ACCESSIBILITY** | • Subsidies and low cost of PHCCs, support from family, friends, and neighbors, and NGO campaigns | • High cost of hospitals and private clinics, out of pocket payment of medications, lack of insurance and social security (NSSF) |
| | | |
| **PHYSICAL ACCESSIBILITY** | • Geographical coverage of the PHC (in the vicinity of a city or a village), carpooling, rides with family, friends, and neighbors | • Transportation and high fuel cost; limited resources for many who may not have access to private vehicles or public transportation options |
| **INFORMATION ACCESSIBILITY** | • Caring nurses and doctors; easy information access and education; staff aids in appointments, screenings, and blood tests | • Equitable info access challenges for some without phones or limited literacy; texts and calls ineffective; leading to unnecessary PHC visits |
| **ADMINISTRATIVE ACCESSIBILITY** | • Smooth registration, test approval, and results; quick registration, short waits, organized service. clear protocols for diagnostics; prompt follow-up, action, and treatment | • Limited administrative resources in some rural areas; overworked team leads to poor communication, hurting beneficiaries' feelings of neglect |
| **SOCIAL ACCESSIBILITY** | • Appreciation of equal and discrimination-free health care; staff's positive, empathetic attitude ensured equal care for all, fostering belonging and trust | • Worrying about PHCC overcrowding, mainly due to Syrian refugees seeking care; arising frustration; feeling that refugees are displacing the Lebanese beneficiaries in the community |
| **ACCEPTABILITY** | • Greater appreciation for PHC services due to Lebanon's economic crisis, as rising costs and inflation made them more valuable and sustainable | • Some prefer private specialists due to cultural reasons, but financial constraints prevent them from seeing their preferred doctors |
| **QUALITY** | • Satisfaction with well-organized and efficient process; prioritization of patient-centered care with dedicated, highly qualified staff, including doctors and nurses | • Feeling of hopelessness due to long wait times and short consultations with physicians; highlighting operational efficiency challenges in the centers |

# CHAPTER V

# DISCUSSION

Our results confirm that the consequences of the perfect storm that the country was and still is facing has dire consequences on the health of adults with chronic diseases. To our knowledge, this study is one of the first studies that provided a voice for the beneficiaries who received services from PHCCs during these crises. We will discuss our findings in accordance with our report’s three major themes.

## A. Health Conditions and Livelihood of the Participants

The interviews with beneficiaries underscored a significant and alarming trend as a substantial portion of the participants experienced a decline in their health conditions. Their accounts revealed a distressing reality of physical deterioration, exemplified by one participant who described the progressive deterioration of their heart condition, including multiple surgeries and complications. This is a poignant reminder of the dire health circumstances faced by many individuals within the studied population. The quote from participant BE-03-09 elucidates the severity of the situation, where the individual's heart condition had reached an advanced stage, rendering surgery the only viable option. Their description of the calcification of vital tubes reflects the critical need for timely and accessible medical care for managing chronic health conditions.

Mental health challenges emerged as a prevalent issue among the participants. Their experiences encompassed a spectrum of emotional and psychological difficulties, including anxiety, depression, and pervasive stress. These findings underline the profound impact of the prevailing crisis on individuals' mental well-being. Participant

BE-01-02's account affectingly illustrates the toll that these circumstances have taken on their mental state, describing feelings of depression and a persistent sense of unhappiness. The mental health implications of the ongoing crisis cannot be underestimated, and it is imperative that comprehensive support systems, including mental health services, are made accessible to address these pressing concerns.

The presence of unhealthy behaviors among the participants was a notable and concerning finding. Many individuals reported engaging in detrimental practices such as smoking, consumption of unhealthy foods, and neglect of essential health check-ups. These behaviors seemed closely tied to limited health literacy, emphasizing the critical connection between knowledge, behavior, and the management of chronic diseases. Participant quotes, such as BE-05-14's description of dietary choices influenced by availability, and BE-01-02's candid admission of cigarette addiction, underscore the complex interplay of socioeconomic factors, health knowledge, and behavior. These findings emphasize the need for health education and interventions that address not only medical care but also the underlying determinants of unhealthy choices.

The economic crisis and the deteriorating national situation have left many participants grappling with unemployment and severe financial challenges. A substantial number expressed that their financial stability had been upended over the past two years. The loss of consistent income sources, coupled with the burden of meeting basic needs and supporting their families, placed participants in an extraordinarily precarious financial situation. Participant BE-01-02's narrative is an example of the lengths individuals are forced to go to secure necessary medical tests, including borrowing money and selling possessions. This emphasizes the dire economic circumstances that have left individuals making painful choices between health care and basic survival.

Participants also revealed how financial constraints had forced them to alter their dietary habits, often resulting in the inability to afford previously accessible nutritious foods. Participant BE-02-01's account heartbreakingly highlights the struggles of securing even insufficient portions of food, a blunt testament to the profound impact of the crisis on food security. The link between economic hardship and nutritional choices is evident, and the resultant nutritional compromises may have long-term implications for the participants' health. These findings emphasize the necessity of addressing the socioeconomic determinants of health, including access to affordable and nutritious food.

Access to basic necessities, such as water, gas, and electricity, emerged as a common matter of concern among participants. Severe shortages and disruptions in these essential services added another layer of hardship to their daily lives. Participant BE-07-02's experience, where access to electricity is rationed and dependent on government supply, illustrates the extraordinary challenges individuals face in maintaining basic living conditions. The quote from BE-03-02 highlights the financial burden associated with procuring water, further compounding the economic hardships experienced by participants. These findings underline the complex nature of the crisis and its impact on even the most fundamental aspects of daily life. Addressing these infrastructural and service delivery challenges is essential for improving the overall well-being of the affected population.

## B. The AAAQ Framework Findings

### *1. Facilitators*

The study reveals that primary health care centers (PHCCs) play a vital role in providing timely and essential health care services and medications to beneficiaries with NCDs. These centers are perceived as indispensable lifelines, offering a range of medical services and support. Beneficiaries expressed gratitude for the presence of PHCCs, which provide access to necessary specialists and medications. The quote from participant BE-06-16 highlights the comprehensive services offered at PHCCs, including cardiologists, dentists, and orthopedists, demonstrating the convenience and accessibility of these centers. Participant BE-06-17's remark further emphasizes the consistent availability of medications at PHCCs, underlining their critical role in maintaining stable health.

The study identifies several facilitators of financial accessibility to PHCCs. Subsidies and low costs provided by these centers enabled individuals from diverse socio-economic backgrounds to overcome financial barriers to health care. These affordable services, as exemplified by participant BE-03-07, make consultations, tests, and medications accessible to a wide range of beneficiaries.

Support from family, friends, and neighbors is another key facilitator, enabling individuals to collectively bear the costs of health care. Participant BE-03-01's testimony underscores the importance of community support in enhancing financial accessibility.

NGOs' campaigns offering direct financial aid further improve accessibility to primary health care centers. These initiatives provide consultations, medications, vaccinations, and health education at reduced costs, benefiting a significant number of beneficiaries.

Physical accessibility to health care services is facilitated by the strategic geographical placement of PHCCs in close proximity to cities or villages. The convenient location of these centers reduces travel distance and time for beneficiaries, making health care services more accessible, as expressed by participant BE-06-18.

Carpooling and rides from family, friends, and neighbors further enhance physical accessibility. Sharing transportation costs and receiving rides enable individuals with limited mobility or without access to private vehicles to reach PHCCs with ease, as described by participant BE-07-21.

Beneficiaries acknowledged the efforts of health care staff, particularly nurses, in providing accessible information to them. The caring and attentive demeanor of health care professionals, combined with effective communication through phone or in-person interactions, contributed to easy and smooth access to information. Beneficiaries also received adequate information about their health conditions, including treatment options, appointment scheduling, medication availability, free screenings, blood tests, and NGO campaigns. Participant BE-07-19's experience illustrates the role of health care staff in keeping beneficiaries informed about medication availability.

Likewise, efficient administrative processes within PHCCs contributed to a positive health care experience for beneficiaries. Patient registration, test approval, and communication of test findings were described as smooth, resulting in short wait times and organized services. The follow-up offered by medical staff ensured prompt notification of test findings and the initiation of necessary actions or treatments.

Participant BE-03-07's experience illustrates the organized and efficient administrative process, including the handling of missing paperwork and timely test scheduling.

Beneficiaries also articulated their gratitude for the equal access to services provided by PHCCs. These centers were commended for their commitment to treating all patients equally, regardless of their gender, age, religion, or race. Health care staff were recognized for their positive and empathetic behavior, fostering a welcoming environment in which all patients feel secure. Participant BE-03-03's testimony features the absence of discrimination and the high level of care received at PHCCs. This inclusive approach instills a sense of belonging and faith in the health care system, as patients are treated with respect and dignity.

In this study, we can identify a shift in the acceptability of PHCC services in Lebanon, driven by the country's economic crisis. Prior to the crisis, a relatively small proportion of Lebanese utilized PHCC services. However, the economic challenges, including increased costs and inflation, have led beneficiaries to appreciate and rely on the services provided by PHCCs. Participant BE-02-03's statement reflects this shift in attitude, likening the PHCC to a home and emphasizing the importance of these centers in meeting people's needs during challenging times. This change in perspective highlights the adaptability and growing importance of PHCCs in the face of economic adversity.

Most of the beneficiaries were satisfied with the quality of services provided by PHCCs, attributing their positive experiences to several factors. Firstly, the administrative side of PHCCs was praised for its well-organized and efficient processes, from patient registration to appointments and follow-ups. This organizational efficiency ensures that beneficiaries can access the services they need with ease.

Additionally, the standards of care implemented at PHCCs reflected a patient-centered approach. Health care staff, including physicians and nurses, were commended for their remarkable qualifications and dedication to their profession. They provided guidance, information, and personalized care to patients. Participant BE-03-07's experience highlights the efficient administrative processes that contribute to a positive health care experience. The emphasis on patient-centered care is evident in the calm and informative approach of health care staff, as noted by participant BE-06-16.

### *2. Barriers*

Shortages in certain services, notably diagnostic tests, were reported. The study identified cost as a significant barrier, as diagnostic tests often require technicians, supplies, and laboratory services, which can be expensive and are often minimally or non-subsidized. This presents a substantial hurdle for beneficiaries seeking comprehensive health care.

Additionally, shortages in manpower, including physicians, nurses, and administrative staff, were noted. Economic challenges, such as declining salary values due to inflation, contributed to this issue. Long wait times, as indicated by participant BE-05-02's experience, exemplify the consequences of staff shortages.

The study also highlighted inconsistencies in the availability of NCD medications, with reliance on subsidies from international non-governmental organizations (NGOs). This reliance resulted in unpredictable access to vital medications, adding to the uncertainty faced by beneficiaries. The disparities between brand and substitute medications also posed challenges for patients, as demonstrated by participant BE-07-21's experience. The availability of services and medications, while beneficial, is hindered by financial, staffing, and medication access issues.

Furthermore, the high cost associated with hospitalization, consultations, diagnostic tests, and treatments served as a significant financial barrier for some beneficiaries. This cost burden was particularly challenging, as illustrated by participant BE-05-01, who faced difficulties affording hospitalization fees for a crucial procedure.

The lack of proper insurance coverage or social security through institutions like the National Social Security Fund (NSSF) exacerbated financial barriers. Participants, such as BE-06-02, voiced the challenges of being uninsured and unable to access subsidized health care services. The out-of-pocket payments for certain medications, along with the lack of insurance, forced individuals to make difficult choices between health and financial stability, as noted by participant BE-04-12. While subsidies, community support, and NGO campaigns facilitated financial accessibility, the high cost of private health care, out-of-pocket payments for medications, and the absence of insurance or social security presented substantial barriers to health care access.

Moreover, limited transportation options, particularly in rural areas, posed a significant barrier to physical accessibility. Beneficiaries without access to private vehicles or public transportation faced challenges in reaching PHCCs, as indicated by participant BE-07-19. Also, the high cost of fuel exacerbated this barrier, rendering transportation expenses unaffordable for many. Participant BE-05-15's experience highlights the financial strain imposed by fuel costs, making it difficult for beneficiaries to access nearby PHCCs. These challenges result in delayed or neglected medical care, further underscoring the importance of addressing transportation barriers.

Equitable access to vital information was challenging for certain beneficiaries as well, particularly those lacking phones, landlines, or literacy skills. In such cases, traditional text-based messages or regular calls became ineffective means of communication. This limitation may aggravate disparities in health communication and necessitate physical visits to PHCCs for information, as noted by participant BE-05-14. Despite that most beneficiaries appreciated the accessibility of information through health care staff, barriers existed for individuals without communication devices or literacy skills.

Certain PHCCs, particularly those in rural areas, faced challenges in establishing robust administrative frameworks. The administrative teams, overwhelmed by multifaceted responsibilities, struggled to maintain effective communication and decision-making processes. This led to frustration among beneficiaries who felt neglected and unheard, as expressed by participant BE-04-12.

While most beneficiaries attested to the lack of discrimination within PHCCs, concerns were raised about increasing congestion at these centers. The surge in patient volume is attributed to the substantial influx of Syrian refugees seeking health care services. While the commitment to equality is acknowledged, overcrowding and heightened demand for services have led to frustration among beneficiaries. Participants, such as BE-04-11 and BE-01-02, expressed concerns about prolonged waiting times due to the high flow of patients. Some felt that refugees are prioritized over local residents, leading to tensions within the community. These challenges highlight the need for effective management of patient flow and resources in response to increased demand.

In spite of the increasing acceptability of PHCCs within the Lebanese community, a subset of beneficiaries still preferred consulting specialists at private clinics. This preference is imbedded in a cultural affinity to build long-term relationships with chosen physicians. However, financial constraints, exacerbated by the economic crisis, presented a significant barrier, preventing these beneficiaries from continuing to seek care from their favored practitioners. Participant BE-03-07's experience illustrates the transition from private clinics to PHCCs due to financial constraints. This shift calls the attention to the impact of economic challenges on health care choices and access.

Many beneficiaries voiced hopelessness due to prolonged waiting times and relatively brief durations allocated for consultations even with acknowledging the quality of health care at PHCCs. These experiences indicate critical challenges in the operational efficiency of PHCCs. Participant BE-04's remarks highlight the frustration associated with long wait times and potential physician unavailability. This suggests a need for improvements in appointment scheduling and resource allocation to enhance operational efficiency.

### C. Beneficiaries' Recommendations

Beneficiaries in the study emphasized the importance of continuous funding, expansion, and empowerment of primary health care centers (PHCCs) to ensure their sustainability and enhance services for their communities. They particularly stressed the need for supplementary specialties, with a strong emphasis on the provision of mental health services. Participant BE-07-20 expressed the desire for continued support and expansion of PHCCs, recognizing their value to the community. This sentiment reflects the importance of financial stability for these centers.

The need for mental health services was also underscored, especially given the challenging times. Participant BE-06-16 stressed the importance of having a mental health specialist at PHCCs. This recommendation aligns with the recognition of mental health as an integral part of overall health care.

Some beneficiaries advocated for the expansion of PHCCs into more local living areas to improve accessibility. This strategic placement would maximize the benefits for the entire community, making health care readily available and easily accessible to all. Participant BE-07-20 underlined the convenience of having PHCCs in town, echoing the sentiment that localized centers would enhance accessibility for residents. This recommendation emphasizes the importance of considering geographic factors in health care planning.

Additionally, certain beneficiaries expressed a desire for home care services, which highlights the significance of patient-centered care and personalized health care solutions. Participants like BE-07-21 and BE-05-14 promoted home health care, recognizing its importance for individuals who may be disabled or very sick. This recommendation underscores the need for flexibility in health care services to accommodate diverse patient needs.

The interviewees also verbalized the urgent need for a comprehensive social security and insurance system designed to protect their health access rights. They overtly called for the enhancement of the NSSF insurance system as a vital step toward achieving equitable health care coverage across the country. Participant BE-04-02 expressed a preference for social security insurance, highlighting its past coverage of

90% of expenses. This preference stresses the importance of affordable and comprehensive insurance options for beneficiaries. The call for strengthening the NSSF insurance system reflects the recognition that a robust social safety net is essential for ensuring health care access for all. This recommendation aligns with the broader goal of achieving universal health care coverage and reducing financial barriers to care.

The beneficiaries' recommendations pinpoint the importance of sustained funding and expansion of PHCCs, the provision of mental health services, localized health care centers, home care options, and the development of a comprehensive social security and insurance system. These recommendations emphasize the need for a holistic approach to health care delivery that addresses both physical and financial accessibility, while also catering to individual preferences and circumstances.

### D. Common Findings with the Literature

Facilitators to access to health care that were found to be common with the literature include the perceived good affordability of PHC, the safe and quality of care received with the multidisciplinary team collaboration, and the support from family and social systems (Peñarrieta et al., 2015) (Foo et al.,2020) (HaGani et al., 2023).

Commonly shared barriers to access to health care include shortages in human resources and the struggle to respond to the growing demand for health care services for adult patients, fragmentation and misalignment of health care systems and lack of framework to help strengthen them, the out-of-pocket costs and financial challenges in the absence of health insurance especially when it comes to purchasing medications, and the long waiting time and perceived decreased consultation duration in polyclinics and PHCCs (Foo et al., 2020) (Belizan et al., 2020) (Schwarz et al., 2022).

Limited health literacy, harmful behaviors such as smoking, unhealthy diet habits, and insufficient provisions of coordinated care pathways and preventive services within primary health care, were found to be somehow “universal” health determinants in the community that affect the development and management of NCDs. It is important to mention that further global actions are required to address those determinants, as failing to do so will have great repercussions on the patients’ plan of care, and consequently on their health outcomes (Colditz et al., 2016) (Mackey et al., 2016) (Poureslami et al., 2017).

There is no magic bullet to help resolve those entrenched needs in the Lebanese community. But rather, a road map for a sustainable, effective, and community-centered primary health care in Lebanon ought to be put in place. We will list some policy recommendations that are simple and feasible in respect to our current country’s context.

### E. Policy Recommendations

Beneficiaries themselves are the most vulnerable amidst this socio-economic crisis. Their health is at a grave risk. The MOPH initiatives are still in their early stages, but they have the potential to make a significant impact on the quality and accessibility of primary health care in Lebanon.

The primary health care services are geographically located in all regions of Lebanon. They deliver a range of essential services to chronic disease beneficiaries from consultation to diagnostic tests to dispensing medications. Services are even-handed among those enrolled in the system, and to a great extent subsidized. Beneficiaries are highly appreciative for those services, but more is needed.

First and foremost, a joint response plan needs to be developed by the MOPH, representatives from different healthcare sectors, and other relevant ministries. The goal of this plan will be to ensure that health care services remain accessible and sustainable (Isma'eel et al., 2021).

### 1. *Sustainable government financing*

The MOPH currently assigns less than 3% of its budget to PHC services. In principle, PHC is the backbone of the health care system and a strong predictor of a healthy population. The WHO has noted that PHC can produce a range of economic benefits, such as improving health outcomes, health system efficiency, and health equity WHO, 2017). Additionally, PHC can improve population health in terms of life expectancy, all-cause mortality, maternal, infant, and neonatal mortality, as well as mental health outcomes (Isma'eel et al., 2021).

Hence, increasing the budget for PHC would strengthen and widen the range of essential services offered at primary health care centers. This would allow PHC centers to provide more comprehensive care to patients, including chronic disease management. Additionally, improving financing arrangements for PHC would allow the system to respond effectively to evolving population health needs (Hanson et al., 2022).

We believe that a government-funded PHC system is more sustainable than short-term subsidization by international donors. This is because a non-government-funded system is less likely to be interrupted by changes in donor priorities. As we found in this community health assessment, all participants were deeply concerned about the sustainability of their services.

## *2. Government leadership: government-led, leadership-oriented implementation as the core for the prevention and control of chronic diseases*

A study done by Li et al. in 2019 evaluated health management outcomes after implementing a Whole Population Preventive Healthcare Pilot Project in Luzhou City of Xuyong County in China, whereby the entire population in the pilot area was required to undergo free physical examinations. The examinations screened for hypertension revealed the epidemiology of adult hypertension. Based on blood pressure levels and risk factor exposures, risk classifications for hypertensive patients were executed. Corresponding intervention and management strategies for different risk levels were provided by a co-operative management team consisting of family physicians from three different levels of local medical institutions (village, town, and county). Health care management outcomes including awareness, treatment, and hypertension disease rates were compared between the period before and after the intervention and management. From 2015 to 2017, the number of people with high-risk factors for hypertension and percentage of high-risk patients diminished from 33,064 to 26,982 and 27.4% to 24.6%, respectively. The percentage of the population exposed to cigarettes and alcohol decreased from 30.6% to 27.2% and 25.1% to 22.0%, respectively. The number of deaths due to hypertensive cardiovascular or cerebrovascular diseases decreased each year and was 275 (39.55/100,000 people) in 2017, which was the lowest rate measured.

This study highlights the importance of government responsibilities, mobilizations of departments and social groups, and the role of public health in disease prevention and control, especially in impoverished populations. As such, similar governmental endeavors are encouraged to be put in place as a start to help some vulnerable communities in Lebanon.

### *3. Staff shortage*

The economic crisis in Lebanon has led to an influx of people seeking care at primary health care centers. This, combined with the mass exodus of nurses and physicians from the country, has created a shortage of providers.

To address this shortage, the following solutions are proposed:

Facilitating the hiring of nurses and allied health care professionals: This would require a change in the hiring policy at primary health care centers. Currently, there is a freeze in hiring nurses due to the financial crisis. Going forward, a human resource strategic plan needs to be developed that will take into consideration the ratio of population to nurses/physicians, across different geographic areas of Lebanon. In addition, encouraging service learning such as students from medical and nursing schools to be assigned to gain clinical experience in the community, particularly in primary health care, while supporting existing staff.

Increasing coverage of physicians and the range of specialties working in PHCs: This could be done by reviewing and discussing options for physician reimbursement and benefits, including capitation payment, salaries, and/or framework agreements. The American College of Physicians believes that delivery and payment systems must fully support doctors, other clinicians, and health care facilities while providing all patients the ability to receive care when and where they need it in the most appropriate way possible, whether that be via in-person visits, telehealth, audio only, or other means. This recommendation targets specifically those who are dealing with health care disparities and inequities based on personal characteristics and/or are disproportionately affected. Using value-based payment, policymakers and the clinical community must collaborate to advance equity (Outland et al., 2022).

### *4. Accountable system*

Better accountability in measuring performance is an important infrastructural measure to strengthen the primary health care system in Lebanon. Currently, the MOPH provides a performance measures report. To improve the meaningfulness of this report to researchers and practitioners, a committee of stakeholders should be formed to identify the specific performance measures that are most important for the primary health care system. The committee should also develop a plan for how the performance measures will be used to improve the system. Additionally, the MOPH should also support the development and utilization of monitoring and evaluation activities. This includes digital data mining of PHЄNICS, the national electronic health record system. The outputs of these activities should be used to inform the development and implementation of the performance measurement system. This solution is incremental and requires a coordinated effort by the MOPH and other stakeholders.

Clinical programs that strengthen and streamline the management of NCDs are complimentary approaches to governmental initiatives for enhancing health outcomes in LMICs. Numerous cost-effective interventions that are especially well suited for use in LMICs have been identified by the World Health Organization. In addition to patient-level activities to prevent cardiovascular disease, diabetes, and some malignancies, they include population-level actions on cigarette use, excessive alcohol consumption, unhealthy diets, and physical exercise. Similar to this, the World Bank has backed legislative changes to encourage behavior change in LMICs, such as laws governing food labeling, unhealthy product advertising, and the use of artificial trans fats (Kostova et al., 2017).

Other strategies to limit smoking in the community include cigarette taxes that are high enough to raise prices, legislative restrictions on marketing tobacco products, and smoke-free public spaces. The least expensive and most cost-effective tobacco use intervention in LMICs is taxing tobacco products to raise their prices. Tobacco tax policy has evolved into a crucial strategy for NCD risk prevention as a result of the proven ability of tobacco tariffs to reduce consumption across numerous geographies (Kostova et al., 2017).

A simple recommendation for the short term consists of the establishment of smoking cessation clinics in each primary health care center in Lebanon. Currently, smoking cessation programs in the community are scarce, and we are not aware of any ongoing program in the community-based primary health care centers that are part of the network. Creating smoking cessation clinics in a select number of primary health care centers and then gradually rolling out the program to the remaining centers can be a good start.

### *5. Community Collaboration*

The community served by the primary health care centers is currently passive and unengaged in decision-making. This constitutes an issue because this means that the community is not involved in shaping the services provided to its members. As a result, the services may not be enough to meet the health needs.

To address this problem, a change in the approach of governing community services is needed, as the community must be able to propose solutions and have a say in how the services are delivered. So, a community-centered approach would allow the community to be more active and empowered.

The necessity of active participation and collaboration with community members was described by Littlejohns & Wilson (2019) “Community” was frequently used to broadly refer to the significance of working with and strengthening local people. Community-level governance is required, and good governance necessitates "active citizenship and participation in deliberative democracy to form social consensus".

The absence of personnel to provide non-clinical services, which are crucial for the management of chronic diseases, was one common constraint that we identified. There may be a number of components inside the community that can close this gap. For instance, primary health care facilities would like to offer home care visits but are unable to do so due to a staffing shortage.

We suggest educating locals to work as lay health workers to support experts in providing services. When community health workers (CHW) are integrated into a well-developed PHC system, they provide ongoing coordination with the families and beneficiaries, “providing a means for continuum of care across multiple points of care...significant health status achievements...increasing equity through increased service... [leading to] cost effectiveness”, according to health-related outcomes noted by the WHO in 2016. This intervention is effective, efficient, and economical. It is effective since it can be put into place within a few months and does not require much training.

It is also cost-effective as lay health workers receive lower pay than specialists do. In fact, we will be providing income to community members, and by doing so, the cost of preventing complications as a result of proper follow-up will be substantial. The CHW's familiarity with the local community's culture, values, language, availability at all times on a local level, and ability to win over the community's trust, make follow-up procedures simpler. Finally, there are two aspects that impact one’s health: physical and psychological. First, outreach initiatives are designed to physically reach the unreachable people in order to prevent illness complications. Second, the lay health workers are motivated, feel productive, and gain a high respect from their communities on a psychological level; and the WHO 2016 document makes clear that CHW obtain social advantages and promote community mobilization, especially when receiving a regular salary.

It was found that a significant challenge for beneficiaries is transportation, particularly for geographically dispersed communities like those in remote places. Even the providers are facing difficulties in reaching to and from the PHCCs (not reported in this study, but in the other arm of the STRESS project), and this was one reason for the shortage in health providers.

Knowing that Lebanese communities are close-knit and willing to help, we recommend an organic method to involve the municipality and community members in carpooling when necessary. We would also propose that municipalities assist the centers by giving them a bus to transport the employees (nurses, allied health care professionals, etc.) who commute every day to the clinics from the surrounding areas. Another suggestion to health providers coming from outside the area is to offer transportation reimbursements. In their explorative case study, De Weger et al. (2022)

demonstrated that residents prioritized local services and amenities such as acceptable housing, public transportation, health and care services and wanted to be active in health policymaking with the goal of improving the quality of life and living environment in their communities. Their findings also showed that residents thought they had a responsibility to promote citizen involvement and speak on behalf of community concerns with the municipality, but in order to do so successfully, the municipality needed to improve their communication and accessibility.

### *6. Home care, telehealth, and mobile health*

Furthermore, to face the decreased physical accessibility to health care centers, patients can benefit from home care and mobile health technologies. Home care brings medical services directly to patients' homes, eliminating the need for them to travel long distances to access care. This approach not only enhances convenience but also caters to the specific needs of individuals with chronic conditions, providing personalized attention and comfort within familiar surroundings. Additionally, mobile health technologies such as telemedicine applications and remote monitoring devices enable real-time communication between patients and healthcare providers. These technologies bridge the gap by allowing patients to consult with health care professionals, receive medical guidance, and monitor vital signs remotely, reducing the need for frequent physical visits to health care facilities (Lizano-Díez, 2021).

In their systematic literature search in 2013, Health Quality Ontario found that when provided by nurses during a single home visit or on an ongoing basis, education-based in-home care was beneficial at improving outcomes for patients with a spectrum of heart diseases. Functional activities for community-dwelling persons with chronic diseases were enhanced by occupational therapy and physical therapy visits to the patient's home that focused on task modification and home environment improvement. Home care includes case management, ongoing in-home assessments, and coordination of a variety of services offered in the home or in the community that are curative, preventive, or supportive in nature and that aim to allow clients to live at home, preventing or delaying the need for long-term care or acute care (Health Quality Ontario, 2013).

Steinman et al. conducted a qualitative study in Cambodia in 2020 that aimed to understand the facilitators and barriers to chronic disease management and the acceptability, appropriateness, and feasibility of Mobile Health to support chronic disease management and strengthen community-clinical linkages to existing services. Participants preferred Mobile Health to address barriers to chronic disease management through reminders about medications, laboratory tests and doctor’s consultations, education on how to incorporate self-management into their daily lives, and support for obstacles to disease management. They also favorited voice messages over texts to communicate trust and increase accessibility for persons with limited literacy, vision, and smartphone access (Steinman et al., 2020).

### *7. Resource mapping, community-based health insurance, and fundraising*

While many of the services for chronic diseases are subsidized, some remain unsubsidized and henceforth are financially challenging for individual community members at specific centers. In the main STRESS project, we found that some beneficiaries were being referred by their health care providers to areas outside their communities to receive subsidized health care. For this purpose, we suggest that each primary health care center, with the assistance from the municipality and other community members, maps the potential resources that are available in their regions, and coordinates with them the referral of beneficiaries when needed.

Additionally, we propose the initiation of a community-based health insurance paid in Lebanese pounds or in Dollar per month by those who are better off. The collected money can be used to cover the out-of-pocket costs incurred by the beneficiaries. This approach needs a high transparency and liability to circumvent mistrust. As described in the systematic review of El Jardali et al. (2018), community-based health insurance has evolved as substitute health financing mechanism to out of pocket payments in LMICs, particularly in areas where government or employer-based health insurance is minimal. El Jardali et al. stressed that the community-based health insurance program should be given legal standing and positioned within the framework of national health finance systems through the establishment of a policy framework. Forming an "umbrella organization" that would support design, training, and information services as well as include government, nongovernmental organizations, and academia as an essential component of the development and implementation process might also be taken into consideration.

Besides, fundraising activities held by PHCCs to raise money for specific services are another quick solution. These social events strengthen the bonds between community members and offer assistance to individuals who have no other sources of support. The primary health care professionals can identify individuals who are really underprivileged and in need of assistance. A study done by Ho et al. (2021) appraised the importance of the donation-based crowdfunding effort, as it has created a new pathway for struggling individuals and families to access larger social network platforms for financial and non-financial support, closing the gap between marginalized populations and the healthcare system.

### *8. Promoting health literacy and patient-centered care*

As described by Schwarz et al. (2022), low or limited health literacy affects patients’ perceptions of health needs, their ability to navigate the health system and follow appropriate treatment pathways, as well as to accept and follow indicated therapy

Nurses can react to patients' requests for individualized information and needs for health literacy with well established tools. They are urged to adopt health literacy strategies to empower patients as well as communities in their capacity as multipliers. Making health information accessible, identifying knowledge gaps, and sensitively communicating with patients about their sociocultural requirements are a few examples (Nock et al., 2023).

In order to enable chronically ill people to participate in their therapy, a high level of health information is necessary. Patient-centered strategies in primary care contribute to reinforce the health literacy of people in the context of their complex and diverse personal and environmental needs (Poitras et al., 2018).

## F. Implications for Nursing Practice

The exploration of facilitators and barriers in accessing health care for adults with chronic diseases within the Lebanese community holds significant implications for nursing practice and education. Nurses, as frontline health care providers, play a pivotal role in addressing the unique challenges identified in this study. With a comprehensive understanding of the facilitators, nurses can actively promote patient education and empowerment, leveraging the identified factors to enhance patient engagement in their care. They can collaborate with other health care professionals to design culturally sensitive interventions that align with the facilitators, fostering a more patient-centered approach to chronic disease management. Moreover, nurses should use the insights gained from this study to develop communication strategies that overcome the barriers, ensuring effective interaction with diverse patient populations and improving health literacy. By understanding the facilitators and barriers in accessing health care specific to the Lebanese context, nurses can deliver care that is both culturally sensitive and tailored to the needs of adults with chronic diseases, ultimately contributing to improved health care outcomes and patient well-being.

### G. Areas for Future Research

Building upon the insights gained from this qualitative study, several promising avenues for future research emerge. Firstly, an in-depth exploration into the cultural nuances and social determinants influencing these facilitators and barriers could shed further light on the intricate interplay between cultural context and health care access.

Moreover, investigating the perspectives of policymakers could provide a comprehensive understanding of the systemic factors shaping the health care landscape for this population.

Additionally, a longitudinal study could offer insights into the evolving dynamics of health care access over time and assess the long-term impact of interventions aimed at addressing identified barriers.

Comparative studies across different regions within Lebanon or across various countries could further enhance the generalizability of the findings and identify region-specific patterns.

Furthermore, exploring the role of technology, such as mobile health applications, in mitigating access barriers and enhancing facilitators among adults with chronic diseases could also provide innovative solutions for improving care delivery.

By delving deeper into these areas of inquiry, researchers can contribute to a more holistic understanding of the complex factors affecting health care access and foster the development of targeted interventions to enhance the health care experiences of adults with chronic diseases in Lebanon.

### H. Strengths and Limitations

This is a descriptive exploratory study that provided a baseline information about the struggles faced by adults with chronic diseases in the Lebanese community. Our In- depth interviews yielded to a deep and nuanced understanding of participants' experiences, attitudes, and perspectives about access to health care during an exclusive time of accentuated crises in our country.

Despite the fact that we went over seven different regions in Lebanon, other remote and urban regions could have also been important to visit so that our results would be more transferable. Furthermore, a bigger sample size would have permitted us to secure more generalizability of our findings.

Also, selection bias could be a problem, as patient participants were mainly identified and referred by care managers and nurses. Moreover, social desirability bias might be present, with most participants mentioning that they had made some forms of lifestyle change following the detection of diseases and that they would like to be more involved in managing their healthcare needs when several topics were explored.

Researchers’ subjectivity and bias were put on hold as much as possible in spite of the common shared emotions, views and opinions about the country’s decline in terms of health system, and the overall difficult livelihood of all its citizens, interviewers and interviewees included.

Further studies that are quantitative in nature need to be carried on, as qualitative studies are limited in their ability to quantify the impact of these challenges or to assess the effectiveness of interventions to address them. In quantitative studies, surveys or other methods can be used to collect data on a large scale, which allows for more generalizable findings. Through the use of statistical methods, we can assess the impact of interventions and identify the most effective strategies for confronting the challenges faced by adults with chronic diseases.

## I. Conclusion

Several facilitators and barriers to accessing primary health care services were identified in this study. For us to address barriers and build on facilitators, it is important to develop targeted interventions that aim to improve access to health care services for adults with chronic diseases in the Lebanese community. Overall, our study highlights the importance of listening to the voices of these individuals to better understand their experiences and consequently inform efforts to insure that their health needs are met. Hence, prioritization is a key player in this national health hurdle.

For the short term, three areas of improvement are in the wait; they include: training community members for home care services, improving physical and financial accessibility for beneficiaries, and mapping potential local resources and fundraising events.

For the medium term, the focus should be on developing an accountable system shared by all the network of PHCCs under the patronage of the MOPH, and on expanding the range of specialties and services provided to better attend to the community’s needs.

Finally, for the long term, accentuated efforts must target the development of a sustainable government financing system along with a community-based health insurance. Other determinations must confront the staff shortage problem and the nationwide smoking prevalence.

# APPENDIX

## APPENDIX I: INVITATION EMAIL

**Invitation to Participate in a Research Study**
**This notice is for AUB Approved Research Study**
**for Gladys Honein**
**gh30@aub.edu.lb**
***It is not an Official Message from AUB***

**<u>Invitation to Participate in a Research Study</u>**

**This notice is for an AUB-IRB Approved Research Study**

**for Dr.Gladys Honein at AUB.**

**gh30@aub.edu.lb**

**Building: Hariri New School of Nursing/Floor: 5/Room: 520**

***It is not an Official Message from AUB***

I am inviting you to participate in a qualitative research study about “Facilitators and barriers accesSing healTh caRE Services for adults with chronic diSeases (STRESS) in Lebanon: A qualitative study”.

You will be asked to take part in a face-to-face interview in order to explore the facilitators and barriers accessing health care services among adults with chronic diseases living in eight different communities across Lebanon from the perspectives of primary health care providers and adults with chronic diseases.

You are invited because we are targeting health managers, nurses, and physicians working in the selected eight different Primary Healthcare Centers (PHCs).

The estimated time to complete the interview is approximately 30 minutes.

The research is conducted face-to-face at the different PHCs in the selected eight Lebanese regions.

# ARABIC VERSION OF APPENDIX I

هذا إشعار لدراسة في الجامعة الأميركية في بيروت –

للدكتورة غلاديس حنين – أبو حيدر في الجامعة الأميركية في بيروت

البريد الإلكتروني: gh30@aub.edu.lb

المبنى: كلية رفيق الحريري للتمريض في الجامعة الأميركية في بيروت/ الطابق: الخامس/ الغرفة/ 520

* إنها ليست رسالة رسمية من الجامعة الأميركية في بيروت *

أدعوكم للمشاركة في دراسة بحثية نوعية حول " الميسرات والمعوقات للوصول إلى خدمات الرعاية الصحية لكبار السن المصابين بأمراض مزمنة في لبنان".

سيُطلب منك المشاركة في مقابلة وجهًا لوجه لاستكشاف الميسرات والعقبات التي تعيق الوصول إلى خدمات الرعاية الصحية بين البالغين المصابين بأمراض مزمنة والذين يعيشون في ثمانية مجتمعات مختلفة في جميع أنحاء لبنان من وجهة نظر مقدمي الرعاية الصحية الأولية و المصابين بأمراض مزمنة.

أنت مدعو لأننا نستهدف مديري الصحة والممرضات والأطباء العاملين في ثمانية مراكز مختلفة للرعاية الصحية الأولية (PHCs) والمصابين بأمراض مزمنة.

الوقت المقدر لإتمام المقابلة حوالي 30 دقيقة.

يُجرى البحث وجهًا لوجه في مراكز الرعاية الصحية الأولية المختلفة في المناطق اللبنانية الثماني المختارة.

# APPENDIX II:  CONSENT FORM FOR BENEFICIARIES

**Informed Consent**
**American University of Beirut**
**Faculty of Medicine/ Hariri School of Nursing**
**Title:** Facilitators and barriers acces**S**ing heal**T**h ca**RE** **S**ervices for older adults with chronic di**S**eases **(STRESS)** in Lebanon: A qualitative study

I am a researcher in the School of Nursing at the American University of Beirut. I am here to conduct a study that will explore the enablers and challenges in accessing health care services for adults with chronic diseases in Lebanon.

Before we begin, I would like to take a minute to explain why I am inviting you to participate and what I will be doing with the information you provide to me. Please stop me at any time if you have any questions. After I have told you a bit more about my project, you can decide whether or not you would like to participate.

### What is this research study about?

The purpose of this study is to qualitatively explore the facilitators and barriers accessing health care services among adults with chronic diseases living in eight different communities across Lebanon from the perspectives of individuals with chronic diseases and from their primary health care providers. Knowledge from this study will help researchers identify those factors in order to inform future interventions to empower PHCs.

If you wish to participate, you will be asked to answer a set of questions to understand the facilitators and barriers accessing health care services for older adults with chronic diseases in eight different Lebanese regions. The interview will be conducted in a private room where discussions can take place away from any interference. It is expected to take about 30 minutes. A sample of 20 to 25 older adults with chronic diseases who come to the selected Primary Healthcare Centers (PHCs) will be recruited for this study in addition to 8 health managers and 24 health care providers.

### What are the risks and benefits of participating in the study?

Your participation in this study does not involve any physical or emotional risk to you beyond the risks of daily life. If at any time and for any reason, you would prefer not to answer any questions, please feel free not to. If you do not wish to answer any particular question in the interview, you may skip the question by either not answering or saying “skip” during the interview.

If at any time you would like to stop participating, please tell me. We can take a break, stop and continue at a later date, or stop altogether. You will not be penalized in any way for deciding to stop participation at any time. You have the right to refuse to participate, withdraw your consent, or discontinue participation at any time during or after the interview and for any reason. Your decision to withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way will affect your relationship with the American University of Beirut. Participation is on a purely voluntary basis. You will be asked to answer few structured and open – ended questions. They will be short and concise and will not cause any harm or discomfort.

You will receive a small financial incentive from participating in this research study to demonstrate our appreciation for your time. You will be payed 35$ in cash at the completion of the interview.

A copy of this consent form will be left with you.

**Confidentiality**

All data collected are treated as confidential information. Your name or any identifiers will not be included in my research analysis.

I would like to tape record this interview so as to make sure that I remember accurately all the information you provide. I will keep these tapes in a password protected document in the primary investigator's office and will only be used by the research team. If you refuse to be tape-recorded, hand written notes will be taken instead. Only the aggregated data from the interviews (which will have no identifiers) will be shared with other investigators. All codes and transcribed data will be kept in the locked file drawer or in a double password protected computer that is kept secure. I may wish to quote from this interview either in the presentations or articles resulting from this work. Your privacy will be maintained in all published and written data resulting from this study. Your name or other identifying information will not be used in our reports or published papers. A made-up name will be used in order to protect your identity, unless you specifically request that you be identified by your true name. You may still participate in the interview if you do not want to be taped.

Five years after the end of the research study, the taped interviews will be destroyed by the research team using mean approved by the institution. I will keep the aggregated research data on my computer files for future use in other prenatal research studies.

Data access is limited to the Principal Investigator and researchers working directly on this study. It will also be monitored and may be audited by the IRB while assuring confidentiality.

**Contact Information**

If you have any questions or concerns about the research you may contact Dr. Gladys Honein at the below information:

Email: gh30@aub.edu.lb

If you have any questions, concerns or complains about your rights as a participant in this research, you can contact the *Social & Behavioral Sciences Institutional Review Board office* at AUB:

Telephone number: 0135000 extension 5445. Email: irb@aub.edu.lb

**Participant**

I have read and understand the above information. I agree to participate in the research study.

**Participant Name** **Principal investigator's Name**

**----------------------------------- ------------------------------------**

**Participant Signature** **Principal investigator's Signature**

**----------------------------------- ----------------------------------**

**Date**

**---------------------**Part II: Certificate of Consent

I have been invited to participate in research about "Facilitators and barriers accesSing healTh caRE Services for older adults with chronic diSeases **(STRESS)** in Lebanon: A qualitative study

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked, have been answered to my satisfaction.

I consent voluntarily to be a participant in this study. Yes □ No □

I consent voluntarily to have my voice audio recorded Yes □ No □
I consent to quote excerpts from my discussion either in the presentation of results in meetings or publications. Yes □ No □

# ARABIC VERSION OF APPENDIX II

## استمارة الموافقة على المشاركة في دراسة بحثية

### كلية الطب / كلية رفيق الحريري للتمريض

### الجامعة الأميركية في بيروت

**العنوان:** "الميسرات والمعوقات للوصول إلى خدمات الرعاية الصحية لكبار السن المصابين بأمراض مزمنة في لبنان : دراسة نوعية"

أنا باحثة في كلية التمريض في الجامعة الأميركية في بيروت وأعمل حالياً على دراسةٍ بحثيةٍ بعنوان: "الميسرات والمعوقات للوصول إلى خدمات الرعاية الصحية لكبار السن المصابين بأمراض مزمنة في لبنان : دراسة نوعية"

سأشرح لك في البداية عن سبب دعوتي لك للمشاركة في هذه المقابلة وما سأفعله بالمعلومات التي ستوفرها لي. الرجاء مقاطعتي في أيّ وقت إن كانت لديك أيّ أسئلة كما يمكنك أن تختار(ي) المشاركة أو عدم المشاركة في المقابلة بعد أن أبدأ بعرض الموضوع بشكل مفصّل.

**الغاية من الدراسة البحثية:**

الغرض من هذه الدراسة هو استكشاف نوعياً الميسرات والعوائق التي تصل إلى خدمات الرعاية الصحية بين البالغين المصابين بأمراض مزمنة والذين يعيشون في ثمانية مجتمعات مختلفة في جميع أنحاء لبنان من منظور الأفراد المصابين بأمراض مزمنة ومن مقدمي الرعاية الصحية الأولية. ستساعد المعرفة من هذه الدراسة الباحثين على تحديد تلك العوامل من أجل إعلام التدخلات المستقبلية لتمكين مراكز الرعاية الصحية الأولية.

إذا كنت ترغب في المشاركة ، سيُطلب منك الإجابة على مجموعة من الأسئلة لفهم الميسرات والحواجز التي تعيق الوصول إلى خدمات الرعاية الصحية لكبار السن المصابين بأمراض مزمنة في ثماني مناطق لبنانية مختلفة. سيتم إجراء المقابلة في غرفة خاصة حيث يمكن إجراء المناقشات بعيدًا عن أي تدخل. ومن المتوقع أن تستغرق حوالي 30 دقيقة. سيتم تجنيد عينة من 20 إلى 25 من كبار السن المصابين بأمراض مزمنة والذين يأتون إلى مراكز الرعاية الصحية الأولية المختارة لهذه الدراسة بالإضافة إلى 8 مديري صحة و 24 مقدم رعاية صحية. .

**المخاطر/الفوائد المرتبطة بالمشاركة:**

لا تنطوي مشاركتك في هذه الدراسة على أي مخاطر جسدية أو عاطفية عليك بخلاف مخاطر الحياة اليومية. إذا كنت تفضل في أي وقت ولأي سبب عدم الإجابة على أي أسئلة ، فلا تتردد في عدم الإجابة. إذا كنت لا ترغب في الإجابة على أي سؤال معين في المقابلة ، فيمكنك تخطي السؤال إما بعدم الإجابة أو قول "تخطي" أثناء المقابلة. إذا كنت ترغب في أي وقت في التوقف عن المشاركة ، من فضلك قل لي. يمكننا أخذ قسط من الراحة ، والتوقف والاستمرار في وقت لاحق ، أو التوقف تمامًا. لن يتم معاقبتك بأي شكل من الأشكال إذا قررت إيقاف المشاركة في أي وقت. يحق لك رفض المشاركة أو سحب موافقتك أو التوقف عن المشاركة في أي وقت أثناء المقابلة أو بعدها ولأي سبب. لن ينطوي قرارك بالانسحاب على أي عقوبة أو خسارة في المزايا التي يحق لك الحصول عليها. لن يؤثر وقف المشاركة بأي شكل من الأشكال على علاقتك بالجامعة الأمريكية في بيروت. المشاركة على أساس تطوعي بحت. سيُطلب منك الإجابة عن بعض الأسئلة المنظمة والمفتوحة. ستكون قصيرة وموجزة ولن تسبب أي ضرر أو إزعاج.

سوف تتلقى حافزًا ماليًا صغيرًا من المشاركة في هذه الدراسة البحثية لإظهار تقديرنا لوقتك. سيتم دفع 35 دولارًا أمريكيًا نقدًا عند الانتهاء من المقابلة.

سيتم ترك نسخة من نموذج الموافقة هذا معك.

**السرية:**

يتم التعامل مع جميع البيانات التي تم جمعها على أنها معلومات سرية. لن يتم تضمين اسمك أو أي معرّفات في تحليلي البحثي.

أود تسجيل هذه المقابلة على شريط للتأكد من أنني أتذكر بدقة جميع المعلومات التي تقدمها. سأحتفظ بهذه الأشرطة في مستند محمي بكلمة مرور في مكتب المحقق الرئيسي ولن يتم استخدامها إلا من قبل فريق البحث. إذا رفضت التسجيل على شريط ، فسيتم تدوين الملاحظات المكتوبة بخط اليد بدلاً من ذلك. سيتم فقط مشاركة البيانات المجمعة من المقابلات (التي لن تحتوي على معرفات) مع المحققين الآخرين. سيتم الاحتفاظ بجميع الرموز والبيانات المكتوبة في درج الملفات المقفل أو في جهاز كمبيوتر محمي بكلمة مرور مزدوجة يتم الاحتفاظ به آمنًا. قد أرغب في الاقتباس من هذه المقابلة إما في العروض التقديمية أو المقالات الناتجة عن هذا العمل. سيتم الحفاظ على خصوصيتك في جميع البيانات المنشورة والمكتوبة الناتجة عن هذه الدراسة. لن يتم استخدام اسمك أو أي معلومات تعريفية أخرى في تقاريرنا أو أوراقنا المنشورة. سيتم استخدام الاسم المصطنع من أجل حماية هويتك ، ما لم تطلب تحديد هويتك باسمك الحقيقي. لا يزال بإمكانك المشاركة في المقابلة إذا كنت لا تريد أن يتم تسجيلك.

سيتم تلف المقابلات المسجلة بعد خمس سنوات من انتهاء الدراسة البحثية من قبل الفريق البحثي باستخدام وسائل توافق عليها المؤسسة. سأحتفظ بالبيانات التي جمعتُها في خلال البحث ضمن ملفاتي على الكمبيوتر لاستخدامها في المستقبل في دراسات بحثية أخرى.

سوف تكون المعارف التي يتمّ اكتسابها من خلال هذه الدراسة البحثية محصورة بالباحث الرئيسي والباحثين العاملين مباشرةً في هذه الدراسة، كما سيتم مراقبتها والتدقيق بها من قبل مجلس المراجعة المؤسسي مع الحفاظ على السرية التامة.

**للإتصال:**

في حال راودتكِ أي أسئلة حول الدراسة، يرجى الاتصال بالباحثة غلادسيس حنين على الرقم والبريد الإلكتروني التاليَين:

رقم الهاتف: +1(416)766-1786 البريد الإلكتروني: gh30@aub.edu.lb

,

وإذا كانت لديكِ أيّ أسئلة أو مخاوف أو شكاوى حول حقوقك كمشارك في هذه الدراسة البحثية، يرجى الإتصال بمكتب مجلس المراجعة المؤسسي في قسم العلوم الإجتماعية والسلوكية في الجامعة الأميركية في بيروت.

رقم الهاتف: 01/350000 مقسّم: 5445. البريد الإلكتروني: irb@aub.edu.lb

**المشارك(ة):**

لقد قرأتُ وفهمتُ كافة المعلومات المذكورة أعلاه وأوافق على المشاركة في الدراسة البحثية.

**اسم المشارك(ة) الذي يحصل على الموافقة:** ________________________

**التوقيع:** ____________________

**الباحث الرئيسي:** ________________________

**التوقيع:** ____________________

**التاريخ:** ___________________________

**شهادة الموافقة**

لقد دعيت للمشاركة في بحث حول:" الميسرات والمعوقات للوصول إلى خدمات الرعاية الصحية لكبار السن المصابين بأمراض مزمنة في لبنان: دراسة نوعية".

لقد قرأت المعلومات السابقة ، أو تمت قراءتها لي. لقد أتيحت لي الفرصة لطرح أسئلة حول هذا الموضوع وتم الرد على أي أسئلة تم طرحها لي بما يرضي.

أوافق طواعية على أن أكون مشاركًا في هذه الدراسة . كلا ■
نعم
أوافق طواعية على تسجيل صوتي. كلا ■
نعم
أوافق على اقتباس مقتطفات من مناقشتي إما في عرض النتائج في الاجتماعات أو المنشورات. كلا ■
نعم

# APPENDIX III: INTERVIEW GUIDE-HEALTH CARE BENEFICIARIES

**Contextual factors**

Describe your family:

a. How many live in your house
b. How long have you been living in this house?
c. How many individuals contribute to the income of the house?

Are there economic challenges to:

d. Access food
e. Secure shelter (paying rent for non-home owners):
f. Having power at home
g. Paying for their children schooling
h. Transportation to go to work

**Availability:**

Who is providing you the care in this center? How often do you come here? How long have you been using their services? Are there services that you need and aren't available at the center?

**Accessibility:**

*Physical accessibility*: Are facilities located within a reasonable distance? What are the barriers for accessing the PHC: route, car, bus, walking, any other forms of physical barriers?

*Financial accessibility:* How is the service funded? If so, is the fee reasonable/manageable given the economic circumstances/means of those who need to access this service? If so, is the fee reasonable/manageable given the economic circumstances/means of those who need this type of care? What other indirect costs are associated with the service (such as transport)?

*Bureaucratic/administrative accessibility:* Are there procedural steps that must be completed before accessing certain services? For example, is a particular kind of registration required? Do you need to use internet or mobile phone to access certain services? What level of literacy and/or numeracy is needed? Are the facilities open at times that are convenient given the daily/weekly responsibilities and preferences of women and men in the community?

*Social accessibility:* Do service providers respect non-discrimination in the provision of services? Are there female frontline workers? Are there any risks of stigma related to a person being seeing in/around a certain facility? Are other responsibilities, such as household chores, escort, etc... affecting certain individuals' ability to access services?

How important this PHC for your health care needs? Please explain.

Choice between private and PHC

*Information accessibility*: How is information about services communicated to the community? Is information about the condition clearly communicated? are there alternatives to printed information in order to reach members of the community with limited literacy? Communication with the PHC? Do they contact you by messages, do they give you feedback on the visit, is there any follow-up?

**Acceptability:**

Are services gender- and age-sensitive? Are there certain characteristics of the service providers (i.e. gender, international versus local staff etc.) that make the community more or less comfortable accessing services?

**Quality:**

1- What is your perceived quality of health care you receive in this clinic? In terms of
    a. Consultation fees?
    b. Availability of medicines, others?

**Health behaviors**

How do you look after your own health?

1- Complementary medicine
2- Self-care, smoking cessation, physical activity
3- Adherence to medication
4- Diet

**Closing question**

Is there additional information related to the PHC that you would like to share with us?

# ARABIC VERSION OF APPENDIX III

**العوامل السياقية**

صف عائلتك:

أ. كم يعيش في منزلك

ب. منذ متى وانت تعيش في هذا المنزل؟

ج. كم عدد الأفراد الذين يساهمون في دخل المنزل؟

هل توجد تحديات اقتصادية من أجل:

د. الوصول إلى الطعام

ه. مأوى آمن (دفع الإيجار لغير أصحاب المنازل):

امتلاك الكهرباء في المنزل

ز. دفع تكاليف تعليم أطفالهم

ح. المواصلات للذهاب الى العمل

**التوفر**

من الذي يقدم لك الرعاية في هذا المركز؟ كم مرة أتيت هنا؟ منذ متى وأنت تستخدم خدماتهم؟ هل هناك خدمات تحتاجها وغير متوفرة في المركز؟

**إمكانية الوصول**

إمكانية الوصول المادي: هل تقع المرافق ضمن مسافة معقولة؟ ما هي العوائق التي تحول دون الوصول إلى مركز الرعاية الصحية الأولية: الطريق ، السيارة ، الحافلة ، المشي ، أي أشكال أخرى من الحواجز المادية؟

الوصول المالي: كيف يتم تمويل الخدمة؟ إذا كان الأمر كذلك ، فهل الرسوم معقولة / يمكن إدارتها بالنظر إلى الظروف الاقتصادية / وسائل أولئك الذين يحتاجون إلى الوصول إلى هذه الخدمة؟ إذا كان الأمر كذلك ، فهل الرسوم معقولة / يمكن التحكم فيها بالنظر إلى الظروف الاقتصادية / وسائل أولئك الذين يحتاجون إلى هذا النوع من الرعاية؟ ما هي التكاليف غير المباشرة الأخرى المرتبطة بالخدمة (مثل النقل)؟

إمكانية الوصول البيروقراطية / الإدارية: هل هناك خطوات إجرائية يجب إكمالها قبل الوصول إلى خدمات معينة؟ على سبيل المثال ، هل نوع معين من التسجيل مطلوب؟ هل تحتاج إلى استخدام الإنترنت أو الهاتف المحمول للوصول إلى خدمات معينة؟ ما هو مستوى الإلمام بالقراءة والكتابة و / أو الحساب المطلوب؟ هل المرافق مفتوحة في أوقات مناسبة بالنظر إلى المسؤوليات اليومية / الأسبوعية وتفضيلات النساء والرجال في المجتمع؟

إمكانية الوصول الاجتماعي: هل يحترم مقدمو الخدمات عدم التمييز في تقديم الخدمات؟ هل هناك عاملات في الخطوط الأمامية؟ هل هناك أي مخاطر لوصمة العار المتعلقة برؤية شخص ما في / حول منشأة معينة؟ هل المسؤوليات الأخرى ، مثل الأعمال المنزلية ، والمرافقة ، وما إلى ذلك .. تؤثر على قدرة بعض الأفراد على الوصول إلى الخدمات؟

ما مدى أهمية هذه الرعاية الصحية الأولية لاحتياجاتك من الرعاية الصحية؟ يرجى توضيح.

الاختيار بين القطاع الخاص والرعاية الصحية الأولية

إمكانية الوصول إلى المعلومات: كيف يتم إيصال المعلومات حول الخدمات إلى المجتمع؟ هل المعلومات المتعلقة بالحالة يتم إيصالها بوضوح؟ هل توجد بدائل للمعلومات المطبوعة من أجل الوصول إلى أفراد المجتمع ذوي المعرفة المحدودة بالقراءة والكتابة؟ التواصل مع مركز الرعاية الصحية الأولية؟ هل يتصلون بك عن طريق الرسائل ، هل يقدمون لك ملاحظات على الزيارة ، هل هناك أي متابعة؟

**القبول**

هل الخدمات حساسة للجنس والعمر؟ هل هناك خصائص معينة لمقدمي الخدمات (أي الجنس ، والموظفين الدوليين مقابل الموظفين المحليين وما إلى ذلك) تجعل المجتمع أكثر أو أقل راحة في الوصول إلى الخدمات؟

**جودة**

1- ما هي جودة الرعاية الصحية التي تتلقاها في هذه العيادة؟ من ناحية

أ. رسوم الاستشارة؟

ب. توافر الأدوية وغيرها؟

**السلوكيات الصحية**

كيف تعتني بصحتك؟

1- الطب التكميلي

2- الرعاية الذاتية ، والإقلاع عن التدخين ، والنشاط البدني

3- التقيد بالدواء

4- النظام الغذائي

**السؤال الختامي**

هل هناك معلومات إضافية تتعلق بالرعاية الصحية الأولية تود مشاركتها معنا؟

# ADDITIONAL FILE 1

## COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

| No. Item | Guide questions/description | Reported on Page # |
|---|---|---|
| **Domain 1: Research team and reflexivity** | | |
| *Personal Characteristics* | | |
| 1. Inter viewer/facilitator | Which author/s conducted the interview or focus group? | |
| 2. Credentials | What were the researcher's credentials? E.g. PhD, MD | |
| 3. Occupation | What was their occupation at the time of the study? | |
| 4. Gender | Was the researcher male or female? | |
| 5. Experience and training | What experience or training did the researcher have? | |
| *Relationship with participants* | | |
| 6. Relationship established | Was a relationship established prior to study commencement? | |
| 7. Participant knowledge of the interviewer | What did the participants know about the researcher? e.g. personal goals, reasons for doing the research | |
| 8. Interviewer characteristics | What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic | |

| | | |
|---|---|---|
| **Domain 2: study design** | | |
| *Theoretical framework* | | |
| 9. Methodological orientation and Theory | What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis | |
| *Participant selection* | | |
| 10. Sampling | How were participants selected? e.g. purposive, convenience, consecutive, snowball | |
| 11. Method of approach | How were participants approached? e.g. face-to-face, telephone, mail, email | |
| 12. Sample size | How many participants were in the study? | |
| 13. Non-participation | How many people refused to participate or dropped out? Reasons? | |
| *Setting* | | |
| 14. Setting of data collection | Where was the data collected? e.g. home, clinic, workplace | |
| 15. Presence of non-participants | Was anyone else present besides the participants and researchers? | |
| 16. Description of sample | What are the important characteristics of the sample? e.g. demographic data, date | |
| *Data collection* | | |
| 17. Interview guide | Were questions, prompts, guides provided by the authors? Was it pilot tested? | |
| 18. Repeat interviews | Were repeat inter views carried out? If yes, how many? | |
| 19. Audio/visual recording | Did the research use audio or visual recording to collect the data? | |
| 20. Field notes | Were field notes made during and/or after the interview or focus group? | |
| 21. Duration | What was the duration of the inter views or focus group? | |
| 22. Data saturation | Was data saturation discussed? | |
| 23. Transcripts returned | Were transcripts returned to participants for comment and/or correction? | |
| **Domain 3: analysis and findings** | | |
| *Data analysis* | | |
| 24. Number of data coders | How many data coders coded the data? | |

| | | |
|---|---|---|
| 25. Description of the coding tree | Did authors provide a description of the coding tree? | |
| 26. Derivation of themes | Were themes identified in advance or derived from the data? | |
| 27. Software | What software, if applicable, was used to manage the data? | |
| 28. Participant checking | Did participants provide feedback on the findings? | |
| *Reporting* | | |
| 29. Quotations presented | Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number | |
| 30. Data and findings consistent | Was there consistency between the data presented and the findings? | |
| 31. Clarity of major themes | Were major themes clearly presented in the findings? | |
| 32. Clarity of minor themes | Is there a description of diverse cases or discussion of minor themes? | |

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

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