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Research Article

Bridging the Gap in Primary Healthcare: Identifying Gaps and Recommendations to Enhancing the Utilization of PHC Services in Lebanon: A Qualitative Study

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Abstract

In Lebanon, a nation facing significant challenges like a high refugee population and limited public health funding, Primary Healthcare (PHC) stands as a key component of the health strategy, despite the obstacles. Managed by a collaboration of various entities, Primary Healthcare Centers (PHCCs) are essential in addressing crises, including economic downturns and the influx of Syrian refugees. This study delves into the factors affecting PHC service utilization among both beneficiaries and non-beneficiaries in Lebanon, aiming to uncover the barriers and facilitators to PHC access and provide recommendations for enhancing service uptake. Conducted across 8 governorates with 240 participants in 24 Focus Group Discussions (FGDs) at 16 randomly selected PHCCs, the study investigates the contextual factors influencing PHC use, barriers to service access, and potential improvements. It was inferred that the main obstacles to utilizing PHC services lie at the operational level, such as issues with the appointment system, waiting times, and communication with staff. Participants suggested improvements focused on ensuring the delivery and sustainability of high-quality PHC services readily available across the country. The study underscores the need for increased efforts to bolster the quality and sustainability of PHC services in Lebanon and calls for further research to explore service delivery and barriers more closely. Understanding these aspects is crucial for strengthening the health system and bridging the accessibility gap between the community and PHCCs.

Keywords: Primary care; Health system; Enhancing primary care; Barriers; Facilitators; Recommendations; Lebanon

Abbreviations: FGD: Focus Group Discussions; iNGO: International Non-governmental Organization; IRB: Institutional Review Board; MoPH: Ministry of Public Health; PHC: Primary Healthcare; PHCC: Primary Healthcare Center; PHCN: Primary Healthcare Network; UNICEF: United Nations Children's Fund

Introduction

Primary Health Care (PHC), as defined by the World Health Organization (WHO), aims to ensure optimal health and well-being by adopting a whole-of-society approach with equitable distribution. It addresses a broad range of health needs, spanning from promoting overall wellness and preventing diseases to delivering treatments, rehabilitation, and providing palliative care, all within the context of individuals' everyday lives [1]. PHC is founded upon principles of justice, equality, and rational resource allocation, therefore regarded as the cornerstone of the healthcare system [2]. The efficiency of Primary Healthcare Centers (PHCCs) in maintaining population health holds in its relatively inexpensive diverse services, ease of delivery compared to specialty and inpatient care and its capability in preventing disease progression on a large scale when appropriately distributed [3]. Thus, PHC serves as the cornerstoneEPI when working towards Universal Health Coverage (UHC) [4].

Lebanon, a low-middle-income country in the Eastern Mediterranean region, is estimated to have the highest number of refugees per capita worldwide with 1 refugee out of every 4 people [5]. This has sustained impacts and pressure on the health systems due to the increased demands [6]. Compared to other regions in the world, Lebanon, being one of the countries in the MENA Region, have the lowest levels of public expenditure on health and its residents rely highly on out-of-pocket expenditure [7]. Its healthcare system prioritizes secondary and tertiary care, and mainly on curative measures wit technology-driven approaches. Furthermore, only 5% of the Ministry of Public Health (MoPH) spending is allocated to preventive and primary care. Despite persistent limitations in healthcare infrastructure related to economic crisis, COVID-19, political challenges and influx of refugees in the previous decade, improving PHC network has always been a fundamental cornerstone of the Lebanese health strategy, while moving towards people-centered care [8].

The PHC landscape in Lebanon sees a unique collaboration of various entities within its Primary Healthcare Network (PHCN). It comprises of several entities that manages these PHCCs including Non-Governmental Organizations (NGOs) (67%), municipalities (20%), governmental institutions (12%), and academic institutions (1%) [9]. The PHCN, equipped with needed facilities and expertise, have been the main entity responding to the Syrian crisis in Lebanon, alleviating the pressure on an already burdened healthcare system [10]. Indeed, the Syrian beneficiary percentage of the primary healthcare network has grown from 12% 2012 to 46% in 2018, which illustrates the magnitude of the Syrian crisis on the provision of services at the primary level of care [8].

Despite these challenges, multidisciplinary teams within PHCCs continue to provide comprehensive preventive and curative primary healthcare services [8]. Services include basic essential ones such as general and pediatric medical care, immunization, child and reproductive care, oral health, screening and management of non-communicable diseases and the provision of essential acute and chronic medications at primary level [8]. Furthermore, the PHC department implements strategies to strengthen their provision of services which includes the integration of mental health and non-communicable disease management, capacity building of PHC staff, accreditation of PHC centers, and the utilization of health information system across all PHCCs, resulting in improved service quality and community engagement [11]. Other previous efforts have also been directed towards UHC including offering subsidized services for those living under the poverty line across Lebanon [11].

Nevertheless, and even as the PHC department in partnership with UN agencies and NGOs, are actively engaged in promoting universal health coverage through PHCN with the objective of fostering greater improvement, accountability, and transparency of PHC utilization, individuals in Lebanon still faces barriers when seeking PHC services or are not utilizers of these services. Limited data is available on these challenges faced by beneficiaries when seeking services in PHCCs and on the perceptions of non-beneficiaries towards the PHCN. This study aims to investigate the enablers and barriers to the utilization of primary healthcare services by beneficiaries and non-beneficiaries in Lebanon and to examine recommendations to enhance the PHC utilization.

Methodology

Study Design

This is a nationwide qualitative cross-sectional study conducted through Focus Group Discussions (FGDs) between July and August 2023, involving individuals residing in Lebanon. The study encompassed both beneficiaries who regularly visited Primary Healthcare Centers (PHCCs) in Lebanon and non-beneficiaries who had never utilized such services. FGDs took place in randomly chosen PHCCs across all governorates in Lebanon, selected using a random number generation method from the list of PHCCs per governorate. Two PHCCs were selected from each governorate: one supported by an international agency

and one that was not supported. A supported PHCC is defined as one receiving support from an international agency and a non-supported one does not receive such support. The objective was to ensure diverse representation in terms of PHCC types and locations and elated contextual factors. PHCC inclusion criteria comprised having a contract with the Ministry of Public Health (MoPH), offering the five basic PHC services for a minimum of three years, and utilizing the MoPH health information system, PHENICS.

The PHCC sampling methodology is summarized in Figure 1. Initially, a list of 297 PHCCs provided by the MoPH through PHENICS was considered. Inclusion criteria involved having a MoPH contract, delivering the five basic PHC services for at least three years, and using PHENICS. After applying these criteria, 70 PHCCs were excluded, resulting in a final eligible list of 227 PHCCs. Random selection using Excel's features was employed to choose one PHCC per governorate. To validate against the criteria identified, four PHCCs were subsequently re-selected.

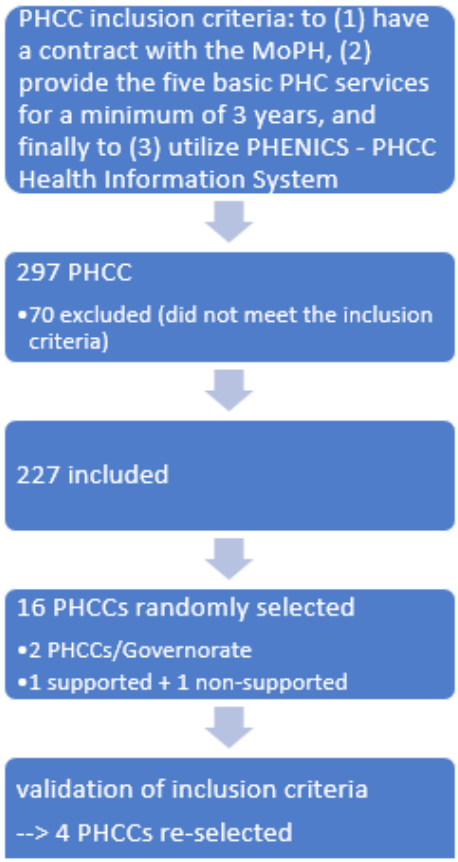

Figure 1: Summary of PHC sampling methodology.

Sampling & Data Collection

A total of 24 FGDs were carried out across 16 PHCCs situated in 8 governorates. The study population comprised beneficiaries of diverse ages and nationalities, defined as individuals currently seeking care at PHCCs and who have received at least one service within the past three months. Additionally, non-beneficiaries were also included and defined as those who do not utilize healthcare services at PHCCs. The sampling strategy ensured representation across various age groups, including parents with children under 18, pregnant women, recent mothers, adults, and older adults, including those receiving non-communicable diseases services. The sample size for each targeted population is presented in Table 1. Gender distribution was balanced, with one male and one female FGD conducted per governorate, randomly selected within each governorate. This approach resulted in an equal number of FGDs separated by gender and PHCC supporting status.

Data Collection Instrument	Target Population	Sample Size	Characteristics
Focus Group Discussion (FGD)	Beneficiaries of different age groups and nationality that currently seek health services inside PHCCs	16 FGD with 10-12 participants in each (2 FGDs / governorate)	• 4 FGDs with males in supported PHCCs • 4 FGDs with males in non-supported PHCCs • 4 FGDs with females in supported PHCCs • 4 FGDs with females in non-supported PHCCs
	Citizens (>18 years old) residing in Lebanon that have never received a primary healthcare service in PHCCs	8 FGD with 10 - 12 participants in each: 1 in the catchment area of every selected supported PHCCs	• 4 FGDs with male non-users in supported PHCC • 4 FGDs with female non-users in supported PHCC

Table 1: Summary of data collection instruments in 16 selected PHCCs.

Beneficiary participants were selected randomly from the records of individuals who had utilized healthcare services at Primary Healthcare Centers (PHCCs) within the preceding three months. The research team collaborated with PHCC staff to randomly choose thirty beneficiaries, making gender adjustments as needed, and also extended invitations to caregivers of selected children. To safeguard the confidentiality of beneficiaries' identities and contact details, the PHCC staff-initiated communication with the chosen beneficiaries, inviting them to participate in the agreed-upon FGD dates and times alongside the research team. On average, each FGD consisted of 10 to 12 participants.

FGDs involving non-beneficiary participants were exclusively conducted in supported PHCCs, primarily because of the availability of outreach activities supported by international NGOs (iNGOs), which facilitated access to communities beyond regular service users. Participants were recruited by outreach volunteers during routine outreach activities conducted in the catchment area of supported PHCCs and were invited to take part in the FGD held at the PHCC by these volunteers. Inclusion criteria for non-beneficiary participants included being over 18 years old, residing within the catchment area of selected supported PHCCs, and either never having utilized PHCC services or not having done so within the past three years. In each selected supported PHCC, one single-gender FGD was conducted per governorate, with gender selection randomized.

It's noteworthy that in each category of FGDs (Female-supported, female-not supported, male-supported, male-not supported), there was a varied distribution of nationalities among the participants. Some FGDs had nearly equal proportions of Lebanese and Syrian participants, while others were predominantly composed of one nationality group, either Syrians or Lebanese. This distribution occurred solely due to the random selection and attendance of beneficiaries. Nevertheless, this diverse composition facilitated the collection of comprehensive data, providing both nationalities with opportunities to express and exchange information in a conducive environment.

Data Collection Tool

Focus Group Discussions (FGDs) were conducted based on a structured guide designed to encourage participants to share their personal experiences and provide insights into the knowledge, attitudes, and practices regarding primary healthcare services among both beneficiaries and non-beneficiaries. The discussions encompassed case scenarios spanning various life stages. Furthermore, participants engaged in discussions about barriers and facilitators to receiving care, exploring potential solutions and recommendations to improve healthcare services. Facilitators employed probes and prompts to guide discussions and encouraged participants to utilize activities and visual aids to express their perspectives. Participants also voiced their preferences and concerns regarding healthcare facilities and outlined their vision for an ideal primary healthcare facility, suggesting improvements in different aspects. This approach facilitated the exchange of viewpoints and recommendations through interactive activities, allowing for both direct and indirect sharing of insights. Facilitators ensured active participation by structuring FGDs around visual, creative, and participatory methods.

The FGD guide was initially developed in English, translated into Arabic, and then back translated into English to ensure accuracy.

Analysis

The FGDs were recorded and subjected to qualitative analysis utilizing thematic analysis. The recordings were coded

and entered into the FGD analysis framework. The interpretation of findings and recommendations was guided by the Ecological Model. As a result, the themes were categorized into five levels: Individual, Interpersonal, Institutional, Community, and Public Policy. This framework enables a comprehensive exploration of the implementation aspect of the research and elucidates the interactions among these levels, identifying gaps and areas for enhancement.

Ethical Considerations

This research obtained approval from the International Review Board at Rafik Hariri University Hospital on July 13th, 2023. Participants had the option to withdraw at any time, with written informed consent taken from all participants. There were no direct risks or benefits to participants, but the research contributes to the MoPH's strategy and strengthens Lebanon's Primary Healthcare Network. Measures were taken to minimize discomfort during discussions. Additionally, non-beneficiary participants in our data collection activities were provided with information sheets on PHCC services to augment their understanding of Primary Healthcare and Primary Healthcare Centers.

Results

The findings presented in this article constitute a subset of results derived from a broader research endeavor aimed at strengthening primary healthcare in Lebanon and understanding the contextual factors and drivers to seeking primary healthcare services in Lebanon. The focus of this article is specifically on immunization, being one of the main essential services offered in primary healthcare centers.

Demographics

A total of 240 participants participated in the FGDs (168 beneficiaries and 72 non-beneficiaries). Including both beneficiaries and non-beneficiaries was essential in understanding the views and perceptions of both groups when discussing PHCCs and in understanding the contextual factors among both. Average participation per FGD was 10 participants with the minimum being 6 and the maximum being 17 participants. Demographic characteristics are presented in Table 2.

Demographics		**N**	**%**
Participant	**Beneficiaries**	**168**	**70%**
	Non-beneficiaries	**72**	**30%**

Gender	Males	110	46%
	Females	130	54%
Nationality	Lebanese	151	63%
	Syrian	85	35%
	Others	4	2%
PHCC Support Status	Supported	148	62%
	Not Supported	92	38%
Age	18-24	31	13%
	25-65	168	70%
	65-and above	41	17%

Table 2: Demographic characteristics of study participants.

Participants exhibited a wide range of characteristics, representing diverse demographics, economic backgrounds, occupations, and educational levels. The group included parents, pregnant women, students, newly married couples, older adults, and single individuals of various ages. The diverse participant distribution allowed for a wide range of perspectives and experiences to be considered, contributing to a more comprehensive understanding of the needs and perspectives of both beneficiaries and non-beneficiaries.

Reported Healthcare needs

Beneficiaries reported on their healthcare needs at a primary healthcare level. Beneficiaries, regardless of gender or PHCC support, expressed similar healthcare needs. Access to medication, especially for chronic conditions, was a common concern due to shortages and high costs. There was a demand for inclusion of specialized medications like those for thyroid and cancer treatment. Additionally, there was a call for more vaccines to be included in the national immunization calendar endorsed by the Ministry of Public Health, with cost being a barrier for some. Basic diagnostic services essential at a primary level for the treatment plans or for monitoring and follow-up of chronic conditions like laboratory tests and radiology were deemed too expensive, even among beneficiaries receiving subsidized care in supported PHCCs, and these were reported as inconsistent and unsustainable. Other reported healthcare needs were the need for additional services at PHCCs were participants emphasized on the importance of consolidating all services within one PHCC, which should include other medical specialties, supporting health specialties, such as physiotherapy and dietitian, and affordable dental care. As for non-beneficiaries, the group did not identify significant healthcare

needs, as their primary preference was to seek curative healthcare services in the private sector.

Reported PHC utilization across the PHCN for Beneficiaries and Non-beneficiaries

The primary healthcare system in Lebanon has experienced considerable growth over the years. The number of primary healthcare centers (PHCCs) has steadily increased from 138 in 2010 to 295 in 2023. Alongside this expansion, there has been a rise in the utilization of these centers by beneficiaries. The total number of individuals attending PHCCs for care has increased from 1,213,440 in 2010 to nearly 3,000,000 in 2021, with women consistently forming most beneficiaries. Consultations at PHCCs have notably increased by 56.331% from 2010 to 2020, with general, pediatric, dental, and gynecological consultations being the most common. Conversely, endocrinology and mental health services are among the least utilized. Overall, the data reflects positive progress in the utilization of primary healthcare services in Lebanon, with an emphasis on certain medical specialties over others.

The discussion with beneficiaries revealed that individuals across genders, nationalities, and geographic areas primarily seek curative services for acute illnesses at Primary Healthcare Centers (PHCCs), with immunization being an exception. Commonly sought services include vaccinations, chronic medications, general physician visits, pediatric consultations, dental care, and diagnostic services. Participants from supported PHCCs report receiving more preventive services due to awareness efforts and integrated screening services, while those from non-supported PHCCs prioritize curative care due to reported financial constraints.

Reported PHCC visit frequency varies, with parents and caregivers with children attending to the PHCC almost on quarterly to monthly basis, individuals with chronic conditions visiting monthly or twice per month, and healthy adults or adolescents attending biannually or as needed for acute conditions. In general, female beneficiaries reported visiting more frequently, especially during the preconception, conception, and postnatal period.

Regarding non-beneficiaries, Lebanese exhibited proactive health-seeking behaviors, utilizing various preventive and curative services, primarily in private clinics, polyclinics, diagnostic centers, and hospitals. In contrast, Syrians predominantly seek curative services in health clinics within camps or governmental hospitals supported by UNHCR. However, concerning PHCCs, some non-beneficiaries are aware of their existence, while others lack information regarding their services and associated costs. Reasons for not seeking more information or attempting to access services include perceptions of high patient loads, long waiting lists and times, and negative perceptions toward service quality. Additionally, nationality factors contribute to these perceptions, with Lebanese perceiving Syrians as prioritized due to support from international agencies and Syrians perceiving Lebanese as prioritized because they are refugees. These perceptions are particularly evident in rural areas compared to being insignificant in urban areas. Furthermore, all non-beneficiaries reported lacking the awareness around the collaboration of these PHCC with the Ministry of Public Health and emphasized that having this knowledge increases the likeability of visiting a PHCC in the future.

Factors influencing healthcare-seeking decisions include the location and cost of healthcare facilities, symptom severity, previous experiences at PHCCs, waiting times, service quality, and communication with healthcare providers. Positive interactions with healthcare workers play a crucial role in influencing future healthcare-seeking behaviors, especially regarding preventive services. Overall, there is a willingness among non-beneficiaries to visit PHCCs after understanding their services and the affiliation with the MoPH, suggesting the potential for increased utilization with improved awareness and accessibility.

Barriers to receiving care in PHCCs

Participants identified various barriers to seeking care at primary healthcare centers (PHCCs). Barriers were categorized at individual/community levels, PHCC level, and financial level, and these are summarized in Table 3.

Individual and Commu	
Lack of knowledge and awareness	

At the level of PHCC	
Quality of services	
Physicians not conducting physical exam	Very short consultation time
Limited adherence to clinical guidelines	Staff communication skills
Healthcare providers and staff attitude	Lack of respect and discrimination
Operational Level inside PHCC	
Appointment procedures	Long waiting times and long waiting lists
High patient load and short operational hours and physicians working hours	Infection prevention and control practices and PHCC cleanliness
Discrimination to Nationality experienced by Lebanese and Syrians	Inconsistent availability of medications and medical specialties
PHCC Location and Infrastructure	
Geographic accessibility in rural areas	Small clinics with limited privacy
Small and crowded waiting rooms	Limited space for medication room
Limited accessibility to people with disability	PHCC location and transportation cost
Financial Barriers	
High transportation fees	High consultation & diagnostic services fees

Table 3: Summary of reported barriers faced when seeking PHC services.

Individual and Community Level Barriers

Lack of knowledge and awareness to the availability of PHCCs and available services stands as one of the main barriers against seeking care in PHCCs. This was most evident among non-beneficiaries and to some extent across beneficiaries when discussing certain services that lacked the needed knowledge around its availability or the process needed to seek the service. Furthermore, negative perceptions about the quality of care at PHCCs were influenced by past negative experiences coupled with a lack of knowledge and awareness, which influence future decisions to seeking care inside PHCCs.

ity level

Negative perceptions toward the quality of care

Primary Healthcare Center Level Barriers

Most of the barriers reported were at the level of the PHCCs and were ranked as the most challenging when receiving care. Those include quality of care, operational procedures and staff attitudes, infrastructure, PHCC location and financial accessibility.

Quality of Services offered inside PHCCs

The quality of service was one of the main barriers reported by beneficiaries and non-beneficiaries. This perception stems from previous negative encounters inside PHCCs exacerbating negative perceptions towards the quality of care. Among beneficiaries in both supported and non-supported PHCCs, incidents of inadequate physical examinations and deviations from clinical guidelines were reported and undermined trust in PHCCs.

"I brought my girl to the gynecologist as I was afraid, she had infection or some problem, the physician did not even conduct a physical exam" (Syrian mother to 11 years old child)

"Most of the time the physician does not conduct a physical exam" (Lebanese Male with chronic conditions)

Furthermore, this perception is aggravated by the limited patient-physician interaction attributed to the limited time allocated for every patient and the limited communication by the physicians where participants reported feeling rushed and not provided with the minimum adequate time to get checked and understand their condition and provided treatment.

"The huge load of beneficiaries at the centers won't let the Healthcare providers do their job with the same quality that they have to be offering in their clinics" (Lebanese Male, Non-beneficiary)

"Barely 5 minutes is given to each patient" (Lebanese Female)

This concern was similarly shared by non-beneficiaries

where they reported that the perceived quality of services is the main barrier against them seeking services in PHCCs.

"When the healthcare provider is going to see many patients in one day, she/he will not be able to do her job as she should be" (Lebanese Female, Non-beneficiary)

Also, physician and staff attitude and their communication with beneficiaries were reported to have a high influence on the perceived quality of care and on the decision to seek PHCC services. The attitudes and communication skills of healthcare workers inside PHCCs, whether administrative, nurses or physicians, where described in many instances as negative, unfriendly, rude making beneficiaries feel unwelcomed, uncomfortable, feeling less which makes them feel like they are begging for the service.

"We are coming to benefit from mental health service for my child, the nurse should have a nice attitude so my child is relaxed, she should not shout at me in front of him" (Lebanese mother to 3 children)

"If the staff lacks empathy and fails to understand and address patients' concerns, it can deter individuals from seeking care. We want to feel respected, listened to, and supported during our healthcare visits, and any lack of compassion can discourage us from accessing services." (Lebanese Male)

PHCC Operational Level Barriers

Appointment procedures, long waiting times, and limited-service availability were significant operational barriers. These were rated by beneficiaries as urgent. Insufficient and inefficient appointment procedures were the main reported ones elaborating on PHCC short opening hours that overlap with working hours and school hours, chaotic appointment procedures, long waiting lists, short physician's working hours and high number of appointments given over a short period of time. The process of taking an appointment was reported in some instances as neither clear, smooth nor effective. A Lebanese mother reported:

"Very bad appointment management, they tell us all to come at 8:00 and then keep us waiting. The doctor might come at 10:00, 11:00 or even 12:00. They don't tell us" (Lebanese Mother)

"The load in the center make us wait for so long to get the service we are coming to get" (Syrian Male)

Additionally, the limited operating hours reported, which often coincide with school and work schedules, affect beneficiaries who are employed when attempting to access services for themselves or their children. Even stay-at-home mothers encounter difficulties when seeking services for their children during school hours, requiring the assistance of their spouses to visit the PHCC. This is particularly evident when attempting to access immunization services for children, which are primarily offered during school hours.

Also, another major barrier under the appointment system is the challenge of seeking a walk-in health service, reported when needed as an urgent medical consultation, mainly among children presenting with acute conditions.

Also, infection prevention and control and the cleanliness of the PHCC and its surrounding was reported by both beneficiaries and non-beneficiaries as a barrier to seeking care. When perceived as insufficient and unclean, participants reported that it influences their trust in the provided services and its quality and safety.

Finally, the inconsistent availability of needed medical services, being the medical specialty, medications, vaccines or availability of subsidized diagnostic services were reported as factors that are challenging to seeking PHCC services.

Patient Discrimination based on Nationality

As briefly discussed above, incidents of discrimination based on nationality were reported by both Lebanese and Syrian beneficiaries and non-beneficiaries in rural areas. These were reported as barriers to seeking care in PHCCs. Beneficiaries reported on discrimination inside PHCCs when taking appointments, when seeking medical consultation and when waiting inside PHCC.

"The workers tell me to wait outside even though there are places inside" (A Syrian 25-year-old mother of 3 children)

"I have been coming to this center for 9 years, I am now bringing my grandchildren here, when new staff started inside the center, they gave me negative looks and kept delaying my vaccine appointment" (Syrian mother and grandma)

On the hand, non-beneficiaries exhibited discrimination to nationality inside PHCCs. Interestingly, Lebanese non-beneficiaries reported that Syrians are favored more and are being provided with more attention and more supported services when compared to the Lebanese. One reported that they are provided with the service directly when in PHCCs, while Lebanese have to wait.

"It is obvious that the refugees always get more services than the Lebanese" (Lebanese non-beneficiary, Female)

"The neighbors told us that the center serves only Syrians" (Female Lebanese)

"Everyone should be treated in the same way, Lebanese and Syrians" (Lebanese male)

Also, some Lebanese non-beneficiaries living in rural areas

reported that they do not go and wait in the same room as other nationalities, which emphasizes on the discrimination barrier reported by beneficiaries. It adds emphasis on the cultural sensitivity and tension between different communities.

PHCC Location and Infrastructure

Geographic and physical accessibility were reported as barriers when attempting to seek care inside PHCCs along with the clinic's infrastructure inside PHCC implicating the clinical encounter, patient privacy and confidentiality.

Participants living in urban areas, particularly in Beirut and its suburbs, did not consider the location of Primary Healthcare Centers (PHCCs) as a hindrance to accessing healthcare services. However, they noted it could pose a challenge when seeking specialized or high-quality services not available in their local PHCCs, leading to increased transportation costs.

"I can't go to centers near me because of their treatment and their discrimination, so I have to go to far centers to get services available" (Syrian Father)

In contrast, location was a significant barrier for individuals in rural areas due to long distances to reach PHCCs, resulting in higher transportation expenses. Some participants mentioned traveling farther to avoid gossip or stigma at nearby centers, particularly prevalent in rural settings.

"The cost of transportation that we need to pay to come to the center is now too much, add to it having children, it is too much" (Lebanese Father)

Non-beneficiaries did not highlight PHCC location as a barrier unless situated in areas lacking political acceptance.

Regarding infrastructure, both beneficiaries and non-beneficiaries cited inadequate equipment in PHCCs hindering service quality. Issues such as cramped waiting rooms, lack of breastfeeding areas, small and dysfunctional toilets, and non-child-friendly entrances were mentioned. These physical barriers contributed to negative experiences, with patients feeling anxious, stressed, and uncomfortable, particularly among female beneficiaries who cited privacy concerns during discussions with healthcare providers. Non-beneficiaries also noted physical accessibility challenges, such as the absence of ramps, wheelchairs, and elevators for elderly individuals within PHCCs, further impeding access to care.

Financial Barriers

Financial barriers were identified as significant obstacles to accessing services at Primary Healthcare Centers (PHCCs). These barriers were reported in both supported and non-supported PHCCs and were particularly prominent in the context of dental services and diagnostic testing, including laboratory and imaging services. Transportation costs also posed financial barriers. Nonetheless, non-beneficiaries did not perceive financial constraints as barriers, viewing PHCC services as more affordable compared to the private sector. However, one non-beneficiary from a rural area expressed a preference for private consultations over incurring transportation costs to reach a PHCC, where service availability was not guaranteed. Notably, a male non-beneficiary expressed skepticism about the quality of services at PHCCs due to their affordability, indicating a lack of trust in these facilities.

Facilitators to seeking care in PHCCs

Majority of the reported barriers by some beneficiaries and non-beneficiaries were reported as facilitators to seeking care in PHCCs, depending on the PHCC quality of service, staff, geographic area and supporting status. In terms of PHCC location, living near a PHCC or having easy access via public transportation facilitates prompt and convenient medical treatment of beneficiaries without additional transportation costs.

"Whenever my child needs a medical attention, I can simply walk there within minutes" (Lebanese Female)

Furthermore, beneficiaries reported that the affordability of services within PHCCs compared to the private sector is a facilitator to seeking care and provides them with a sense of relief knowing that they can access healthcare services when needed. As this was reported by both groups, it was most relevant among beneficiaries benefitting from subsidized services in supported PHCCs. Additionally, the familiarity and trust established between PHCC staff, and the community serve as encouraging factors for individuals to seek care, particularly when positive experiences are shared among community members. This was also reported by beneficiaries who receive comprehensive medical attention for their entire families within a supportive and compassionate environment at a single PHCC.

"We have some much faith in [name] who is the manager of the health center) and it is not just about the fact the service for free but for the fact that he and his family are welcoming as well of the team of health workers in the center and the fact that we are his neighbors, family members or just we live in the same village give us a type of comfort" (Lebanese Female)

Also, among the facilitators to seeking care where the cleanliness and infrastructure of the PHCC along with the positive communication skills by healthcare workers and the education and awareness efforts conducted inside PHCCs that improves the awareness of beneficiaries and encourages them to come again and seek needed health services. Being aware of the available services and physicians' schedules were also reported as facilitators to seeking care. Finally, the availability of medications and additional

medical specialties were valued by participants seeking care inside PHCCs.

As for non-beneficiaries, they highlighted several factors necessary to improve their access to healthcare services at PHCCs. They emphasized the importance of well-maintained infrastructure, including spacious and aesthetically pleasing environments that prioritize patient confidentiality and comfort. Additionally, they stressed the need for PHCCs to be inclusive and accommodating to individuals with disabilities, the elderly, youth, children, and all community groups.

Discussion

To our knowledge, this study is the first national qualitative study focusing on the contextual factors around PHC utilization in Lebanon. It explored barriers and facilitators faced when seeking essential primary healthcare services at primary healthcare centers and provided recommendations to enhance utilization of primary healthcare services. Beneficiaries and non-beneficiaries of the mentioned facilities reported on their current perceived healthcare needs at a primary healthcare level, and interestingly, the most reported needs were those already available in PHCCs. It is worthy to note that despite their availability they were not always consistent or sustainable, or not always affordable and financially accessible. This finding was evident by both beneficiaries in supported and non-supported PHCCs alike. This highlights deficiencies in two major pillars within the primary healthcare system, sustainable access to essential services (essential medications, etc.) and jeopardizing financial protection. It was also reflected in their reported PHC utilization practices as they reported on seeking PHC services for the same needs, being medications and diagnostic services, and for curative medical consultations and childhood immunization services. This underscores the importance of improving service delivery and accessibility to meet the population's needs at the primary level and to decrease the out-of-pocket expenditure on health, which has been reported to reach 44.2% in 2022 [12], where it is expected to be higher amidst the current economic crisis unemployment rate, currency inflation and the diminished insurance schemes.

Furthermore, beneficiaries reported being able to benefit from PHC services and expressed gratitude to the PHCN, even when often faced with some challenges when doing so. The beneficiary's satisfaction with services was also reflected in a previous national survey conducted on 2,400 beneficiaries showed that the overall service satisfaction exceeded 90%, which is higher than previous studies in the region [13,14]. Additionally, more than 90% of beneficiaries reported trust in skills of Doctor/Nurse, while 76% reported easy access to PHCCs [15].

However, despite these achievements and even though the PHCN continues to respond to the growing healthcare needs of the population in Lebanon while being the only affordable healthcare resort for many, many challenges remain to be reported by beneficiaries when seeking the PHC services and need to be addressed when aiming to strengthening the PHCN. Interestingly, most of the barriers faced when seeking PHC services where at the level of the organization and management inside the PHCC being the quality of service delivered, staff attitude, the scheduling and appointment procedure, waiting time, and to a lesser extent financial barriers and transportation issues. This highlights lack of management, equipped workforce, and capacities inside PHCCs, were PHCC are not equipped enough for the provision of high-quality people-centered care. These barriers were similar to other studies in the region that reported on financial barriers, inequitable access to care and low quality of healthcare services [7]. Other reported barriers in the region also include services being inconsistent with long waiting times and high rate of physicians not showing up [7]. These were also reported in our study. Furthermore, the findings of our study were also consistent with previous studies that were done in Lebanon as part of project evaluation. Results showed concerns toward to the quality and comprehensiveness of information provided during PHC services [16]. This was also reflected in our study as beneficiaries shared concerns towards their treatment plans, not understanding their condition and the limited interaction with the healthcare workers, being the physician or the nurse. This might be attributed to the reported high patient load and limited allocated time to each beneficiary in PHCCs, which reflects on the diminished availability of high-quality person-centered services due to diminished provider availability, competence and motivations. This highlights on the common perception shared by non-beneficiaries when comparing PHC services to the private sector.

Furthermore, previous studies in Lebanon also showed limited awareness and misconceptions regarding accessibility, affordability, and acceptability of PHC services where beneficiaries expressed concerns that PHC services were limited, not always available, and unaffordable along with misconceptions regarding discrimination based on nationality [16]. These were also evident in our study and were reported by both beneficiaries and non-beneficiaries when discussing PHC services and highlights the need to addressing these misconceptions to the communities and the need to tackle service delivery inside PHCCs that heightens these misconceptions and elicit discrimination inside PHCCs.

Furthermore, the PHC department at the MoPH conducted a retrospective analysis of grievances registered from 237 PHCCs relating to the care of patients, lodged through the central grievance uptakes channels on a 5-years period [17]. The main complaint subcategory of management domain was recourses (28%) with a notable emphasis on medication stockouts, followed by finance

and billing (16%) due to the absence of standardized protocols and procedures, such as fee schedules, which vary between governmental and non-governmental PHC ownerships [17]. This was reflected in our studies as participants recommended unifying PHC fees across all the PHCCs within the PHCN. This highlights a weakened governance of MoPH and public insurance schemes in Lebanon not being able to unify health related fees. Participants also reported on the inconsistent supply of medications as a major barrier and the top healthcare need at a primary level. Furthermore, it was also reflected in our study as participants reported on overwhelmed staff and short working hours, which is correlated to limited management resources available in PHCCs and a deficient facility organization and management.

Another emerging domain was the relationships domain, being the main reasons of the complaints [17]. This is similar to the findings of our study, where participants reported that communication and staff attitudes were one of the main barriers when seeking PHC services as it made receiving the service challenging even when they had the knowledge and the means to seek the service. Negative experiences in PHCC are main factors in future health seeking behaviors for the person and the community as these experiences influence other decisions in doing so, including non-beneficiaries. These findings align with other studies that discussed barriers to access PHC services in Saudi Arabia, which highlighted communication barriers, transportation, and long waiting times [18]. Transportation was also reported as a barrier in our study in rural areas, while the same factor was reported as a facilitator in urban areas, being the proximity to the PHCC or the easy access to public transportation. Additionally, beneficiaries reported on discrimination based on nationality as a barrier when seeking care, which was also highlighted by other studies done in Lebanon that emphasized on discriminatory behavior from Lebanese healthcare providers leading to health inequalities [19,20]. This further emphasizes on the weakness of management and organization and the competencies of the workforce in PHCCs.

Finally, as misconceptions and concerns when discussing PHCCs with non-beneficiaries, and in some extents with beneficiaries already seeking PHC services, awareness, and knowledge towards the existence of PHCCs and the availability and accessibility of its service act as a major barrier to receiving basic needed PHC services. Enhancing the knowledge and awareness of individuals residing in Lebanon towards the PHCN and its collaboration to the MoPH is a corner stone in enhancing the utilization of PHCs and strengthening the PHCN.

It is noteworthy that when examining factors facilitating beneficiaries' access to PHC services, the categories discussed were similar to those identified as barriers by other beneficiaries. These include familiarity and trust built with PHC staff, their positive and empathetic attitude, and the positive experience within the PHC including the financial and geographic accessibility, as well as a sense of gratitude and belonging to the PHC. This underscores our finding that future efforts should concentrate on maintaining high-quality services within PHCCs to bridge the gap between the needs of the population and the PHCN.

Recommendations

Beneficiaries and non-beneficiaries provided recommendations to enhancing the utilization of PHCC services, whether directly reported as suggested solutions to discussed barriers or when describing the characteristics of a perfect PHCC. It is interesting to share a quote from a Lebanese 30-year-old female participant: *"A perfect PHCC would really focus on taking care of moms and kids. They'd make sure pregnant moms get the right care they need before the baby arrives and give all the necessary vaccines to keep everyone healthy. Plus, they'd offer extra support to make sure moms stay healthy throughout their journey"*. Recommendations for enhancing PHCC utilization are summarized in Table 4 and categorized based on their implementation level. As evident in the participants' recommendations, the focus was primarily on providing and maintaining high-quality services that prioritize the beneficiary in a person-centered approach. This approach has been long recognized as an integral element in strengthening health systems while aiming to increasing patient satisfaction, a finding that is like the recommendations of other studies focusing on enhancing PHC services [21,22].

Recommendations to enhance PHCC utilization as shared by beneficiaries and non-beneficiaries in Lebanon and categorized at its respective implementation level.	
At the level of the Primary Healthcare Center (PHCC):	
PHCC Infrastructure:	**Organization and Management Level of the PHCC:**
- Clinics and rooms to provide privacy and confidentiality	- To operate without any intended and unintended discrimination towards nationality, gender, politics, and personal preferences
- To have a separate private room for opening new files with chairs for beneficiaries to be comfortable while opening the files	- Enhance appointment system and reduce waiting time
- To have appropriate medical equipment needed to provide various health services such as screenings for non-communicable diseases, physiotherapy equipment, etc.	- Effective appointment system that notifies patients when doctor is not coming and prevent long waiting times.
- Appropriate and large waiting area that is also child, youth, and geriatric friendly and appropriate for people with disability	- Facilitate easy ways of taking appointments smoothly (such as over the phone, through WhatsApp under the condition that they respond in a timely manner). Participants suggested that this needs a full-time dedicated staff.
- To respect accessibility measures for people with disability and mothers with baby strollers: ramps, elevators, and bathrooms.	- Respect patient confidentiality and privacy especially when opening the files and sharing confidential information in a private manner while being comfortable.
- Separate waiting areas for those with acute cases and those coming to get vaccination or preventive services to prevent getting ill. This is correlated with a proper triage process.	- Implement a triage nursing system to attend to more urgent cases first.
- Ensure cleanliness of the center, clinics and triage room and toilets	- Set a minimum consultation time to ensure that physicians are taking their time with patients and ensuring high quality service. Participants recommended a minimum of 15 minutes would be acceptable.
- To have appropriate washing rooms for each gender.	- To have a well-developed complaint system within all PHCCs to ensure transparency and provide an opportunity for beneficiaries to share their opinions and suggestions.
- Infrastructure to be properly maintained and ventilated all the time	- Prolong working hours until 5:00 pm (compared to the average 2:00 pm) and open on Saturdays.
- To have adequate number of clinics to avoid sharing clinics between specialties as it was reported making beneficiaries uncomfortable	- In rural areas, beneficiaries recommended 24 hour opening hours due to being located very far away from the nearest available hospital and for the PHCC to act as an emergency room.
- Spacious medication room that allows proper medication counseling	
PHC workforce:	**Health Financing**
- Staff and physicians to have positive attitude, be empathetic and respectful	- Provide and support in the provision of low cost PHCC services. Namely the following:
- To treat all beneficiaries the same without any discrimination	- Dental services
- To conduct capacity building efforts to staff inside PHCCs on communication skills, empathy, and respect	- Diagnostic laboratory and imaging services

- Managers to conduct meetings routinely with PHCC staff to discuss quality of services and patient satisfaction	- Preventive basic services including IUD insertion, pap smear, mammography and NCD screening
- Healthcare workers, mainly physicians, to involve patients in decision-making and take the time to explain to patients their condition	
- To hire in PHCCs trained and qualified doctors and staff	
- To increase availability of pediatrics and have general physicians available all the time and accept urgent walk-ins	
- Include pharmacist across all PHCCs	
- To have effective coordination between different specialties within the same PHCC	
System Level: Governance of the Primary Healthcare Network Level (PHCN)	
- Expand the services at the level of the PHCCs by making them more accessible in terms of availability and affordability:	
- Medical specialties: dermatologist, ophthalmologists, endocrinologist, cardiologist, dentists, male urologists, ORL/ENT, neurologist, mental health specialists)	
- Pediatric medical specialties (pediatric dentists, pediatric endocrinologists, etc.)	
- Physiotherapy, child developmental therapy, and dietitians	
- Diagnostic services in all PHCCs (Imagining and laboratory namely those needed for routine monitoring of chronic conditions and most common acute conditions such as: EKG, CT scan, chest -Xray, additional blood glucose tests)	
- To have a referral system that connects PHCCs to hospitals and to specialized clinics or specialized PHCCs	
- To offer online consultations in rural areas with large geographic areas	
- To standardize the fees across all PHCCs: consultation, diagnostic and all services across all PHCCs	
Community Level	
- Conduct awareness sessions with the community inside PHCCs and inside the community. Suggested topics were the below:	
- Primary Healthcare Network and services available inside PHCCs	
- Quality of services inside PHCCs and PHCC staff	
- Immunization and the availability and quality of vaccines	
- Self-confidence and self-worth which promote healthcare seeking behavior	
- Mental health	
- Preventive services	
- Edutainment activities that target adolescents	
- Conduct mobile medical units for immunization and free simple medical services and consultations in the community	
- Conduct FGD with beneficiaries to listen to their feedbacks and suggestions	
- PHCC to collaborate with local partners (municipalities, hospitals, Lebanese Red Cross) to provide all necessary services as well as a referral system.	
National/Policy level:	
- Expand PHC Network to cover all areas, especially those with large demographic areas, mainly in rural areas.	
- Expand the essential list of medications for acute and chronic medication to include more variety of medications and more advanced drugs for chronic conditions	

- To always have the essential medications available without being out of stock

Table 4: Recommendations to enhancing the utilization of PHC services.

As evident in the provided recommendations, participants focused on the recommendations at the level of the PHCC service provision. PHCC infrastructure was a major factor while participants provided recommendations that aim at receiving a service in an accessible, comfortable, and confidential setting. Also, they recommended implementing an effective management system that includes an efficient appointment procedure with adequate waiting time and opening hours that are convenient for all the community including employed individuals and children in schools. Additionally, participants emphasized on the importance of having a supportive positive environment inside the PHCC which was most highlighted in having PHCC staff that are empathetic with effective communication skills. Participants also discussed the financial accessibility and recommended standardizing the fees across the PHCN and to offer subsidized services, mainly diagnostic services.

Furthermore, participants provided recommendations at the PHCN level that included expanding the services to offer a higher range of needed services, and at a community level to implement awareness campaigns and outreach activities within the communities. Finally, at a national policy level, participants recommended amending the national immunization calendar and essential drug list to incorporate additional molecules and antigens in both lists, as these are perceived important, needed and inaccessible in the private sector.

Strengths and Limitations

This pioneering implementation research in Lebanon is the first of its kind in exploring qualitatively the barriers and facilitators to seeking PHC services and provides recommendations as shared by individuals residing in Lebanon. However, giving its qualitative nature highlights the need for further investigation to validate the findings. While efforts were made to ensure objectivity and inclusive participation, reliance on self-reported data may introduce bias through social desirability. Additionally, there are acknowledged limitations such as potential participant selection biases, particularly among non-beneficiaries in catchment areas of non-supported PHCCs. The study also notes declines in participation, especially among individuals with specific legal statuses in Lebanon, which may affect the representativeness of the results. Moreover, lower participation rates among nationalities other than Lebanese and Syrians suggest a potential oversight of insights into diverse populations benefiting from primary healthcare services. Although the study covered all governorates in Lebanon, the selection of only two PHCCs per governorate may overlook important contextual factors in districts not included, especially in governorates with large geographical areas.

Conclusion

This study identified barriers and facilitators to accessing primary healthcare services in Lebanon as reported by beneficiaries and non-beneficiaries and explored recommendations to enhancing the utilization of primary healthcare services. Specifically, the results suggested that increased focused and further efforts should be given to the quality and sustainability of PHC services, namely on the organization and management of the PHCCs and the PHC workforce. Future research is recommended to investigate aspects of service delivery provision by PHCCs and associated barriers. Understanding the latter helps in shaping health system strengthening efforts and bridges the gap between the community and the PHCCs.

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Disclosures

Authors' Contributions

All the authors contributed to the study design, data collection, analysis and write up of the manuscript.

Conflict of Interests

The authors declare no financial or non-financial interests that could be perceived as influencing the research, analysis, or interpretation of the presented work. This includes, but is not limited to, any commercial, personal, or academic affiliations that might pose a conflict of interest in connection with the submitted manuscript. The research is conducted with integrity and objectivity, solely for the purpose of contributing to scientific knowledge and public discourse.

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