AMERICAN UNIVERSITY OF BEIRUT

AN ASSESSMENT OF THE VULNERABILITY OF SYRIAN
REFUGEE WOMEN IN LEBANON

by
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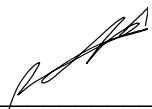Dr. Nisreen Salti, Associate Professor   Advisor
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ABSTRACT
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Title: An assessment of the vulnerability of Syrian refugee women in Lebanon

With the political instability that has prevailed in Lebanon since October 2019, followed by a global pandemic and a deepening concurrent economic crisis after the Beirut Port explosion on August 4, 2020, Syrian refugees in Lebanon have struggled to survive what the World Bank has described as one of the worst economic crises in decades. This study aims to assess the vulnerability of Syrian refugee women. To investigate the relationship between gender of head of households and poverty, it will present a comparative analysis of the socioeconomic status of Lebanese households and refugees by using data from Lebanon's Labour Force and Household Living Conditions Survey and from VASyr surveys in 2019 which are comprehensive annual surveys conducted jointly by the United Nations High Commissioner for Refugees, the United Nations Children's Fund, and the United Nations World Food Programme. The study deals with gender and marginalized communities from many different perspectives to put forward a gender-oriented approach. Examining the distribution of multidimensional poverty index between the households helps to understand the disproportionate burdens carried by women-headed households. In addition to the initial index developed by Alkire and Foster covering living conditions, health, and education, financial security has been added to the analysis as the fourth dimension. Based on the findings, the analysis identifies the most deprived dimensions to better understand the drivers of the vulnerability and poverty gaps between female- and male-headed households in Lebanon. In this context, multidimensional poverty helps depict fragile communities' socioeconomic status and allows a fuller grasp the multiple aspects of deprivation. Finally, this understanding may pave the way to more inclusive policy for decision-makers and practitioners working on refugee issues.

Keywords: Multidimensional poverty; Gender; Syrian refugees; Lebanon.

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ABBREVIATIONS

AF	Alkire-Foster
CAS	Central Administration for Statistics
EDL	Electricité du Liban
FHH/s	Female-headed household/s
HH	Household
ILO	International Labor Organization
ITS	Informal tented settlements
LFHLCS	Lebanon's Labour Force and Household Living Conditions Survey
MEB	Minimum Expenditure Basket
MLI	Multidimensional Livelihood Index
MP	Multidimensional poverty
MPI	Multidimensional Poverty Index
MHH/s	Male-headed household/s
NEET	Not in Employment, Education, or Training
SMEB	Survival MEB
SRH	Self-rated health
UN	United Nations
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
VASyr	Vulnerability Assessment of Syrian Refugees in Lebanon Survey
WB	World Bank
WFP	United Nations World Food Programme (WFP).
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

The 2011 Syrian civil war has created irreversible losses, while the mass displacement that followed has resulted in an ongoing humanitarian crisis. Around 5.7 million Syrians have been displaced into neighboring countries. While Turkey, Jordan, and Iraq have been major hosting countries, Lebanon is globally the most densely populated refugee country. The majority of Lebanon's around 1.5 million registered and unregistered refugee population has consisted of women and children (UNHCR, 2021a; 2022). To understand what is happening in Lebanon, it is also important to highlight the situation before and after the Syrian refugee influx into Lebanon in 2011.

In 1962, a law was passed to regulate the entry and stay of foreigners in Lebanon and their exit from the country. The Law Regulating the Entry and Stay of Foreigners in Lebanon and their Exit from the Country is administered by the General Security, a government agency responsible for the control and regulation of foreigners in Lebanon. Under the law, all foreigners entering Lebanon are required to have a valid passport and a valid visa (such as tourist, business, and student visas). The law also sets out the conditions under which foreigners may work in Lebanon, including the requirement to obtain a work permit. Foreigners who do not comply with these laws may be subject to fines, deportation, or other penalties.

The Lebanon-Syria Treaty of Cooperation in 1991 allowed the free movement of people, goods, and freedom of work and residence for nationals in both countries. Eight years before the civil war in Syria, UNHCR and the government of Lebanon signed the Memorandum of Understanding to provide some mechanisms for the

"issuing of temporary residence permits to asylum seekers". Syrians could freely enter Lebanon based on bilateral agreements between Syria and Lebanon. After displacement had started, even though Lebanon adopted an ''open door'' policy due to the bilateral agreements with Syria between 2011 and 2014, once the influx reached millions, the Ministry of Labor commenced some precautions by limiting the professional sectors accessible to Syrians, such as construction, agriculture, and cleaning.

Syrians who come to Lebanon are allowed to stay for a certain amount of time thanks to a special agreement between the two countries. From 2011 to 2014, Syrians were given a special card when they entered Lebanon that let them stay for six months. They could renew the card for another six months for free, and after that they had to pay a fee to keep it for another six months. Syrians who are registered with UNHCR as refugees receive a certificate that allows them to get help and protection from UNHCR. This certificate is valid for two years and gives refugees access to education, health care, and legal advice, but it does not give them any special legal status in Lebanon. In fact, refugees who have this certificate can still face penalties for not following the rules for staying in the country. UNHCR gives aid to registered refugees based on their needs and asks them to commit to not working, though this has since changed to a promise to follow Lebanese laws. (UNHCR Lebanon, Human Rights Watch 2007)

Finally, in 2015, the government of Lebanon first halted any registration of displaced Syrians as refugees by UNHCR and enforced strict entry regulations along with novel visa requirements. With the impact of events that deteriorated the country's economy and infrastructure, such as the pandemic, the Beirut Port explosion, the ongoing economic crisis, it was decided that Syrians that entered Lebanon irregularly

after April 24, 2019, are subject to deportation and are handed over to Syrian immigration authorities (Trovato et al. 2021).

The political instability, deepening economic crisis, particularly after the Beirut Port explosion on August 4, 2020, and concurrent pandemic worsened the situation for Syrian refugees in Lebanon, who already struggled to survive the worst socio-economic crisis in decades (OXFAM 2021). The growing maelstrom of displacement affects millions of people's lives and leaves refugees more vulnerable to economic and political shocks. While refugees' limited access to education prevents them from pursuing professional occupations and integrating in society, restrictive regulations imposed by the Lebanese government on refugees also prevent their partaking as workers in the formal job market (Brun et al. 2021).

The cost of living and energy crises in Lebanon disproportionately impact underprivileged households. Thus, refugees have found themselves in a crisis within a crisis, which has only further deepened their vulnerability. Worsened conditions exacerbate the adverse impact of the crisis on refugees' economic and social life and access to fundamental human rights from education to health, especially for women.

Studies on the impact of international migration on the health of women and girls have been limited, with much of the existing literature focusing on the broader effects of migration on health. However, recent research has begun to shed light on the specific challenges faced by women and girls in the context of migration. For example, studies have shown that migration can increase the risk of sexual exploitation and gender-based violence, which can have negative effects on mental and physical health (Chau 2015; Busza 2014). Additionally, women and girls who migrate often face barriers to accessing healthcare services, particularly reproductive health services,

which can have long-term impacts on their health and wellbeing (Koehler 2012; IOM 2014).

Since saving lives and meeting immediate needs is always the first reaction of humanitarian aid in catastrophic events, gender has only been discussed as a secondary issue. Yet, the damaging impact of crises is not always gender neutral. Women are more adversely affected by class dynamics, social inequality, and segregation (Wilkinson 1995; Cotter et all 1999; Thomas and Moye 2015).

This study focuses on Lebanese and displaced Syrian households, including Syrian nationals who were born in Lebanon to displaced Syrian parents, to understand their vulnerabilities in the scope of multidimensional poverty.

1.1. Aims & Objectives

Firstly, this study aims to measure the poverty and assess the vulnerabilities of Syrian refugees in Lebanon while investigating the relationship between poverty and gender. Multidimensional poverty (MP) is a method that allows measuring poverty based on material and physical determinants by considering multiple dimensions and several indicators. I will evaluate poverty as regards four main dimensions (living conditions, health, education, and financial security) and various indicators relating to these dimensions. In this sense, an index will be calculated for both refugee and Lebanese households using data from Lebanon's Labour Force and Household Living Conditions Survey (LFHLCS) and Vulnerability Assessment of Syrian Refugees in Lebanon (VASyr).

The Multidimensional Poverty Index (MPI) is a statistical measure used to assess poverty at the individual, household, or community level. It is based on the idea

that poverty is not just a matter of income, but also involves a range of other factors that can limit an individual's opportunities and well-being. These factors, or dimensions of poverty, include health, education, living standards, and access to basic services and infrastructure.

The MPI is calculated by measuring the percentage of people who are poor in each of these dimensions, as well as the intensity of their poverty. This allows for a more nuanced understanding of poverty, as it captures the multiple and intersecting ways in which individuals may be disadvantaged. The MPI is used by governments, international organizations, and civil society groups to identify and target the most vulnerable populations and to track progress in reducing poverty over time. It is often used in conjunction with other measures of poverty, such as the gender-based poverty line, to provide a more complete picture of poverty and its causes.

The second objective of the study is to understand some of the vulnerabilities and disproportionate impacts of displacement specific to women refugees. The study attempts to shed light on this by calculating the indicators of deprivation for male- and female-headed households for both the host community and refugees to uncover the poverty gap and track this gap in 2019. This study will thus investigate to what extent the deprivation gap between refugee and non-refugee households shows that women refugees are more vulnerable.

Before mentioning the gender roles of individuals or families, and the impacts of poverty on different genders of heads of households, the literature review will help to identify poverty characteristics and then a specific aspect of migration and gender that the study wants to focus on.

1.2   Literature Review

This section will provide a background, and a review of previous studies focusing on migration studies, MPI, vulnerability, and gender. It will help to understand the current state of knowledge on the subject and identify any gaps or potential areas for further research.

Based on the findings, women's peculiar vulnerabilities in health and education will be discussed in the following sections. However, before narrowing down the topic to socioeconomic parameters belonging to each household and the gender-based differences, it would be better to continue with different approaches from the literature to understand many aspects of poverty and migration. Then, I will present and compare MPI outcomes among different studies. Considering high-level poverty as one of the explanatory variables for vulnerability, a gender-oriented approach to vulnerabilities will be discussed.

Firstly, education, health, and living standards are primary dimensions that have been used as dimensions of poverty. According to the World Bank's Poverty and Shared Prosperity report (2018), the MPI equals to 12.6 percentage points in Lebanon in 2013. The multidimensional measure yields a more expansive view of poverty by counting as poor any individual with a cumulative deprivation score above the critical threshold of 0.33. The 6-dimensional MPI (monetary and living standard, basic infrastructure, education, health, security, employment) with 11 indicators allows to compare the situation in Lebanon before 2019. Electricity, drinking water (living conditions), and education attainment/enrollment are the indicators showing the highest levels of deprivation in 2013.

Ashaal and Bakri's 3-dimensional MPI with 10 indicators analysis (2019) conducted in Aali en Nahri, a village located in the Beqaa government in Lebanon, with 100 HHs indicates that 13 percent of the total population lives in extreme poverty and poverty intensity is 45 percentage points. Finally, MPI has been calculated as 19 percentage points and the living standards dimension is the highest contributor to total deprivation with 60 percent.

Secondly, there is a rich literature that has tried to investigate the poverty of Syrian refugees in Lebanon. Most of the studies that used Vulnerability Assessment of Syrian Refugees (VASyr) focus on the right to education, social work with displaced children, cash transfers, health vulnerabilities, and social networks (Akesson et al. 2022; Lyles et al. 2021; Habib et al. 2021; Moawad, and Andres 2020; Ghandour-Demiri 2020; Khoury 2020).

Lyons et al. (2021) use a multidimensional approach to measuring vulnerability to poverty of Syrian refugees in Lebanon. The data they used were taken from the 6th round of the 2018 VASyR. According to the Multidimensional livelihood index (MLI) with 5 dimensions (health & food, education, living standards, employment, security, and social inclusion) and 21 indicators, they predict that additional groups of refugees are more likely to be poor in the future based on other sociodemographic characteristics. The 4-dimensional MLI score of HHs without the dimension of employment is 13 percentage points, while the 5-dimensional model including employment is 17 percentage points.

Their approach also merges multidimensional and forward-looking methodologies to determine "who is multidimensionally poor" and "who is vulnerable to future multidimensional poverty." Lyons et al. (2021) state that *''households with*

heads who were younger, female, and non-married were more likely to be vulnerable,
as were households with a higher share of dependents (younger than 15 y.o or older
than 64 y.o).'' However, Lebanese data they used for comparison at the governorate and
household levels come from a smaller survey than the one we use, LFHLCS 2018-19, a
more comprehensive data to compare poverty scores between host communities and
refugees.

Lastly, in March 2019, the MPI was calculated at 23 percentage points in
Lebanon by CAS and the World Bank. According to the 5-dimensional MPI (education,
health, financial security, basic infrastructure, living standards) with 19 indicators, the
indicators showing the highest level of deprivation are respectively low-security work
(63.8%), school attainment (58%), health insurance (55.6), and dependency (48%) at
0.25 threshold value. Lastly, more than 50 percent of households living in Lebanon are
considered poor, above the deprivation threshold, and the intensity of poverty equals 44
percentage points.

Additionally, even though security and social inclusion was used as dimensions
to measure deprivation of minorities, community interactions do not unequivocally
contribute to a refugee household's ability to deal with poverty. Community interaction
was employed as an indicator to explain social inclusion, and the frequency of
interactions with the host community was evaluated as one of the indicators
contributing to security and social inclusion. The poverty gap is therefore not only a
class issue but a social exclusion issue as well (Lyons et al 2021, Yılmaz and Kılıç
2021). However, we cannot be sure whether these interactions in VASyr 2018 if it is a
form of cooperation or of abuse, exploitation, or threats. Furthermore, in this case of the
current study, the datasets at hand do not allow for the inclusion of this dimension, as

the relevant variables are only available for refugee households. Therefore, the frequency of interactions with the host community will not be considered in this work.

In another Viruell-Fuentes (2012), participation in work and social life also fall under the scope of structural racism and health. This points out how multiple dimensions of inequality intersect to impact health outcomes. According to Pinillos-Franco and Kawachi (2022), xenophobia has an important impact on people who are living at or above the deprivation threshold. Their study analyzes the relationship between the attitudes toward refugees and their self-rated health (SRH) in a large dataset of 21 European countries and proposes that hostile attitudes are associated with poor SRH.

Which concepts and methods serve us to understand the disproportionate impact on women as coming from the intersection of migration and gender? The term intersectionality is defined by P. H. Collins (2015) as a critical insight that presents *''a holistic view of mutually exclusive entities.''* Kimberlé Crenshaw (1989;1990) puts forward this notion of ''intersectionality'' to combine gender studies with the overlapping system of oppression and multiple axes of identity, such as gender, race, and class (T.D. Truong et al. 2014). This approach allows engaging concerns related to gender in various issues, such as power relations, social classes, legal and political systems, and discursive structures. It is clear that there are many kinds of different intersections in different subjects (black or women of color, people with disabilities, immigrants, LGBTQ+ people, indigenous people, etc). It is also an approach that allows combining gender studies with migration studies to examine the overlapping systems of oppression and discrimination that women face due to social inequality, economic status, and sexuality. There are all sorts of ways that we imagine discrimination and

disempowerment of more people who are subject to multiple forms of exposure, oppression, or discrimination. Intersectionality might broaden our scope of how we think about where women are vulnerable since different exposures make women vulnerable differently. This might capture the distinctive vulnerabilities stemming from the concurrence of being a refugee and being a woman. In this sense, migration and gender studies can be considered together since both disciplines produce critical perspectives to deconstruct gender images (Amelina & Lutz, 2019; Lutz & Amelina, 2021).

On the other hand, intersectionality, which deals with gender and marginalized communities from many different perspectives, can help generate this framework at the individual level. The approach we adopt for measuring poverty is multisectoral and takes into consideration more complex structures than a simple money-metric approach at a household-level. However, it doesn't fully fit in the intersectionality paradigm because the index will be calculated at the household level. This unit of analysis presents a number of challenges for incorporating intersectionality theory into population health research. Firstly, unfortunately, in both datasets the only available variables on health are about health insurance and access to health services when needed. Secondly, the methodology for MPI, while easy to grasp, is quantitative, and misses some of the qualitative nuances central to an approach that adopts intersectionality theory. Some of the major challenges in incorporating intersectionality into population health research are (Greta R. Bauer 2014):

- Quantitative theoretical language versus quantitative methods*:* It is a confusion of quantitative terms used metaphorically in theoretical work with similar-sounding statistical methods. This study uses an index, by

calculating and deriving functions from the two data sets, as a statistical

descriptive data analysis, which makes it quantitative research.

- Embodiment and experiences of oppression and privilege reflect how

processes of oppression/privilege are measured and analyzed. Here, it is

assumed that holding a nationality or residency permit in the host country is

a privilege compared to being a refugee who does not have a legal status and

work permit. We attempt to capture part of the overlapping systems of

oppression and discrimination that women face by looking at social

inequality and economic status.

MPI is a weighted index consisting of several indicators within dimensions and

does not cover a relationship between dimensions. However, any aggregation of

indicators into a single index invariably involves a decision on how each of the

indicators is to be weighted. Bauer (2014), in this sense, questions whether all

intersectional identities or social positions are of equal value, or of sufficient value to

merit study. Summarizing the information on the different deprivations into a single

index is useful in making comparisons across populations and classes. Whereas MPI is

defined as the multiplication of the headcount rate of deprived HHs and the intensity of

poverty, it suggests the percentage of total and dimensional deprivation scores to

provide intuition about the most deprived indicators of poverty. It also allows us to

observe that different groups have different vulnerabilities in their social class and

gender.

Gender constitutes one of the basic dimensions of all social organization, as well

as class. More than an individual characteristic, gender refers to the social relationship

between women and men and is institutionalized in families, politics, the labor market,

and the workplace. Furthermore, on a daily basis, social reproduction conceptualizes how gender is constituted by certain roles assigned to women from the division of labor to the way in which these roles are performed. In a broader sense, also more relevant to this study, *'' social reproduction refers to the perpetuation of modes of production and the structures of class inequality inscribed within them.''* (Laslett and Brenner 1989).

Gallagher (2012) states that the structure of oppression is profoundly grounded in sets of kin and interconnected factors. Waving around the statistics before the war, she observed that first marriage in Damascus is in the early twenties for women and the late twenties to the early thirties for men. Also, in the villages, the marriage age among young women is relatively low. Depending on education, economic independence, or savings, approximately 70 percent of Syrians marry through traditional parental connections. She asserts that girls are constantly under the surveillance and the critical gaze of mothers, sisters, and friends whose opinion might affect their ''marriageability'' and ''family honor''. This might point out a gender lens to grasp the realities of Syrian and refugee women and how displacement and being a refugee impact their social life.

Sally K. Gallagher (2012) approaches Syrian women by thinking beyond dichotomies of women as either oppressed by class and patriarchy or as completely autonomous agents. While trying to lay out how women navigate the intergenerational change in family and work, gender and agency are conceptualized as consisting of roles learned in childhood and reinforced by social organizations and institutions. These roles are constantly created and re-created in the everyday practices of men and women.

Regarding women and their participation in work and social life, culture (the customs, social institutions, common values, etc.) has been argued as one of the facets that might exacerbate the vulnerability of women by fertility (Fernandez and Fogli

2009). However, we cannot completely explain women's participation in work and their poverty with culture. On the other hand, social class can be considered explanatory for women's role in society. Gallager (2012) also claims that social class is one of the least negotiable and unavoidable aspects of gender ideals and behaviors and lists several overlapping and interconnected factors to explain women's participation in economic activities and gender equality. These factors are religious conservatism, class, kinship, family sources, (assets, savings, debts etc.) and the state's position in the world economy.

Religious conservatism and ideas about women's role in the family might discourage women's employment, as a cultural system that must be understood within a broader framework of political and economic development. Kandiyoti (1996) argues that *''the connection between Islam and cultural authenticity is often discussed by either denying that Islamic practices are necessarily oppressive or asserting that oppressive practices are not necessarily Islamic''.* As discussed above, thinking beyond dichotomies of women as either oppressed by class and patriarchy or as completely autonomous agents is a way to approach vulnerabilities ingrained by the conservative environment, such as not being allowed to go to school for girls. However, cultural essentialism, adopted by Fernanzdez and Fogli (2009), creates these dichotomies that omit women in the Middle East as regional foci and lump all women together in the global analyses of ''third- world women'', which prevents understanding the range and limits of women's choices as independent agents. On the other hand, examining women's experiences across social classes and identities provides a much richer perspective in assessing the impact of both structural constraints and women's strategies of employment and family life on their choices.

Family and family values might be seen a central pillar to being strong. Big families might be more respected by supporting each other. Greif (1993) explains this informal constraint in terms of institutional change and economic performance. For example, small/medium size enterprises are supported by a friend or a family member to make it bigger. They do business by shaking hands without formal contracts. So, the family is not just only a nuclear family but turns into an institution having an impact on people's choices and strategies.

Patriarchal in structure, families have not consisted only of parents and children but also of other members of the extended family such as grandparents. Traditionally, it is common for wives to move into their husbands' homes upon marriage. Gallagher (2012) holds that marriage and traditional families prioritize kinship and women's unpaid domestic labor, such as elder and children care. Lastly, child marriage and limitations in women's mobility are presented by families as coping strategies to risks (DeJong 2017). For many families facing poverty and a lack of opportunity, child marriage is an option for them to reduce expenses within the household, such as providing extra income through bride price; also, it is assumed that it prevents sexual relationships outside of marriage and protect girls from sexual violence. The proportion of Syrian refugee girls who married before eighteen in Lebanon almost tripled between 2011 and 2014. Child marriage rooted in gender inequality has long-term consequences for girls and their families. Child brides do not only struggle with health issues linked to early and frequent pregnancies but also face high rates of domestic violence, poverty, and limited opportunities to build their agency (Rialet 2019).

It is also possible that women in FHHs may have more agency and decision-making power compared to women in MHHs. In some traditional societies, men may

hold a dominant role in decision-making, while women may have less said in important household and family matters. In an FHH, the woman may be the primary breadwinner and may have more control over household resources, which could give her more agency and decision-making power. However, it is important to note that the level of agency and decision-making power of women in any household depends on a variety of factors, such as education, and access to resources. Simply being the head of a household does not automatically empower a woman. Women's agency and empowerment can be enhanced through education, economic independence, and social support.

Consequently, this study will assess vulnerability as measured by multidimensional poverty. By adding a fourth dimension to the initial model of Alkire and Foster (2011), it will present a comparative analysis between male- and female-headed households by legal status (Lebanese/Syrian refugee). It approaches poverty as a complex entity rather than a simple money-metric measure; however, it doesn't fully implement the intersectionality paradigm to the analysis because the index will be calculated at the household level. Yet, it adopts a gender-lens in the quantitative analysis of the intersection of social status and female-headed households by observing MPI in a cross-sectional survey. Eventually, by examining the interconnected and overlapping factors affecting women's financial dependency in explaining the disproportionate deprivation between female- and male-headed households, this research further nuances the relationship between gender and poverty.

CHAPTER 2

THEORY AND METHODOLOGY

The main questions of this research revolve around the disproportionate impact of poverty on different groups, specifically Syrian refugee women in Lebanon, and the assessment of this impact. To add to the current literature about the vulnerabilities of refugees, this study aims to understand some of the vulnerabilities specific to women refugees. Starting with poverty, it will present a multidimensional perspective on the deprivation gap between refugee and non-refugee households. Then, it will focus on the gap between male and female-headed households to propose an understanding of poverty on all levels as women and refugees.

To compare the deprivation, I will employ the Multidimensional Poverty Index (MPI) developed by Alkire and Foster (2011), which allows for measuring poverty and the welfare of fragile communities. According to this index, poverty is a multidimensional entity in which poor households are not able to satisfy basic needs or opportunities. By comparing MPI indexes in 2019, I will be offering an insight into the gap in poverty rates between Syrian refugees and the host community. Finally, I will track the evolution of the gap in the poverty rates between male- and female-headed households for refugees and non-refugees in Lebanon before the crisis to assess vulnerability among Syrian refugee women and any gender difference in the burden of the crisis.

The Multidimensional Poverty Index (MPI) is a measure of poverty that was developed by economist Sabina Alkire and James Foster. It is designed to capture the multiple dimensions of poverty that are often missed by traditional measures of poverty,

such as income poverty or poverty based on access to certain goods and services. The initial MPI measures poverty by considering a range of indicators across three dimensions: standard of living, health, education. Each of these dimensions is further divided into several indicators, such as access to clean water, sanitation, and health care for the health dimension; years of schooling and school attendance for the education dimension; and access to electricity, cooking fuel, and housing for the standard of living dimension.

This study suggests adding financial security covering employment and money-metric indicators, such as monthly total expenses to the initial index. Finally, it uses a cross-sectional analysis to understand different vulnerabilities that belong to different groups of people. I will focus on women's socioeconomic status deteriorating their current situation and exacerbating their vulnerabilities. The weights in the index are set to be equal across all dimensions for each group for comparison. This allows us to see deprived dimensions intersecting with social status and gender.

The MPI assigns a score to each household based on the number of indicators they are deprived of and combines these scores into an overall poverty score for each country. A person is considered to be living in multidimensional poverty if they are deprived in at least one third of the indicators across the three dimensions. The MPI is used to measure poverty and track progress in reducing poverty at the national and global levels. It is an index between 0 and 1. If a household is deprived on all dimensions of poverty, this index equals to 1. Dimensions can cover any critical factor determining poverty. In this study physical conditions of the dwelling, health, education, and financial security were chosen to assess the vulnerability of households. The choice of dimensions and indicators in terms of physical conditions and access to

basic needs, rather than only money-metric poverty, applies a broader approach to the vulnerability assessment.

Assume that there are n households, and their well-being is evaluated by j indicators within d-dimensional model (d represents the number of dimension):

$$I_{ij} \text{ for all } i=1\ldots, n \text{ and } j=1\ldots, 17$$

I_{ij} is a binary variable that takes on the value 1 if household i is deprived on indicator j, and the value 0 otherwise. Let's say the type of dwelling is the first indicator for living conditions. So, the type of dwelling, and the achievement of household i for this indicator can be represented by I_{i1}. Thus, I_{11} represents the deprivation status of household 1 for this indicator.

The rating of the deprivation status can be adjusted according to the analysis and the approach. For instance, since living in an apartment is better than a tent or construction site, the deprivation indicator is assigned a score of 0 for a household living in an apartment. However, for a household living in informal tented settlements, its score on this indicator is 1, deprived.

The overall deprivation score of household i is a weighted sum of the deprivation status scores of all m indicators, D_i:

$$D_i = \sum_{j=1}^{m} W_j I_{ij} \quad , \quad D_i \in [0,1]$$

Where W_j the weight for each indicator assigned based on the value attributed to the indicator is the same for all households. In our case, D is the weighted sum 17 deprivation indicators over four poverty dimensions. The larger is D_i, the more deprived is the household. If $D_i \geq k,$ where $k \in (0,1]$ is a threshold of deprivation, household i is defined as multidimensionally poor Alkire and Foster (2011).

$$\boldsymbol{D_i} = W_1 I_{i1} + W_2 I_{i2} + \cdots W_{17} I_{i17}$$

Ws represent weights and *Is* represents deprivation scores of the household *i* for each of the j indicators within 4-dimensional model.

$$W_j = \frac{W}{A_d}$$

for *d*=1…, *4* and W= ¼,

W shows dimensions' equal weights. The index consists of 4 dimensions and 17 indicators, listed below. Thus, the weight of each dimension (W) is 0.25 (1/4), and the deprivation in each dimension will be measured using different weights depending on the number of indicators under the related dimension. Hence, W_j is found by dividing W by the number of indicators for each dimensions (A_d).

$$\boldsymbol{D_i} = \frac{1}{4}\, living\ conditions_i + \frac{1}{4}\, health_i + \frac{1}{4}\, education_i + \frac{1}{4}\, financial\ security_i$$

According to the weighting scheme displayed in Table 2 below, W represents the weight of a dimension (equal to 1 divided by the total number of dimensions), and A_d represents the number of indicators within dimension *d*. Thus, A_1=10 for living standards, A_2 and A_3 have 2 indicators each, and for the financial security dimension, $A_4 = 3$.

The equation below describes total deprivation scores for 4-dimensional MPI, $W_1 = W_2 = \ldots = W_{10} = \frac{1}{40}$ for the living conditions indicators; for health and education, $W_{11} = W_{12} = \ldots W_{14} = \frac{1}{8}$, and $W_{15} = W_{16} = W_{17} = \frac{1}{12}$ for financial security indicators. So, the dimensional function:

$$D_i = \frac{1}{40}(I_{i1} + I_{i2} + \cdots I_{i10}) + \frac{1}{8}(I_{i11} + I_{i12}) + \frac{1}{8}(I_{i13} + I_{i14}) + \frac{1}{12}(I_{i15} + I_{i16} + I_{i17})$$

The number of multidimensionally poor, q, is the total number of households whose deprivation score is above the threshold k. The proportion of poor, or headcount ratio, is found by dividing the number of multidimensionally poor by total households, n. So, the headcount ratio, H, the proportion of poor as measured by the headcount ratio, is found by dividing the number of multidimensionally poor households whose scores are above the deprivation threshold (k=0.33) by the total population of households.

$$H = \frac{q}{n}$$

The intensity of poverty (A), the average of censored deprivation scores, is calculated by summing the deprivation scores of all households divided by the number of deprived households. The censored deprivation score, $D_i(k)$, is equal to D_i if $D_i \geq k$, otherwise, $D_i(k) = 0$. It means that if the deprivation score of a household is below the deprivation threshold k, then that household is not included in the adjusted headcount ratio.

$$A = \frac{1}{q}\sum_{i=1}^{n} D_i(k)$$

Finally, MPI is obtained by multiplying the proportion of multidimensionally poor by the intensity of poverty at the level of k=0.33, which is the level of deprivation threshold accepted by Alkire and Foster (2011).

$$MPI = H \times A = \frac{q}{n} \times \frac{1}{q}\sum_{i=1}^{n} D_i(k)$$

CHAPTER 3

DATA AND MEASURES

This chapter will describe the data we have at hand, and apply the Multidimensional Poverty Index (MPI), deprivation cutoffs and indicators to our datasets. Two datasets, VASyr 2019 and LFHLCS 2018-19, have been used to generate deprivation scores. Since non-Lebanese residents in LFHLCS 2018-19 include all persons not holding Lebanese citizenship, regardless of nationality, they have been dropped from the scope of this study to provide a clearer comparison between Lebanese and Syrian households that do not have residency or work permits.

Demographically, 121,468 Lebanese and 23,067 Syrian individuals in the questionnaire share almost equally gender distributions, with 49 percent male and 51 percent female participants. Population pyramids of the Lebanese show a fewer young people (15-24 years old) and a higher concentration of aged women (60+). VASyr 2019 on the other hand shows Syrian refugees are mostly children and middle-aged men and women. Gender characteristics have similarities with Lebanese individual-level data with almost fifty-fifty percent. More than 10 percent of Lebanese women and 5 percent of Syrian refugee women are widowed, divorced, or separated and the share of single women is higher than that of married ones (See Appendix).

I propose a cross-sectional comparative analysis by using two data: LFHLCS 2019 *(N=33,792)* and VASyr 2019 *(N=4,719).* LFHLCS conducted by Lebanon's Central Administration for Statistics (CAS) and the ILO. VASyr, conducted jointly by UNHCR, UNICEF, and WFP, allow obtaining the MPI for non-refugee and refugee households. These are comprehensive surveys including household and individual-level

data about participants' demographic characteristics, accommodation, health and security, and economic indicators (income, expenditure, debt), schooling, and health. This study will use household-level data to calculate MPI by using a cross-sectional survey illustrated in Figure 1. Based on this classification, the results will provide a comparative analysis for heads of households of different sex and social status. Eventually, this will give an idea of the vulnerabilities of different groups of households in Lebanon. In this sense, the case study covers being exposed to displacement and focuses on the post-migration period for Syrian refugee HHs.
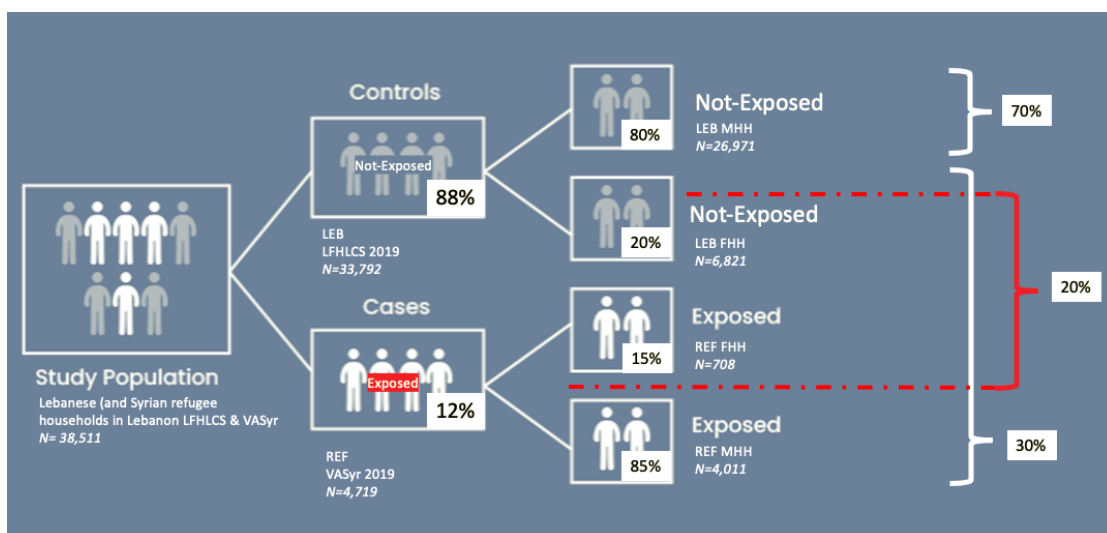
Figure 1. Cross-sectional survey

In addition to the three main dimensions included in the MPI proposed by Alkire and Foster (2011), I will use fourth dimension of financial security. The four dimensions (living conditions, health, education, and financial security) will be measured using relevant indicators, each measuring a specific deprivation. Every dimension is weighted equally and indicators within each dimension are assigned equal weights, in line with other research utilizing this index (Ashaal and Bakri 2019; Lyons

et al. 2021; Yılmaz and Kılıç 2021). The rationale for each is discussed further in the findings section. The dimensions along with the indicators that were identified for inclusion in MPI, and their corresponding weights are listed below in Table 1 below.

Table 1. Dimensions, Indicators, and Weights

Dimension	Indicator (I_j)	Weight (w)*		
		W	A_d	W_j (W / A_d)
1. LIVING CONDITIONS	I_1 Non-residential housing I_2 Crowdedness of shelter (m^2) I_3 Toilet shared or no flush/improved latrine I_4 No public water pipes I_5 No available water tanks I_6 No access to drinking water I_7 No cooking fuel I_8 No heater or hot water I_9 No access to public electricity I_{10} No availability of a generator	1/4	10	1/40
2. HEALTH	I_{11} No public/private health insurance I_{12} No availability of primary health care when it is needed	1/4	2	1/8
3. EDUCATION	I_{13} All household members above 14 years old had less than 6 years of education I_{14} At least one child in the household (aged 6-14) was not attending school	1/4	2	1/8
4. FINANCIAL SECURITY	I_{15} Minimum Expenditure Basket (MEB) in USD/monthly is below the poverty line (< \$3.80/day) or (< \$114/month) I_{16} Dependency: The number of people 15-59 y.o. divided by the number of individuals of working age exceeds 3. I_{17} Unemployment: No household member (15-64 y.o.) is working	1/4	3	1/12

A_d is the number of indicators within a dimension, and W_j is found by dividing W by A_d for the weight of each indicator within a dimension.

Through structured surveys with the host community and refugees in Lebanon, this research project intends to identify the priorities and concerns of these groups. The

cutoffs for the conditions of deprivation were chosen based on existing literature, similarities of the two data, and questions in the surveys. To determine the deprivation cutoffs, I will draw on the methodology that Ashaal & Bakri (2019), Lyons et al. (2021), Yılmaz and Kılıç (2021), the World Bank, and the Central Administration of Statistics (CAS) of the Lebanese Republic used.

3.1. Living Conditions

Living conditions cover the shelter conditions, including indicators for whether the housing type is residential, has basic sanitation (such as a private flush toilet), water (clean water to drink and use), indicators for energy sources for cooking and heating, and access to electricity. We also add an indicator for crowdedness.

In the dimension of living conditions, the dwelling type and the conditions in the shelter will be considered. The number of people sharing space, area of residence, availability of infrastructure for water and access to clean drinking water, energy for heating, cooking, and electricity, and basic sanitation conditions in the space were chosen as the indicators to measure living conditions.

3.1.1. Shelter conditions

The first indicator within the dimension of living conditions, type of dwelling, gives an idea of the shelter conditions. The categories for main dwelling in LFHLCS 2019 include an independent house, a villa, an apartment, and other. The literature on Syrian refugees typically distinguishes between three types of dwellings: residential, non-residential, and informal tented settlements (ITS) (VASyr 2019; 2020; Lyons et al. 2021; Trovato et al. 2021). Thus, deprivation scores for those who live in a villa, an independent house, and an apartment is considered as 0 while it is 1 for those who live

in other places, including a hotel room or prefabricated house since these are non-permanent residential units or structures that are not intended for residence.

In the literature, a residence with less than 4.5 m^2 per person for those living in the same dwelling is defined as overcrowded (Lyons et al. 2021). However, since LFHLCS 2019 data measures the area of residence in ranges of 50 m^2, the data cannot be used to measure crowdedness accurately based on this calculation. On the other hand, Melki et al (2004) defined the household crowding index (HCI) as the total number of residents, excluding infants, divided by the total number of rooms, excluding the kitchen and bathroom. Since this methodology is more suitable for LFHLCS 2019, the HCI will be used to measure crowdedness for the two data.

The report published by CAS & World Bank (2022) considers as crowded any shelter in which three or more people reside per room. Based on these sources, more than 3-member households having less than one room, except a kitchen and bathroom, have been evaluated as deprived in this study.

3.1.2. Basic sanitation

A household is considered deprived of basic sanitation if they did not have access to flush toilets or improved pit latrines with a cement slab, or if household members share the toilet with other households. Therefore, households that have no availability of flush toilets and must share their toilet with other households inside/outside of the dwelling are considered poor in terms of access to basic sanitation.

3.1.3. Water

Deprivation of water was evaluated over three indicators: water pipes, water tanks, and access to drinking water. Even though the availability of water pipes or

sewage systems gives an idea of access to water, many households in Lebanon use water tanks due to water shortages and concerns about water pollution. For this reason, households that do not have a water tank were considered deprived in terms of access to clean water.

Households' access to drinking water was assessed in terms of the sources. Based on households' responses, these sources are tap water in dwellings, public stand posts, bottled water, delivered water (tanker trucks), protected or unprotected wells, boreholes, rainwater, and surface water. Since drinking water from unsafe sources causes serious diseases, households using unprotected water sources, rainwater, and surface water are considered as deprived.

3.1.4. Energy and Electricity

A household that lacks gas is considered deprived in terms of both cooking fuel and heating. A household that did not have cooking fuels, such as charcoal, wood, or dung, and an asset, such as electric or gas stoves, is considered deprived of cooking fuel. In short, the households that do not have any source of heating and cooking have been identified deprived in energy.

Access to electricity has been one of the main problems in Lebanon for decades. Electricité du Liban (EDL), the national utility company, has been in charge of generation, transmission, and distribution of electricity since 1964. However, electricity vulnerability, especially after the 1990s, altered the structure of the electricity sector to new private enterprises. Hence, social and power relationships have emerged among private providers, the state, and consumers (Klinken 2022). Even before the crisis in the fall of 2019, EDL was struggling to meet the country's sharply rising consumption. In

2008, EDL only covered 63 per cent of the total electricity demand (Ahmad et al. 2020). Most of the energy used in the country is fueled by imported oil.

It is important to note that the situation in Lebanon is complex and dynamic. Lebanon has experienced significant electricity shortages in recent years, which have led to widespread power outages and disruptions to daily life. The country's electricity sector has faced several challenges, including inadequate infrastructure, a lack of investment, and mismanagement. These issues have been exacerbated by political instability and economic challenges, including a financial crisis that began in 2019, (Klinken 2022), and the details of the electricity shortages and efforts to address them may have changed since the time of writing.

However, due to the dilapidated infrastructure, decreased electricity supply, and fuel shortages, through the electricity provided by the state, with only 3-5 hours of daily electricity, and electricity access is mainly based on individual generators, or central private enterprise system of generators to which households subscribe. Thus, in addition to the households that have no public or private electricity access, households that do not have an individual or central generator are also considered deprived of electricity.

3.2. Health

Health, in this analysis, will be measured in terms of health insurance, and access to required primary health care or hospitalization when needed. After the war in Syria in 2011, Lebanon's population increased by 30 percent in 2 years due to the influx of Syrian refugees. This sudden increase of such magnitude means a shock to the health system, especially if we take into consideration the rate of emigration among skilled workers in Lebanon, including in the fields of medicine and nursing in Lebanon. Even

though Walid Ammar et al. (2016) qualified the Lebanese healthcare system as ''resilient'', the magnitude of the internal and external shocks the system has been subjected to remains extraordinary, and threatens the continuity of service delivery, destabilizes the social security system for both Lebanese citizens and Syrian refugees in Lebanon.

Access to healthcare is measured using two indicators. On the first indicator, a household is considered deprived if no member has private or public health insurance. On the second indicator, if at least one household member was unable to access primary health care assistance or was not hospitalized when needed, this household is considered deprived of access to required healthcare. The scope of the vulnerability assessment also encompasses access to health services. Women need more medical help than men and require more hospitalization or emergency care due to the access to reproductive health (Trovato et al., 2021).

Health access indicators might include chronic diseases and the availability of health care when it is needed. However, while VASyr includes variables measuring the presence of a chronic disease, LFHLCS 2019 includes questions only about primary health. Therefore, I only include an indicator in the health dimension of access to primary health care.

3.3. Education

Education will be measured by years of schooling or having completed at least elementary school for household members above 15 and child's attendance to schooling. Classification is based on the education system in Lebanon, in which at age 6, children enter elementary school for 6 years and then continue with a 3-year intermediate school.

During their 3 levels at secondary school, it is decided whether students follow humanities or technical education streams. If successful, they obtain either the Lebanese Baccalaureate for secondary education certificates or the technical baccalaureate for technical and vocational training.

I used two measures of a household's education: children's school attendance, and the highest attained education level of any member of the household. For school attendance, the first cutoff for education covers household members who are above 14 years of age, and the second one considers children who are aged between 6 and 14. According to Lyons et al. (2021), a household is deprived if all household members who are above 14 years of age had less than 6 years of education, or if at least one child in the household (aged 6-14) was not attending school.

For the highest attained education level, a household is considered as deprived in terms of education if no member has completed elementary school. However, since a household in which all but one member is illiterate is still deprived if that member has completed elementary school, I also calculated average years of schooling for a household by dividing an aggregate of all years of schooling for the household by the number of household members who are above 14 years of age. I counted household that has less than 6 years average schooling as deprived.

3.4. Financial Security

The fourth dimension, financial security includes monthly basic expenditures, such as food, health, education, rent, infrastructure, and basic hygiene products. The other indicators that have been defined under financial security are employment status and financial dependency. This dimension aims to measure money-metric poverty by

using expenditure (consumption) data. Monthly total earnings and income data could have been used to measure money-metric poverty. However, the way income is measured differs across datasets and does not allow for comparison.

Additionally, dependency was included as an indicator of financial security in the MPI 2019 report published by CAS and the World Bank. This indicator represents the number of household members who are financially dependent on each working adult.

3.4.1. Monthly total expenses (S/MEB)

Total expenses cover expenditure on primary needs, such as food, health, education, rent, shelter, water, gas, fuel, transportation, clothing, hygiene, and secondary needs (debt repayment, entertainment, and tobacco etc.)

Given consumption expenditures and poverty line statistics, I will use the Survival Minimum Expenditure Basket (SMEB), and the Minimum Expenditure Basket (MEB) to measure deprivation among households. According to World Bank (2018), threshold for daily consumption or income equals $65 per month and $2.15 per day per capita, which was equivalent to almost 100,000 LBP monthly expenses in 2018 at the time of the survey.

In the research conducted by Lyons et al. (2021), SMEB has been estimated at $87 per month, and MEB equals $114, approximately $3.80 per day and 170.000 LBP per month per person. In this study, households that have lower expenses than MEB are considered deprived in terms affording basic expenses.

3.4.2. Financial dependency

Typically, the household dependency ratio is calculated as the ratio of nonworking-age individuals to working-age individuals. Working-age individuals or producers are often defined as being 15–64 years of age, while those less than 15 years or older than 64 years are considered consumers (Rowland, 2003). If the number of individuals outside of working age divided by the number of individuals of working age exceeds 3, then the household is considered deprived.

To address these methodological and theoretical issues several different dependency ratios were calculated. In this study, the household dependency ratio was calculated as the number of children and elderly divided by the number of working-age adults. In practice, the methodology Hadley et. al (2011) used is qualitatively similar when different dependency ratios are used so we report results for a dependency ratio based on a working-age population (15-64 y.o). All ratios are multiplied by 100 and can be interpreted as the percentage of household members who are dependents. Higher values indicate more dependent households relative to being financially independent.

3.4.3. Employment status

The indicator of income security displays HHs in terms of money metric poverty since it depicts households with adults (15-64 y.o) who do not have regular work and income stability. If there is no adult who has regular work, it means that this household has no income security and is financially deprived. The households in which no one has income security and regular work might represent the most vulnerable HHs.

CHAPTER 4

FINDINGS AND DISCUSSION

This chapter will compare the findings based on VASyr 2019 and LFHLCS 2019. It will also adopt an intersectional approach by discussing peculiar vulnerabilities belonging to female-headed households.

Figure 2. Deprivation scores of Lebanese HHs

Source: Authors' calculation using data from LFHLCS 2018-2019 & VASyr 2019

Figure 2 and Figure 3 display mean values of deprivations scores for the four main dimensions of Lebanese and Syrian households in 2019 in Lebanon. 17 indicators have been calculated for each household and variables categorized under four dimensions. The deprivation scores for each indicator can go from 0 to 1. These figures depict mean values for each indicator before adding up the weights among Lebanese and Syrian refugee households (HHs), and female- and male-headed household.
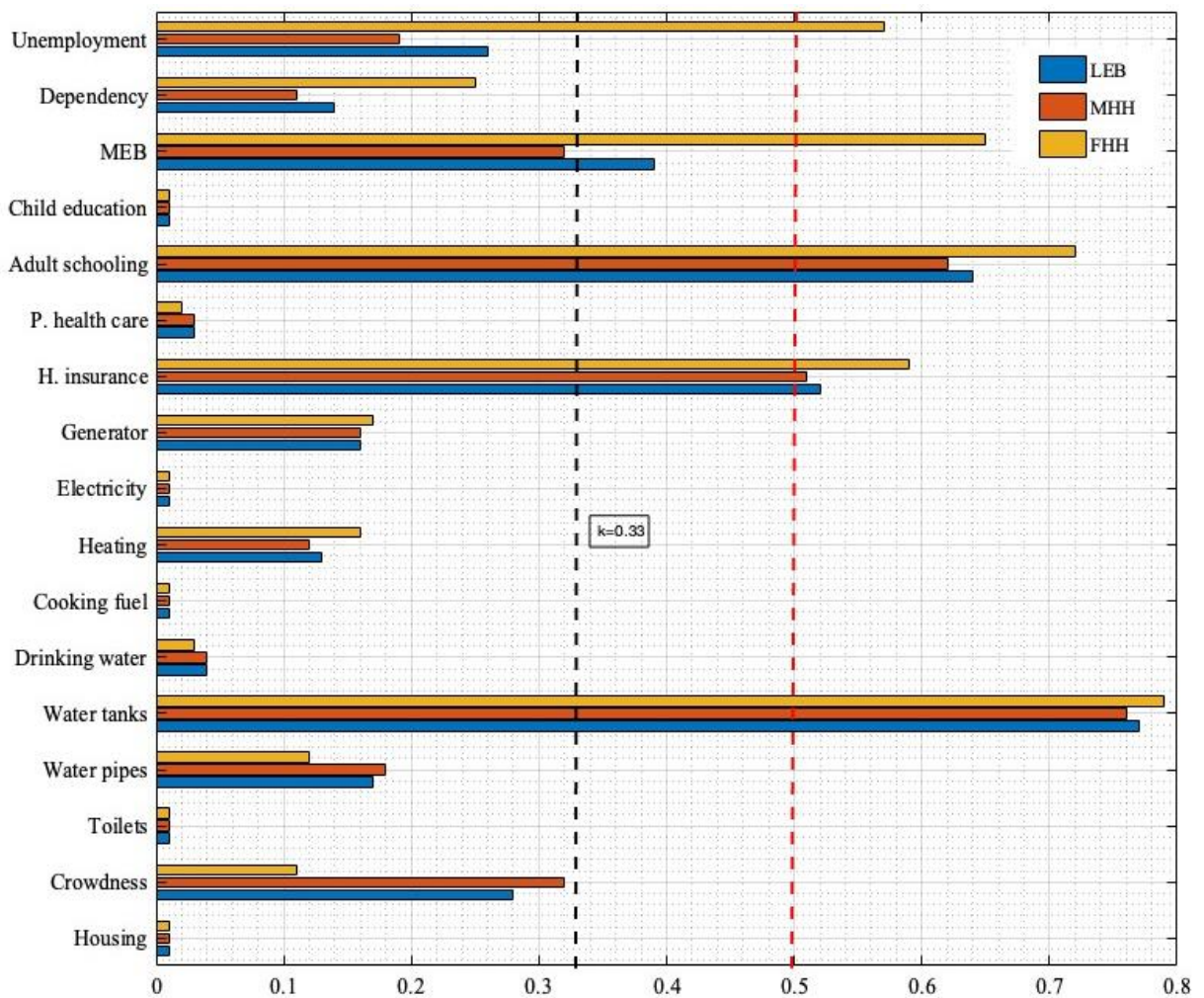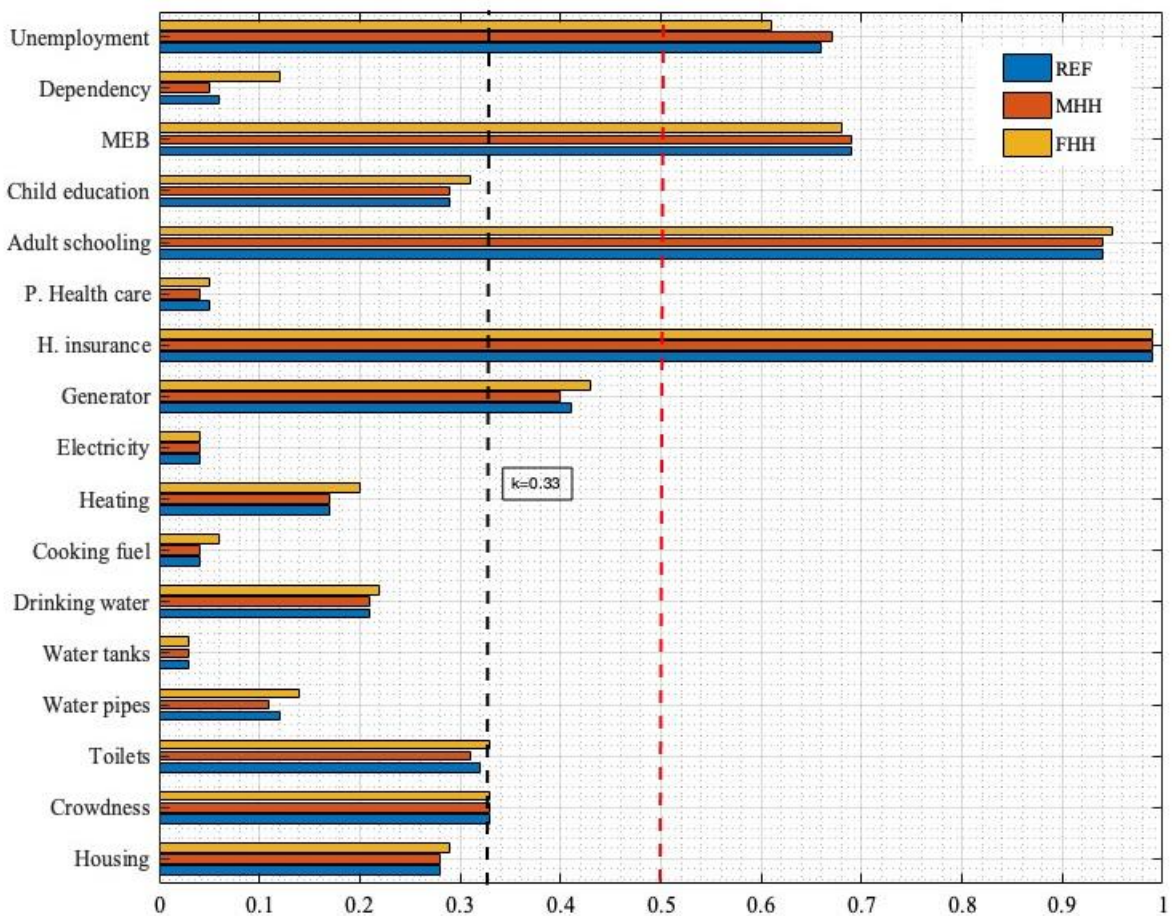

Figure 3. Deprivation scores of refugee HHs

Source: Authors' calculation using data from LFHLCS 2018-2019 & VASyr 2019

Based on the results and according to the AF deprivation threshold (k=0.33), Lebanese households are deprived of 4 out of 17 indicators, while refugee households are below the poverty line in 6 indicators. In addition to the minimum expenditures, the

rest three indicators, primary health, years of schooling, and availability of a generator, have been found to highlight due to their higher deprivation scores within their dimensions. The dimensions that both groups are deprived of the most are education and health.

While almost all Lebanese households live in a residential place, 72 percent of refugees live in an apartment. 28 percent of Syrian refugee households in the survey live in non-residential and non-permanent structures, which are categorized as deprived. So, refugee households in Lebanon are deprived in type of dwelling while the host community has almost no deprivation in terms of dwelling categorization. Also, Syrian female-headed households (FHH) were more frequently living in non-permanent and non-residential structures. While 17 percent of Syrian refugee female-headed households live in an ITS, the percentage for male-headed households is 13 percent (VASyr 2019). According to the VASyr report, this gap has increased in 2020 from 4 percentage points to 8 with 27 percent of FHH living in these structures (VASyr 2020 p.11).

The average size of a Lebanese household is around 4.5 people, and it is 5.75 for Syrian refugee households. Based on HCI, the fraction of Lebanese male-headed households (MHH) with fewer than one room per resident (excluding kitchen and bathroom) is close to the threshold. Whereas there is no difference between refugee MHH and FHH, Lebanese MHH are almost 20 percentage points more likely to be crowded than FHHs. Thirty-two percent of MHHs have less than one room per resident. According to HCI, 33 percent of refugees have less than one room per person in the dwelling, and they are on the threshold value in terms of the crowdedness of shelter.

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The availability of a flush toilet or improved latrine has an important impact on basic sanitation and public health. The deprivation rate among Lebanese households is less than one percent, while more than one-third of refugee households either do not have a flush and improved toilet in their dwelling, or they must share it with other households.

Considering basic sanitation, public water pipes also shows that most Lebanese and refugee households are not deprived. However, Figure 3 shows that the deprivation rate of access to safe drinking sources is almost more than 5 times higher among refugee households. Ninety percent of Lebanese households have access to clean water. Among refugees, 60 percent of households do not have access to bottled water. The other sources of drinking water for refugee households are tap water, usually available for less than 2 hours per day, public shared water, and wells. It is a well-known fact that access to clean water is closely related to public health. This situation makes refugees more vulnerable to infectious diseases, such as the current outbreak of cholera announced by World Health Organization (WHO) in northern refugee camps in Lebanon attests (WHO 2022).

The survey questions on energy cover availability of sufficient sources for cooking and heating. Overall, deprivation scores for energy source for cooking are quite low, less than 5 percent, which means that gas is not only the most common cooking fuel, but also it is highly accessible for both groups. On the other hand, households have been deprived of energy sources for heating. 17 percent of refugees and 13 percent of Lebanese households do not have a sufficient heating system, energy source, or heater at their residences.

Due to the dilapidated infrastructure, decreased electricity supply, and fuel shortages, Lebanon has been struggling with an electricity crisis for a long time. So, even though deprivation scores among both groups in terms of having public or private electricity access are low, this does not mean they have 24 hours of electricity without an individual or central generator. More than 40 percent of refugees and 16 percent of Lebanese households are deprived of having access to any form of generator.

According to Figure 3, both communities are highly deprived of having health insurance. Almost none of the refugee households have any private insurance, while more than half of Lebanese households have no member who has any public or private health insurance. On the other hand, more than 95% of refugee and Lebanese households state that they have access to primary health care when needed.

One of the indicators with the highest level of deprivation among both groups is adult schooling. The child attainment rate of education in Lebanese households is quite high, whereas they are highly deprived of the education level for members above 14 years old. Refugee households are extremely deprived of education. The score on the indicator for child education is close to the deprivation threshold, and more than ninety percent of refugee households do not have more than 6 years of education per member above age 14. For female-headed households, for the indicator measuring the share of adults with less than primary education, the deprivation score reaches 95 percent among refugees and 72 percent for Lebanese households. Furthermore, there is at least one child (aged 6-14) in almost one-third of the refugee households that is not attending school. This rate is slightly higher in FHHs.

The share of refugee households whose monthly total consumption/expenses per person is below MEB (<$114) is 30 percentage points higher than for Lebanese

households. This is not a surprising outcome when we think about vulnerability resulting from displacement and forced migration. In general, both groups are deprived of the ability to afford a minimum expenditure basket. However, the gap between Lebanese female- and male-headed households is also 33 percentage points, which puts the share of Lebanese households with FHHs that is deprived closer to that share among refugee households. The largest difference between male- and female-headed households is in this indicator, and this gap indicates that more than 60 percent of female-headed households have difficulty securing their basic needs.

Table 2. Monthly expenses in dollar

	Syrian refugee HHs			Lebanese HHs		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.
< SMEB =$87	2409	51,82	51,82	11786	34,91	34,91
SMEB – MEB ($87-113)	849	18,26	70,00	1543	4,57	39,48
MEB – 125% MEB ($114-142)	481	10,35	80,43	1625	4,81	44,30
≥ 125% MEB ($143)	910	19,57	100,00	18840	55,70	100,00
Total / N	4649			33758		

Source: LFHLCS 2018-2019 & VASyr 2019

SMEB is the amount of money for basic survival needs, representing a threshold of extreme poverty, and equals to around $3 per person per day. Table 3 above shows that 35 percent of Lebanese households and 52 percent of Syrian refugee households live in conditions of extreme poverty.

The second indicator of financial security, financial dependency, was calculated based on the ratio of working-age population of (15-63 years). The fewer dependency ratio shows that the working population above 15 years old is more than children and elderly population in the household. If the number of not working members is more

than three times higher than the working population, these HHs are considered deprived. According to results, the only deprived groups is refugee MHHs with almost 50 percentage points.

The last indicator represents the most vulnerable HHs not having any members working regularly or not obtaining regular income and stable earnings. The most financially stable group is Lebanese MHHs; whose deprivation score equals to 19 percentage point. Then, Lebanese FHHs follow with 57 percent, which means the risk of deprivation is 38 percentage points higher than for Lebanese MHHs. Syrian refugee MHHs and FHHs are the most deprived group with more than 50 percent of households deprived, and their deprivation rates are not only high, but also closer to that of Lebanese FHH on average. Refugee FHHs' unemployment rate is 5 percentage points less than refugee MHHs. In this case, displacement might have had a reversed effect on some aspects of the gender role of refugees because finding a job in host societies can be easier for women since men's mobility is restricted for security reasons more than women. However, the difference in the unemployment rate between Lebanese MHHs and FHHs is quite large. This shows that Lebanese FHHs are as deprived as refugee HHs in terms of unemployment and financial insecurity.

4.1. Comparison of the MPI Among the Households in Lebanon

In this section, the results and findings will be interpreted under the four main dimensions: living conditions, health, education, and financial insecurity. The two highest deprivation scores are observed in health and education. These are indicators on which both groups show high deprivation scores, particularly refugees, and especially

for the indicators measuring health insurance and adults who do not have elementary-level education.

Hence, the poverty gap between Lebanese and Syrian refugee households will be discussed in addition to the gap between MHHs and FHHs within communities. Considering the results of deprivation scores and MPI, I will try to present a gender-oriented approach to explaining the reason behind the difference between the poverty status of households with heads of different sex and from different social classes can be.
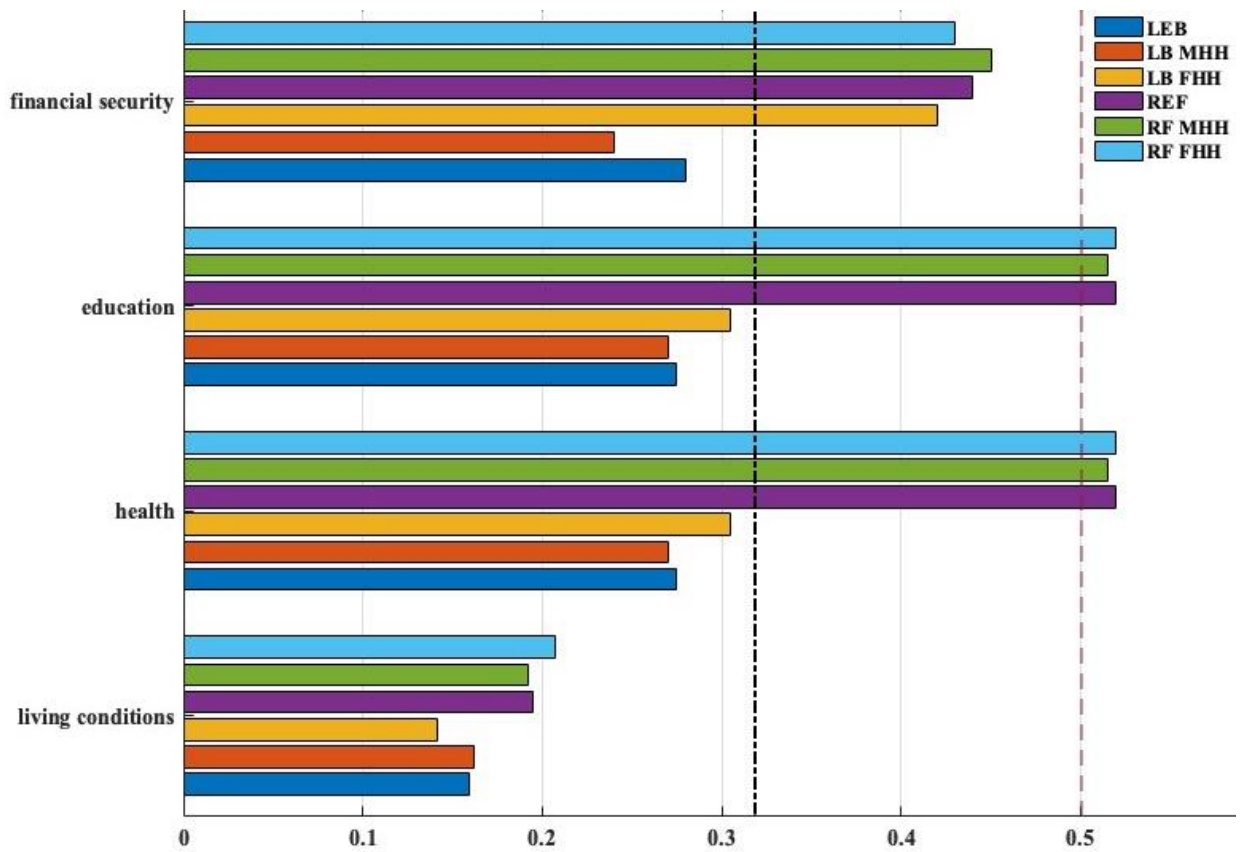
Figure 4. Dimensional poverty scores

Source: Authors' calculation using data from LFHLCS 2018-2019 & VASyr 2019

The multidimensional poverty differences can be seen clearly in Figure 3 and Table 3. Firstly, the deprivation index for Syrian refugee households is almost 30 percentage points higher than the host community and, the deprivation index for Lebanese FHHs is 5 percentage points higher compared to Lebanese MHHs. If it is assumed that the level of deprivation refers to vulnerability, the classification of vulnerability among communities is respectively Syrian refugee FHHs and MHHs and Lebanese FHHs and MHHs. The deprivation score for financial security is higher than the threshold for refugee HHs and Lebanese FHHs, while the score shows that Lebanese MHHs are less deprived by around 25 percentage points. It can be said that Lebanese MHHs are relatively more financially secure compared to Lebanese FHHs and the rest of the groups in Lebanon.

Table 3. Prevalence in deprivation

(Percentage)	Deprived	Non-deprived	TOT
Lebanese	32	68	33,792
Syrian	88	12	4,719
MHH	35	65	30,982
FHH	55	45	7,529
TOT	38	62	38,511

Source: Authors' calculation using data from LFHLCS 2018-2019 & VASyr 2019

Table 4 shows the ratio of deprived and non-deprived HHs. According to this, the prevalence of deprivation among Lebanese HHs is 32 percent, while 88 percent of Syrian refugee HHs are deprived. 35 percent of total MHHs in Lebanon are deprived since their total deprivation scores are above the MP threshold (D> k=0.33). On the other hand, prevalence of deprivation among FHHs is 20 percentage points more than MHHs. Consequently, based on the assessment of vulnerability among female-headed Syrian refugee households in Lebanon, multidimensional poverty may disproportionately impact refugee FHHs on access to healthcare and education while the vulnerability of Lebanese FHHs has is especially acute in financial security.
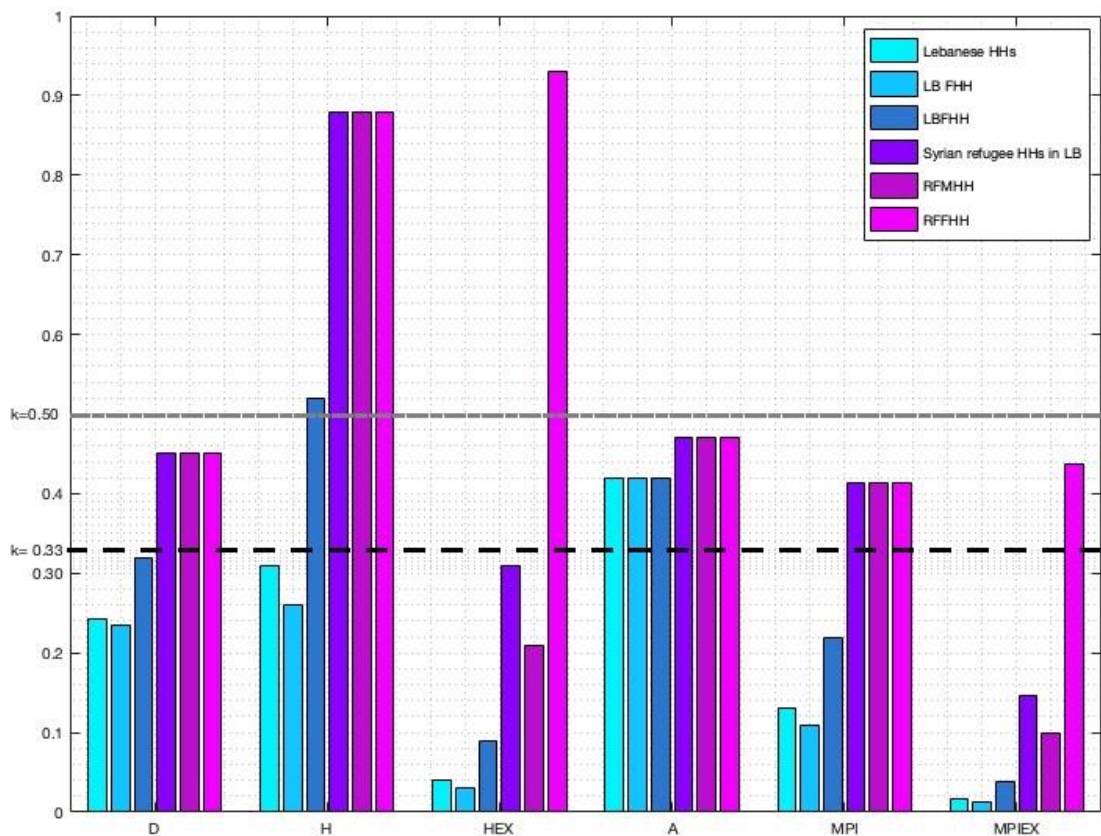

Figure 5. MPI and its components

Source: Authors' calculation using data from LFHLCS 2018-2019 & VASyr 2019

Figure 5 displays deprivation calculations and MPI. The average total number is households' achievements over 17 indicators *D* represents the overall deprivation score.

MPI is a product of the proportion of households identified as multidimensionally poor *(H)* and the average proportion of weighted indicators *(A),* intensity of poverty, in which overall deprivation scores are above the threshold. It shows deprivation scores of households in term of the gender of the head of household. This shows that Lebanese FHHs are exposed to extreme poverty more than Lebanese MHHs.

The headcount ratio (*H*) and the extreme poverty ratio (H_{ex}) are close to 1 for refugee FHHs. The intensity of poverty (*A*) is calculated as 0.47 and MPI equals to 0.41 out of 1 for both female and male-headed refugee HHs in Lebanon. MPI for Lebanese HHs equals 0.13, as shown in Figure 5, and *A* is lower among Lebanese HHs and equals 0.42; on the other hand, H for Lebanese FHHs is more than 0.50, which means that one out of 2 Lebanese female-headed households is poor. Consequently, the MPI for Lebanese FHHs is 0.21 while it equals 0.10 for Lebanese MHHs.

4.2. Intersected Vulnerabilities Under the 4- dimension MPI

The main questions of this research revolve around the division of the deprivation status of different groups and an assessment of the vulnerability of Syrian refugee women in Lebanon to understand and address the disproportionate impact on women refugees. In addition to the findings of a poverty gap between refugees and host
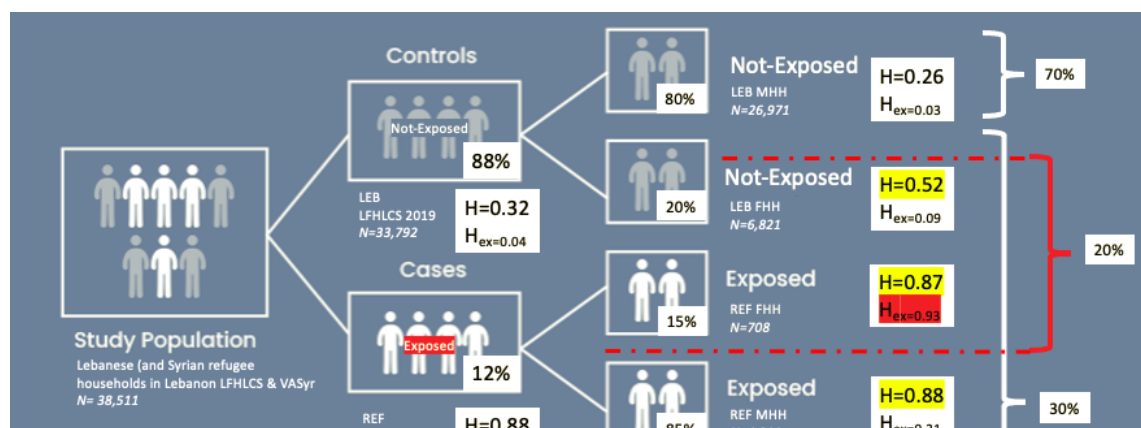

Figure 6. Headcount ratio results for cross-sectional analysis

community, the results also show that poverty gap between Lebanese MHHs and FHHs is large. As discussed in the previous section, this gap is consistent with the claim that the intersection of gender and social class render FHHs more vulnerable. Therefore, the intersection of class and gender may help to understand gender-unequal impacts.

According to Figure 5, 52 percent of Lebanese FHHs and around 88 percent of refugee HHs are above the deprivation threshold. The headcount ratio of Lebanese MHHs is less than any other group at 26 percent. On the other hand, even though 21 percent of refugee MHHs experience the same deteriorated conditions, 93 percent of refugee FHHs live in extreme poverty.

Table 5 below shows that Lebanese households are deprived of 3.58 out of 17 indicators, and the average total number of indicators of refugee households is 5.69. Deprivation scores for all components of the MPI differ for FHHs, except for the intensity of poverty.

Table 4. MPI results

	LFHLCS 2019 (N=33.792)			VASyr 2019 (N=4.719)		
	Leb. HHs	*MHHs*	*FHHs*	*Syr. HHs*	*MHHs*	*FHHs*
Average tot. number of indicators	3.58	3.41	4.25	5.69	5.66	5.85
Deprivation score *(D)* Headcount ratio *(H)*	0.25	0.23	0.32	0.45	0.45	0.45
Poor: Dep. score > 0.33	0.31	0.26	0.52	0.88	0.88	0.88
Extreme poor: Dep. score ≥ 0.50	0.04	0.03	0.09	0.31	0.21	0.93
Intensity of poverty *(A)*	0.42	0.42	0.42	0.47	0.47	0.47
MPI (*H x A*):						
AF 4-dimension MPI (k=0.33)	**0.13**	**0.10**	**0.21**	**0.41**	**0.41**	**0.41**
4-dimension MPI (k=0.50)	<0.02	<0.01	<0.01	0.14	0.09	0.43

4.3. Discussion of Findings

Is the impact of poverty the same in different social circumstances? If poverty affects FHHs in Lebanon more, what explains this disproportionate effect? On the other hand, even where the deprivation gap between female- and male-headed household is close (as observed between refugee MHHs and FHHs), is there evidence of vulnerabilities that are peculiar to refugee women-headed HHs in this context? A gendered approach may help us understand vulnerability and disproportionate impact on women as coming from migration and gender. Even though their scores on the MPI are close to each other, refugee female-headed households are disproportionally more deprived of primary health and education than male-headed households. On the other hand, the deprivation gap between female- and male-headed Lebanese households show itself mainly in financial indicators. The difference in MPI scores between Lebanese MHHs and Lebanese FHHs is 11 percentage points, and almost 20 percentage points fewer than refugee HHs. Thus, in addition to the overall gap, it was observed that Lebanese FHHs are poorer than Lebanese MHHs, and this gap also points to the fact that the vulnerability of FHHs who hold Lebanese citizenship might stem from gender differences between HHs.

It is also worth noting that the situation of refugee households in Lebanon is often very difficult and many of them live in poverty. However, the poverty gap between MHHs and FHHs may be narrower among refugees compared to the host population due to several reasons. As discussed above, in addition to the marginal positive effect of displacement on some aspects of the gender gap, such as finding a job, another possible reason behind the gap between Lebanese HHs might be that Lebanon is a traditional society with strong gender roles, which may result in women having less

access to economic opportunities and resources compared to men. Of course, this could lead to higher poverty rates among FHHs but it is possible for refugee households to have faced the same social norms and level of gender inequality in terms of access to economic opportunities. Refugee households also receive more assistance from international organizations, which can help to reduce the poverty gap, at least financially, while Lebanese FHHs might not have been supported enough by state and government policies or non-governmental organizations.

The social reproduction theory suggests that deprivation is perpetuated across generations through social, cultural, and economic factors that restrict the opportunities and resources available to certain groups of people. According to this theory, male- and female-headed households differ in their access to resources, such as income, education, and employment opportunities, which can lead to disparities in poverty and deprivation. For example, female-headed households are often headed by single mothers who face discrimination in the labor market, leading to lower-paying jobs and fewer opportunities for career advancement. This, in turn, results in lower levels of income and increased vulnerability to poverty and deprivation.

It is also important to highlight the impacts of gender roles, which can limit women's access to education, employment, and other resources, perpetuating poverty, and deprivation across generations. Overall, it provides a framework for understanding the persistent and systematic inequalities in poverty and deprivation between male- and female-headed households, highlighting the intergenerational effects of systemic and interconnected factors. However, in this sense, it might be more intuitive to follow a broader definition of social reproduction adopted by feminist literature. The feminist approach does not only accept the structure of class inequality but also argues that

women's unpaid domestic work can be seen as one of the family strategies against social class differences (Laslett and Brenner 1989, Munro 2019).

There is also ample evidence of hostility towards migrants, the fertility rates of minorities, and sometimes even the fertility rates of the poor in general. Thomas Malthus, for instance, suggests not supporting impoverished people to reproduce due to the lack of resources. His paradigm, stating that the population will eventually grow faster than the food supply, suggests that an exponential increase in human reproduction jeopardizes food sustainability. In *An Essay on the Principle of Population*, the Malthusian approach, mentioning that this situation results in famines or crises due to overpopulation, even went further *''by arguing that aid to the poor would encourage them to have more children than they would otherwise.''* (Malthus et al 1992).

Today, we are witnessing the rise of anti-refugee discourse, especially among far-right populist politicians, that might pave the way for xenophobia, and hostile attitudes toward immigrants (Pinillos-Franco and Kawachi 2022). Mainstream discourses against refugees legitimize their opposition by blaming refugees for economic grievances. However, Cathrine Brun, Deputy Director for Research at the Centre for Lebanese Studies, based on recent research supported by the World Refugee and Migration Council, puts forward that the arrival of Syrian refugees did not have an exacerbated impact on Lebanon's economy. It is asserted that the repatriation plan announced by Lebanese authorities was just only the culmination of years of negative pressure on Syrian refugees in Lebanon. They also blame the international community for not doing anything to change the poor treatment and dire economic state of Syrian refugees in Lebanon (Brun and Fakih 2022).

CONCLUSION

This thesis focusing on the post-forced-migration period of Syrian refugees in Lebanon has used the MPI to measure poverty and socio-economic vulnerabilities of communities. According to the results, the MPI is at least 20 percentage points higher for refugee HHs than for Lebanese HHs. Additionally, the results have shown that there is a non-negligible difference between Lebanese MHHs and FHHs. This supports that gender and class are explanatory entities in observing poverty disparities between households. Other than that, because of the intersection of these entities in terms of human rights, such as health and education, women are disproportionately more vulnerable to economic and political shocks.

The poverty gap among refugee heads of households is close each other. It can be said that refugee FHHs are not more deprived than refugee MHHs under AF's threshold value. However, vulnerability shows itself in money-metric measures and extreme poverty conditions. Also, the results present a snapshot before COVID-19 and the Beirut Port explosion. The explosion killed and injured many people, temporarily displaced countless families from their homes, and destroyed neighborhoods of the city. Hence, to be able to state that poverty intensified its current impact on Lebanese and refugee FHHs more, further research will help to understand the current situation by using recent data. In this sense, the presence of a detailed survey with more inclusive questions is crucial.

Both Lebanese and refugee FHHs suffer mostly in the health and education dimensions. It can be said that FHHs are often more vulnerable to poverty differences because they may face several structural and societal barriers that make it more difficult for them to access economic opportunities and resources. These barriers can include

gender discrimination in the workforce, limited access to education and job training, and the disproportionate burden of unpaid care work that falls on women. In addition, they are often the primary caregivers for children and may have additional responsibilities for managing household finances and seeking out resources. Multidimensional poverty may disproportionately impact refugee FHHs on access to healthcare and education while the vulnerability of Lebanese FHHs is worse in financial security. All these factors can contribute to a greater risk of poverty and financial insecurity for FHHs.

To diminish the adverse impact of the crisis on households, particularly on FHHs, it is imperative that the dangerous claim that refugees are an economic burden to host countries be debunked, and that access to public health and education for all is preserved as a human right. However, based on the outcomes obtained from two different groups with different social statuses, Lebanese and refugee FHHs, overall, MPI reveals that both are more vulnerable than Lebanese MHHs. This analysis shows that the deprivation gap between Lebanese HHs is also worth highlighting and it puts forward that poverty is not only related to social/legal status and economic resources HHs have but also related to gender inequality. Consequently, concerns about the inadequacy of humanitarian and social aid are not only necessary for refugees, but also for Lebanese FHHs.

APPENDIX

Table A 1 Deprivation scores for Lebanese and Syrian HHs in 2019 in Lebanon

Indicators	LFHLCS 2019 (N=33.792)			VASyr 2019 (N=4.719)		
	Leb. HHs	*Male HHs (N=26.971)*	*Female HHs (N=6.821)*	*Syr. HHs*	*Male HHs (N= 4.011)*	*Female HHs (N= 708)*
I_1	<0.01	<0.01	<0.01	0.28	0.28	0.29
	(0.03)	(0.03)	(0.04)	(0.45)	(0.45)	(0.45)
I_2	0.28	0.32	0.11	**0.33**	**0.33**	**0.33**
	(0.44)	(0.46)	(0.32)	**(0.46)**	**(0.46)**	**(0.47)**
I_3	<0.01	<0.01	<0.01	0.32	0.31	**0.33**
	(0.04)	(0.04)	(0.06)	(0.46)	(0.46)	(0.47)
I_4	0.17	0.18	0.12	0.12	0.11	0.14
	(0.37)	(0.38)	(0.33)	(0.32)	(0.32)	(0.35)
I_5	**0.77**	**0.76**	**0.79**	0.03	0.03	0.03
	(0.42)	(0.42)	(0.40)	(0.18)	(0.18)	(0.18)
I_6	0.04	0.04	0.03	0.21	0.21	0.22
	(0.20)	(0.21)	(0.17)	(0.41)	(0.40)	(0.41)
I_7	0.01	<0.01	<0.01	0.04	0.04	0.06
	(0.10)	(0.06)	(0.06)	(0.21)	(0.21)	(0.24)
I_8	0.13	0.12	0.16	0.17	0.17	0.20
	(0.33)	(0.32)	(0.37)	(0.38)	(0.37)	(0.40)
I_9	<0.01	<0.01	<0.01	0.04	0.04	0.04
	(0.04)	(0.05)	(0.04)	(0.20)	(0.20)	(0.21)
I_{10}	0.16	0.16	0.17	**0.41**	**0.40**	**0.43**
	(0.37)	(0.36)	(0.38)	(0.49)	(0.49)	(0.49)
I_{11}	**0.52**	**0.51**	**0.59**	**0.99**	**0.99**	**0.99**
	(0.49)	(0.49)	(0.49)	(0.07)	(0.07)	(0.06)
I_{12}	0.03	0.03	0.02	0.05	0.04	0.05
	(0.17)	(0.17)	(0.16)	(0.21)	(0.21)	(0.23)
I_{13}	**0.64**	**0.62**	**0.72**	**0.94**	**0.94**	**0.95**
	(0.47)	(0.48)	(0.44)	(0.22)	(0.22)	(0.20)
I_{14}	<0.01	<0.01	<0.01	0.29	0.29	0.31
	(0.07)	(0.07)	(0.04)	(0.45)	(0.45)	(0.46)
I_{15}	**0.39**	0.32	**0.65**	**0.69**	**0.69**	**0.68**
	(0.48)	(0.47)	(0.47)	(0.46)	(0.46)	(0.46)
I_{16}	0.14	0.11	0.25	0.06	0.05	0.12
	(0.34)	(0.31)	(0.43)	(0.24)	(0.22)	(0.33)
I_{17}	0.26	0.19	**0.57**	**0.66**	**0.67**	**0.61**
	(0.44)	(0.39)	(0.49)	(0.47)	(0.46)	(0.48)

Standard deviations in parentheses.
Source: 2019 Vulnerability Assessment of Syrian Refugees (VASyR), Labour Force and Household Living Conditions Survey (LFHLCS) in Lebanon 2018–2019
* The bold values display an indicator deprived by a household according to the threshold value (k=0.33) calculated by Alkire, S., & Foster, J. (2011).

Table A 2 Age, relationship with hoh, and marital status

AGE (LFHLCS)	Gender		
N= 121,468	Male (0)	Female (1)	TOTAL
(1) 0-4 years old	3,970	3,666	7,636
(2) 5-9	4,677	4,277	8,954
(3) 10-14	4,760	4,488	9,248
(4) 15-19	5,186	4,953	10,139
(5) 20-24	5,385	4,819	10,204
(6) 25-29	4,383	4,079	8,462
(7) 30-34	3,322	3,715	7,037
(8) 35-39	3,177	3,823	7,030
(9) 40-44	3,074	3,823	6,897
(10) 45-49	3,514	4,179	7,693
(11) 50-54	3,855	4,707	8,562
(12) 55-59	3,448	4,027	7,475
(13) 60+	10,335	11,776	22,131
TOTAL	59,106	62,362	

AGE (VASyr)	Gender		
N= 23,067	Male (0)	Female (1)	TOTAL
(1) 0-4 years old	2,171	2,078	4,249
(2) 5-9	2,145	1,971	4,116
(3) 10-14	1,595	1,452	3,047
(4) 15-19	1,109	1,009	2,118
(5) 20-24	776	967	1,743
(6) 25-29	596	884	1,480
(7) 30-34	1,061	958	2,019
(8) 35-39	885	636	1,521
(9) 40-44	511	468	979
(10) 45-49	314	278	592
(11) 50-54	225	183	408
(12) 55-59	140	138	278
(13) 60+	211	306	517
TOTAL	11,739	11,328	23,067

Relationship with hoh (LFHLCS)	Gender		
N= 121,468	Male (0)	Female (1)	TOTAL
(1) Head of household (hoh)	22	5	27
(2) Spouse	0	20	20
(3) Son/daughter (even if adopted)	24	21	45
(4) Parent	0	1	1
(5) Siblings	0	1	1
(6) Extended family	1	2	3
(7) No kinship	0	0	0
(8) Other	0	0	0
TOTAL	49	51	100

Relationship with hoh (VASyr)	Gender		
N= 23,798	Male (0)	Female (1)	TOTAL
(1) Head of household (hoh)	16	2	18
(2) Spouse	0	15	15

(3) Son/daughter (even if adopted)	30	27	57
(4) Parent	0	1	1
(5) Siblings	1	1	2
(6) Extended family	0	1	1
(7) No kinship	0	0	0
(8) Other	0	1	1
TOTAL	51	49	100

Marital status	Gender of the HH		
N= 38,492	Male (0)	Female (1)	TOTAL
(1) Never married	4	3	7
(2) Married	73	2	75
(3) Widowed	3	12	15
(4) Divorced/separated	1	2	3
TOTAL	81	19	100

Marital status (LFHLCS)	Gender of the HH		
N= 33,792	Male (0)	Female (1)	TOTAL
(1) Never married	3.6	3.3	7
(2) Married	71	2	73
(3) Widowed	3.1	14	16
(4) Divorced/separated	1.3	1.7	3
TOTAL	79	21	100

Marital status (VASyr 2019)	Gender of the HH		
N= 4,700	Male (0)	Female (1)	TOTAL
(1) Never married	5	1	6
(2) Married	79	6	85
(3) Widowed	0.4	4	4.4
(4) Divorced/separated	0.6	4	4.6
TOTAL	85	15	100

Table A 3 Age and marital status (total)

age	1	2	3	4	Total
1	7,636	0	0	0	7,636
2	12,723	0	0	0	12,723
3	12,287	8	0	0	12,295
4	11,779	459	2	17	12,257
5	9,794	2,069	4	77	11,944
6	5,882	3,883	16	155	9,936
7	2,910	5,886	32	227	9,055
8	1,715	6,503	63	269	8,550
9	1,221	6,276	105	273	7,875
10	1,118	6,702	194	269	8,283
11	1,205	7,089	380	294	8,968
12	877	6,044	600	232	7,753
13	1,580	14,695	6,016	354	22,645
Total	70,727	59,614	7,412	2,167	139,920

age	marital 1	2	3	4	Total
1	7,636	0	0	0	7,636
2	8,954	0	0	0	8,954
3	9,247	1	0	0	9,248
4	9,959	170	2	8	10,139
5	9,066	1,085	4	49	10,204
6	5,670	2,650	11	131	8,462
7	2,817	3,994	28	198	7,037
8	1,674	5,064	45	247	7,030
9	1,190	5,369	84	254	6,897
10	1,098	6,170	165	260	7,693
11	1,201	6,734	347	280	8,562
12	877	5,815	557	226	7,475
13	1,577	14,389	5,815	350	22,131
Total	60,966	51,441	7,058	2,003	121,468

Table A 5 Age and marital status (by source)

age	marital 1	2	3	4	Total
2	3,769	0	0	0	3,769
3	3,040	7	0	0	3,047
4	1,820	289	0	9	2,118
5	728	984	0	28	1,740
6	212	1,233	5	24	1,474
7	93	1,892	4	29	2,018
8	41	1,439	18	22	1,520
9	31	907	21	19	978
10	20	532	29	9	590
11	4	355	33	14	406
12	0	229	43	6	278
13	3	306	201	4	514
Total	9,761	8,173	354	164	18,452

marital	gender 0	1	Total
1	32,041	28,925	60,966
2	25,319	26,122	51,441
3	1,051	6,007	7,058
4	695	1,308	2,003
Total	59,106	62,362	121,468

marital	gender 0	1	Total
1	5,471	4,511	9,982
2	4,132	4,296	8,428
3	23	399	422
4	23	287	310
Total	9,649	9,493	19,142

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