MINIMUM EXPENDITURE BASKET FOR SYRIAN REFUGEES IN LEBANON

RIGHTS-BASED VERSUS EXPENDITURE-BASED APPROACHES

WFP
World Food Programme

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EXECUTIVE SUMMARY

The main purpose of this study is to review if the currently used Minimum Expenditure Basket (MEB) and Survival MEB for Syrian refugees in Lebanon are valid to inform program decisions. The currently used MEB and SMEB were constructed in 2014 for a household of five, using a rights-based, normative, approach, without considering actual consumption behaviour or needs of different sized households. For this reason, and because Syrian refugees' needs might have changed since they arrived in Lebanon, the (S)MEB might not correctly reflect household needs.

For this purpose, the study intends to: (1) Assess how well the current (S)MEB values and composition align with expenditure patterns of households, by constructing and comparing an expenditure-based (S)MEB using 2017 and 2018

Vulnerability Assessment of Syrian Refugees in Lebanon (VASyR) data (2) Assess the need to take into account economies of scale (i.e. the different per capita needs of households of different sizes) when estimating an MEB, and explore possible effects of the introduction of combined per capita food assistance and per household multi-purpose cash (MPC) assistance.

First, expenditure-based MEB and SMEB are calculated based on 2017 and 2018 VASyR data. These baskets are compared to the currently used rights-based (S)MEB. For the expenditure-based MEB, expenditure behaviour of Syrian refugees 'just able to meet their essential needs' is taken into account, while for the SMEB expenditures of households that are worse off are analysed. The currently used MEB and SMEB are based on 2014 prices.

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The total value of the currently used (S)MEB prove to be aligned, with the MEB being around 11 USD higher than expenditure data from 2017/2018 suggest. Major differences are found in the shares spent on certain items. Households do spend a higher share on food, shelter and health than allowed for in the currently used MEB, and less on non-food items, education and transport. For the SMEB, the largest difference is for debt repayment and non-food items, which are much higher in the currently used SMEB than what expenditure data shows. Health and education, both not included in the currently used SMEB, prove to be essential expenditures also for poor households.

Second, the effect of economies of scale is assessed. As expected, results show that household needs do not grow proportionally with household size. Therefore, analysing household essential needs on a per capita basis leads to biases, as large households will be assessed as poor by construction. If assistance is provided on per capita basis, smaller households might not be able to cover their needs based on this assistance. Analysing the effect of the introduction of combined per capita/ per household assistance in 2018 (food assistance plus MPC assistance) on expenditures of households with different sizes shows that this modality aligned transfers better with the needs of small households. Combined per capita/ per household assistance therefore proves to be an effective and practical way of taking into account economies of scale for assistance to Syrian refugees in Lebanon.

While the 2014 (S)MEB is aligned with 2017/2018 data, the current volatile price situation makes it necessary to closely monitor price changes and adjust the currently used MEB accordingly. Due to the differences in composition of the rights-based and expenditure-based (S)MEB, a simple update of values with price data will lead to even larger bias and will not reflect consumption behaviour. It is therefore recommended to revise the MEB and SMEB based on available expenditure and current price data, if increasing inflation makes an adjustment of the baskets necessary. A revision of the composition of the SMEB would also be required in order to inform any sector-specific intervention.

ACRONYMS AND ABBREVIATIONS

CaLP	Cash Learning Partnership
FCS	Food Consumption Score
LCC	Lebanon Cash Consortium
MEB	Minimum Expenditure Basket
MPC	Multi-Purpose Cash
NFI	Non-Food Item
OECD	Organization for Economic Cooperation and Development
PMT	Proxy Means Testing
SMEB	Survival Minimum Expenditure Basket
UNHCR	United Nations High Commissioner for Refugees
USD	United States Dollar
VAM	Vulnerability Analysis and Mapping
VASyR	Vulnerability Assessment of Syrian Refugees in Lebanon
WFP	World Food Programme

1. BACKGROUND ON ASSISTANCE TO SYRIAN REFUGEES IN LEBANON

Eight years into the Syrian refugee crisis and faced with major economic and social challenges, socioeconomic conditions have not improved in Lebanon which is hosting the highest refugee per capita in the world, with over one fourth of the population (1-for-3 refugee to Syrian population). Both refugees and local populations continue to feel the negative impacts of the protracted civil war in Syria and one in every three Syrian refugee household is moderately or severely food insecure.[1]

Since the beginning of the crisis in 2012, the humanitarian assistance to address the needs of the most vulnerable people evolved from in-kind intervention to one of the largest WFP cash-based transfer operations in the world. In 2019, every month approximately 700,000 Syrian refugees benefit from one of three different modalities of food assistance:

1. **Food e-cards:** Through food e-cards, beneficiaries receive USD 27 per person each month and can utilize their assistance to purchase food items from any of the approximately 450 WFP-contracted shops located across Lebanon.

2. **Cash for food e-cards:** Beneficiaries of cash for food e-cards receive USD 27 per person[2] each month and can utilize their assistance to either purchase food items from any of the WFP-contracted shops located across Lebanon, or to withdraw cash from any ATM, or a combination of both.

3. **Multi-purpose cash for essential needs e-cards:** Beneficiaries receiving multi-purpose cash for essential needs e-cards receive USD 27 per person each month to contribute towards their food needs, as well as USD 175 per household[3] for additional food and other essential needs. This assistance is redeemable at any ATM throughout the country.

The USD 175 per household is reported under the basic assistance working group.

With the progression and changes to the assistance activities, the targeting approaches have also evolved. Over the past eight years, the targeting approach has shifted from a blanket assistance for food and non-food items (NFIs) to a Proxy Means Testing (PMT) approach. Since 2014, the UNHCR and WFP started to apply a proxy-means testing approach to target the most vulnerable. Between 2014 and 2015, this approach was based on household data. Starting from 2016, the PMT was informed by the Vulnerability Assessment of Syrian Refugees in Lebanon (VASyR)[4] and applied to the entire registration dataset. More specifically, the UNHCR and WFP have used this approach to determine the predictors of per capita consumption from a nationally representative household expenditure survey, which was then extrapolated to the population using refugee households' demographic information collected upon registration with all humanitarian agencies. The model and household scores were updated annually, and the newly generated scores were then used to determine assistance receipt for the following year.

Since 2018, transfers are distributed based on the system described in the graph below. The most vulnerable households receive Multi-Purpose Cash e-cards consisting of a monthly value of USD 27 for food per capita and USD 175 per household for non-food essential needs, provided either by WFP or by WFP and UNHCR. This transfer value is supposed to reach the 400,000 most vulnerable people. Another 295,000 severely vulnerable households receive a transfer value of USD 27 per capita. Before 2018, WFP provided e-card food assistance of USD 27 per capita and month only.

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1   UNHCR, WFP and UNICEF, 2018: Vulnerability Assessment of Syrian Refugees in Lebanon - VASyR 2018.

2   The value of the vouchers was calculated to meet the basic nutritional requirements of refugees, based on the results of long-term monitoring of prices in the country.

3   This value was calculated as follows: SMEB (USD 435) minus midpoint of Severely Vulnerable income- using expenditure as a proxy (USD 110) minus average food assistance package provided by WFP (USD 150). https://data2.unhcr.org/en/documents/download/42565.

4   The Vulnerability Assessment of Syrian Refugees in Lebanon (VASyR) is an annual household survey that has been carried out since 2013 by UNHCR, WFP, and UNICEF. The VASyR is the main tool to provide a multi-sectorial overview of the vulnerability situation of these refugees and covers a representative sample of around 4500 households.

1,500,000
SYRIAN REFUGEES IN LEBANON

LEAST VULNERABLE

MEB*

SMEB**

MOST SEVERELY VULNERABLE

Who is covered by assistance?
(food & other essential needs)

A NOT REACHED

B FOOD
$27 / person

C FOOD & OTHER ESSENTIAL NEEDS

$27 / person
$175 / household
for other essential needs

765,000
BELOW SMEB & ELEGIBLE FOR ASSISTANCE

654,000
REACHED

A **111,000** refugees below the SMEB are currently ***not being reached*** with either food assistance ($27/person) or a $175/-household top-up for other essential needs. WFP is able to scale-up support for food or food and other essential needs based upon availability of resources.

B **295,000** refugees are ***receiving food assistance*** ($27/person). WFP offers two modalities of food assistance: food e-cards (redeemable at any of WFP's 450 contracted shops located across the country) and cash for food e-cards (redeemable at either WFP contracted shops or any ATM in Lebanon).

C **359,000** of the most severely vulnerable refugees are ***receiving both food assistance ($27/person) as well as a $175/household top-up*** for other essential needs. 139,000 refugees receive $27/person and a $175/household top-up from WFP (redeemable at any ATM) and 220,000 refugees receive cash for food from WFP and a $175/household top-up for other essential needs from UNHCR (redeemable at any ATM in Lebanon).

*Minimum Expenditure Basket (MEB) <USD 3.8 / capita / day . <USD 114 / capita / month
**Survival Minimum Expenditure Basket (SMEB) <USD 2.9 / capita / day . <USD 87 / capita / month
The MEB* is an indicator of the cost of the food and non-food items needed by a Syrian refugee household to meet its basic needs. The SMEB** indicates the minimum expenditure needed to survive.

May 2019

2. OVERVIEW OF THE MEB AND SMEB IN LEBANON

Box 1: Minimum Expenditure Baskets (MEB), Survival MEBs and their construction

A MEB is defined as what a household requires in order to meet their essential needs and its average cost. While the MEB describes the costs of all essential needs, the Survival MEB is the absolute minimum amount required to maintain existence and cover lifesaving needs.

The WFP **guidance on MEBs**[5] outlines different approaches on how to construct a MEB or SMEB.

First, using a **rights-based approach**, an MEB/SMEB can be constructed by defining a list of essential needs, based on full rights as set out by international humanitarian law and the Humanitarian Sphere Standards. Constructing a MEB following the rights-based approach based on assessed needs is often done by the Inter-Agency Cash Working Group, and each sector contributes with their sectorial needs.

Second, the **expenditure-based approach** to constructing a MEB relies on detailed household-level expenditure data to examine the expenditures and consumption behaviour of households that are 'just able to meet their essential needs'. This approach is often used in constructing national poverty lines, for example in Lebanon.

Both approaches bring **advantages and disadvantages.** The expenditure approach, on the one hand, poses high requirements in terms of data availability and might not necessarily reflect needs from a normative rights-based perspective. The rights-based approach, on the other hand, might lead to a MEB not reflecting actual demand and consumption behaviour of households, which limits the appropriateness of the MEB for programmatic decisions such as transfer value calculation and targeting. Where possible, existing rights-based MEBs should therefore be reviewed to ensure their alignment with expenditure behaviour of households, to validate their appropriateness as a basis for programmatic decisions. In some cases, it might be also advisable to **combine components of both approaches towards a hybrid approach.**

To understand the needs of the Syrian refugee population, the Cash Working Group, composed of 17 agencies, developed in 2014 a Minimum Expenditure Basket (MEB). This MEB includes the food and non-food items (NFIs) required by a household of 5 members to meet its basic needs for the duration of one month, and the average cost of these items.

Additionally, a Survival Minimum Expenditure Basket (SMEB) was also "developed to demonstrate the amount needed to meet minimum survival needs under limited resources".[6] Both baskets were transferred to a monthly per capita value.

This MEB and SMEB were established using a **rights-based approach.**[7] The Cash Working Group established minimum needs per sector, either by normative amounts set by the sectors, or average expenditures based on Post-Distribution Monitoring data. Where possible, the amounts were priced with recent (2014) market price data.

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5   WFP, July 2018: Minimum Expenditure Baskets, Interim Guidance Note.

6   "The SMEB contained almost identical food items to the MEB, and in line with nutrition best practice/ sphere standards, supplied the daily requirement of 2100 Kcal/day. However, not all nutrients were included. NFIs, clothes, communication, and transportation costs remained in the basket at the same price and quantity as the MEB. However, rent was calculated based on the average monthly rent of informal tent settlements (ITS) and water was calculated on 15L/day for one person (instead of 35L/day/person). Since the SMEB represents the needs under limited resources, debt repayment was added as another element and an average was calculated based on field visits. In total, the SMEB is calculated at USD435 for a household size of five, USD87 per capita." Source: Lebanon Cash Consortium (LCC), July 2016: MEB and SMEB Revision: Community Consultation.

7   Lebanon Cash Consortium (LCC), July 2016: MEB and SMEB Revision: Community Consultation. https://data2.unhcr.org/en/documents/download/42565

The sectors included in the MEB (food, NFIs – consisting of hygiene products, clothes, communication, rent, water, transportation, health, education) were complemented by registration costs, which had to be paid for a visa in 2014. For winterization, petrol was added. The SMEB was calculated based on the MEB, including only survival basic items needed (reduced food basket, NFIs/ hygiene products, clothes, communication, reduced rent costs, reduced water costs, transportation, debt repayment, whereas health and education were excluded). The costs of debt repayment (included only in the SMEB) were based on PDM data. Table 1 shows the values included in the 2014 MEB and SMEB, at the 2014 prices. These amounts are still used, without adjustment for inflation.

In 2016, the Cash Working Group proposed a revised MEB and SMEB, developed through a consultative and cross-sector process, based on a similar approach and current prices. The result suggested an increase in value of 21 percent (for MEB) and 34 percent (for SMEB). The revised version however was not adopted by the stakeholders, as it seemed too high in comparison also to national poverty lines and minimum wages relevant for the Lebanese population. All operational decisions are therefore still based on the 2014 MEB, called "current MEB" in this publication.

The MEB and SMEB have been widely used to inform operations: Targeting for Syrian refugees in Lebanon is done based on PMT.[8] Thresholds used to define poverty (and therefore eligibility) are based on the 2014 defined MEB and SMEB. Based on PMT, households can be ranked according to their vulnerability level.

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8   PMT uses multivariate regression to estimate expenditure levels based on certain proxy variables (for example demographic characteristics, assets, and human capital).

3. OBJECTIVE OF THE STUDY

The MEB that is currently used to inform transfer values decisions in Lebanon was constructed in 2014 through an inter-agency process using a rights-based approach. This means that the MEB might look quite different from actual household expenditure patterns as of 2019. This is problematic as the MEB serves as a reference to guide program design and monitor outcomes, such as in a Multi-Purpose Cash (MPC) scenario. If the MEB is not in line with effective demand, it is not suited to guide operational decisions – in this case efforts towards changing it might be necessary.

The main purpose of this study is to review if the currently used MEB SMEB for Syrian refugees in Lebanon are valid to inform program decisions. The currently used MEB and SMEB were constructed in 2014 for a household of five, using a rights-based, normative, approach (on different approaches see Box 1), without considering actual consumption behaviour or needs of different sized households. For this reason, and because Syrian refugees' needs might have changed since they arrived in Lebanon, the (S)MEB might not correctly reflect household needs. For this purpose, the study intends to:

1. Assess how well the current (S)MEB values and composition align with expenditure patterns of households, by constructing and comparing an expenditure-based (S)MEB using 2017 and 2018 Vulnerability Assessment of Syrian Refugees in Lebanon (VASyR) data.

2. Assess the need to take into account economies of scale (i.e. the different per capita needs of households of different sizes) when estimating an MEB and explore possible effects of the introduction of combined per capita food assistance and per household multi-purpose cash (MPC) assistance.

4. METHODOLOGY

4.1. Expenditure-based MEB

The current MEB and SMEB from 2014 were established using a rights-based approach. With the VASyR data available from 2017 and 2018, we can compare this rights-based MEB and SMEB to a version established through an expenditure-based approach, and therefore based on actual consumption behaviour.

Although the SMEB in Lebanon is programmatically more important than the MEB, the starting point of the analysis is the MEB, as the SMEB is derived from the MEB.

Establishing a MEB based on household expenditure data requires calculating the minimum cost of living for those households, which are "just able to meet their essential needs", as expenditures of poorer or richer households might not reflect the costs of essential needs. To find this threshold, we therefore exclude those households that cannot meet their essential needs and those who are well above the poverty line and would bias the MEB upwards.

We use several criteria to establish this non-poor cohort of interest. This is needed to make sure that a correct threshold is reached, particularly in the presence of assistance, which might bias results. In particular, we use the following criteria:

1. Excluding bottom and top expenditure quintile groups;

2. Excluding households below 4 and above 6 members;

3. Including only households with acceptable Food Consumption Score (FCS) (thus excluding households with an FCS below 42), or alternatively adequate housing.[9]

The criterion on adequate food consumption is likely to be highly affected by assistance, which is the reason for checking results against adequate housing as an alternative criterion. To make the current and the expenditure-based MEBs comparable, we additionally exclude a few expenditure categories regarded as not necessary (expenditure on entertainment, tobacco and alcohol as well as registration costs).[10]

Economies of scale, that means the different per capita needs of households of different sizes, can have a strong influence on the MEB. For the current MEB, needs were based on a household of average size, which is a household of five. To create a comparable expenditure-based MEB while maintaining a proper sample size, we use expenditure data only of households of 4 to 6 members. Table 1 compares the current MEB and SMEB with expenditure-based alternatives for 2017 and 2018.

4.2. Expenditure-based SMEB

The SMEB is a reduced version of the MEB and should in theory be reduced to the needs that are sufficient to survive. In comparison to the MEB, there is currently no unified methodologies on how to construct, develop and use a SMEB among different contexts.

To construct the SMEB, we apply an expenditure-based methodology – combined with hybrid elements to adjust it to the Lebanese context – that is based on the WFP guidelines on MEBs/SMEBs.[11] Table 2 provides the results of the different SMEBs constructed to show how the 2014 SMEB aligns with actual expenditure patterns.

The expenditure-based MEB was constructed by identifying the essential food needs and non-food needs of a population that is defined as non-poor. To obtain the SMEB, we identify those households that have a total (food plus non-food) expenditure close to what was defined as essential food needs

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9   Adequate housing is defined as living in a residential building, as opposed to non-residential or non-permanent accommodation (see box 2).

10 Registration costs (cost of registering an official visa) were included in the 2014 MEB.

11 WFP, July 2018: Minimum Expenditure Baskets, Interim Guidance Note. The recommended methodology is strongly linked to the literature on poverty lines.

in the expenditure-based MEB. Experience from different countries shows that even households whose expenditures amount to what is necessary to cover essential food needs will spend something on non-food items, for example by selling part of their food rations.

Assuming that, whatever they spend on non-food (and therefore not on necessary food) is regarded essential for survival, we define the mean non-food expenditure of those households who have a total expenditure at the level of essential food-needs (the food part of the MEB) as survival non-food needs. The SMEB is then calculated by adding the survival non-food needs to the food part of the expenditure-based MEB. This SMEB allows households to fulfill their essential food needs and the survival non-food consumption (SMEB1).

To adjust this approach to the context of Lebanon, we calculate different variants of the SMEB. We adjust the first part of the needs that are regarded as necessary for survival to include different levels of shelter costs, since they constitute a similar large share of expenditures in the MEB as food due to the need of renting (see Box 2 on shelter in Lebanon). Survival non-food expenditures are derived for SMEB 2 as survival needs from non-food expenditures, excluding shelter.

Shelter costs defined in the MEB are supposed to be enough for accommodation in a residential building. As for survival accommodation, informal accommodation can be regarded as sufficient. We thus adjust the value of shelter costs to the renting cost of a tent, taken from the 2014 SMEB, therefore taking a hybrid approach to the SMEB (SMEB 3).

4.3. Economies of scale

The WFP MEB guidance describes two different methods of adjusting the analysis of needs to economies of scale: First, calculating the needs (based on MEB methodology) separately for each household size. This approach assumes that per capita needs are different for each household size, and it uses an expenditure-based approach to estimate those needs. Second, using equivalence scales to calculate needs. A typical equivalence scale measures the number of adults (sometimes adult males) in a household. For example, a child under 15 is counted as a fraction of an adult (e.g. 0.5). For both approaches, reliability depends on the sample size of each household size group, as well as on the ability to identify non-poor household properly.

SMEB 1 =	**Essential food expenditures**	**+ survival non-food expenditures**
	Fixed part, defined as essential and taken from expenditure-based MEB	Part derived as survival needs from expenditure

SMEB 2 =	**Essential food + shelter expenditures**	**+ survival non-food expenditures**
	Fixed part, defined as essential and taken from MEB	Part derived for this SMEB as survival needs from expenditures, excluding shelter

SMEB 3 =	**Essential food + tent expenditures**	**+ survival non-food expenditures**
	Fixed part, defined as essential and taken from MEB	Part derived for this SMEB as survival needs from expenditures, excluding shelter

5. RESULTS

The following section presents the main findings of this desk study and is divided into three parts: Comparing the current rights-based versus an expenditure-based MEB, comparing rights-based and expenditure-based SMEB, and adjusting for economies of scale.

5.1. The current rights-based versus an expenditure-based MEB

Table 1 shows that the current MEB exceeds the expenditure-based MEB about around 11 USD (11%). Food and health expenditures are the only components that are underestimated in the current MEB, while all other components are overestimated when compared to the expenditures reported by households.

As robustness test, the table also presents different versions of the expenditure-based MEB, with different criteria applied, and using expenditure data from different years. To make sure assistance itself is not biasing the results, we used adequate housing as an additional robustness test to adequate FCS to define the non-poor cohort of interest. Results show the robustness of the methodology, as the values of the MEBs differ only by around 1.5 USD.

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Table 1. *Comparison between current MEB and different versions of expenditure-based MEBs,
USD per capita, per month*

Year	2014	2018	2018	2017	2017
Variable	Current MEB	Expenditure-based MEB	Expenditure-based MEB	Expenditure-based MEB	Expenditure-based MEB
Definition	rights-based	hhsize 4-6, quintile 2-4, acceptable housing	hhsize 4-6, quintile 2-4, acceptable housing	hhsize 4-6, quintile 2-4, acceptable FCS	hhsize 4-6, quintile 2-4, acceptable housing
Food	37.0	43.7	39.3	44.5	40.6
Shelter	38.7	31.4	38.5	31.3	37.9
Utilities (water, gas, fuel, electricity)*	9.9	8.3	8.7	8.7	8.7
NFIs**	11.1	4.0	3.6	3.8	3.3
Health	2.0	9.3	7.6	7.8	6.9
Education	6.0	2.0	1.9	1.2	1.1
Transport	5.4	1.6	1.4	1.9	1.6
Communications	4.6	2.9	2.7	3.0	2.9
Other expenditures		1.9	1.4	1.6	1.2
Total (USD)	**114.7**	**103.3**	**103.6**	**102.2**	**102.9**
Sample size		n = 923	n = 925	n=1018	n=1083

*Notes: 2014 MEB is calculated at the 2014 prices, not taking into account any inflation.[11]
Expenditure-based MEBs are estimated based on the 2017/ 2018 VASyR data.*
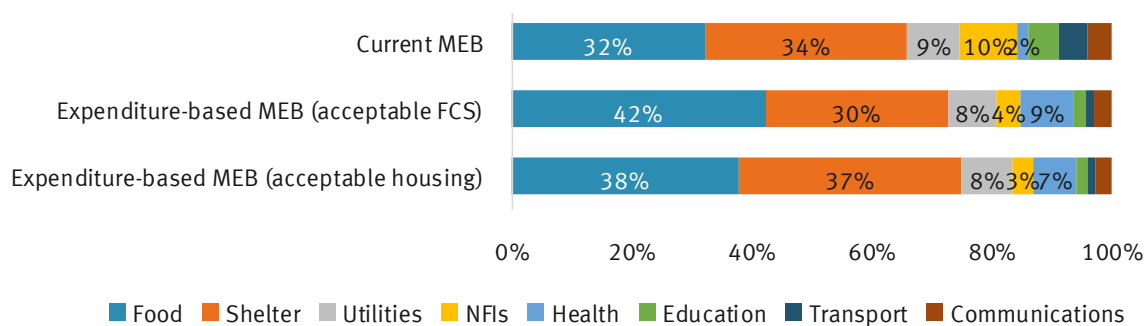
*Only cooking gas and water in the current MEB.

***NFIs include hygiene articles for the current MEB/SMEB. For exp-based MEBs also clothing and assets are included,
but this does not change the results.*

Regarding the composition,[12] the current MEB underestimates the shares spent on the main categories of food and shelter as well as on health, and overestimates the shares devoted to NFIs, education and transport, compared to household expenditures (Figure 1). Comparing the two different approaches for expenditure-based MEBs, based on acceptable FCS versus acceptable housing, to

ensure robustness, we find the expenditure share used for the sum of food and shelter to be almost equal. The internal shares are different with, as expected, a higher expenditure share used for food by households with an acceptable FCS and a higher expenditure share used for housing by those with acceptable housing conditions. The expenditures in other categories are similar between both expenditure-based MEB approaches.

The provision of assistance has an effect on the composition of expenditures. Figure 2 echoes the findings of Figure 1 and shows that the shares used for food and shelter together are almost equal for assisted versus non-assisted, but that internal shares are different. The cohort of interest of non-assisted households spends slightly less on food, but more on housing.

12 The current MEB from 2014, which we compare the expenditure based MEBs to, is not adjusted for inflation, neither in this analysis, nor for operational purposes. CPI data comparing 2014 and 2017 show that price levels dropped after 2014, and until 2017 increased to levels very similar to 2014. For 2018, a 4 percent increase can be observed. Given these small changes between 2014 and 2017/2018, not adjusting the 2014 MEB seems to be appropriate in this specific context. Inflation however should be monitored over the next years to make sure that changes are made when they become necessary.

Note: The expenditure-based MEBs are based on 2018 data, exclude bottom and top quantile, and use household size 4-6.

Figure 1. *Composition of expenditures in actual and expenditure based MEBs*
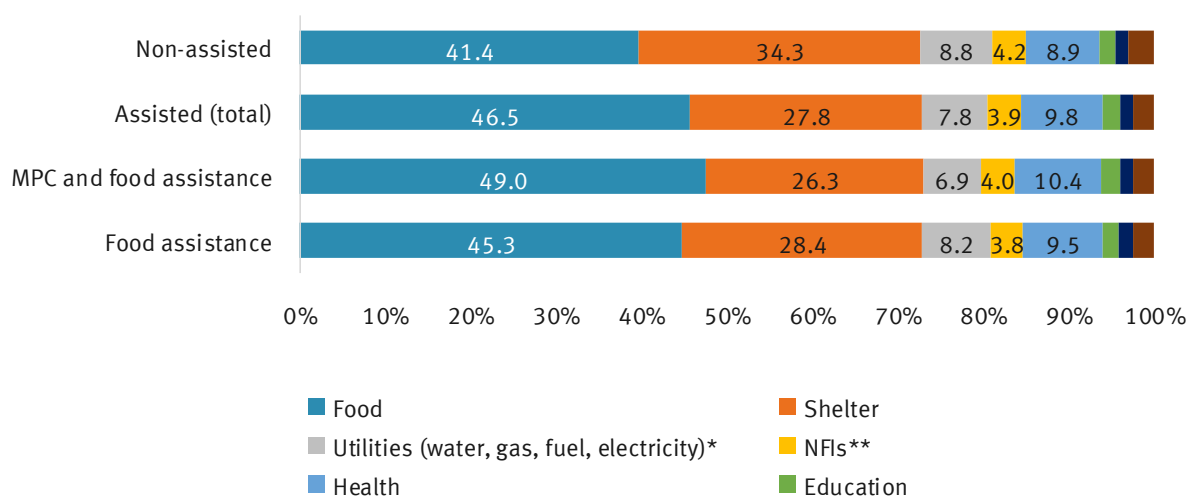
Note: Household size 4-6, excluding bottom and top quintile. Observed mean values between the groups are very similar. Differences between the groups can therefore also be found using mean expenditures instead of percentages.

Figure 2. *Composition of expenditures for assisted versus non-assisted household*

Box 2: Shelter for Refugees in Lebanon

In Lebanon, in line with the Government's policy, no formal refugee camps were established. Syrian refugees therefore live in villages, cities or informal tent settlements in all parts of the country. In 2018, around 66% of refugees lived in residential buildings, which are often of poor conditions. 15% of households lived in non-residential structures, such as warehouses, construction sites or factories. 19% of households lived in non-permanent structures, mainly informal tent settlements. 81% of households rented their accommodation, and rent costs were the major factor behind the choice of current accommodation by 70% of households. This shows the importance of rent expenditures as part of essential needs for Syrian Refugees in Lebanon.
(Source: VASyr 2018)

5.2. The current rights-based versus an expenditure-based Survival MEB

The SMEB is a reduced version of the MEB that is sufficient to survive. For Syrian refugees in Lebanon, the rights-based SMEB is used as a form of lower poverty line, constituting a threshold for targeting. The following analysis assesses how well the current SMEB aligns with expenditure patterns, in order to validate how relevant this threshold is for operational decisions, or if adjustments are necessary.

Table 2. *Comparison between current SMEB for Syrian refugees in Lebanon and VASyR data SMEB (USD)*

	(1)	(2)	(3)	(4)
	Current SMEB 2014	**SMEB 3 food & tent (+ non-food survival)**	**SMEB 1 food (+ non-food survival)**	**SMEB 2 food & shelter (+ non-food survival)**
Food	31.84	43.69	43.69	43.69
Shelter	16.24	16.24	5.97	31.37
Utilities (water, gas, fuel, electricity)	4.44	4.67	4.29	5.83
NFIs	11.1	2.41	1.83	2.86
Health	0	4.23	3.67	6.00
Education	0	1.14	0.61	1.41
Transport	5.4	0.60	0.36	1.03
Communications	3.53	1.97	1.71	2.05
Debt repayment*	14.48			
Total	87.03	74.95	62.13	94.24
		n = 923 /199	n = 923/210	n = 923/206
***Debt repayment (expenditures)**	14.48	1.81	1.38	0.63

*Debt only included in the current SMEB (for reasons, see MEB guidelines), last line only for comparison with expenditure data.

Calculation of the MEB food expenditures for SMEB 1, 2 and 3, and the shelter expenditures in SMEB 3 based on 2018 MEB with acceptable FCS (see table 1). As robustness test, we also calculated those SMEBs by defining the non-poor cohort based on acceptable housing. Results are similar: SMEB is based on the same expenditure aggregate as MEB.

Table 2 provides the results of the different SMEBs constructed. It compares the current SMEB (column 1) with the chosen version of the expenditure-based SMEB (SMEB 3, column 2) to show how the 2014 SMEB aligns with actual expenditure patterns. The current SMEB is around 12 USD higher than the expenditure-based SMEB. This is a difference of 16%. The current SMEB, similar to the MEB, can be regarded as slightly higher but generally aligned with the expenditure-based SMEB. Further variants of the expenditure-based SMEB (column 3 and 4) are presented as robustness test. One is, as expected, lower (25 USD difference), the other is higher (7.2 USD difference) than the current SMEB.

There are strong differences in the composition of the SMEBs, as non-food shares are larger in the current than in the expenditure-based SMEBs. As in the case of the MEB, the joint share of food and shelter is similar for all expenditure-based SMEBs. The other non-food items do have similar shares among the alternative SMEBs. The current 2014 SMEB, in contrast, allows for a smaller share for food and shelter, while the other non-food shares are larger than the actual expenditures. The value of debt repayments in the current SMEB is 8 times as high as the value found in expenditure data. An exception are expenditures for health, which are estimated at zero for the current SMEB, but take the largest share of expenditures after food and shelter in the data.
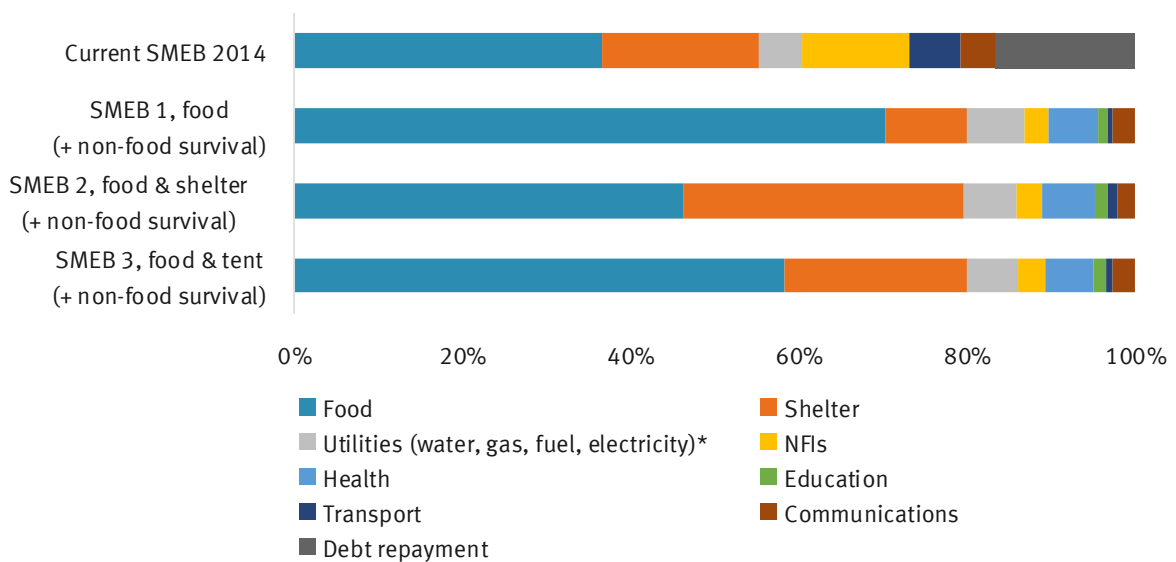

Figure 3. *Composition of SMEB expenditures*

5.3. Adjusting for economies of scale and adequacy of combined per capita/ per household assistance

In the context of food assistance, households are often given assistance according to their size on a per capita basis (even though some household needs do not scale proportional to household size). When thinking about households' needs more holistically, this can be problematic as the vulnerability of small households is likely to be underestimated.

Indeed, the needs of a household grow with each additional member but not in a proportional way, due to household composition and economies of scale in consumption. Needs for housing space, electricity, etc. will generally not be three times higher for a household with three members compared to one of a single person. Even expenditures for food do not increase proportionally with household size, as illustrated by Figure 4.[13] Only when the household size reaches seven does the average expenditure double compared to a one-person household.

In Lebanon, the current MEB was estimated on basis of a five-person household, which is the average size of Syrian refugee households. The per capita amount of this MEB is then assumed to be valid for all household sizes. This would be problematic if the MEB is used for operational or monitoring purposes: since needs do not grow proportionally to household size, the consumption needs of bigger households will likely be overestimated, while those of smaller households will tend to be underestimated. Using a per capita-based MEB might therefore lead to a program design that lacks precision, especially when it comes to targeting and evaluation, where big households will be found to be vulnerable by construction, while the vulnerability of small households will be underestimated. As a result, household size has been considered as a key driver of vulnerability in the Syrian refugee context.[14]

To quantify the risk of under- or overestimation of needs, we looked at expenditure patterns of households of different sizes. Figure 5 and Figure 6 show how food consumption and housing quality vary by household size for assisted versus non-assisted households, and which effect the change in assistance from purely per capita based assistance in 2017 to a combined version of per household MPC plus per capita food assistance suggests.

Looking at the FCS, in particular small households receiving food assistance per capita and/or MPC per household seem less vulnerable to food insecurity in 2018 than in 2017 after the change from the per capita assistance model to a combined per capita and per household assistance model (Figure 5). Among non-assisted households, no clear pattern of larger households being more vulnerable can be observed. While this comparison gives a first indication of the effect of changes in assistance favouring smaller households, we cannot rigorously identify any impacts at this stage, because the groups differ, as targeting has been done based on the MEB.

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13 The results for all households are shown in the figure. The results do not change when only non-poor households are included.
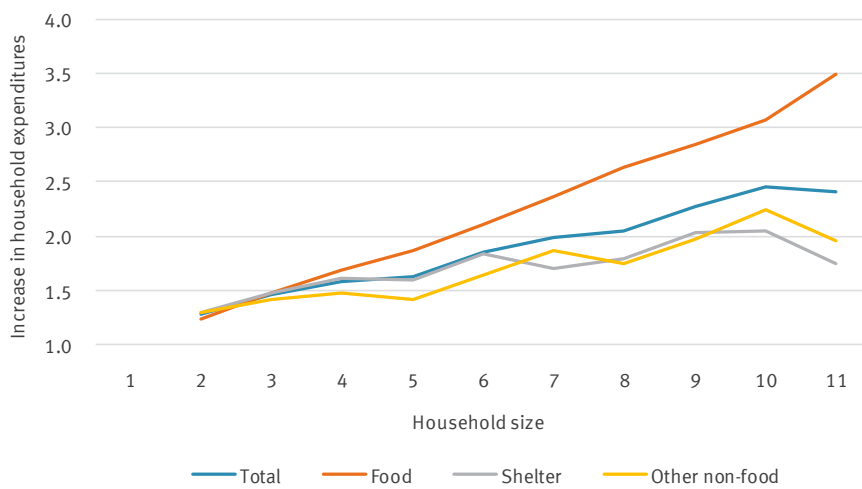14 See for example https://openknowledge.worldbank.org/bitstream/handle/10986/23228/9781464807701.pdf.

Figure 4. *Increase in household expenditure by household size compared to one-person households, 2018*

Figure 5. *FCS by household size and assistance (WFP/UNHCR assistance)*

Comparing housing of different household sizes and between assisted and non-assisted households, small non-assisted and large non-assisted households seem to be slightly more likely to live in informal housing conditions. Housing can be expected to be less affected by assistance, despite the recent MPC per household assistance including money dedicated to shelter – just because changes in housing take longer than changes in food. The comparison with assisted households in both years shows that more vulnerable households of all sizes seem to be targeted, as the housing conditions of this group are generally worse. We have to keep in mind, however, the differing sample size by household size between non-assisted and assisted households, as the household size is one relevant influence variable in the targeting formula.

Figure 6. *Housing quality by household size and assistance*

This analysis suggests that economies of scale are strongly influencing the needs of households of different sizes in Lebanon.

To adjust for economies of scale, per capita needs (based on expenditure-based MEB methodology) are calculated separately for each household size. To understand how well the assistance responds to the needs of households of different sizes, we compare needs with transfer values. This analysis provides a general overview on how needs and transfer values are linked. However, to determine the adequate amount of transfer values, a gap analysis would be necessary, taking into account the own resources of households and calculate the difference between needs and own resources to be covered by transfer values.

In 2018, WFP and its partners introduced multi-purpose cash assistance (MPC, USD 175 per household and month) additional to the per capita food assistance (USD 27 per person and month) for the most vulnerable households below the SMEB. This change implicitly takes into account economies of scale when giving assistance as the food share is per capita and the rest given per household.

With this approach of mixed per capita and per household transfers, the assistance is better suited to the needs of households of different sizes. Figure 8 shows the assistance received by household size and compares them to the average needs of beneficiaries, based on different methodologies of calculation. First, it compares the assistance to the per capita need defined by the current MEB and SMEB (based on household size of 5). Second, it compares to the average needs when adjusting for household size. As described above, the expenditure-based MEB has been calculated separately for each household size to take into account economies of scale. A similar approach was taken for the SMEB.[15]

Comparing the transfer value to current MEB and SMEB only, one might get the impression that small households receive more than their need. This view however does not take into account economies of scale, as discussed above. If we compare the transfer value to the MEB and SMEB per capita adjusted for household size, we see that the transfer value appears to follow the needs quite closely.

The positive effect of the per capita/ household combination of assistance can also be observed when comparing the FCS of assisted and non-assisted households in 2017 and 2018 (Figure 5). While the share of households with borderline and poor FCS for those who did not receive assistance remains stable from 2017 to 2018, the picture of those who received assistance changes. In 2017, smaller assisted households seem to be worse off than bigger assisted households. In 2018, the relationship is less clear, small households who received assistance seem to be better off in comparison to small households in 2017.

Despite these changes, it has to be taken into account that eligibility is determined based on per capita MEB and SMEB – which favours bigger households and leads to a low share of small households being assisted, as shown in Figure 8. For each type of assistance, Figure 8 shows the shares by household size. While smaller households rather receive the food assistance, larger households more often receive MPC. This result suggests taking needs of small households more into account when targeting.

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15 To construct the SMEB per household size, a similar methodology was used as for the SMEB per capita but for each household size separately. To gain enough sample size by household size, 2017 and 2018 data had to be pooled. For simplicity, SMEB1 was used, since it is constructed with a similar approach as the expenditure-based MEB, not imposing any restrictions such as what the shelter costs should be. Adding such restrictions brings some additional per capita-based elements in the SMEB analysis.
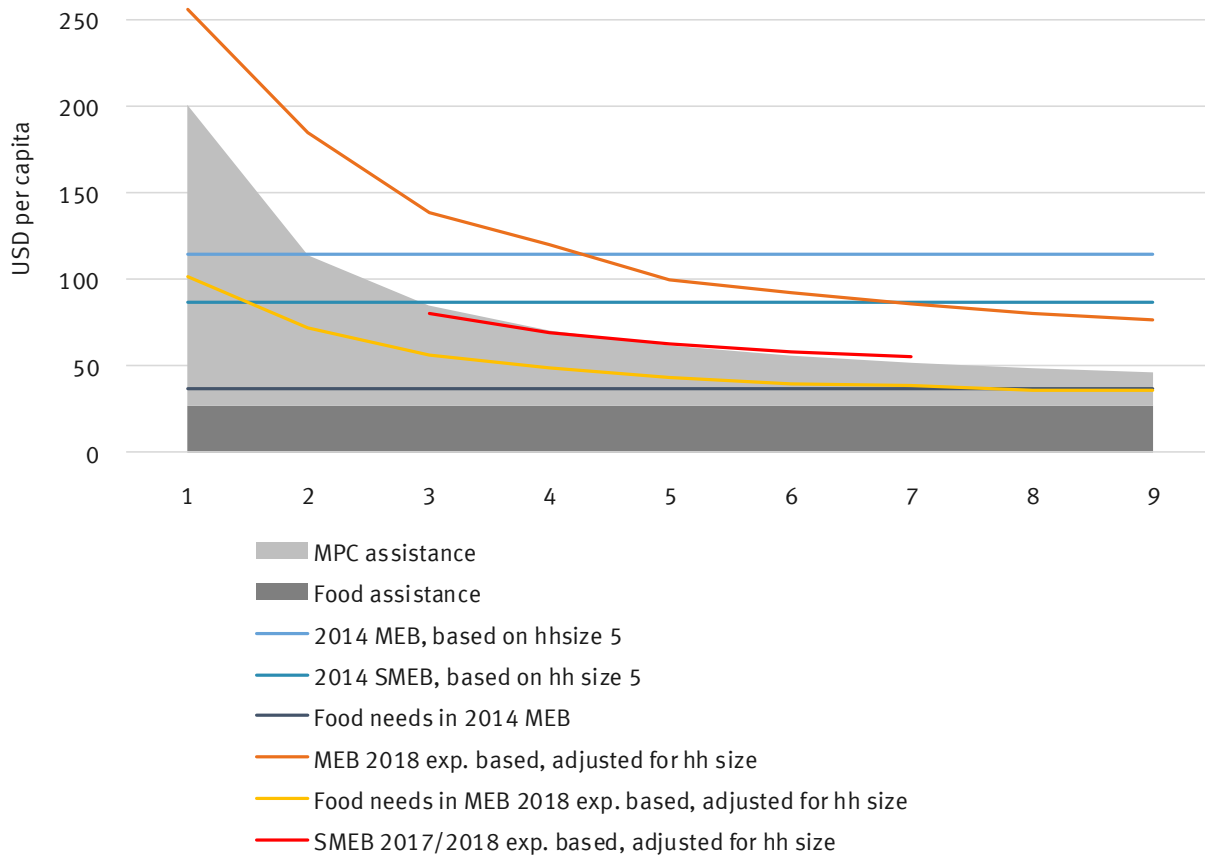
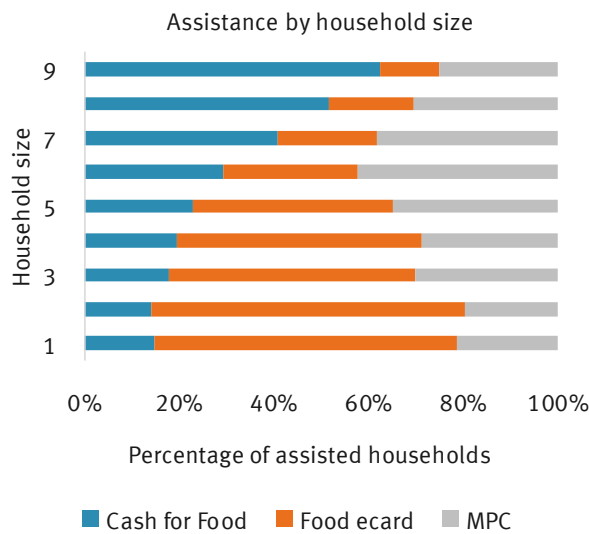**Figure 7.** *Sufficiency of MPC assistance by household size[16]*

Figure 8. *Assistance per household size*

16   For the SMEB, the sample size was enough only for households size 3-7.

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6. CONCLUSION AND RECOMMENDATIONS

The main purpose of this study was to review if the currently used Minimum Expenditure Basket (MEB) and Survival MEB for Syrian refugees in Lebanon are valid to inform program decisions such as targeting and transfer values. Based on expenditure data from the 2017 and 2018 VASyr, it 1) assessed how well the current (S) MEB aligns with expenditure levels and patterns of households. 2) it explored the need to take into account economies of scale and possible effects of introducing combined per capita/ per household assistance.

Regarding the current versus expenditure-based **MEB**, the results of this study indicate that:

- Based on analysis of the VASyR 2017 and 2018 data, the total MEB in 2014 is around 11 USD (11%) higher than expenditure data would suggest, but generally reasonable.

- Major differences are found in the shares spent on certain items. Households do spend a higher share on food, shelter and health than allowed for in the currently used MEB, and less on non-food items, education and transport.

When comparing the current and expenditure **SMEB**, the following findings are highlighted:

- Shelter is an important item in the context of Syrian refugees in Lebanon. The chosen method of estimating an MEB based on expenditure data therefore puts emphasize on shelter costs.

- The current SMEB is around 12 USD (16%) above the chosen expenditure-based SMEB.

- The current rights-based and the expenditure-based SMEB vary strongly in terms of composition. The value of debt repayments in the current SMEB is 8 times as high as the value found in expenditure data. Health and education, both not included in the currently used SMEB, prove to be essential expenditures also for poor households.

Regarding the issue of **economies of scale**, the following elements were noted:

- Economies of scale are large in the context of Syrian refugees in Lebanon. Analyzing household essential needs on a per capita basis therefore leads to biases, as big households will be assessed as poor by construction.

- Underestimated needs of small households (as FCS outcomes suggest) should be taken into account when defining targeting criteria/PMT.

- The change to combined per capita/ per household assistance (food assistance plus MPC assistance) aligned transfers better with the needs of small households.

While the 2014 (S)MEB proved to be aligned with 2017/2018 data, the current volatile price situation makes it necessary to closely monitor price changes and adjust the currently used MEB accordingly. Due to the differences in composition of the rights-based and expenditure-based (S)MEB, a simple update of values with price data will lead to even larger bias and will not reflect consumption behaviour. It is therefore recommended to revise the MEB and SMEB based on available expenditure and current price data, if increasing inflation makes an adjustment of the baskets necessary. A revision of the composition of the SMEB would also be required in order to inform any sector-specific intervention.

Economies of scale are large for Syrian refugees in Lebanon, which leads to an underestimation of the needs of small households. Economies of scale therefore need to be kept in mind when revising the (S)MEB and estimating a targeting formula for PMT. Solutions however need to be practical, despite the complexity of the problem. Combined per capita/ per household assistance proved to be an effective and practical way of taking into account economies of scale for assistance to Syrian refugees in Lebanon and therefore should be kept in place.

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