META-ANALYSIS OF THE IMPACT AND LESSONS LEARNED FOR IMPLEMENTATION OF THE EMERGENCY SOCIAL SAFETY NET (ESSN) PROGRAMME IN TURKEY (2016–2020)

Part 2:
FOCUS AREAS 2 AND 3

OXFORD POVERTY AND HUMAN DEVELOPMENT INITIATIVE

WORLD FOOD PROGRAMME

OPHI
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Meta-Analysis of the impact and lessons learned for implementation of the Emergency Social Safety Net (ESSN) programme in Turkey (2016–20). Part 2: Focus Areas 2 and 3.
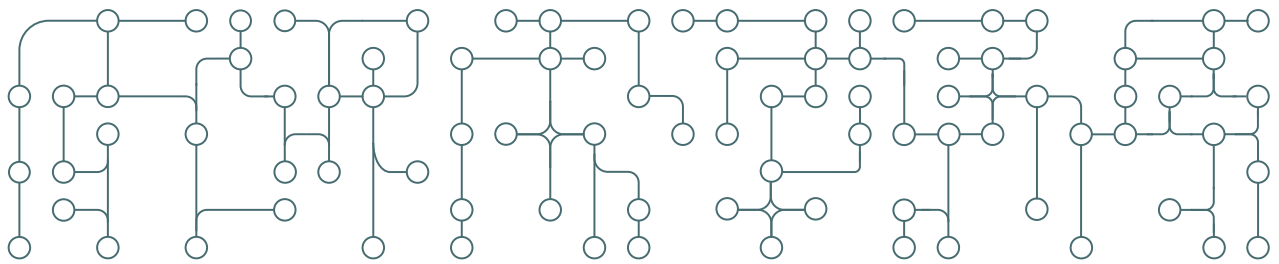
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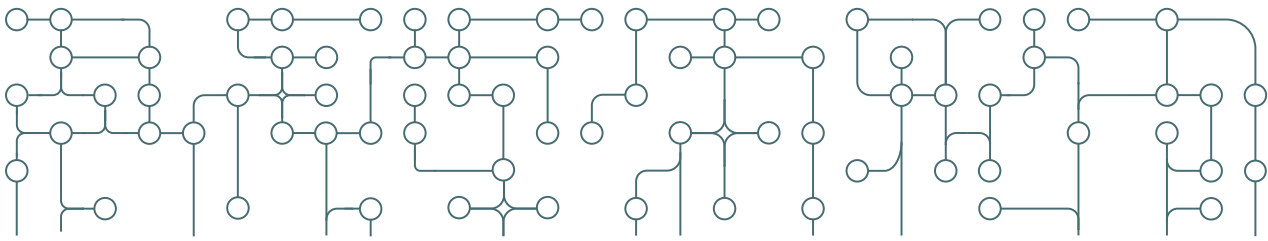
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Preface

This meta-analysis study aims to consolidate the impact, knowledge, and lessons learned from the Emergency Social Safety Net (ESSN) implementation, and to assess to what extent the methodologies, practices, and approaches developed over the course of the ESSN can be transferred to other countries with a similar context.

The study is composed of three focus areas:
Focus Area 1 gathers lessons learned from the design and implementation of the ESSN and is structured in five thematic areas: SGD 17 and partnership, design and structure, adequacy of the instruments, technology, exit strategy and graduation options.

Focus Area 2 dives into the vulnerability assessment and targeting of the ESSN and introduces a Refugee Multidimensional Poverty Index to be used in vulnerability assessments and to improve targeting systems.

Focus Area 3 analyses the intended and unintended impacts of the ESSN on beneficiaries and non-beneficiaries from a variety of angles.

This paper covers Focus Area 2 and 3. Focus Area 1 is presented in 'Meta-Analysis of the impact and lessons learned for implementation of the Emergency Social Safety Net (ESSN) programme in Turkey (2016–20). Part 1: Focus Area 1'.

Acknowledgements

Source information

Tables and charts are all author's calculations except where referenced otherwise.

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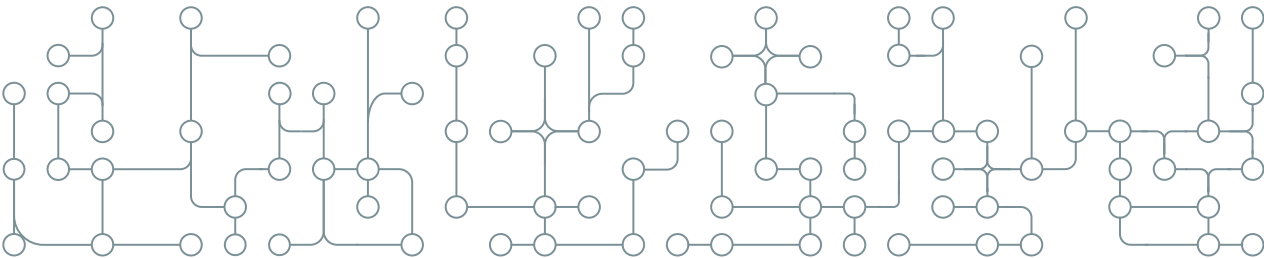
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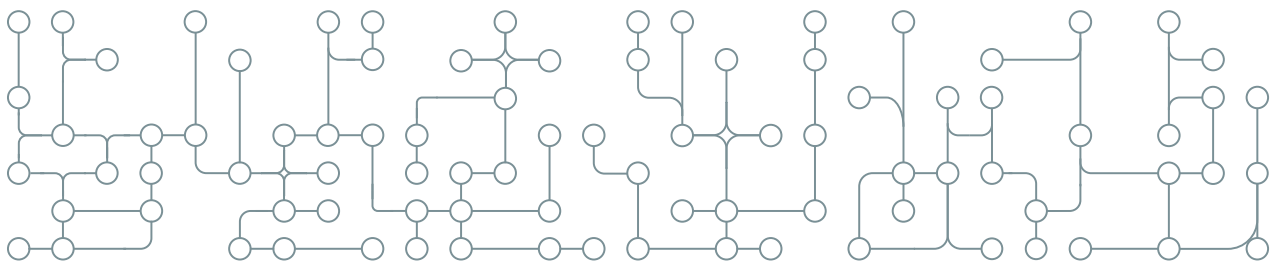|	
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List of Abbreviations

AF	Alkire-Foster method
ATET	Average treatment on the treated
CCTE	Conditional Cash Transfer for Education
CO	Country Office
COVID-19	Coronavirus disease 2019
CVME	Comprehensive Vulnerability Monitoring Exercise
DG	Directorate General
DGMM	Directorate General of Migration Management
DGSA	Directorate General of Social Assistance
ECA	European Court of Auditors
ECHO	European Civil Protection and Humanitarian Aid Operations
ESSN	Emergency Social Safety Net
EU	European Union
EUR	Euro
FAO	Food and Agriculture Organization
FGD	Focus Group Discussions
FLA	Field Level Agreement
FMA	Field Monitoring Assistant
GoT	Government of Turkey
HH	Household
HIP	Humanitarian Implementation Plan
HQ	Headquarters
HR	Humanitarian Residence
ID	Identity Document
IFRC	International Federation of Red Cross and Red Crescent Societies
IP	International Protection
ISAIS	Integrated Social Assistance Information System
IT	Information Technology
M&E	Monitoring and Evaluation
MDDI	Multidimensional Deprivation Index
MEB	Minimum Expenditure Basket
MoFLSS	Ministry of Family Labour and Social Services
MoI	Ministry of Interior

List of Abbreviations

MPI	Multidimensional Poverty Index
NB	Nota bene
NGO	Non-governmental Organization
NÜFUS	Directorate General of Population & Citizenship Affairs
OPHI	Oxford Policy and Human Development Initiative
OPM	Oxford Policy Management
PDM	Post Distribution Monitoring
PDMM	Provincial Directorate of Migration Management
RC/RC	Red Cross/Red Crescent
RMPI	Refugee Multidimensional Poverty Index
SASF	Social Assistance and Solidarity Foundation
SDG	Sustainable Development Goal
SMS	Short Message Service
TRY	Turkish New Lira
ToR	Terms of reference
TRC	Turkish Red Crescent Society
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Emergency Fund
VAM	Vulnerability Analysis and Mapping
WFP	World Food Programme
WFP TRCO	World Food Programme Turkey Country Office

FOCUS AREA 2

Introduction to Focus Area 2

In 2019, the World Food Programme in Turkey designed a Multidimensional Poverty Index (MPI) based on data collected in wave 3 of its Comprehensive Vulnerability Monitoring Exercise (CVME), the CVME MPI. The purpose of the CVME MPI was to support programme targeting, to monitor programme outcomes, and to provide evidence-based recommendations for Emergency Social Safety Net (ESSN) programmatic adjustments.

As part of the meta-analysis of the ESSN programme in Turkey, this focus area report provides a review of the multidimensional measure used for the vulnerability analysis and its relationship with the ESSN programme's targeting approach. It also analyses the potential adjustments needed to create a refugee-specific MPI for a possible use in other contexts.

The first section of this chapter provides a desk review of the available MPI analysis, with a review and assessment of the CVME MPI used by the ESSN and the World Food Programme's (WFP) Multidimensional Deprivation Index (MDDI), currently under development at WFP HQ. Based on this assessment and derived recommendations for improvements, section 2 provides results of the development of a refugee-specific MPI. The third section analyses how the eligibility criteria for inclusion in the ESSN programme match the poverty profiles of households and reviews the performance of the Social Assistance and Solidarity Foundations (SASF) discretionary allowance, which was introduced to compensate for the inevitable shortcomings of a demographically-based targeting model. This chapter ends with some concluding remarks and recommendations.

SUMMARY OF KEY POINTS

1. The CVME MPI and MDDI are viable first attempts at measuring the vulnerabilities of refugees in Turkey and beyond through a multidimensional approach.

2. Following a thorough review, this report highlights key strengths and weaknesses – mostly relating to the weighting structure of the index and the selection of indicators – in both indices that the proposed Refugee MPI (RMPI) addresses and builds upon.

3. Taking into account both normative and statistical considerations, the proposed RMPI measures the poverty of refugees in 12 indicators across five dimensions using a nested weighting structure (where every dimension and every indicator within each dimension are weighted equally).

4. The RMPI is based on a more stringent application of the Alkire-Foster method, resulting in an index that is parsimonious (using as few indicators as possible to ensure ease of analysis for policy purposes), inclusive of different reference populations in each dimension, and robust to reasonable alternatives in key selection criteria of the index, such as setting the poverty cutoff line to 20%. This ensures confidence in the main findings.

5. Over three-fifths of the population is identified as multidimensionally poor, an incidence of multidimensional poverty of 61%. The majority of the multidimensionally poor face poverty intensities of up to 35%, which is encouraging news as this indicates that most poor households face poverty intensities in proximity to the poverty cutoff line of 20%. This finding will allow policy makers to design a clear response strategy.

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6. The new index also proves useful for targeting purposes because it is designed to capture multidimensional poverty for all types of household demographics, which are the main eligibility criteria of the ESSN programme. The finding that more households were multidimensionally poor than non-poor among ESSN beneficiaries in four eligibility criteria (single female, single parent, elderly households and households with a disabled member) is encouraging and highlights that the programme targets predominantly the poor in these groups. Yet, many non-poor households were also targeted (most of which still faced deprivations close to the poverty line), particularly among households with four or more children and households with a dependency ratio of above or equal to 1.5. This allows for an informed debate on the design of targeting mechanisms in various contexts that should account both for household demographics as well poverty profiles.

7. Overall, the key strength of the new index is that it moves towards an MPI informed by the needs of refugees, but also by their rights and their own voices as captured through participatory focus group discussions.

8. Key challenges remain with regards to data collection that captures all population groups adequately. Future survey designs will be able to profit from the new index's design as it allows for a more targeted data collection strategy specifically designed for refugees.

9. The SASF discretionary allowance mechanism and SASF household visits are promising tools to complement ESSN's demographic criteria and to address exclusion errors by adding vulnerable households who did not meet demographic criteria into the programme and removing non-poor households from the caseload, addressing inclusion errors.

10. The key to success for the SASF discretionary allowance mechanism lies in household visits prior to making decisions on adding or removing the households. WFP's field monitoring assistants (FMA) were more likely to agree with decisions made by SASF officers when a decision was taken following actual household visits.

11. Through the SASF allowance mechanism, each SASF is allocated a quota that is equivalent to 5% of ESSN applications received. Quota usage has increased over time; however, on average it remained as low as 30% by March 2020.

12. SASF officers performed better when adding vulnerable households into the programme than when removing less vulnerable ones.

13. Future research will explore further the two eligibility criteria relating to households with more than four children and dependency ratios of greater than 1.5, and if and how this targeting mechanism can best be combined with the poverty analysis of the RMPI.

1. Review and assessment of CVME MPI and MDDI

The CVME MPI, designed by WFP Vulnerability Analysis and Mapping (VAM) in 2019, was a step forward from earlier similar work. With the benefit of hindsight, time, and a consultation of the pertinent literature, this section explains some of the design features of the CVME MPI that need to be improved in order to create a fit-for-purpose index of multidimensional poverty for refugees.

The most important recommended change is in the weighting structure of the CVME MPI. The first-generation weights were flawed. Statistical weights were used, but, upon further scrutiny, these were not appropriate for binary data. Statistical weights make comparisons over time impossible and reflect an assumption that relevant dimensions should be highly correlated. The weights also were difficult to interpret normatively (a kitchen is given far greater importance than a 'bad quality' apartment). The statistical assessment of the CVME MPI could also be improved. It relied upon the very elementary Cronbach's Alpha, which is not aligned with an index that seeks to capture different dimensions that describe a person's poverty at the same time. Also, the poverty cutoff justification could be improved and robustness tests should be implemented.

The second index we analyse is the MDDI, which is an index designed at WFP Headquarters in close collaboration with country offices. Interim guidelines were published in 2018, and the final guidance note was published in December 2020. The MDDI is a work in progress, and the process and methodology to date is a natural extension of other multidimensional poverty measures, such as the global MPI. The MDDI is framed around the Essential Needs package of the WFP. The aim of the index is to be flexible and adaptable to different country contexts where WFP works. This endeavour can be applauded as it attempts to create a conceptual MPI for refugees. However, as it stands, the index is solely built around a needs-based framework and thus insufficient for a Refugee MPI (RMPI), which should also include the Rights of Refugees and other normative considerations. The justifications of the choices of proposed dimensions and indicators, as well as poverty cutoff lines, need to be articulated more fully for the index to be viable in the field.

This section introduces the CVME MPI and MDDI as they were explained by their respective authors, then details the technical suggestions for improvement. These improvements are offered with a great appreciation for the innovation of both indices and with warm recognition of the need for and value of innovating to better capture the situation of refugees – but also with a conviction that the best technical tools need to be put in the service of this important problem.

1.1 THE CVME MPI: REVIEW AND ASSESSMENT

The CVME MPI (see WFP VAM, 2019) is based on CVME data from wave 3, which was conducted between March and August 2018. CVME3 includes responses from 1,301 refugee households and adopted a respondent-driven sampling method based on GPS points that ensures the data is representative of all refugees living in Turkey.[1]

The following assessment briefly summarises the identification choices made in the CVME MPI (for a full description of the steps taken to identify the CVME MPI, please refer to WFP VAM, 2019). Along with the summary, this chapter provides constructive feedback on the identification process.

The design of the CVME MPI loosely followed the Alkire-Foster (AF) method (Alkire and Foster, 2011).[2] The authors described the process of identifying dimensions and indicators of the CVME MPI as an iterative process where statistical methods and normative considerations were combined. The unit of analysis is

the household, and the choice of dimensions follows normative considerations and the availability of data in CVME3.

Five dimensions of poverty were chosen. Education, health, and living standards were selected because they were considered fundamental concepts of household wellbeing usually adopted in most MPIs. The fourth dimension is food security, a critical dimension for capturing household welfare, and the fifth is income resources to meet basic needs. The last dimension was chosen with a particular view to capturing the needs of refugees in Turkey (WFP VAM, 2019: p. 2). The income resources dimension was established using a set of indicators that capture households' ability to generate income and assorted coping behaviours for livelihood purposes.

While the last dimension was chosen with the basic needs of refugees in mind, the other dimensions were selected in order to capture household wellbeing and welfare. From a conceptual point of view, this should be highlighted as a first point for possible improvement. The first three dimensions were adapted from MPIs developed in different contexts and with different purposes. Therefore, the CVME MPI would benefit from a normative debate as to what makes these dimensions relevant to household wellbeing in a refugee context. Further, the distinction between wellbeing and welfare made by the authors may warrant further explanation.

Following the choice of dimensions, the CVME MPI identified indicators, their deprivation cutoffs, and their corresponding weights in an iterative process that combined statistical methods and normative considerations. Frequency analysis was combined with Principal Component Analysis (PCA) (repeated over several rounds) and a Cronbach's Alpha statistic. During the frequency analysis, indicators were either excluded or adjusted when more than half of the refugee population was deprived in that indicator (with one notable exception in the form of the self-assessed 'bad quality apartment' indicator, which had a deprivation score of 60% (see Table 3 in WFP VAM, 2019: p. 5). PCA was then adopted as the core

statistical method, which is a descriptive statistical approach to model a latent concept. PCA was applied to each dimension to analyse the internal consistency of each dimension (see Table 2 in WFP VAM, 2019: p. 4). The Cronbach's Alpha was then used to measure the internal consistency of the overall MPI, apparently to assess whether all retained indicators measure one key concept (in the case of the CVME MPI, multidimensional poverty, viewed here as a single condition). A Cronbach's Alpha of 0.609 was retained, interpreted by the authors, in line with Taber (2018), as an acceptable internal consistency of the MPI (see WFP VAM, 2019: p. 6). It should be noted here that, depending on social science context, for instance in poverty indices based on assets schedules, an alpha below 0.7 may be considered non-acceptable (see Guio et al., 2017). Apart from differences in interpretation of the value of the statistic, a deeper debate concerns the suitability of the application of this statistic in multidimensional poverty contexts.

In the next step, the component loading, the standard deviation, and the frequency of the indicator were used to generate indicator weights (see Table 5 in WFP VAM, 2019: p. 7). For the setting of the cross-dimensional poverty cutoff, the authors compared the distribution of the MPI value with the distribution of per capita expenditure. They made an assumption that monetary and multidimensional poverty 'should roughly align' (WFP VAM, 2019: p. 8). Consequently, a poverty cutoff of 4 was chosen (a household with an MPI score ≥ 4 is considered poor), which identifies roughly the same share of the population as poor as was identified according to the 2018 monetary poverty line in Turkey of 372 Turkish Lira per month (see Figure 1 in WFP VAM, 2019: p. 8).

In reviewing the choices made in the identification function of the CVME MPI, it is clear that PCA was chosen ostensibly 'to verify the selection of variables within each dimension, thereby validating the internal consistency of the dimension' (WFP VAM, 2019, p. 3). The computed component loadings were also used to derive statistical weights for each indicator (ibid, pp. 7–8). It should be noted that while those

aims are valid, statistical methods such as PCA have limitations in multidimensional poverty measurement. These limitations include the following.

First, and as noted by Townend et al. (2015), the linearity assumption in PCA is inappropriate if the model includes binary and categorical data (as is the case in the CVME MPI), which led to the wider application of tetrachoric and polychoric correlations in the calculations, if at all, or Multiple Correspondence Analysis (MCA), as this analysis is better suited for discrete and categorical data because it imposes fewer constraints on the data.

Second, statistical approaches reflect relationships within a given dataset and thus produce weights that are relative to that dataset. This implies that the weights could change with every update, which would impede robust cross-country and intertemporal analyses (Alkire et al., 2015).

Third, indices with a design based on PCA strongly assume that components with medium to strong correlations with each other are relevant for the deprivation measure, which, according to Klasen, who applied PCA to design a composite measure of deprivation in South Africa, 'may be debatable in some cases' (2000, p. 39). For example, the three indicators retained in the education dimension all have children as the reference population and refer to school attendance in the last semester and year. Similarly, of the six indicators in the living standards dimension, the four that were retained are related to housing, in the form of overcrowding, no kitchen, no toilet, and a 'bad quality' apartment.[3]

Fourth, the interpretation of the results, or components of the results, may not be straightforward (Alkire et al., 2015: p. 100). For example, some of the produced weights seem counterintuitive from a normative perspective: while a bad quality apartment receives the lowest of all weights with 0.41, 'no kitchen' receives the second highest weight with 3.13 (see Table 5 in WFP VAM, 2019: p. 7). In other words, no kitchen is given a far greater statistical importance than a bad quality apartment, an indicator that takes the availability and quality of the facilities of the apartment into account. This is counterintuitive and poses a challenge: while deprivation in the indicator for bad quality apartment was 60.1%, only 8.1% of surveyed households had no kitchen. How could the weight be explained normatively? The weight difference between both variables is not trivial.

In addition, the CVME MPI used a Cronbach's Alpha statistic to judge whether the index was fit for purpose. The Cronbach's Alpha is a statistic that is problematic in multidimensional poverty assessments. The α coefficient is the average inter-item covariance (weighted by the total number of items) as a proportion of the total variance. The statistic is based on the assumption of 'τ-equivalence, which entails that all items measure the same underlying variable, that they do so on the same scale, and that they are equally strongly associated to that underlying variable' (Peters, 2014, p. 59, cited in Santos and Villatoro, 2019: p. 1785). This assumption of equal variance is hardly met in practice (Guio et al., 2017), let alone in multidimensional poverty measures that capture the breadth of poverty. Therefore, the application of the statistic to judge the value fit for the index is not advisable.

Finally, the setting of the cross-dimensional cutoff line would benefit from some greater explanations of the assumptions, choices, and robustness tests. First, the assumption that monetary and multidimensional poverty should roughly align needs to be better explained. The global MPI 2020 report finds that multidimensional poverty trends do not match monetary poverty trends, suggesting different drivers (2020, p. 3). Thus, more explanation as to the setting of the cutoff of 4 would be advisable – or changing the cutoff to one that has a normative justification. Second, the point in Figure 1 where the MPI distribution and per capita expenditure cross is at 453 Turkish Lira and an MPI score of 5 (see WFP VAM, 2019: p. 8). This alternative setting could be used in a robustness test.

1.2 THE MULTIDIMENSIONAL DEPRIVATION INDEX

The second indicator we review and assess is the MDDI. The MDDI was designed at WFP Headquarters, in close collaboration with country offices, with interim guidelines published in 2018 and the final guidance note published in December 2020 (WFP VAM, 2020: pp. 24–28). The index adopts the AF method and is framed around the six essential needs dimensions of the essential needs framework: food, health, education, shelter, WASH (water, sanitation and hygiene), and safety (Table 1). While the MDDI dimensions are intended to be kept constant, indicator specifications and deprivation cutoffs can be flexible to adapt to different country contexts. The starting point for the selection of indicators is an essential needs assessment that identifies the essential needs and gaps in meeting the needs of refugees, estimates the number of people in need, and profiles them. Crucially, indicators included in the index aim to measure outcomes and should avoid, where possible, subjective or self-reported indicators (WFP VAM, 2020: p. 28).

TABLE 1. STRUCTURE OF THE MDDI

Dimension	Indicator	Weight (dimension weight *indicator weight)	Deprivation
Food	Food consumption (FCS)	1/6*1/2	Borderline or poor*
	Food coping (rCSI)**	1/6*1/2	>=19
Education	School attendance	1/6*1/1	At least one school-aged child not attending***
Health	Medical treatment	1/6*1/2	At least one household member did not consult a medical practitioner despite being chronically or acutely ill****
	Illness	1/6*1/2	>1 household member of >50% of household members sick
Shelter	Cooking fuel	1/6*1/3	Household uses solid fuels
	Crowding	1/6*1/3	>3 persons/room
	Energy source	1/6*1/3	Household has no electicirty in their dwelling
Wash	Toilet type	1/6*1/2	Household uses unimproved toilet
	Water source	1/6*1/2	Household uses unimproved water source
Safety	Insecurity	1/6*1/2	Feels unsafe or suffered violence
	Forced displacement	1/6*1/2	Displaced by force in past 12 months

Notes

* Thresholds may vary by country (see FCS guidelines).

** To strengthen the nutrition perspective, the food dimension should be complemented with Minimum Dietary Divertisty for Women (MDD-W) if available.

*** Compulsory school age may vary from country to country.

**** Health indicators can be biased such that better-off households report more deprivation. If possible, collect and test complementary indicators.

Source: WFP VAM (2020: p. 24).

The MDDI proposes the adoption of a nested weighting structure, where each dimension and each indicator within each dimension are weighted equally. Two cross-dimensional poverty cutoffs are proposed, set at 1/3 (or 33.33% of the weighted indicators) for 'moderate multidimensional deprivation', and 1/2 (or 50%) of the weighted indicators for 'severe multidimensional deprivation'. These were chosen as they are in line with the global MPI.

The MDDI process and methodology seems to be a natural extension of other MPI indicators. It is of course difficult to create an index for international comparisons, but the normative justification of the dimensional structure is articulated well. Notably, the index is strongly embedded in the needs-based framework tradition, which can be an advantageous orientation when designing an RMPI as it can reveal 'systemic vulnerabilities' (WFP VAM, 2020: p. 24). On the other hand, an overt focus on the needs of refugees may also limit the ability of a Multidimensional Poverty Index for refugees to consider holistically the needs and rights of refugees, as discussed in section 1.3.

1.3 RECOMMENDATIONS ON REVISIONS OF EXISTING INDICES TO MOVE TOWARDS A REFUGEE MPI

The design of an RMPI can clearly benefit from an analysis of both the CVME MPI and the MDDI. Both indices assemble intuitive indicators and show informative overlaps. For example, school attendance and illness feature in both indices and are crucial when considering the needs (and rights) of refugees. The inclusion of begging and warm winter clothes in the CVME MPI seem useful in the Turkish refugee context but also appears to speak to the context of refugees elsewhere who lack a livelihood and crucial assets. Finally, interesting results are presented too that can help to understand the life cycle of refugees and thus strengthen the design of an RMPI. For example, the CVME MPI found that 'new arrivals', those who arrived less than 6 months ago, are the poorest (see WFP VAM, 2019: p. 9). This finding is crucial from an integration and adaptation perspective for refu-

gees and can help to identify dimensions and indicators that capture the different needs (and rights) of refugees in dynamic contexts elsewhere. Further, it is interesting that beneficiaries and non-applicants are almost equally affected by poverty when the MPI is disaggregated by ESSN status. For the design of an RMPI, this finding raises the question of whether targeting considerations, including targeting modalities such as cash transfers, should influence the choice of dimensions and indicators of an RMPI.

Departing from the strengths of both measures, we suggest several improvements that span both statistical and normative choices. The CVME MPI correctly highlights that the AF method was not fully implemented, and, as a point of departure, we suggest implementing the AF method more comprehensively:

> First, there appears to be some conflict between the two methodologies used. The AF method recommends establishing a parsimonious index, avoiding inclusion of indicators with high correlation. However, PCA and Cronbach's alpha check the internal coherence and reliability of the indicators and give higher scores for higher correlation. In the end, we compromised and used recommended components of both methods, however this may require more research in the future (WFP VAM, 2019, p.10).

The advantages of a parsimonious index are manifold, however. A parsimonious index is useful for communicative purposes, for ease of analysis, and transparency. The first recommendation is therefore to test the final selection of indicators for the CVME MPI (see Table 3 of WFP VAM 2019: p. 5) with a so-called redundancy test. Redundancy describes a measure of association between indicators and was developed by Alkire et al. (2015, pp. 228–232; see also UNDP and OPHI, 2019: 77). The measure is denoted as R0 and displays the number of observations that have the same deprivation status in two variables, which reflects the joint distribution, as a proportion of the minimum of the two frequencies. Using the 'minimum' of the frequencies ensures that the maximum value of R0 is 100%. The higher any of the fre-

quencies, the higher the measure of redundancy as the probability increases that people are deprived in two indicators simultaneously. High redundancy (e.g. 100%) at low frequencies of deprivations, however, would indicate that every individual who is deprived in the indicator with the lower incidence of deprivation is also deprived in the other indicator. As a result, one indicator may be dropped for statistical reasons to maintain parsimony (yet could be retained if normative reasons exist to do so). The test is particularly useful given the adopted 50% frequency rule in the CVME MPI, which means that high redundancies (that is, simultaneous deprivations) are less likely to be caused by high frequencies of deprivations.

A second recommendation is to analyse, in greater depth, the reference population used in each dimension. For example, all education indicators of the CVME MPI have children aged 0–17 as the reference population, which should be re-assessed not only for households without children, but also regarding the greater normative debate considering the role of adult education of refugees.

Third, a closer implementation of the AF method at the aggregation stage is recommended. For example, while the CVME MPI assesses the proportion of households deprived in each dimension, it defines deprivation by dimension as being deprived in at least one indicator within the given dimension. This effectively collapses the indicators into a weighted subindex of a single indicator, and that subindex is not properly validated. For example, the living standards dimension assembles six indicators (the most indicators by dimension) and includes of 'bad quality apartment' the one indicator for which an exception from the 50% frequency rule was made. Unsurprisingly, the living standards dimensions has a deprivation rate of 87%, which is the highest proportion of deprived households and is almost double the rate of deprivation for food security (44%), which is the dimension with the next highest proportion of deprived households (see Table 6 in WFP VAM, 2019: p. 9).

The AF method can use subindices, but creating such extensive internal aggregation diminishes the power of 'dimensional breakdown'. That is, where each indicator is entered individually, the analysis will depict the so-called 'censored headcount ratio', which presents the percentage of people who are poor and deprived in each component indicator. The weighted sum of the censored headcount ratios makes up the MPI. Further, the 'percentage contribution' to poverty depicts the censored headcount ratio and the weight assigned to each indicator. This reflects the relative value of the indicators to an MPI. Whenever the contribution to poverty of a certain indicator exceeds its weight, there is a relatively high censored headcount in this indicator, meaning that the poor are more deprived in this indicator than in others.

Further, the adoption of nested weights and normative weights should be considered (in line with the MDDI). As previously highlighted, and also noted in the CVME MPI, PCA weights are overly sensitive to change and often counterintuitive (as was the case with the weights given to 'no kitchen' versus 'bad quality apartment').

Finally, and wherever possible, indicator selection should be better anchored in international conventions for the protection of refugees (e.g. the 1951 Refugee Convention and its 1967 Protocol as well as the 2006 Refugee Act) and in the voices of refugees, ideally captured through participatory methods such as focus group discussions (for further reading on recommendations on how best to choose dimensions and indicators in MPIs, please see UNDP and OPHI, 2019, p. 64). The selection process should include, ideally, a debate about dimensions and indicators that are characteristic deprivations of refugees at different stages of their life cycle.

1.4 REDUNDANCY RESULTS

Following the first recommendation above, this section provides a brief overview of results from the redundancy analysis (full results are presented in Appendix 1). Redundancy R0 ranges from 0 to 1, where a coefficient of 0 shows that no one is identified as deprived in both indicators and 1 means that every deprived household in the indicator with the lower incidence of deprivation is also deprived in the other indicator.

Two indicators stand out as showing 100% joint distributions. In the education dimension, we find that all households deprived in 'absence from school because children need to work and/or assist family', were simultaneously also deprived in 'absence from school more than a semester'. In the income resources dimension, all households deprived in 'no income source other than ESSN/other assistance or no income at all' were also deprived in 'no household member worked within last 30 days'.

The income resources dimension is further characterised by another indicator with high simultaneous deprivations with another indicator. Eighty-six percent of the households deprived in the 'begging' indicator were also deprived in 'accepted high risk, illegal, socially degrading or exploitative temporary jobs'.

Simultaneous deprivations in the high percentages can also be reported in the living standards dimension. Here 'no kitchen' stands out as showing high overlaps with 'no toilet'. Eighty-seven percent of households deprived in 'no kitchen' were also deprived in 'no toilet'.

Less pronounced yet still in the high percentages are the joint distributions in the food security dimension. Seventy-seven percent of households deprived in 'household with unacceptable food consumption' showed a 'dietary diversity score' of less than 6.

These are strong results because the frequency distributions of the five indicators are low, ranging from 7.1% in 'begging' to 13.4% in 'absence from school because children need to work and/or assist family'.

This is different in the case of 'bad quality apartment', where 63% of households are deprived. Due to the higher frequency in this indicator, we find high simultaneous deprivations with the other indicators throughout, particularly in the living standards dimension. Eighty-six percent of households deprived in the 'overcrowding' indicator are simultaneously deprived in the 'bad quality apartment' indicator, and 99% and 94%, respectively, of those deprived in kitchen and toilet also reported living in a bad quality apartment. It should be noted that in wave 3 of the CVME, respondents were asked to assess their apartment based on privacy ('the covered area enables safe separation and privacy between the sexes, between different age groups and between separate families within a given household') and the quality of facilities ('the household should have access to a toilet, running water, place to bathe and space to cook as a part of the accommodation'), among others (natural light and ventilation, secure and safe space). This explains the observed simultaneous deprivations of the 'bad quality apartment' indicator with overcrowding, toilet, and kitchen indicators.

2. Refugee MPI

Following the review and assessment of the CVME MPI and MDDI, an alternative RMPI was developed.

First, a data inventory was conducted to assess available indicators that could act as alternative candidate measures to the proposed CVME MPI indicators. For example, the inventory looked at additional items that could be used to strengthen the winter clothes indicator in the living standards dimension. Further, the inventory gauged whether the proposed indicators of the MDDI could be included, such as indicators in relation to security and forced displacement. Finally, the inventory looked at candidate indicators that could be considered based on relevant literature on the Rights of Refugees. The 1951 Refugee Convention and its 1967 Protocol, as well as the 2006 Refugee Act, were consulted (UNHCR, 2017), with the goal of possibly identifying indicators that could be considered to measure the fundamental rights of refugees:

1. Freedom of movement
2. Family life, including family unity
3. The right to work
4. The right to education
5. Access to courts
6. The right to social welfare and health care
7. Other rights.

CVME3 was used for the inventory, as this wave was used to design the CVME MPI. However, other waves were also included in the final analysis.

Based on the results of the data inventory and the redundancy results, a new measure was developed which is presented in Section 2.1. In sum, five so-called trial measures with different indicator specifications, dimensional structures, and different weights were developed, statistically assessed, and extensively debated in internal meetings between August 2020 and January 2021. The analysis included breakdowns by regions, ESSN status, and arrival time.

It also followed the AF method and thus computed the censored headcount ratios and contributions of indicators. In this report, we present the final choice of an alternative RMPI, while a forthcoming paper will debate in more depth the identification and validation process of the RMPI.

2.1 REFUGEE MPI STRUCTURE

The RMPI takes as its starting point the CVME MPI but incorporates some adjustments based on the assessment in Table 2. First, the RMPI opted to retain the five dimensions from the CVME MPI. The chosen dimensions are convincing in the Turkish context. They fit the ESSN program and available data in the CVME. The inclusion of food security was considered crucial for a refugee context, and the Report of the Commission on Global Poverty suggests having separate dimensions for food security and health (World Bank, 2017). To what degree these dimensions are applicable in other refugee contexts is part of an ongoing debate, and the dimensions may need to be revised in the future.

Second, the four identified 'redundant' indicators were excluded to achieve greater parsimony of the measure. Third, an education variable was added to the education dimension. A household is deprived if neither the household head nor the second responsible person of the household (if applicable) has completed at least primary school (equivalent to six years of schooling). The variable was added as it can be considered an outcome variable, with a different reference population (adults) that complements the school attendance indicator of children within the education dimension. By also considering the second household member in the computation, the indicator becomes more adaptable to change and thus overcomes one of the main concerns raised against its inclusion in the CVME MPI (where only the highest

TABLE 2. STRUCTURE OF THE REFUGEE MPI

DIMENSION	INDICATOR	DEPRIVED IF...	WEIGHT
Education	School attendance	A household is deprived if children (girls and boys aged 6–17) are absent from school more than a semester.	1/10
	Highest education achieved	A household is deprived if neither the household head nor the second responsible person of the household (if applicable) has completed at least primary school.	1/10
Health	Illness	A household is deprived if more than half of the household members reported sick in the past 30 days. Sickness includes diarrhoea, fever/chills, or cough (i.e. not a simple cold).	1/10
	Treatment	A household is deprived if any member is not treated when sick.	1/10
Food Security	Consumption	A household is deprived if the household has a Coping Strategy Index (CSI) Score >18 (equating to using every consumption coping strategy at least three times per week).	1/10
	Diet	A household is deprived if the Dietary Diversity Score DDS is <6.	1/10
Income Resources	Precarious work	A household is deprived if members of the household begged or engaged in illegal or high-risk work.	1/10
	No income	A household is deprived if no household member worked within last 30 days.	1/10
Living Standards	Overcrowding	A household is deprived if there are more than 3 persons per room.	1/20
	Sanitation	A household is deprived if it does not have a toilet in the house.	1/20
	Winter assets	A household is deprived if it does not own more than one of the following winter assets: sufficient winter clothes, sufficient blankets, a heating stove, and central heating.	1/20
	Hygiene items	A household is deprived if its members do not have sufficient soap and hygiene items.	1/20

education of the household head was assessed and eventually the indicator was deemed too static for inclusion in the measure).[4] Note that it may appear that the indicator does not speak to the immediate vulnerabilities and needs of refugees as it measures educational outcomes for adults. Its inclusion, however, is justified by the Refugee Right to Education, which, although placing a strong emphasis on refugee children, also stresses the importance of advocating 'for refugees to be treated in the same way as nationals […] At a minimum, as provided for under Article 22 of the 1951 Convention, refugees should be treated in the same way as other legally residing foreigners' (UNHCR, 2017: p. 210). Additionally, Sustainable Development Goal 4 is 'Ensure inclusive and equitable quality education and promote lifelong learning for all'. The addition of an adult indicator thus greatly strengthens the entire dimension as it places the right of refugees to lifelong learning next to the immediate educational needs of children. Using this newly designed indicator, 25.6% of households were found to be deprived.

Fourth, after revisiting the redundancy tests, several more changes are proposed. Based on the redundancy results, the 'income resource' dimension was further revised. As 86% of the households deprived in 'begging' were also deprived in 'accepted high risk, illegal, socially degrading or exploitative temporary jobs', it was decided to merge both indicators. Following this merger, 9.6% of households were found to be deprived in the indicator.

Also, the 'living standards' dimension was further reworked following the redundancy results. 'Bad quality apartment' will be excluded, as basically the indicator measures what is already captured by the overcrowding and no toilet indicators. An 'assets' indicator is added to the living standards dimension and combined with the CVME MPI indicator 'sufficient winter clothes'. Note that more than half of the surveyed households in CVME3 arrived three to six years ago (689 households, 53%). This strengthened the assumption that sufficient time has passed for households to start accumulating assets following their ar-

rival, which sets those who are better off apart from those who are less well off. It was deemed logical to add several winter-specific assets to the indicator 'sufficient winter clothes', for which the assessment of what is 'sufficient' is somewhat subjective. Thus, the indicator 'no sufficient winter clothes' is revised by a 'winter assets' indicator that classifies a household as deprived if the household does not own more than one of the following winter assets: sufficient winter clothes, sufficient blankets, a heating stove or central heating. Twenty-two point four percent were deprived in this indicator. The decision to create a 'winter assets' indicator is informed by a Thematic Focus Group Discussion (FDG) on Shelter conducted by the Turkish Red Crescent (TRC) and WFP Field Monitoring Assistants (FMAs) in January 2020. In sum, 17 thematic FDGs were implemented in eight provinces across Turkey and the views of 146 beneficiaries and non-beneficiaries of the ESSN programme were captured. A crucial finding of the discussions was that

> All participants reported living in apartment buildings or houses connected to basic infrastructure/services (electricity, water and sewage system). Most participants complained about their housing quality, saying that the apartment buildings are old, poorly insulated, and very cold and humid during the winter months. Furthermore, participants living in basement accommodation added that they do not get enough sunlight (WFP, 2020, p. 2).

Therefore, the 'winter assets' indicator includes heating stoves, blankets, central heating, and winter clothes because refugees in Turkey suffer in the winter according to the thematic FDG results. In some parts of the country, it is reported to be humid. So, adding an appropriate item from the list of available assets in CVME3, namely air conditioning, was considered. However, thematically it made more sense to create a winter-only assets indicator. Note that of the four items included, two are based on self-assessed sufficiency (clothes and blankets), while two are not self-assessed ('Does the household have a heating stove/central heating?'). By expanding the list of

items to four and by including items not based on self-assessed sufficiency, the information base used to judge deprivation in this indicator is expanded and strengthened. Note that the actual list of assets can be adjusted in the RMPI, depending on the context where the index is applied (e.g. climate conditions in south-south migration).

Fifth, the indicator 'insufficient access to any of the items below; water, hygiene items, cooking fuel for cooking' was critically assessed in the 'living standards' dimension. The indicator combines two areas whose policy response is different (WASH and energy source). It is therefore a challenging indicator for policy planning purposes (although it speaks to the MDDI indicators WASH and energy). It is also unclear which of the three deprivations drive the results, and, finally, the indicator combines answers to three questions where respondents self-assess insufficient access to each one of the items across several thematic areas. For example, participants were asked to assess whether the household has access to sufficient water for drinking, cooking, washing, and toilet purposes. In other words, respondents were asked if water is sufficient for four different thematic purposes. What is more, it is unknown what the water source is and if it can be considered 'safe', crucial information for assessing sufficient 'drinking water'. In other words, this indicator in the CVME MPI is a proxy that uses subjective information across different thematic areas. Subjective information is usually less preferred than objective indicators as respondents may suffer from adaptive preferences (UNDP and OPHI, 2019, p. 64). By analysing the highest frequency of each of the three questions the indicator is based on, it became apparent that the main driver of this indicator is that 'members of the household do not have sufficient soap and hygiene items' with a deprivation frequency of 17.7%. This is compared to a frequency of 12.2% in cooking fuel ('Does your household have access to sufficient cooking fuel to cover your cooking needs?') and 3.84% in sufficient water ('Does your household have access to sufficient water for drinking, cooking, washing, and toilet purposes?'). Taking into consider-

ation that the enquiry into the sufficiency of access to soap and hygiene items is more straightforward than the enquiry into water access – and arguably, it is also easier to assess subjectively if these items are sufficiently available for an entire household – it was decided to take only the question related to soap and hygiene for this indicator in the RMPI. The quality of soap and hygiene items in Turkey can also be considered 'safe' and 'good'. The indicator captures the concept of WASH (although not fully) and, depending on data availability in future applications of the RMPI, should be expanded with water-related questions.

The RMPI thus used a total of 12 indicators across five dimensions. It is the most parsimonious of all trials. It uses a nested weighting structure, and it was computed with a cross-dimensional poverty cutoff of 20%. By lowering the poverty cutoff to an equivalent of the weight of one dimension, households could potentially be classified as poor if they are deprived in a combination of indicators that sum up to one dimension only, which seems very realistic for an RMPI. Robustness test results on the poverty cutoff choice were also conducted and are presented below.

2.2 DISCUSSION POINTS: RMPI STRUCTURE

Looking ahead, future consultations on the RMPI should discuss alternative indicator options that have so far been excluded. While further indicator options were assessed considering the proposed MDDI and relevant literature, such as on the rights of refugees, no new indicators outside the five dimensions of the CVME MPI were included. For example, adding 'insecurity' to one of the trials was debated, as it featured in the MDDI (as one of two indicators in the safety dimension). A corresponding question featured in the CVME survey ('Has any of your household members experienced any kind of insecurity during the last three months in Turkey'). Four point seven percent of households reported that they did, and 2.8% reported that the insecurity reduced the free movement of household members. As this relates closely to the refugee right to freedom of movement, the indicator was considered, yet not included, as it did not match

the existing dimensions. The low response rate may also indicate some element of adaptation to (or having gotten used to) insecurity by refugees, who may underestimate the level of insecurity they face after their flight (although further research into this assumption is required). The creation of an additional dimension was considered but discarded, given the lack of data on the second indicator in the safety dimension of the MDDI ('forced displacement'). In other words, the potential new dimension would have featured only one indicator ('insecurity'), so this indicator would have received the entire weight of the dimension in a nested weighting structure. Justification of this requires a very robust and well-defined indicator. Overall, it was decided that in this specific case the creation of a new dimension with just one indicator is not justifiable. In future trials, and possibly with better data availability on 'forced displacement', this may be re-considered.

Also, adding 'negative coping mechanisms' such as accumulating an unsustainable level of debt or not seeking healthcare when ill (just to name two examples) was also considered, but eventually not included at this stage as this would require a larger debate on typologies of 'good' versus 'bad' coping strategies in refugee contexts (which should be considered a crucial debating point in consultations moving forward with the RMPI). At this stage, note though that the food security indicator CSI is already based on a Coping Strategy Index.

Further debates on electricity and shelter indicators were also held, but eventually no indicator was included because most refugees in Turkey are urban and live outside of camps, which explains why only 49 households (3.8%) in CVME3 reported living in tents (barns, makeshift shelter), most likely living in informal settings, while 98.46% used electricity for lighting. These extremes rendered the indicator options less suitable to measure poverty in the Turkish refugee context, while it may be more meaningful in contexts where refugees live in worse conditions.

Finally, the decision to exclude water access in the RMPI could be revisited if the indicator can be constructed based on objective information, such as whether a household has access to safe drinking water within a 30-minute walk from home (roundtrip). Given the importance of water – aside from school attendance, housing, and sanitation, it is almost a universal indicator that is included in most national multidimensional poverty indices (UNDP and OPHI, 2019, p. 59) – the decision to exclude the indicator was solely based on data concerns.

Overall, such debates are crucial to gauging whether the newly designed multidimensional measure could be adjusted to be applicable to other refugee contexts and WFP projects, one of the key questions of Focus Area 2.

2.3 ROBUSTNESS OF RMPI STRUCTURE

The results of the RMPI were assessed in a series of robustness tests (a full presentation of all test results is in Appendix 2). Here, we present some of the most important findings. First, Figure 1 plots the value of the adjusted headcount ratio M0 (which is the product of the headcount ratio (H) – the proportion of people who are identified as poor – and the average intensity (A) – the average proportion of (weighted) deprivations faced by the people identified as multidimensionally poor) for each arrival time of refugees, and for different poverty cutoff lines (so-called k values), ranging from 10% to 50%. In the context of refugees, different arrival times may help to understand why certain groups of refugees are poorer than others, so finding robust results by this aggregation is important. The range of alternative poverty cutoffs from 10%–50% was chosen because these are within the vicinity of the chosen cross-dimensional poverty cutoff of 20%. In other words, these are alternative poverty cutoffs within a plausible range. Testing robustness on the adjusted headcount ratio was considered crucial as it is the MPI figure. Poverty rankings by arrival time are maintained, and thus robust, when curves do not cross. By looking at Figure 1, we see that the arrivals 'before conflict' – thus before 2011 –

FIGURE 1. RMPI VALUES FOR DIFFERENT VALUES OF THE POVERTY CUTOFF k FOR DIFFERENT ARRIVAL TIMES OF REFUGEES
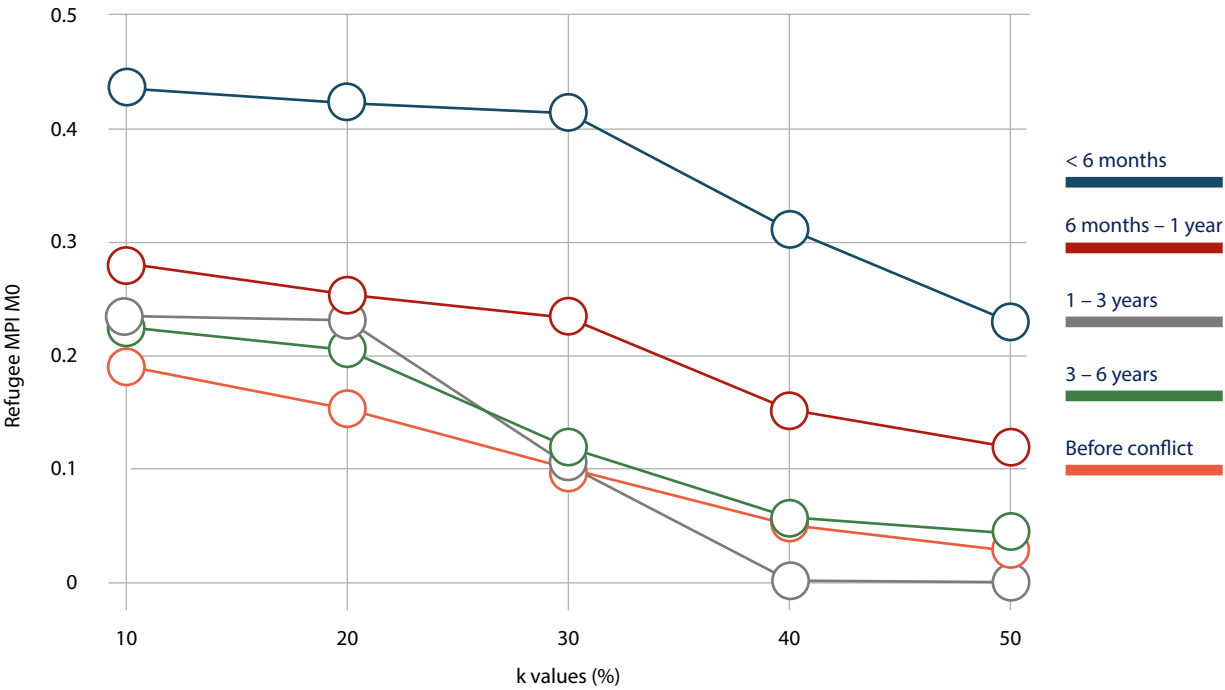
show a sharp decline in the adjusted headcount ratio with rising k values, causing the crossing of lines with the other groups. In other words, for this group with a population share of 1.15% in the CVME3 (see Appendix 3), their poverty ranking is not clear. The four other arrival times show greater robustness in this poverty class, and all rankings hold for all k values. This test result shows that the rankings are robust to reasonable changes in the k value for a population share of 98.85% of the CVME3.

As a follow up robustness test, Kendall's and Spearman's rank correlation coefficients were computed to rank the five regions (Istanbul, Aegean, Mediterranean, Anatolia and South-east) from poorest to best-off under different k values. The Kendall rank correlation coefficient (R^τ) then compares rankings that are concordant where one ranking dominates the other in both the initial and the alternative specification, against the discordant rankings (those that change in

rankings), divided by all possible rankings (see UNDP and OPHI, 2019: 97). Ranging from -1 to 1, a perfectly negative R^τ indicates the dis-concordance of rankings under different scenarios, whereas a value of 1 indicates a perfectly positive association between rankings. While similar, the Spearman's rank correlation coefficient computes the square of the difference in the ranks of two specifications and averages it across all subgroups. It is also bound between -1 and 1.

Table 3 presents the Spearman and Kendall rank correlation coefficients between the subregional rankings of the MPI, using the selected k value of 20%, and the ranking for alternative poverty cutoffs ranging from 10% to 50%. The Spearman coefficient is higher than 0.90 for all alternative k values, showing that the differences in the rankings in this poverty class are minimal and almost perfectly positively associated. The Kendall coefficient ranges from 0.8 values of k = 30% and k = 50%, and 1 for k = 10% and k = 40%. This implies that at least 80% of the comparisons are concordant to k values in the closest vicinity to the selected k value of 20%. In other words, the rank correlation between the selected poverty cutoffs is largely preserved under different choices, which adds confidence that the presented results in this report are robust.

2.4 REFUGEE MPI RESULTS

Table 4 presents the main headline figures of the RMPI, including their confidence intervals. Recall that the incidence or headcount ratio of multidimensional poverty (H) describes the proportion of people who are identified as poor. The intensity or average share of deprivations (A) describes the average proportion of (weighted) deprivations faced by the people identified as multidimensionally poor. The MPI is simply the product of the headcount ratio (H) and the average intensity (A).

As can be seen in the table, the incidence of multidimensional poverty is 61.1%. In other words, over three-fifths of the population is identified as multidimensionally poor. The average intensity of poverty is 31.2%. Thus, the multidimensionally poor face, on av-

erage, deprivations in nearly one-third of the dimensions included in the RMPI. Finally, the RMPI, which multiplies H and A, has a value of 0.190. This means that multidimensionally poor refugees in Turkey experience 19% of the total deprivations that would be experienced if everyone was fully deprived in all indicators.

Note that because each indicator weight is either 1/20th (5%) or 1/10th (10%), we can describe the deprivation scores, which are the weighted sum of the number of deprivations of each person, in terms of the percentage of the population who experience each 5% 'step' of deprivation scores, i.e. from just below the poverty line to severely poor. This is presented in Figure 2.

TABLE 3. CORRELATION OF RMPI AMONG SUBNATIONAL RANKS FOR DIFFERENT POVERTY CUTOFFS, k

		k=20%
k=10%	Spearman	1.000*
	Kendall Tau-b	1.000*
k=30%	Spearman	0.900*
	Kendall Tau-b	0.800
k=40%	Spearman	1.000*
	Kendall Tau-b	1.000*
k=50%	Spearman	0.900*
	Kendall Tau-b	0.800

Note: RMPI * indicates correlation coefficients significant at the 5% level or lower.

TABLE 4. MPI, INCIDENCE (H), AND INTENSITY (A)

	MPI Conficence interval			Headcount ratio (H) Confidence interval			Intensity (A) Confidence interval		
Refugee MPI	0.190	0.159	0.222	61.1%	52.5%	69.8%	31.2%	27.3%	35.0%

FIGURE 2. PERCENTAGE OF POOR REFUGEE POPULATION BY DIFFERENT AVERAGE POVERTY INTENSITY BANDS

Average poverty intensity bands
- 20%
- 25%
- 30%
- 35%
- 40%
- 45%
- 50%
- 55%
- 60%
- 65%
- 70%
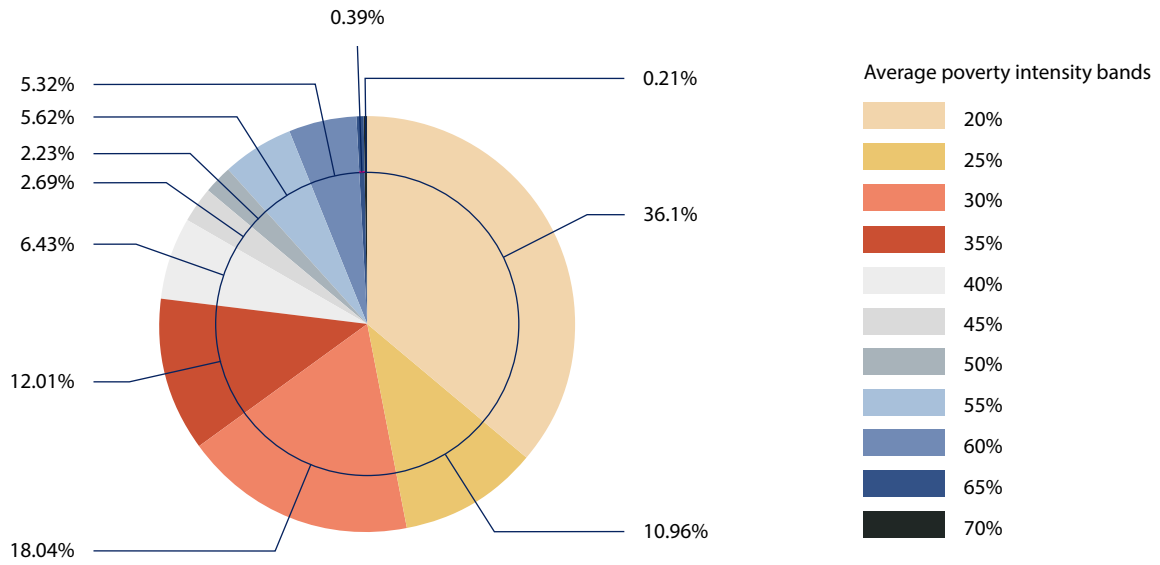
FIGURE 3. REFUGEE MPI, UNCENSORED AND CENSORED HEADCOUNT RATIOS (IN %)

Censored headcount ratio (%)

Uncensored headcount ratio (%)
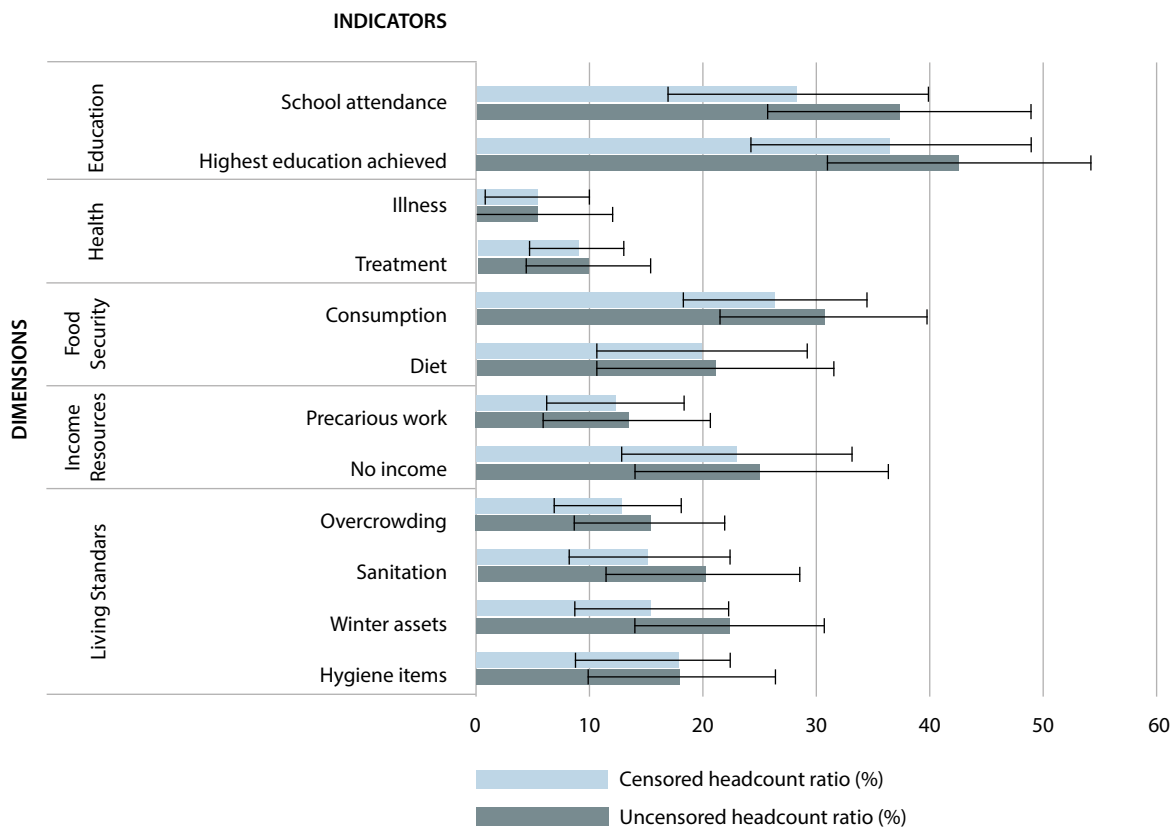
By looking more closely at the intensities of the multidimensionally poor, it can be seen that a bit more than one-third (36.1%) face the lowest threshold for being classified as multidimensionally poor, namely if a household is deprived in a weighted sum of 20% of the indicators. Cumulatively, the majority of the multidimensionally poor (77%) face intensities of up to 35%. This is encouraging news as this indicates that most poor refugees face poverty intensities in proximity to the poverty cutoff line of 20%.

Next, we present the breakdown by indicator. Figure 3 shows results of the uncensored headcount ratios (the percentage of the population that is deprived in each indicator) and censored headcount ratios (the percentage of the population that is poor and deprived in each indicator). Note that the censored headcount ratios will, thus, always be equal to or lower than the uncensored. We see that the education indicators both have the highest uncensored and censored headcount ratios.

Figure 4 shows the composition of poverty or how much each indicator is contributing to the MPI. The two biggest contributors are the education indicators, suggesting that education would be an important indicator for reducing poverty, but more assessments are required. Food consumption and lack of income in the past month are also relatively high contributors, suggesting that food security and the ability to earn a living remain issues in this context.

Looking at different refugee characteristics – such as ESSN status, arrival time, origin, and region – sheds further light on the drivers of poverty that help guide more targeted programmes and policies. The figures below highlight key results, with full tables, including population shares and confidence intervals, available in Appendices 3, 4, and 5. Please note that due to some stark differences in population shares and small sample sizes for specific groups, the disaggregated results and the results for targeting in point 3 are descriptive and do not claim statistical significance.

Based on CVME3 data, and as shown in Figure 5, we see that non-applicants are the poorest group by

FIGURE 4. PERCENTAGE CONTRIBUTIONS OF INDICATORS TO THE REFUGEE MPI

FIGURE 5. MPI BY ESSN STATUS

FIGURE 5. MPI BY ESSN STATUS

poor households, but those who had not applied may also be in need of support.[5] The treatment effect of the ESSN and potential impact on the non-applicant group is further investigated and discussed in the next focus area.

Figure 6 digs deeper into these results, showing the percentage of the population in each group that is poor and deprived in each indicator. This shows how deprivations by indicator vary according to ESSN status (again, based on CVME3 data). Some interesting patterns emerge. For instance, while the non-applicants (at a population share of 13%) are much more likely to be poor and deprived in the indicators within the education and food dimensions, beneficiaries (at a population share of 51%) are more likely to be poor and not report any income (meaning no household member worked in the past 30 days). The ineligible population (36% population share), while facing fewer deprivations in most indicators, was more likely to suffer from precarious work than were beneficiaries,

ESSN status, with an MPI of 0.251, compared to 0.194 for beneficiaries and 0.140 for ineligible populations. More than three-quarters of non-applicants were identified as being multidimensionally poor. This suggests that the ESSN was reaching multidimensionally

FIGURE 6. CENSORED HEADCOUNT RATIOS BY ESSN STATUS

SA	School attendance	TR	Treatment	PW	Precarious work	SN	Sanitation
HE	Highest education achieved	CO	Consumption	NI	No income	WA	Winter assets
IL	Illness	DI	Diet	OC	Overcrowding	HI	Hygiene items

- Beneficiary
- Ineligible
- Non-applicant
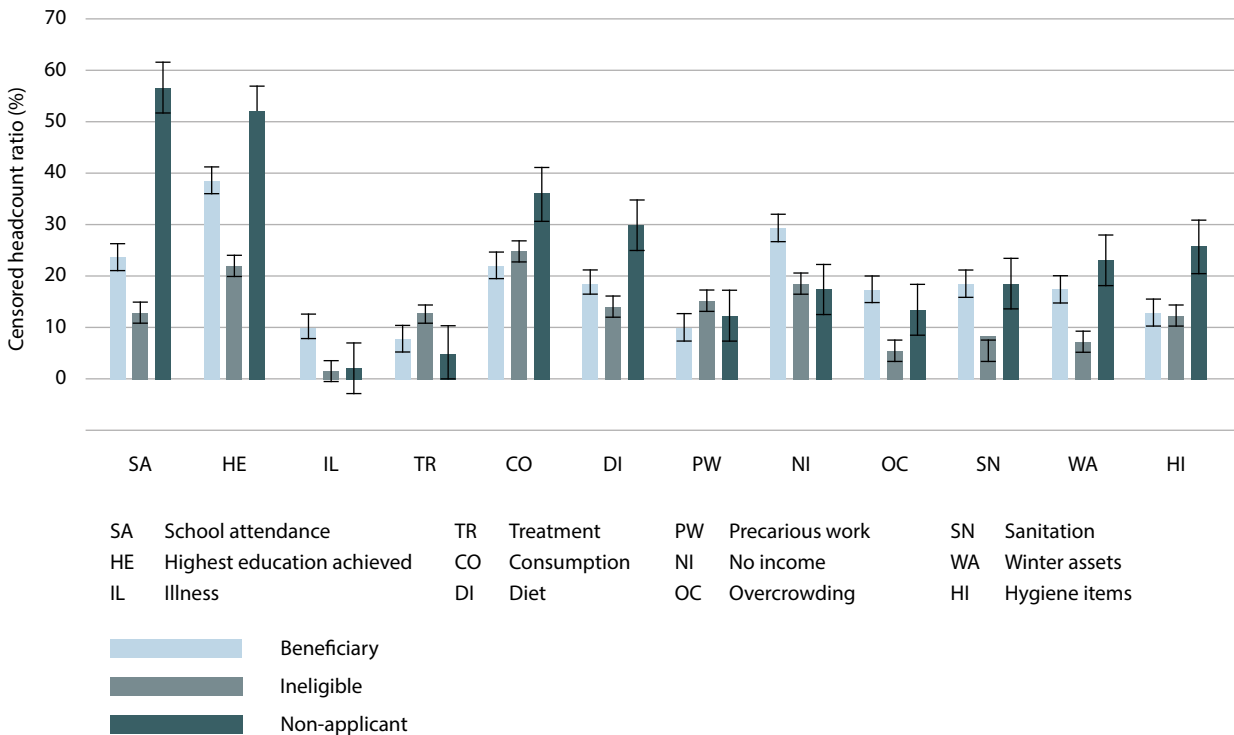
FIGURE 7.   MPI BY ARRIVAL TIME

A   Less than 6 months
B   6 months – 1 year
C   1 – 3 years
D   3 – 6 years
E   Before 2011
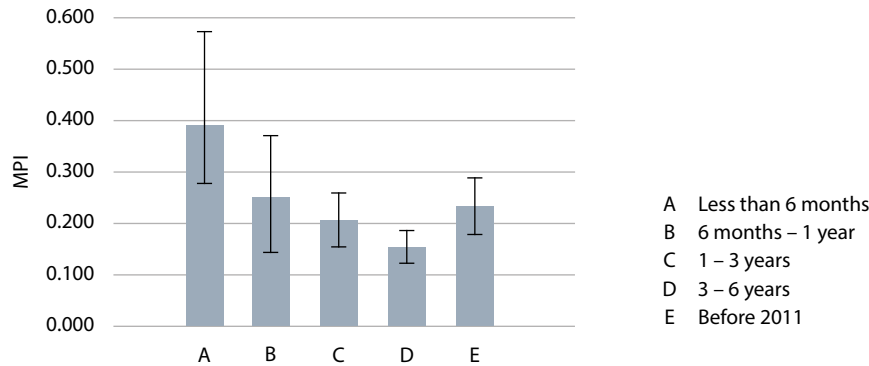
meaning that members of those households were forced to beg more or to engage in illegal or high-risk work.

As shown in Figure 7, new arrivals (those who arrived less than 6 months ago (WFP VAM, 2019: p. 8) are the poorest (with an MPI of 0.423 and population share of 3.5% in CVME3), which is in line with results from the CVME MPI. New arrivals have both the greatest incidence (91.5%) and the greatest average intensities of poverty (46.2%). In general, it seems that the earlier the refugees arrived, the less likely they are to be poor. This seems intuitive as the longer one is in the country, the more one is likely to develop the tools to integrate (for example to speak Turkish), to find work, to accumulate assets, to build social networks, etc. The exception is for refugees who arrived before 2011, who are still worse off, on average, than those who arrived between one and six years ago. Because these households arrived in Turkey before the Syrian conflict began, it may be that there are other characteristics that differentiate them from the later arrivals and have made it more difficult for them to move out of multidimensional poverty.

Interestingly, Figure 8 shows that for the new arrivals, winter assets have a much larger contribution than for any of the earlier arrivals. This seems to validate the assumption that refugees who arrived earlier started to accumulate important assets that separate those who are better off from the less well off. The measured winter assets indicator includes winter clothes, mattresses, stoves, and heating that new refugees are less likely to bring with them; therefore, for the new arrivals the results are less surprising. It highlights, though, the complications in designing an index for refugees at different stages of their journeys and integration into the host country.

FIGURE 8. PERCENTAGE CONTRIBUTION OF INDICATORS TO MPI BY ARRIVAL TIME

A   Less than 6 months
B   6 months – 1 year
C   1 – 3 years
D   3 – 6 years
E   Before 2011

Legend:
- School attendance
- Highest education achieved
- Illness
- Treatment
- Consumption
- Diet
- Precarious work
- No income
- Overcrowding
- Sanitation
- Winter assets
- Hygiene items
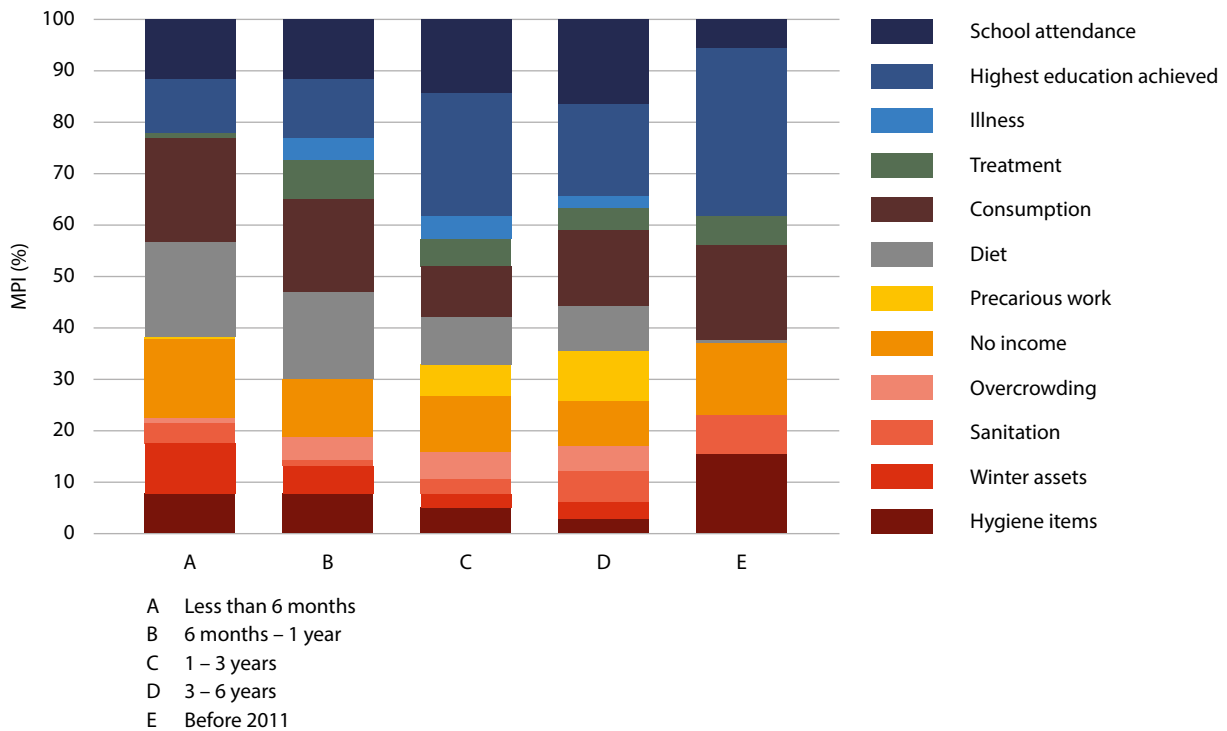
Figure 9 shows how multidimensional poverty among refugees differs by region. The Mediterranean region shows the highest levels of multidimensional poverty with an MPI of 0.286, nearly double that of the Aegean region at 0.152.

FIGURE 9. MPI BY REGION

A   Istanbul
B   Aegean
C   Mediterranean
D   Anatolia
E   South-East
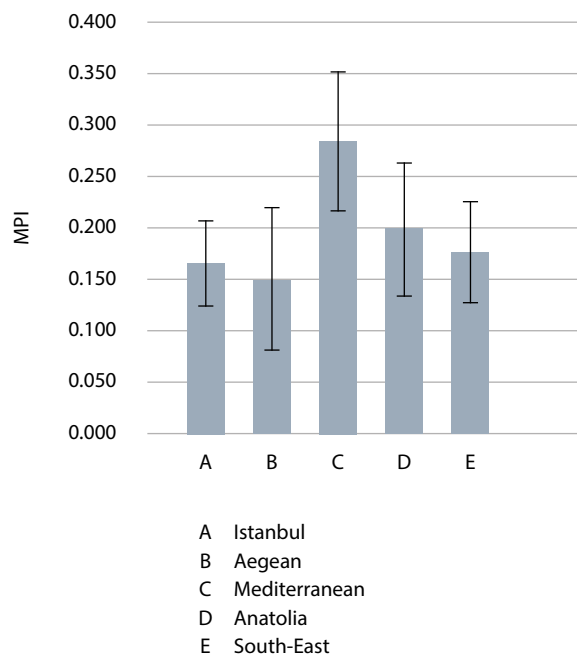
Figure 10 shows that the patterns of multidimensional poverty differ quite substantially by region. Sanitation contributes more than 10% of multidimensional poverty in the Mediterranean (the poorest region, with a population share of 3.8%), but less than 0.03% in the Aegean region (with a population share of 11.6% and the lowest level of poverty among the five regions).[6] Even among regions with relatively similar MPIs, there are differences in the composition of poverty. In the South-East region (MPI of 0.178, population share 19.2%), highest education achieved, diet, and income resource indicators contribute more than three times as much to poverty as they do in Istanbul (MPI of 0.167, population share 5.8%). The reverse is true for the indicators of food consumption, precarious work, and treatment when sick. Finally, winter assets contribute least where the climate is moderate, i.e. in the Mediterranean region (less than 1%).

FIGURE 11. MPI BY NATIONALITY
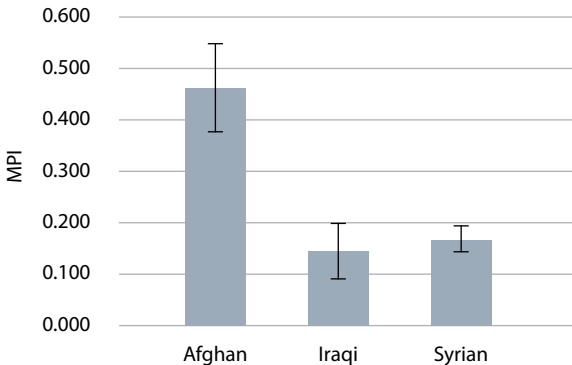
FIGURE 10. PERCENTAGE CONTRIBUTION OF INDICATORS TO MPI BY REGION

A   Istanbul
B   Aegean
C   Mediterranean
D   Anatolia
E   South-East
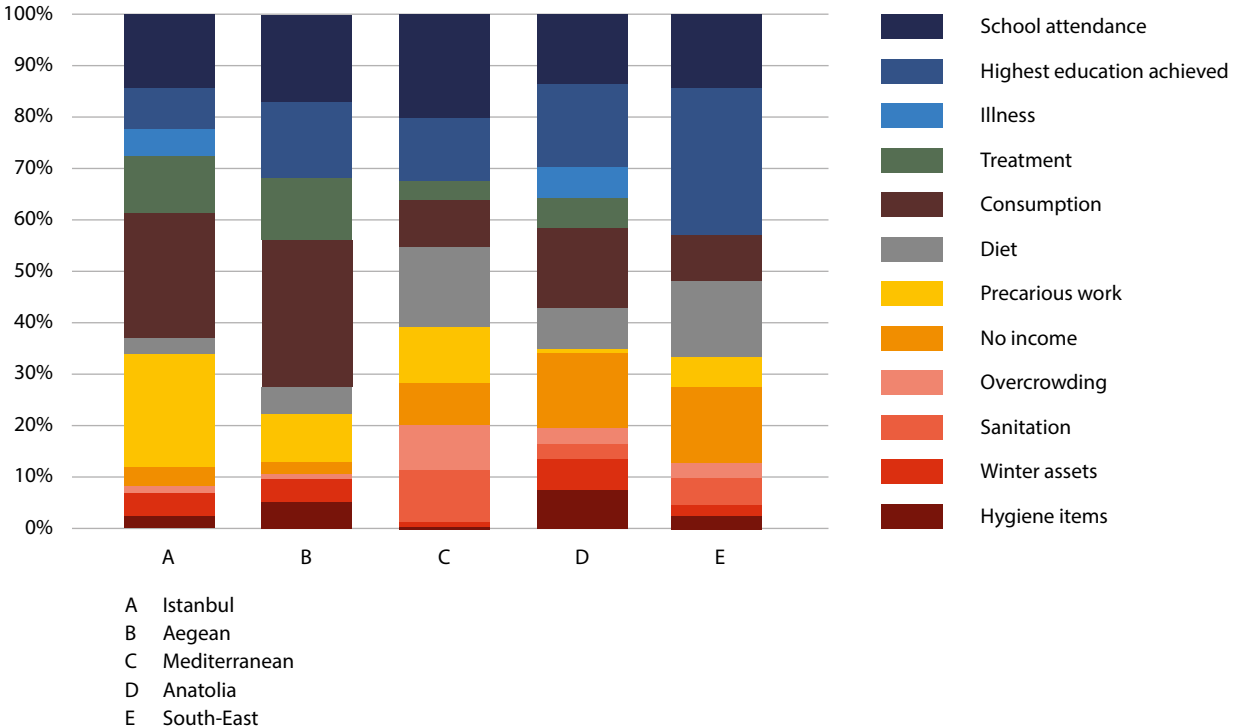
Finally, Figure 11 shows that Afghans (7.7% share of the sample) are the poorest nationals with the highest levels of multidimensional poverty with an MPI of 0.460. Syrian refugees, who present 70.9% of the sampled households in CVME3, show a lower MPI value of 0.168, thus less than half of the MPI value of Afghans.

As Figure 12 demonstrates, the main drivers of poverty for Afghans are consumption (20.2%) and highest education achieved (18.3%). In comparison, for Iraqis, the main percentage contribution stems from school attendance (22.5%), and for Syrians it is the highest education achieved (19.6%). Overall, for all three nationalities, the contributions of no income over the last month and the highest education achieved are similar. Yet, strong differences emerge in other indicators. While a lack of medical treatment contributes quite substantially to multidimensional poverty for Iraqis (12.5%), the contribution of this indicator to multidimensional poverty for Afghans is much lower, only 1.8%. Equally, while the contribution of precarious work is 8.7% to poverty for Syrians, its contribution is minimal for Afghans and Iraqis.

FIGURE 12. PERCENTAGE CONTRIBUTION OF INDICATORS TO MPI BY NATIONALITY
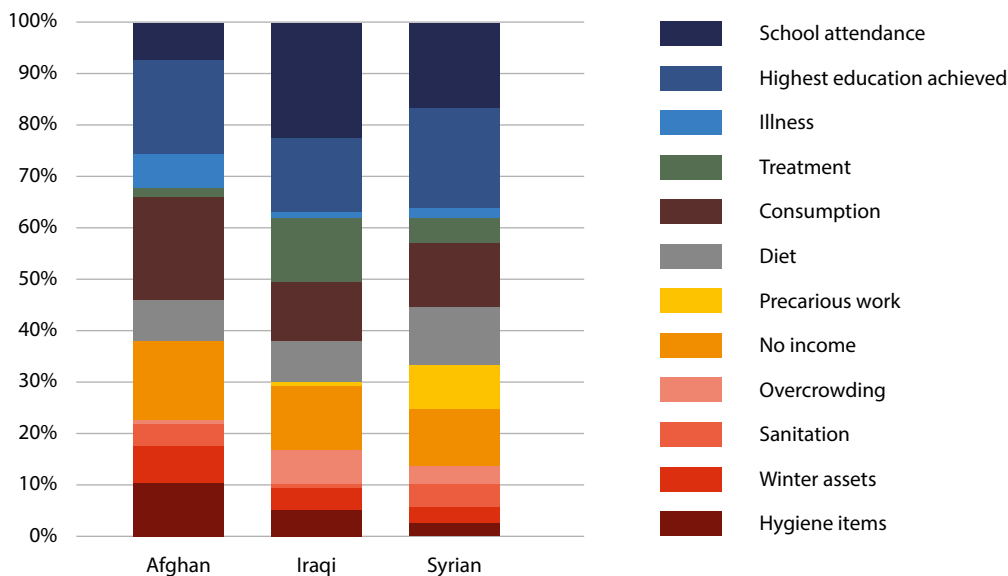
3. Targeting

RMPI results were matched against the eligibility criteria for ESSN programme participation. Households were eligible to apply for the ESSN if it matched one or more of the following six criteria: a household consisting of a single female, a household with a single parent, an elderly-headed household, a household with a disabled member, a household with four or more children, or a household with a dependency ratio of above or equal to 1.5. We cross-tabbed the multidimensional poverty status of households who met these criteria against the ESSN status variable (Table 5).

Of the ESSN beneficiaries, we find that in four eligibility criteria (single female, single parent, elderly households, and households with a disabled member) more households were multidimensionally poor than non-poor, ranging from 70.3% in single-parent households to 100% in elderly households. While this is an encouraging result in terms of matching, the overall sample size in these groups is rather small. In contrast, in households with four or more children, which is overall the second largest eligible group for the ESSN programme with 523 households in the CVME3, we find 45.6% of ESSN beneficiaries are classified as non-poor. However, 74% of the non-poor among households with four or more children (166 households) faced deprivations close to the poverty line – between 10% and 20% of deprivations – which makes them vulnerable to poverty. Of the ESSN beneficiaries in the largest eligible group for the ESSN programme, those households with a dependency ratio of above or equal to 1.5 (with 655 households), we find a mixed result: half of the beneficiaries in this group were classified as multidimensionally poor, while the other half was non-poor. Equally, 68% of the non-poor in that eligible group (204 households) were vulnerable to poverty, thus with deprivations between 10% and 20%.

Another noteworthy result is that among the non-applicants to the ESSN programme (170 households, 13% of the sample size in CVME3), we find six single-parent households that were multidimensionally poor and two households with a disabled member. Thirty-eight households, or 80.6% of the non-applicants, in the four-or-more-children category were living in multidimensional poverty. Furthermore, several of the ineligible households by ESSN status (470 households, 36% of the sample) are multidimensionally poor, including three households with disabled members and 39 households with four or more children.[7]

Note that results can be viewed against some matching results from the CVME MPI. Based on CVME4 data, which unfortunately did not have data on the disability criteria, all households with elderly members were identified as multidimensionally poor, and 62.4% of single-parent households. Further, 43.4% of households with four or more children were identified as multidimensionally poor, as well as 40.2% of households with a dependency ratio of 1.5 or above. Thus, we can conclude that for these eligibility criteria, matching results from the CVME MPI and the RMPI, although based on two different waves (3 and 4) of the CVME, are similar.

3.1 OPTIMIZING VULNERABILITY TARGETING IN THE ESSN: PERFORMANCE ANALYSIS OF THE SASF DISCRETIONARY ALLOWANCE AND SASF HOUSEHOLD VISITS

The SASF discretionary allowance was introduced in December 2018 within the broader framework of the ESSN Programme as a mechanism to help reduce exclusion error.[8] Monitoring results indicated that the exclusion error in the ESSN, using the six demographic criteria for targeting, fell to 4% in September 2019, which is equal to 70,326 individuals for the current ESSN caseload.

ESSN Status	Multidimensionally Poor Single female			Multidimensionally Poor Single Parent		
	No	Yes	Total	No	Yes	Total
Beneficiary	1	4	5	11	26	37
	20.0%	80.0%	100%	29.7%	70.3%	100%
Ineligible	0	2	2	2	5	7
	0.0%	100%	100%	28.6%	71.4%	100%
Non-applicant	0	0	0	0	6	6
	0%	0%	0%	0%	100%	100%
Total	1	6	7	13	37	50
	14.3%	85.7%	100%	26%	74%	100%

ESSN Status	Multidimensionally Poor Elderly Household			Multidimensionally Poor HHs with disabled members		
	No	Yes	Total	No	Yes	Total
Beneficiary	0	2	2	1	15	16
	0%	100%	100%	6.3%	93.8%	100%
Ineligible	0	0	0	0	3	3
	0%	0%	0%	0%	100%	100%
Non-applicant	0	0	0	0	2	2
	0%	0%	0%	0%	100%	100%
Total	0	2	2	1	20	21
	0%	100%	100%	4.8%	95.2%	100%

ESSN Status	Multidimensionally Poor HHs with 4 or more children			Multidimensionally Poor HHs with Dependency Ratio >=1.5		
	No	Yes	Total	No	Yes	Total
Beneficiary	186	222	408	258	260	518
	45.6%	54.4%	100%	49.8%	50.2%	100%
Ineligible	29	39	68	37	45	82
	43%	57%	100%	45.1%	54.9%	100%
Non-applicant	9	38	47	5	50	55
	19.2%	80.6%	100%	9.1%	90.9%	100%
Total	224	299	523	300	355	655
	42.8%	57.8%	100%	45.8%	54.2%	100%

Targeting can never be perfect unless a programme adopts a universal approach (which means no targeting). In effect, the SASF allowance functions as the 'seventh criteria' or, more precisely, as a second tier of, or filter for, targeting. This second filter also comes chronologically after the demographic criteria because it usually requires a household visit, which is typically only conducted after an ESSN application has been received and adjudicated according to the demographic criteria. The SASF allowance gives discretionary power to SASFs to admit households that do not meet the six ESSN criteria but are considered vulnerable to the ESSN programme. While this mechanism caused some concerns about how the potential biases of social workers would be eliminated, how effective the tool used to capture poverty would be, and how a standardized and uniform application would be ensured among widespread SASF offices etc., the SASF discretionary allowance is a promising tool to complement the demographic targeting of the ESSN programme. Note that since December 2016, households that were on the ESSN programme but not considered vulnerable (inclusion error) were already being gradually removed through the SASF household visits. The pace of adding or removing depends on SASF's capacity to conduct household visits and current capacity is insufficient. Furthermore, it is highly possible that household visits have been put on hold due to COVID-19 since March 2020.

Through the SASF allowance mechanism, each SASF is allocated a quota that is equivalent to 5% of ESSN applications received by 30 October 2018. The total quota is 23,879 households for all SASFs in Turkey. This quota provides a limit to the number of households that can be added onto the ESSN programme through this mechanism. The SASF allowance uses the Integrated Social Assistance Information System (ISAIS) algorithm that categorizes household vulnerability into groups A to E; group A is the most vulnerable and group E is the least vulnerable. The SASFs can only add group A households to the ESSN.

Following the introduction of the SASF discretionary allowance, joint monitoring visits to households that have been added or removed through this mechanism have been conducted by WFP and the TRC with the view of checking the effectiveness of the mechanism. This section summarizes the results of monitoring activities on the SASF allowance since March 2019.

3.1.1 Sampling methodology[9]

Sampling for the SASF-allowance-added households is taken directly from the ESSN caseload for the households that are added through the SASF discretionary allowance.

Sampling for the removed households is rather difficult as the system has no descriptor to identify a household that has been removed because it is considered 'not vulnerable' after a household visit by the SASFs. As

TABLE 6. SASF ALLOWANCE MONITORING ACTIVITY TIMELINE

Rounds	Data collection period	Number of SASF allowance added household visits	Number of removed household visits
1st	March to May 2019	111	86
2nd	June to August 2019	239	100
3rd	September to December 2019	397	89
4th	January to March 2020	306	74

a result, WFP defines a household as removed for not being vulnerable if it meets the criteria below:

i. Household still meets the demographic criteria;

ii. Household has been eligible for the ESSN in the last six months but is currently ineligible;

iii. Removal reason is coded as 'not being vulnerable'.

This monitoring activity started in March 2019, soon after the SASF discretionary allowance implementation started. There have been four monitoring rounds in different places, covering all different parts of Turkey (Table 6). The map (Figure 13) below shows the SASF allowance monitoring locations.

3.2 KEY FINDINGS OF SASF PERFORMANCE ANALYSIS

1. SASF quota utilization has increased, with 7,087 households added to the ESSN as of March 2020, up from 3,735 households in June 2019. Overall utilization nonetheless remains low at only 30% of the allocated allowance although there are a few SASFs that used all their allocated quota.

2. Gradually more households report having received a visit prior to being 'added' to the ESSN through the SASF allowance. The proportion of households visited, however, started to decrease from 2019 Q3 and remains much lower among removed households.

FIGURE 13. SASF ALLOWANCE DATA COLLECTION LOCATIONS
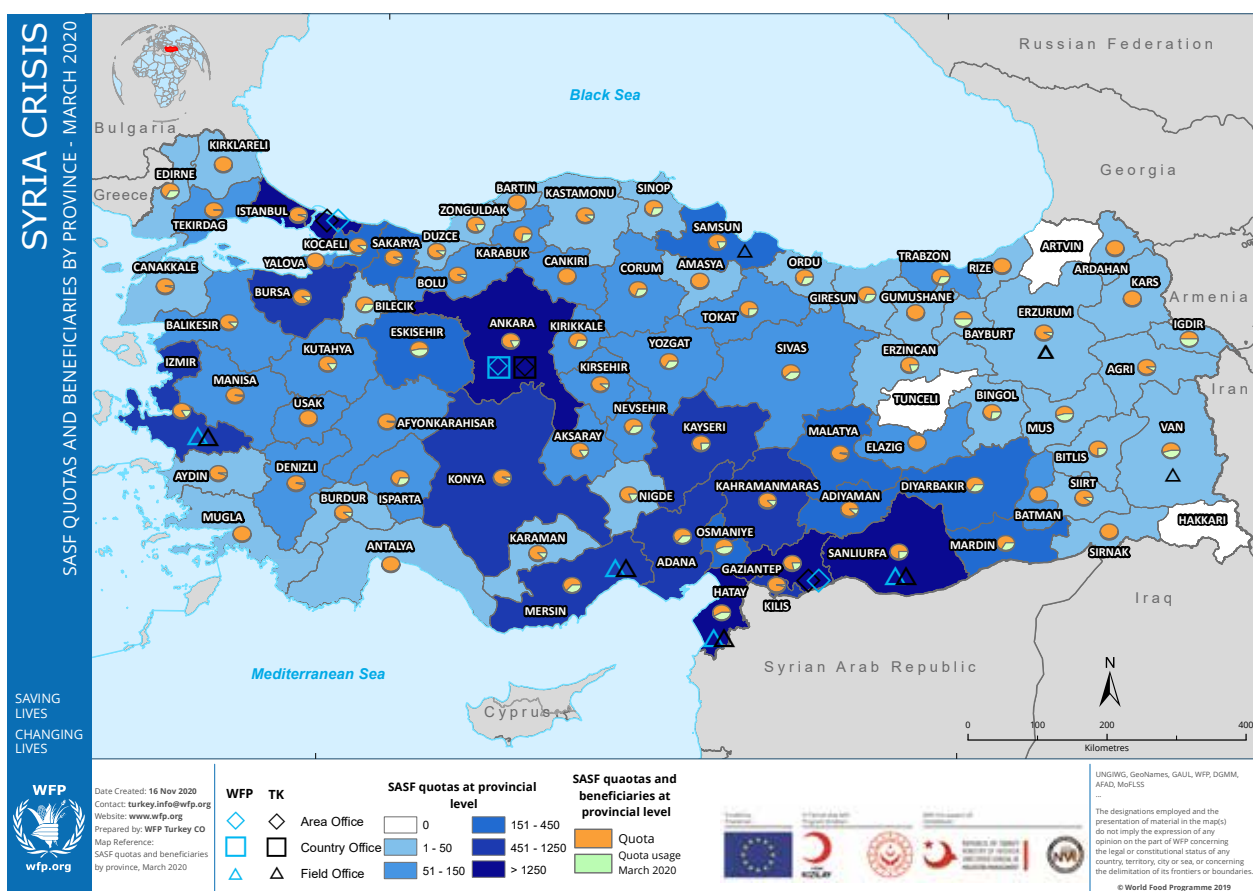
3. SASF-discretionary-allowance-added house-holds are generally economically vulnerable, with lower incomes; more than half are multidimensionally poor; and they are more likely to live under the World Bank poverty line than an average ineligible household.

4. SASF-removed households are relatively economically less vulnerable with higher income, and they are less likely to live under the World Bank poverty line[10] than an average eligible household. However, as of 2020 Q1, half of them are multidimensionally poor (based on CVME MPI) mainly driven by deprivation in food security and health.

5. Field Monitoring Assistants (FMAs) are more likely to agree with decisions made by SASF officers when the decision was taken following actual household visits.

3.3 RESULTS OF SASF PERFORMANCE ANALYSIS

3.3.1 SASF allowance quota usage by March 2020

By March 2020, 7,087 households (28,312 individuals) had been enrolled into the ESSN through the SASF allowance criteria. This is equivalent to 29.7% of the total SASF allowance quota that had been allocated nationwide (Figure 14). Although quota usage has increased over time, it remained lower than expected more than one year after the launch. On one hand, this may reflect that the concerns that the SASF allowance would be used too liberally were misplaced but, on the other hand, it can indicate a natural result of the limited capacity of the SASFs to conduct household visits in the absence of additional staff, vehicles, interpreters, etc. Furthermore, it is important to highlight that quota usage differs significantly among the locations: while some SASF offices used all their quota allocated to them, others did not use any of their quota to add households to the ESSN.

Challenges of using quotas

SASFs have raised some issues that have affected the use of quotas and overall SASF allowance implementation. These issues include their findings that there

are not enough households classified as Group A in their district, there are not enough vulnerable families or there is no need for the SASF allowance, the quota is too small, and the number of vulnerable households in Group B.

A systematic effort is required to address these issues. SASF allowance uses the ISAIS algorithm (the same system used for the identification of vulnerable Turkish households), which categorizes household vulnerability into groups A to E. The SASFs can only add group A households to the ESSN while the ISAIS system, which is unknown to the authors, categorizes Turkish families in both group A and B as vulnerable. Some SASFs indicate that there are vulnerable group B households. Further analysis with more data on the distribution of group A and B households is recommended to inform this discussion.

Policy makers may need to reconsider how quotas should be allocated among different locations, given the diversity of views from various SASF officers. In this context, allocating the quota based on the total number of households identified and classified as vulnerable according to the ISAIS system in each district would be a more effective approach than setting the quota at 5% of the total number of applications that each office received in 2018 (Figure 15). Additional analysis with more data on the distribution of households in the ISAIS system in each district is recommended to inform this discussion.

3.3.2 Household visits

Ideally all households need to be visited prior to any decision to either add or remove is made; however, mainly due to a lack of resources at local-level SASF offices, social workers were not able to conduct household visits with their whole portfolio. Results show that social workers prioritized visiting ineligible households over eligible households, meaning that they took a more normative and attentive approach to include households than to exclude them from the ESSN.

As a result, despite an increase in 2019 Q3 compared to 2019 Q2, the percentage of removed households

FIGURE 14. SASF ALLOWANCE QUOTA USAGE OVER TIME
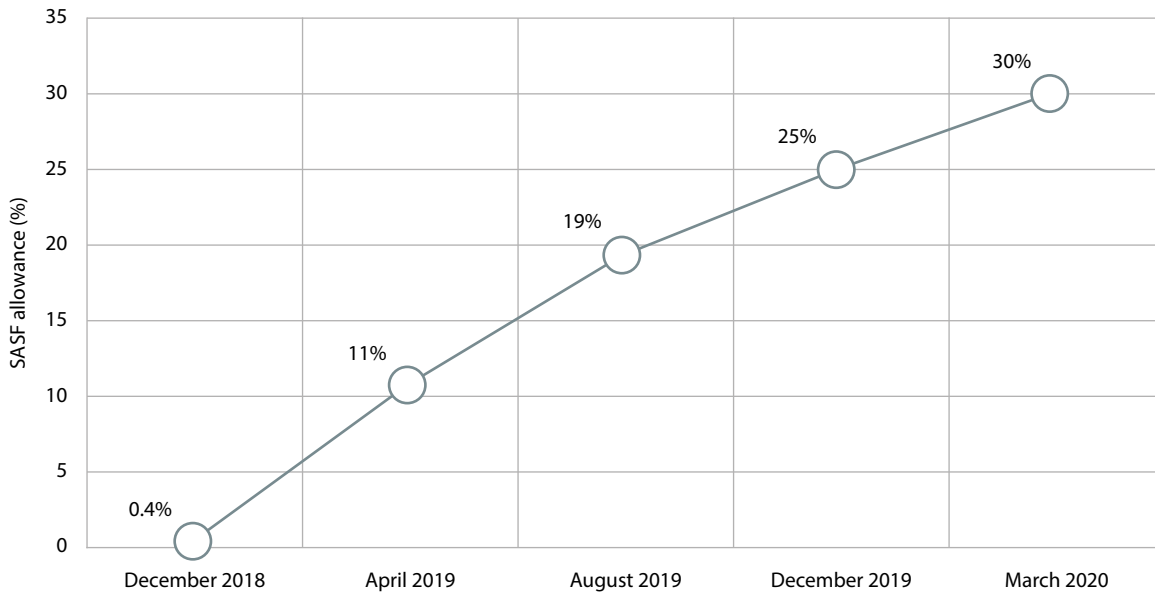
FIGURE 15. SASF ALLOWANCE QUOTA USAGE BY PROVINCES
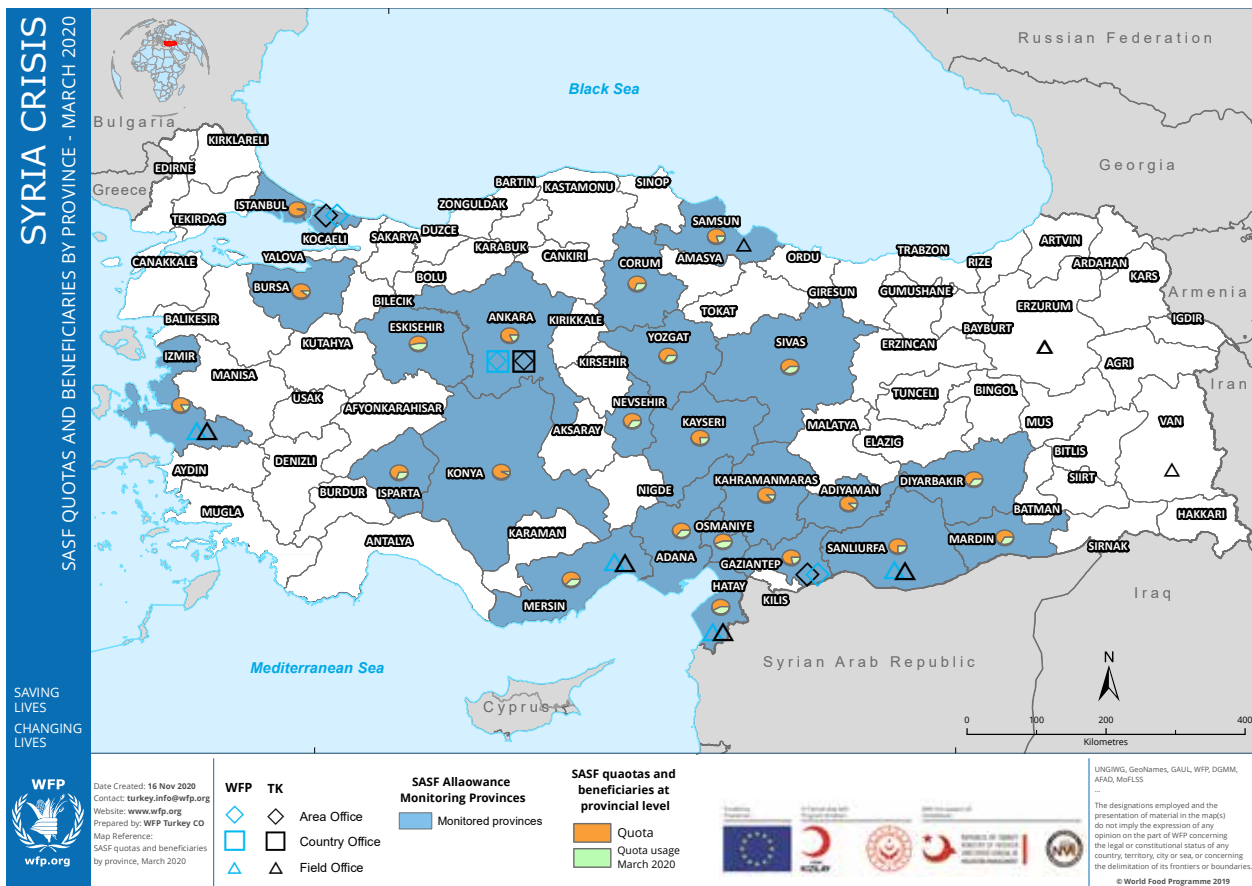
FIGURE 16. HOUSEHOLDS VISITED BEFORE BEING ADDED OR REMOVED FROM ESSN (BASED ON DECLARATION BY HOUSEHOLDS)
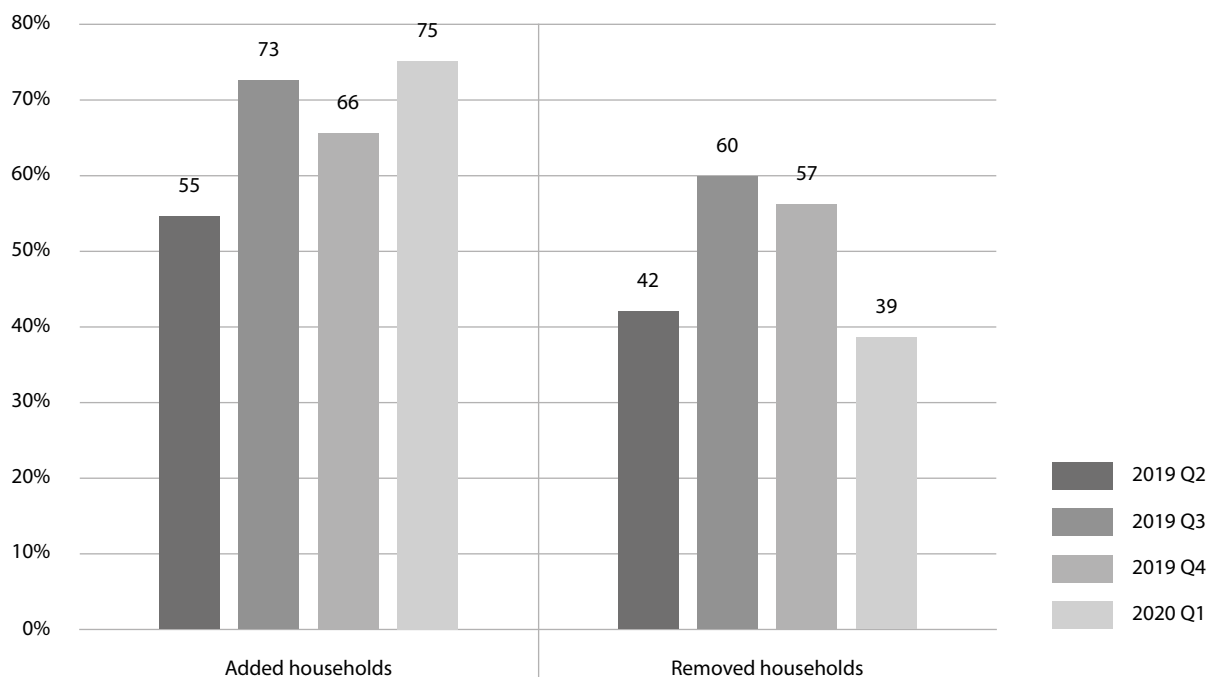
that reported having received a visit from SASF officers before removal decreased significantly in the last round, falling to 39% (Figure 16). However, overall, there was a progress in visiting households before adding them to the ESSN caseload. Three-quarters of added households indicated receiving a visit from officers before they started to benefit from the assistance in 2020 Q1. This is a positive trend and suggests the potential to reach even more households, thereby ensuring the most vulnerable are protected.

3.3.3 Comparative analysis on vulnerability of SASF added and removed households

Household income

Given that demographic targeting criteria are good, but not perfect proxies for vulnerability, the SASF allowance mechanism is a crucial tool for identifying vulnerable people who cannot be captured through demographic criteria and for including them in the caseload to ensure they receive the support neces-

sary to meet their basic needs. However, it is equally important that SASF officers regularly visit eligible households to determine whether a household that meets the demographic criteria is actually vulnerable enough to deserve the assistance. Therefore, it is ideal to observe that households with higher monthly income or with a good asset base are being removed while households that could not generate sufficient income and/or that were asset-poor are being added to the programme by social workers.

Analysis shows that there has been a significant difference between the average income of added and removed households over time, especially in the last round when removed households earned almost three times more than added households in a month (Figure 17). While SASF officers consistently managed to add households with low income over time, their performance in removing households was comparatively lower in 2019 Q3 and Q4 when they excluded households that earned less (1,200 TRY and 1,100 TRY,

FIGURE 17. MONTHLY INCOME OF ADDED AND REMOVED HOUSEHOLDS OVER TIME
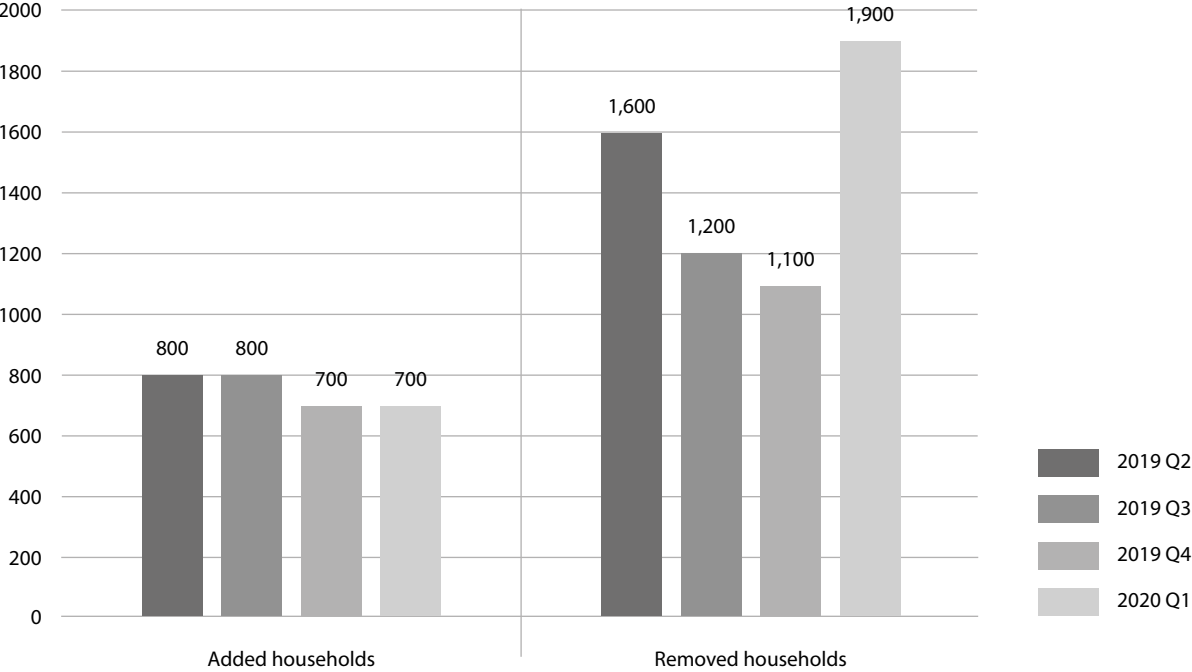
respectively) compared to the households removed in 2019 Q2 (1,600 TRY). However, it recovered in the last round when they successfully identified households with relatively high income generation and removed them from the caseload.

Household expenditure

Household expenditure is an important indicator of the household's vulnerability level. However, the results may not always reveal the full truth due to differences in household size. As shown in Table 7 (next page), total expenditure is generally much higher among the removed households in both Q1 and Q2, which is probably due to the larger household size among ex-beneficiaries and the fact that newly added beneficiaries typically have lower expenditures.

In per capita and adult equivalent scale[11] terms, analysis shows that worse-off households were added to the ESSN over time with the exception of 2019 Q4 when there was a slight increase in per capita and per

adult equivalent indicators. Similarly, social workers removed better-off households with the exception of 2019 Q3 when the increasing trend reversed; however, the upward trend resumed in 2019 Q4 and an increasing trend was maintained in 2020 Q1. Overall, the decreasing trend, implying lower expenditure and therefore higher vulnerability among added households, and the increasing trend, indicating higher expenditure and therefore lower vulnerability among removed households, demonstrate a positive performance of the SASF allowance mechanism – at least by monetary indicators.

	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1
Total Expenditure	TRY 2.074	TRY 1.928	TRY 2.053	TRY 2.096	RY 2.806	TRY 2.146	TRY 2.851	TRY 3.422
Expenditure Per Capita	TRY 503	TRY 432	TRY 475	TRY 464	TRY 518	TRY 391	TRY 465	TRY 591
Expenditure Adult Equivalent	TRY 691	TRY 624	TRY 678	TRY 673	TRY 782	TRY 599	TRY 732	TRY 955

TABLE 7. EXPENDITURE PATTERNS FOR SASF ADDED AND REMOVED HOUSEHOLDS

Poverty prevalence

The World Bank calculates poverty lines[12] per person per day for middle- and high-income countries on a yearly basis. These two classifications showing the percentage of people living below moderate and extreme poverty lines are widely used in the development world to identify economically poor populations and make necessary adjustments to programmes and policies. Figure 18 shows the percentage of added and removed households living below the moderate poverty and extreme poverty lines over time.

One hundred percent poverty among added households and 0% poverty among removed households is possible in theory but not in practice, given that the refugee population in Turkey is homogenously vulnerable. Therefore, the results are expected to reveal that ineligible households that were relatively poorer were added to the ESSN, while less poor eligible households were removed from the caseload. When read from this perspective, the analysis demonstrates that almost half of the added households were economically poor, and this was more or less stable over time. In Q1 2020, on average, 22% of all ineligible households were living below the moderate poverty line, while 47% of added households were below the moderate poverty line, implying that SASF officers managed to identify poorer households to include into the ESSN.

Findings also reveal that social workers started to exclude relatively better-off households over time with the exception of 2019 Q3. Even though the percent-age of removed households living below the poverty line increased in 2019 Q3 compared to 2019 Q2, since then there has been a steady decrease, reaching 28% in the last round. Comparison between removed households and all eligible households in Q1 2020 indicates that, on average, 59% of all eligible households were living below the moderate poverty line while 28% of removed households were below the moderate poverty line, suggesting that social workers succeeded in removing relatively less poor households.

Overall, results in monetary-related outcome indicators indicates that SASF allowance mechanism has shown progress over time and has improved its performance by March 2020.

Household food consumption

Household food consumption during the week preceding the survey is a useful proxy for vulnerability. Consistent with prior vulnerability assessment and monitoring reports published over the course of the ESSN, the majority of households have acceptable food consumption. The main reason behind these figures is the fact that food expenditures represent the biggest portion of total household expenditure, implying that households tend to cover their food needs first and foremost by allocating any cash inflow to buy food products.

However, interestingly, analysis showed that food consumption levels were high for added households compared to removed ex-beneficiaries except in 2019 Q2 (Figure 19). The difference in the food consumption scores between the two groups became

FIGURE 18. HOUSEHOLDS BELOW THE WB POVERTY LINES

Added households

Removed households

- Below moderate poverty rate
- Below extreme poverty rate
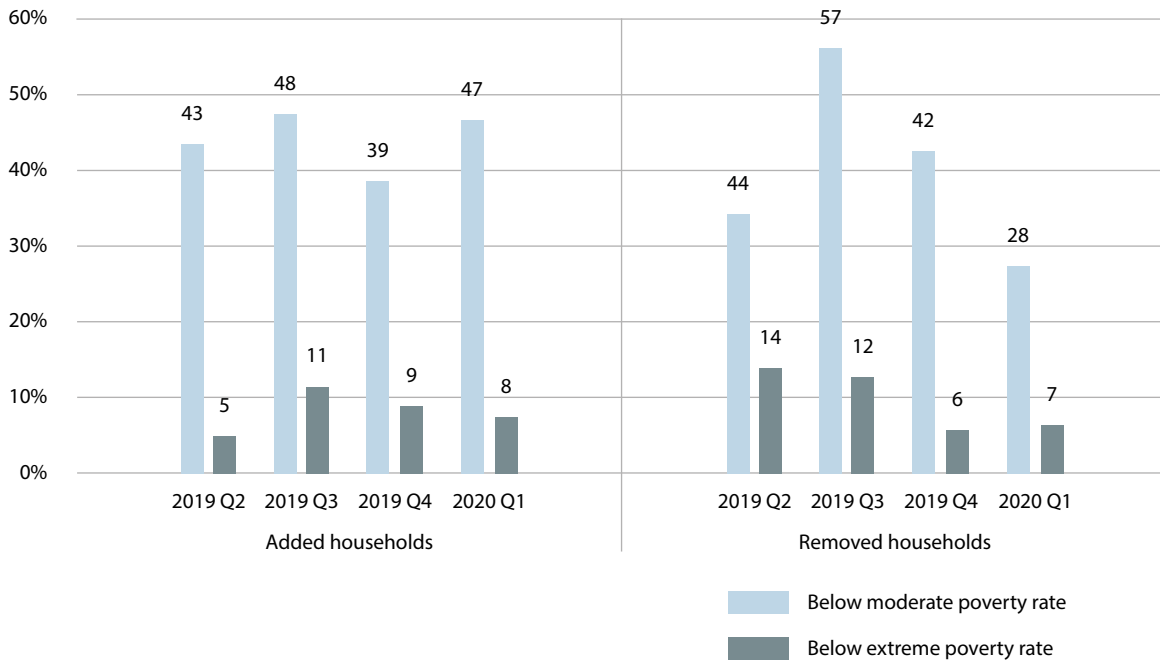
FIGURE 19. HOUSEHOLD FOOD CONSUMPTION PATTERNS

Food consumption groups

- Poor
- Borderline
- Acceptable
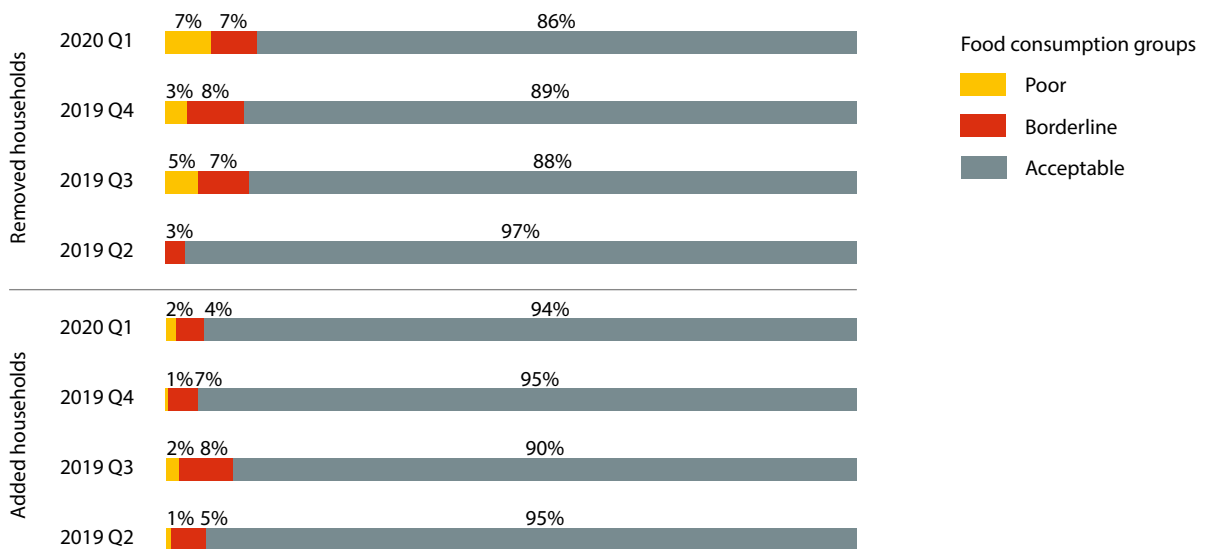
statistically significant in Q1 2020, though it was not significant in previous quarters.[13] While this could be partially because vulnerable ineligible households are receiving donated/shared resources/food items from their neighbours, relatives, and friends, this could also imply that social workers could not capture households' deprivation in food security and removed them from the ESSN. The latter may be explained by the low level of household visits by officers among the removed group prior to removal, which therefore would be improved once more frequent visits are ensured before any decision is made.

Multidimensional poverty

Poverty is usually measured based on the money-metric concept, which considers someone as poor if they do not have enough economic resources. This implies that the indicators used to measure poverty are only related to prices and expenditures on goods and services (UNICEF, 2014). However, since the 1990s, multiple methods have been developed to measure poverty. In this case, the Multidimensional Poverty Index (MPI) has been adapted[14] to the situation of the refugee population living in Turkey, using principal component analysis. This is called the CVME MPI, and a review of the index is included in section 1.1.

Overall, despite its limitations, as outlined in section 1.1, the CVME MPI provides a useful way to measure household wellbeing across sectors, to identify specific needs, and to compare groups. This is particularly of interest within Essential Needs programming, allowing for synthesis of data across a variety of household needs.

Results of the CVME MPI analysis in Figure 20 demonstrate that the multidimensional poverty of added households slightly increased from 53% to 61%, indicating that multidimensionally poorer ineligible households were added to the ESSN. However, results also show that half of the eligible households that were removed from the programme were multidimensionally poor; the percentage decreased in 2019 Q4 and then it reversed again in the last round, reaching 51%. Further analysis indicated that poverty among removed households was mainly driven by deprivation in food security and health. This is consistent with the findings on food consumption that showed that the

FIGURE 20. CVME MULTIDIMENSIONAL POVERTY INDEX ANALYSIS
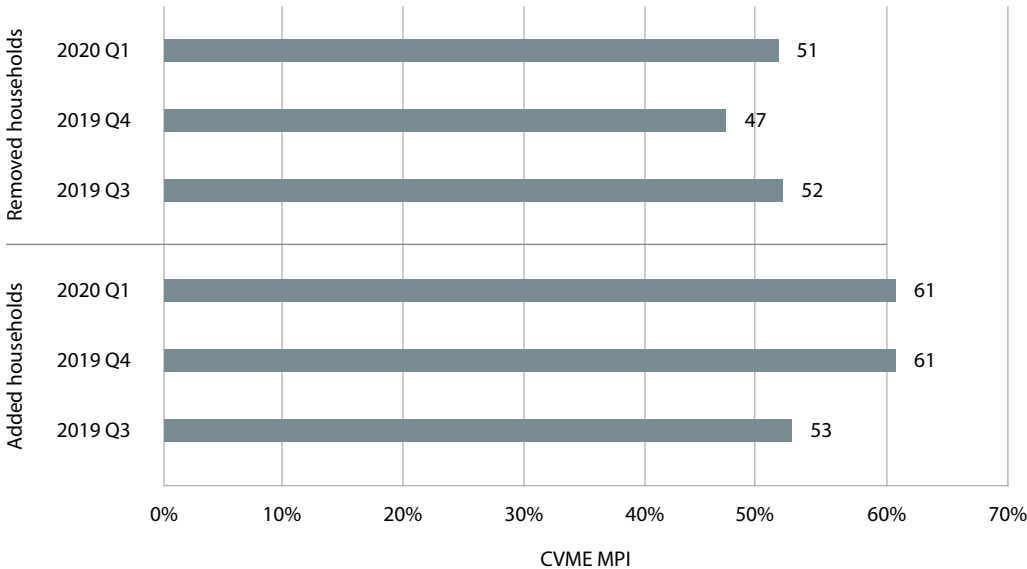
FIGURE 21. CVME MULTIDIMENSIONAL POVERTY BY DIMENSIONS

Added households

	2019 Q3	2019 Q4	2020 Q1
Education	17%	20%	18%
Health	40%	44%	52%
Food Security	41%	37%	34%
Income Resources	26%	31%	30%
Living Standards	41%	56%	50%

Removed households

	2019 Q3	2019 Q4	2020 Q1
Education	21%	20%	20%
Health	34%	31%	50%
Food Security	43%	42%	41%
Income Resources	26%	28%	30%
Living Standards	28%	37%	23%
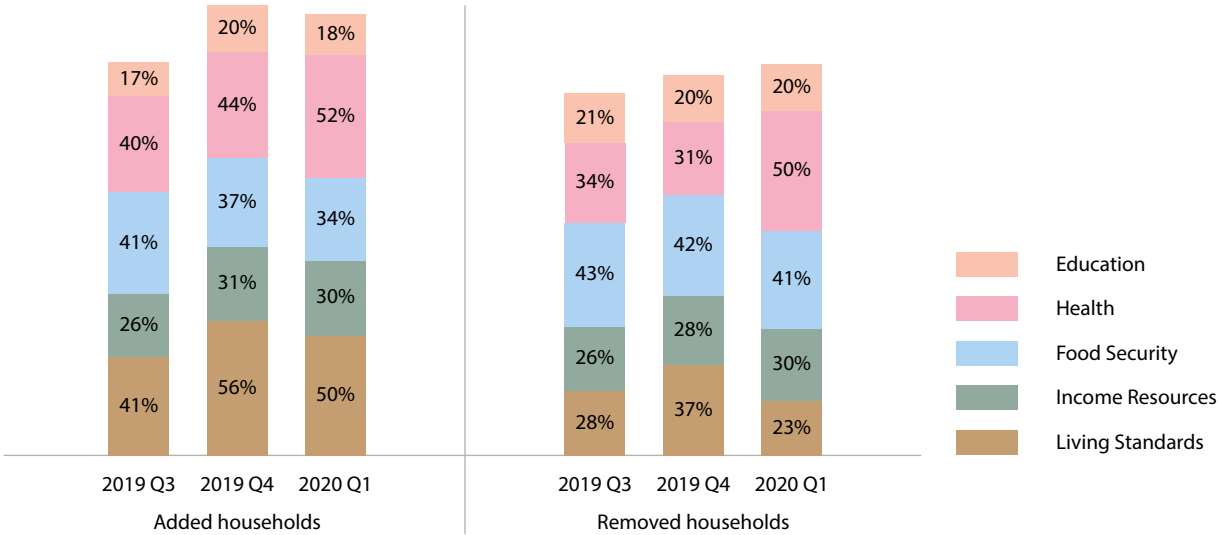
SASF officers could not detect deprivation in food security, probably due to the low level of visits to eligible households before removal (Figure 21).

Field Monitoring Assistant opinions

In the monitoring tool, staff are asked to state whether they agree with the decision taken to remove or add the household to the ESSN. The results demonstrate that majority of FMAs agree that SASF-added households were deserving of the assistance (Figure 22). The proportion of agreement has increased over time, climbing to 99% in the last round – for households both visited and not visited by SASF officers. On the other hand, FMAs do not always agree with decisions regarding the removal of some households. It is important to highlight that FMAs are more likely to agree with decisions taken for the households that were reported as having visits prior to removal, while over time they gradually became more opposed to decisions taken to remove households without conducting a visit. More than half (65%) of FMAs thought

that households that were visited by SASF officers should not have been removed from the ESSN in 2019 Q3, but this ratio reduced to 38% in 2020 Q1, implying increasing alignment over time. However, in 2020 Q1, 73% of FMAs – an increase from 55% – expressed that households removed without being visited by social workers did not deserve to be excluded from the programme. This is consistent with previous findings on the removal of multidimensionally poor households and the decreasing number of visits to eligible households by SASF officers. This finding again emphasizes the necessity of household visits before making any decision on removal.

FIGURE 22. SUBJECTIVE ASSESSMENT RESULTS FOLLOWING FIELD MONITORING VISITS

Non-visited households

Disagree
- 1% (2020 Q1)
- 5% (2019 Q4)
- 16% (2019 Q3)

Agree
- 99% (2020 Q1)
- 95% (2019 Q4)
- 84% (2019 Q3)

Disagree
- 73% (2020 Q1)
- 71% (2019 Q4)
- 55% (2019 Q3)

Agree
- 27% (2020 Q1)
- 29% (2019 Q4)
- 45% (2019 Q3)

Visited households

Disagree
- 1% (2020 Q1)
- 5% (2019 Q4)
- 6% (2019 Q3)

Agree
- 99% (2020 Q1)
- 95% (2019 Q4)
- 94% (2019 Q3)

Disagree
- 38% (2020 Q1)
- 57% (2019 Q4)
- 65% (2019 Q3)

Agree
- 62% (2020 Q1)
- 43% (2019 Q4)
- 35% (2019 Q3)

Added households

Removed households

- 2020 Q1
- 2019 Q4
- 2019 Q3

4. Concluding Remarks: Focus Area 2

This focus area report aimed to review the vulnerability analysis used in the ESSN programme, with a focus on multidimensional vulnerability in key socioeconomic indicators. Building on an evaluation of the CVME MPI and MDDI, combined with the analysis of participatory focus group discussions, as well as an analysis of international refugee conventions such as the 1951 Refugee Convention, the approach was to make a series of adjustments to develop a Refugee MPI that is statistically strong and normatively convincing. The strength of the new approach is that the index moves towards an RMPI informed by the needs of refugees but also by their rights and their own voices as captured through participatory focus group discussion. Broadening the normative view to justify the design of the index, in light of available data, truly helped to design an index that complements the CVME MPI and the MDDI, and makes it more applicable in refugee contexts that are both needs- and rights-based.

The revision applied more stringently the Alkire-Foster method than the CVME MPI did and achieved an index that is parsimonious, inclusive of different reference populations in each dimension, and robust in its design. Indicators were selected based on normative and statistical grounds, making it a viable alternative to the CVME MPI with lessons learned for the design of RMPIs in different contexts. This measure was then analysed to draw out important findings about the characteristics of refugees in Turkey and the multidimensional poverty that they were experiencing. A key finding here is that over three-fifths of the population is identified as multidimensionally poor, an incidence of multidimensional poverty of 61%. The majority of the multidimensionally poor face poverty intensities of up to 35%, which is encouraging news as this indicates that most poor refugees face poverty

intensities in proximity to the poverty cutoff line of 20%. This finding will allow policy makers to design a clear response strategy.

Future survey designs will profit from the new index's design as it allows for a more targeted data collection strategy, one specifically designed for refugees and their needs and their rights. For example, by including an indicator on winter assets, more data on specific winter items can be collected in contexts of countries with harsh winter conditions, or if the index is applied in other contexts (e.g. in situations of south-south migration), the actual list of items can be adjusted. A rights-based focus will need data with longer recall periods (e.g. on educational attainments of children and adults beyond the last semester, or on income resources and sicknesses beyond the past 30 days). Further, a water indicator would strengthen the index but requires objective information on the quality of the water source, among other crucial information.

In very practical terms, the new index also proves useful for targeting purposes because it is designed to capture multidimensional poverty for all types of household demographics, which underpin the majority of eligibility criteria of the ESSN programme. The finding that more households were multidimensionally poor than non-poor among ESSN beneficiaries in four eligibility criteria (single female, single parent, elderly households, and households with a disabled member) is encouraging – even with a small sample size in CVME3 – as it highlights that the programme predominantly targets the poor in these groups. Yet, many non-poor households were also targeted among households that qualified through the other two criteria, namely those with four or more children and households with a dependency ratio of above or equal to 1.5 (both with substantially greater population shares). Therefore, households that became eligible through these two criteria should be

prioritized for SASF household visits so as to minimize the inclusion error, but also because many of these households were found to be vulnerable to poverty (facing deprivations close to the poverty line). Also, as research by Oxford Policy Management (OPM) has shown, households moved between poverty quintiles frequently, both up and down. Analysis revealed that 56% of those who were in the richest quintile, by monetary poverty measures, in 2017 moved to a lower quintile by December 2018, and 57% of those in the poorest quintile moved up over this time period (OPM (2020). This suggests that any snapshot of their status through a household visit may cease to be valid a few months later. Future research will further explore how the targeting mechanism in these two eligibility groups can best be combined with the poverty analysis of the RMPI. Furthermore, indicators proposed for measuring refugee multidimensional poverty can be used to further develop the existing SASF tool/ checklist.

There is no targeting system without exclusion error. Universal targeting ends up with the inevitable inclusion of some non-poor households, which causes inclusion errors. Therefore, policy makers are encouraged to use the evidence base to improve the performance of the targeting mechanism. Currently the ESSN targeting is based on a two-tier or filter mechanism. The first filter is simple demographic targeting via demographic criteria, while a second filter uses some observable characteristics that are linked to welfare of the households through the SASF discretionary allowance and SASF household visits. The second filter currently uses an existing checklist that is also used to assess Turkish households. An improved version would probably more closely align with the RMPI proposed in this paper.

Findings on the performance of the SASF allowance mechanism and household visits reveal that performance has improved over time with the increase in quota usage and frequent household visits prior to adding vulnerable households to the programme. However, household visits prior to removing relatively less vulnerable households remained at a

lower frequency than hoped for. This is confirmed by the figures that demonstrate SASF officers' better performance when it comes to adding vulnerable households than shown when removing less vulnerable ones. It is also important to mention that WFP's FMAs were more likely to agree with decisions made by SASF officers when a decision was taken following actual household visits. However, regular and frequent household visits are not always feasible due to a lack of resources for SASFs at the local level, which includes human resources, vehicles, time, and an existing high workload. Also as stated above, a small event such as a disease or finding a job etc., can quickly move a household across the poverty line in either direction, meaning that a satisfactory system would not only require good checklists and empathetic, but objective, social workers, but also periodic visits to the same household. While for the ESSN all three prerequisites appear problematic in the Turkish context for the immediate future, all three can be improved over time if sufficient resources are invested.

4.1 RECOMMENDATIONS FOR THE RMPI

1. The design of multidimensional poverty indices for refugees need to account holistically for the needs, rights, and voices of refugees. The newly designed RMPI in this report is a first step to achieving this ideal.

2. Future data collection strategies are required to meet the data needs of refugees found in this report. This includes better objective information for key indicators and for different reference populations, as well as the use of longer recall periods where needed.

3. Multidimensional poverty measures for refugees need to be disaggregated by arrival time and other characteristics to assess results in context. Recent arrivals have other poverty drivers than refugees who arrived some time back, and the newly designed RMPI allows for that.

4. In the Turkish context, it was found that the majority of the multidimensionally poor (measured by the RMPI) face poverty intensities of up to 35%, thus in proximity to the poverty cutoff line of 20%. This finding should encourage policy makers to design a targeted response to alleviate poverty and avoid refugees moving back into poverty.

5. Syrians have the greatest population share in the CVME3 and were found to suffer substantially from precarious work and a lack of adult education. These should be targeted as a priority.

4.2 RECOMMENDATIONS FOR TARGETING

1. First and foremost, the findings reiterate the importance of conducting household visits, therefore it is recommended that no decision to add or remove households should be actioned without such a visit after COVID-19.

2. The decision-making tool used by the SASFs to assess refugee household vulnerability should be aligned with the RMPI proposed in this paper so as to better capture the information required to measure each household's multidimensional poverty. The same tool should not be used for Turkish and refugee households.

3. There should be greater systemization of identification. Despite the promising performance of SASF officers when adding vulnerable households to the programme and removing relatively better-off households (on economic terms) from the ESSN, the removal of households that were multidimensionally poor by the CVME MPI negates the extent to which exclusion error is reduced by the same mechanism. This brings up a discussion of the difficulties of measuring the vulnerability of households as there are specific conditions that may skew the results. Further systematizing the approach used to identify vulnerable

households during monitoring visits would help reduce observed discrepancies. Systematisation would include agreeing on which conditions a household is determined to be vulnerable, ensuring a standardized process among SASF offices.

4. Involving other implementing partners and local NGOs by allowing them to refer cases directly to SASF officers would help reduce the burden on SASF officers and ensure a collaborative decision-making process.

5. There should be an appeals mechanism. Given that there remains some dissent on the decisions taken to remove households (as shown by the field monitor assessment and findings on multidimensional poverty analysis), there is a need for a structured process that would allow for such cases to get swift remedial action.

6. Further research should be conducted to explore how a multidimensional poverty perspective can be embedded into ESSN targeting, especially for the dependency ratio and the four-plus children criteria as those criteria led to significant inclusion errors.

FOCUS AREA 3

Introduction to Focus Area 3

In the past decade, Turkey has seen a tremendous increase in the number of refugees who make their home there, and, just like the host population, refugees are affected by macroeconomic changes within the country. As refugees have been rebuilding their lives from scratch, changes in the nation's economic conditions have had particularly strong impacts on refugees' resilience and self-reliance, but they also have influenced the degree to which humanitarian programmes remain necessary. This section aims to provide a background on the macroeconomic situation in Turkey and to summarize policy responses introduced to address macroeconomic challenges.

WFP partnered with the European Civil Protection and Humanitarian Aid Operations (ECHO), the Ministry of Labour, Family and Social Services (MoFLSS), and the Turkish Red Crescent (TRC) for the implementation of the Emergency Social Services Network (ESSN) programme from September 2016 to March 2020. During this period, the Turkish economy has undergone drastic changes. First, the GDP growth rate gradually decreased from 7.47% in 2017 to 0.88% in 2019 (Macrotrends, 2021). It increased to 4.5% in the first quarter of 2020 but decreased in the second quarter following the start of the COVID-19 pandemic. The exchange rate for the Turkish lira to the US dollar has drastically increased by 79% from June 2017 to March 2020 (3.53TL to 6.33TL). Along with the deterioration in the foreign exchange rate, the CPI inflation rate peaked in 2018 Q4 and has remained above 10% every month from May 2017 to March 2020 with the exception of 2019 Q4 (Appendices 1 and 2). Similarly, the unemployment rate increased from 10.82% in 2017 to 13.49% in 2019 (Statista, 2020). In general, the macroeconomic downturn began in 2018 Q2 and partially recovered in 2019 Q4 and 2020 Q1 before it was hit by the global pandemic starting from 2020 Q2.

These economic changes in Turkey affected the lives of the refugees. The Minimum Expenditure Basket (MEB) cost[15] for refugees in Turkey increased significantly by 43.6% from 2017 to 2020 (264 TL in June 2017 to 379 TL in February 2020), resulting in a widening of the gap between the minimum amount required to cover their basic needs and the sum of assistance (which did not change except for an increase in top-ups in 2019, which was insufficient to make up for the loss of purchasing power), and income generated by households.

Consequently, macroeconomic changes during the period led to a reduction in the purchasing power of refugees living in Turkey, and it has become more challenging for refugees to meet their basic needs. Moreover, labour market demand has decreased, which made it difficult for refugees to secure sustainable income sources. As a result, refugees tend to rely more on international assistance. While Emergency Social Safety Net (ESSN) stakeholders have adjusted the programme over the course of implementation, the transfer value has not been changed since June 2017. Quarterly top-ups were approximately doubled in 2019, but this represents only a small increase in transfer value that is insufficient to compensate for the loss of purchasing power caused by inflation.

A number of changes were made to the ESSN to incorporate lessons learned and improve its effectiveness and efficiency. The changes are as follows: i) targeting criteria regarding dependency ratio and household members with disabilities were modified in June 2017 to increase the coverage of the programme by reaching more vulnerable households; ii) the monthly transfer value was increased from 100 TL to 120 TL in June 2017; iii) quarterly top-ups were introduced in June 2017 to assist small-sized households that could not take advantage of economy of scale, and the top-up amount.

were increased in August 2019 (ranging from TRY 100 to 600, with larger top-ups allocated to smaller households) to compensate partially for deteriorating purchasing power; iv) disability top-ups were introduced in August 2018 in order to provide further support to households with severely disabled member(s); and v) the Social Assistance and Solidarity Foundations (SASF) Discretionary Allowance Mechanism[16] was introduced in December 2018 to complement demographic targeting criteria as a second tier or filter of targeting by including households that were excluded for not meeting demographic criteria but which were actually vulnerable.

Both the deteriorating economic situation and the adjustments made over the course of WFP's implementation period – either to address challenges that arose from the macroeconomic situation of the country or to improve the programme to better assist refugees – have directly and indirectly impacted outcome indicators of the ESSN.

This chapter focuses on identifying the intended benefits and unintended impacts of the ESSN. The body of this focus area report has three parts: i) intended impacts, ii) unintended impacts, and iii) potential impacts on non-applicants. The first part covers existing evidence and analyses ESSN programme performance in addressing multidimensional poverty among refugees and their ability to meet basic needs. The area of focus for this section is ESSN beneficiaries. The second part explores how the programme has affected refugees' lives in areas like employment, fertility decisions, social cohesion, and the economy at the macro- and micro-levels by comparing beneficiaries, non-beneficiaries, and the host society. The third section describes the ESSN's hypothetical impact on non-applicants and provides results on the potential effects on multidimensional poverty among refugees if refugees who did not apply to the ESSN had applied to receive the assistance. This chapter ends with some concluding remarks and recommendations.

5. Intended impacts of the ESSN Programme

The ESSN is designed to support vulnerable refugees living in Turkey to meet their basic needs. This section explores to what extent beneficiaries i) have been able to meet their basic needs, ii) have adopted coping behaviours due to the inability to meet their basic needs, iii) have had sufficient economic capacity to meet their needs, and iv) how the ESSN has impacted multidimensional poverty among refugees.

5.1. METHODOLOGY

In analysing the programme's intended impacts, data and resources from WFP programme implementations are mainly utilized, along with external studies from academics. The range of datasets and resources include ESSN's *Post Distribution Monitoring* (PDM), *Comprehensive Vulnerability Monitoring Exercise* (CVME), WFP Market Bulletins, *Multi-purpose Cash Assistance and Health* (Johns Hopkins), an analytical study on the contribution of assistance to the nutritional well-being of Syrian refugee women and children (Hacettepe, 2020), and an ESSN analysis from the World Bank (Özler et al., 2020). All the PDM rounds and CVME rounds 3, 4, and 5 are representative for refugees living in Turkey. The pre-assistance baseline is May 2017. In this section, only ESSN applicants (beneficiaries/ non-beneficiaries) will be analysed when assessing the intended impacts.

KEY FINDINGS

1. Overall performance of ESSN applicants follows similar patterns across most indicators: an improvement between 2017 and 2018 following the start of the assistance is followed by a decline during the second half of 2018, following high inflation and an increased cost of living. Indicator values then recover until March 2020 following an increment in quarterly top-ups in 2019.

2. Despite macroeconomic challenges, the ESSN cash assistance has successfully supported the beneficiaries. Beneficiaries have managed to outperform non-beneficiaries in nearly all of the outcome indicators (Food consumption level, nutrition, health conditions, debt management, use of coping strategies, Refugee Multidimensional Poverty Index, etc.).

3. The ESSN assistance caused a significant reduction in the intensity of multidimensional poverty among eligible applicants, and the impact was more evident on refugees who had arrived more recently. The largest impact of the assistance was found on the dimensions of food security, living standards, and education, all of which had statistically significant improvements. Also, the largest reductions of poverty occurred among those who are relatively less poor (poor, but not extremely so).

4. Nevertheless, household debt and high cost of living (as measured by the Minimum Expenditure Basket) remain as key concerns. Increasingly more households report that their debt level is not manageable as they have to borrow more to meet their basic needs.

5.2 ACCESS TO BASIC NEEDS

5.2.1 Food security and nutrition

Food security, which means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs, is crucial for an active and healthy life (World Food Summit, 1996). Food security, which is at the core of basic needs, is measured through the Food Consumption Score (FCS), which is associated with household food access and is therefore used as a proxy for household food security. The FCS is a measure of dietary diversity, food frequency, and the relative nutritional importance of the food consumed. A high FCS means that a household's food intake is adequate. The FCS is a good proxy for a household's current food security status and is highly correlated with other food security proxy indicators, including coping strategies and income. It is often classified in three groups: poor, borderline, and acceptable food consumption (WFP 2020).

- Poor FC: Households that are not consuming staples and vegetables every day and never or very seldom consume protein-rich food such as meat and dairy.
- Borderline FC: Households that are consuming staples and vegetables every day, accompanied by oil and pulses a few times a week.

- Acceptable FC: Households that are consuming staples and vegetables every day, frequently accompanied by oil and pulses, and occasionally meat, fish, and dairy.

WFP's ESSN PDM shows that at the baseline, 77% of both beneficiary and non-beneficiary households had an acceptable food consumption level. The proportion of refugee households with acceptable food consumption peaked in 2018 (89% for beneficiaries and 84% for non-beneficiaries) before gradually decreasing until March 2020.

The proportion of households with acceptable food consumption decreased in 2019[17] and 2020 mainly due to high inflation, which led to decreased real income (Appendix 1). Nevertheless, beneficiary households continued to show significant progress when compared to the baseline. The proportion of beneficiary households with acceptable food consumption increased from 77% to 84%, whereas that of non-beneficiaries only reached 79% in March 2020 (Figure 23). As both groups were affected by similar macroeconomic conditions, it indicates that the ESSN assistance played an important role in enhancing food security for beneficiary households.

The findings from the World Bank analysis (Özler et al., 2020) also confirms the positive impact of ESSN cash assistance on refugees' food consumption levels and dietary diversity. It was found that the pro-

FIGURE 23. PERCENTAGE OF ESSN APPLICANT HOUSEHOLDS WITH ACCEPTABLE FOOD CONSUMPTION
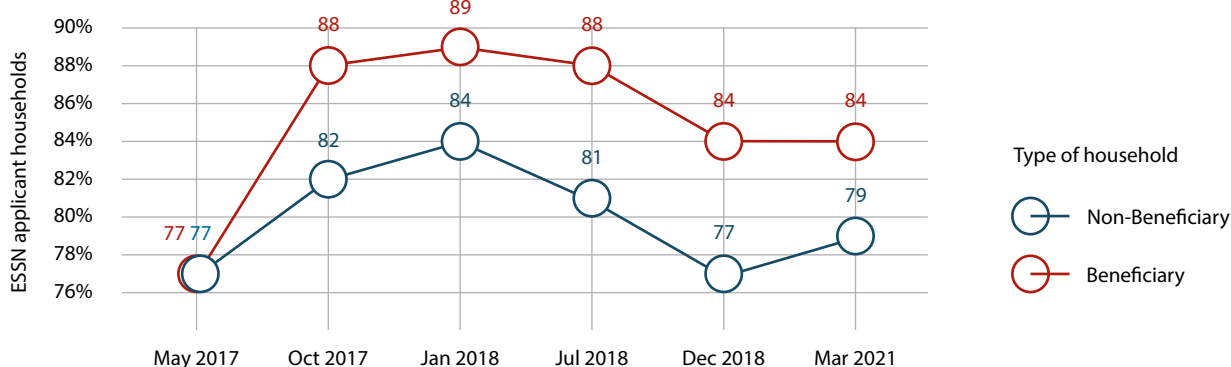
gramme clearly had a positive and meaningful effect on the food consumption score. The effect is most likely between 0.15–0.25 Standard Deviation (using the Kullback Leibler (0.1) bounds), especially at the 6- and 12-month follow-ups. Consumption for all food groups increased. The consumption of fruits, vegetables, and food containing animal-based protein showed the largest growth rate. For example, at the 6-month follow-up, beneficiary households report consuming eggs, meat, or fish and dairy products about 0.3 days more than the control group per week, representing a roughly 10% increase. However, the average effect decreased over time, particularly during the 18-month follow-up survey, which coincided with the macroeconomic recession in the country as well as the associated loss of purchasing power for ESSN beneficiaries starting from mid-2018.

Ensuring adequate nutrition is another core element of the programme. To examine the contribution of financial assistance to the nutritional well-being of refugee women and children, Hacettepe University has conducted a study with WFP (Hacettepe, 2020). The prevalence of stunting, wasting, underweight, overweight, type of foods consumed, iron-rich foods consumed, minimum dietary diversity, and birth weight are considered in order to examine nutritional well-being. The analysis reveals that while the nutritional well-being of Syrian children has significantly improved over time after fleeing to Turkey, they remain more malnourished than Turkish children. Nineteen percent of Syrian refugee children have multiple forms of malnutrition, which is relatively low compared to 35% to 40% in the pre-conflict period. Nevertheless, the prevalence of malnutrition is found to be 4% only among host community children. Furthermore, around 30% of Syrian refugee children aged 6 months to 23 months consume iron-rich foods and only 8% are fed meals with minimum dietary diversity, whereas these ratios go up to 63% and 39%, respectively, for average Turkish children. Results also indicate that 20% of Syrian children under age 5 were born weighing less than 2.5 kilograms, compared to 12% of Turkish children.

The Hacettepe University-WFP study also examined Syrian refugee women in Turkey from a nutritional perspective. The findings indicate that, while Syrian refugee women do not suffer from malnutrition, many of them are overweight or obese. Based on Body Mass Index (BMI), only 3% of Syrian refugee women aged 15 to 49 are underweight. Twenty-eight percent of Syrian refugee women are overweight and 31% have an obesity problem. The results show that in this regard there is no significant difference between Turkish and Syrian refugee women. Also, the impact of financial assistance on the nutritional well-being of Syrian women is found to be limited and not significant.

Overall, the Hacettepe University-WFP analysis shows that having a household member with a paid job has a more positive impact on the nutritional well-being of refugee children than receiving financial assistance. Financial assistance, including the ESSN, does have a positive impact on chronic malnutrition; however, its impact on acute malnutrition among Syrian refugee children is limited.

5.2.2 Living conditions

Everyone has the right to adequate housing. This right is recognized in international legal instruments and includes the right to live in security, peace, and dignity, and with security of tenure. Key aspects of the right to housing include the availability of services, facilities, materials, and infrastructure; affordability; habitability; accessibility; location; and cultural appropriateness. The right to housing also extends to safe drinking water; energy for cooking, heating and lighting; sanitation and washing facilities; means of food storage; refuse disposal; site drainage; and emergency services. People should have adequate space and protection from cold, damp, heat, rain, wind, and other threats to health, structural hazards, and disease vectors.[18] Identified as a fundamental human right by the United Nations, adequate housing has been regularly tracked and reported through WFP's vulnerability assessments.

FIGURE 24. PERCENTAGE OF HOUSEHOLDS LIVING IN A 'GOOD QUALITY' HOUSE
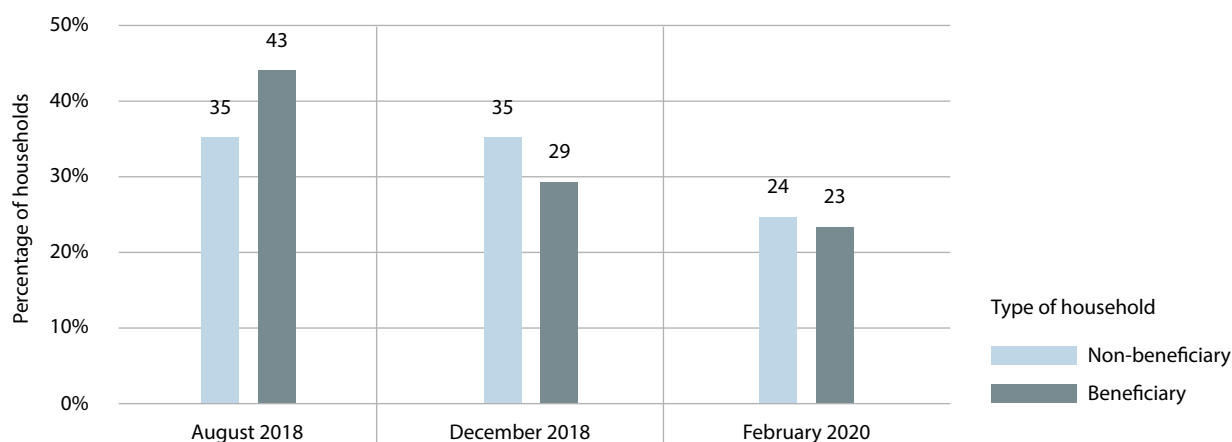
5.2.3 Housing quality and crowding

Housing conditions are one of the most important factors determining a refugee's well-being. Good quality housing can be defined as houses that meet minimum humanitarian standards: privacy, natural light, ventilation, security, and essential facilities. Since August 2018, the percentage of households living in good quality housing has fallen sharply (43% to 23% for beneficiaries and 35% to 24% for non-beneficiaries). As seen in Figure 24, only a quarter of ESSN applicants were living in good quality housing in February 2020.

According to round 5 of WFP's CVME, this change is most likely due to a decrease in purchasing power and a 36% increase in rental costs in the given period (WFP, 2020). It can be deduced that refugees moved to cheaper housing to cope with their economic constraints. Analysis shows that 26% of refugee households have moved in the last 12 months (reference point: February 2020), and 18% of them reported economic reasons (including the search for more affordable housing) as the primary motivation for moving. In addition, paying rent was the second most common reason for households incurring debt, as indicated by about one-quarter of indebted households.

Crowding is another component that determines the living conditions of refugees. In February 2020, ben-

eficiary households had 2.5 people per bedroom and non-beneficiary households had around 2 people per bedroom. While 60% of beneficiary households had more than two people per bedroom, this ratio was 22% for non-beneficiaries. The difference is mainly attributed to demographic characteristics: beneficiaries have larger households because one of the ESSN targeting criteria is the dependency ratio and another includes households with 4 or more children.

5.2.4 Access to basic needs at home

In February 2020, most refugee households (89%) had a toilet inside the house and nearly all households reported having access to sufficient water (98.5%) for drinking, cooking, washing, and toilet purposes. For hygiene items, 88% reported having sufficient access. Most households (94%) lived in houses that had a separate kitchen, but there was a slight variation observed by ESSN status: 7% of beneficiary households did not have a separate kitchen as compared to 3.5% among non-beneficiary households. For cooking fuel, around 80% of refugee households rely on propane and natural gas.

With regard to mobile phone data connectivity, it was found that there is a notable difference between beneficiaries and non-beneficiaries. Some 65% of beneficiaries have access to the Internet, whereas only 46%

had internet access among non-beneficiaries. Access to mobile phones is reported to vary slightly by gender. Male-headed households tend to own smartphones more often (Q1 2020: 90% for male-headed hoouse-holds, 75% for female-headed households).

5.2.5 Health expenditure and care seeking

The CVME (round 5) assessment showed that in February 2020 roughly 11% of refugee households reported having at least one member with special health needs. The rate was slightly higher for non-beneficiary households (14%). This is a notable improvement from August 2018 where 40% of beneficiary households and 47% of non-beneficiary households had been in need of healthcare. When a household member felt sick, 95% of ESSN applicants and non-applicants sought treatment (WFP, 2020).

The study conducted to evaluate the impact of ESSN on access to healthcare showed that the ESSN played a vital role in helping vulnerable (mainly Syrian) refugees meet their basic needs in Turkey, although the direct link to healthcare utilization was not very evident.[19] Care-seeking rates for both adult and children are high, while about half of refugee households in Turkey reported that they had no recent health expenditures. This can be understood in light of the Turkish context, which provides free access to public healthcare for refugees under temporary protection. In terms of health expenditures, refugee households in Turkey spend around 40 to 80 TL per month, which can be attributed to indirect health expenses such as transportation to the hospitals and non-prescription medicine. The data shows that the overall health-related expenses of refugees in Turkey are quite low relative to the amounts reported in the two other major refugee-hosting countries in the region (Jordan and Lebanon) (UNHCR Jordan, 2018). Although not directly related to healthcare, the study shows that beneficiaries were less likely to reduce essential expenditures or borrow as compared to non-beneficiaries, which could be interpreted as a potential benefit of the cash assistance.

5.2.6 Healthcare for the disabled

The ESSN cash assistance showed positive effects on beneficiaries' healthcare-seeking behaviour; however, the need for special care for severely disabled refugees remained. This vulnerable group of people faces difficulties in meeting basic needs that arise from having severely disabled family members who can barely contribute to the family budget and have higher needs for special care. Given the context, the 'severe disability top-up' was introduced in August 2018 to provide support for additional needs amongst households with severely disabled member(s). This additional assistance was provided to households that include a member with a disability level of 50% or higher. By March 2020, 9,228 individuals were supported through severe disability top-ups.

After receiving the additional assistance, the households benefiting from severe disability top-ups have performed better in major indicators than the remainder of the ESSN beneficiaries. In the baseline survey (April 2018 to August 2018), disability top-up beneficiaries had higher debt (median) than general ESSN beneficiaries (disability allowance beneficiaries: 620TL; ESSN beneficiaries: 400TL) but the order reversed by September 2019 (disability allowance beneficiaries: 800TL; ESSN beneficiaries: 1000TL). Moreover, disability allowance beneficiaries achieved better food consumption levels following the introduction of the disability allowance. At the baseline, the percentage of households with acceptable food consumption was higher for general ESSN beneficiaries. However, more disability allowance beneficiaries had acceptable food consumption while that number decreased for their counterparts in September 2019 (Figure 25). This tendency was similarly found when looking at the use of negative coping strategies in both the short-term and long-term. Despite unfavourable macroeconomic changes in the given period, top-up beneficiaries have resorted to fewer coping strategies when compared to general ESSN beneficiaries. In September 2019, the Livelihood Coping Strategy Index (LCSI) and Consumption-based Coping Strategy Index, reduced CSI (rCSI) were lower for disability

allowance beneficiaries by 32% and 6%. With respect to these results, lower is better, as using negative coping strategies to meet basic needs is not desirable. As shown from the above analysis, top-up beneficiaries have registered notable improvements following the assistance, which proves the positive impact of the severe disability top-ups. These data may also give an indication that the amount of ESSN assistance after the inflation of recent years is inadequate and that when households are given a higher amount, as is the case for households with a disabled member, the assistance is more effective in tackling poverty.

5.3 COPING BEHAVIOURS TO COVER BASIC NEEDS

5.3.1 Short-term (Consumption-based coping strategy)

In the face of hardship, refugees in Turkey adopt various coping strategies to meet their basic needs. In the short term, such behaviour can be assessed through the rCSI. ESSN applicants were asked if they

had resorted to negative consumption coping strategies, such as relying on less preferred/cheaper food or reducing the number of meals per day, in the last seven days. In March 2020, the most frequently used consumption coping strategy was relying on less preferred, cheaper food (beneficiary: 80.2%; non-beneficiary: 77.4%) and the least-used strategy was borrowing food or money to buy food (beneficiary: 16.3%; non-beneficiary: 18.3%). Again, households with a lower rCSI are better off, as a higher rCSI means that households need to use a wider range of coping strategies to meet their basic needs.

Throughout the period, beneficiaries have relied less on the consumption-based coping strategies as compared to non-beneficiaries. From the baseline, beneficiary households' rCSI showed a far greater decrease than that of non-beneficiary households. As with other major indicators, the rCSI for ESSN applicants also peaked in 2018 (a low value representing a good outcome), presumably at least partially due to the as-

FIGURE 25. FOOD CONSUMPTION GROUP BY DISABILITY ALLOWANCE BENEFICIARIES AND ESSN BENEFICIARIES
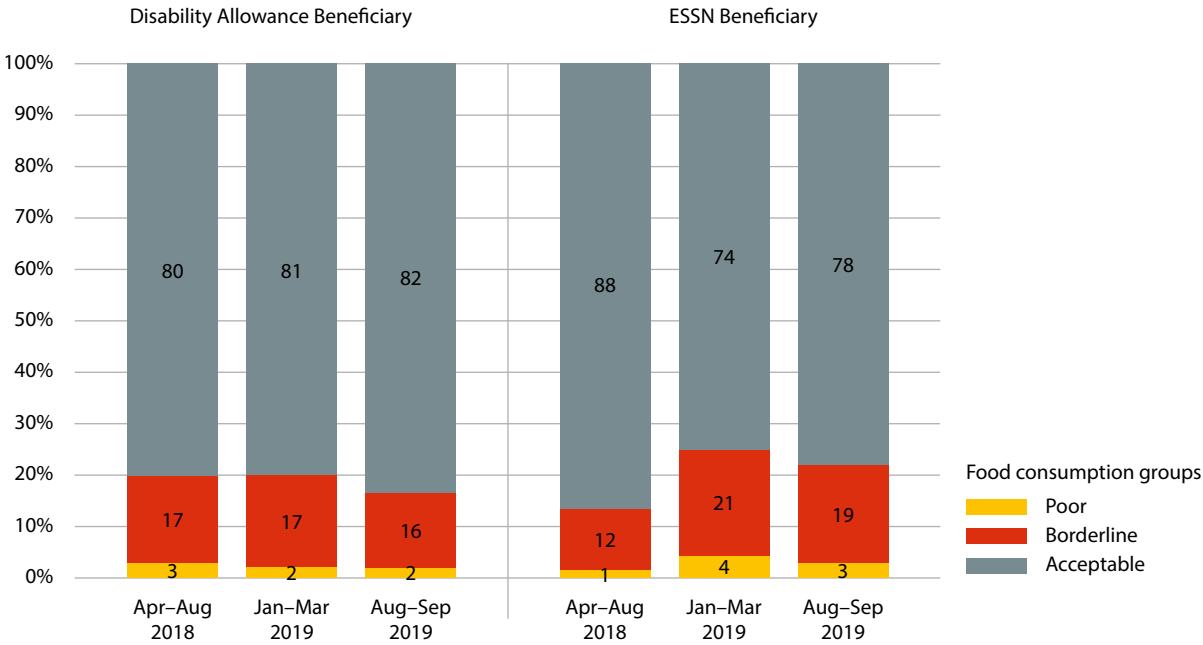
FIGURE 26. CONSUMPTION-BASED COPING STRATEGY INDEX, REDUCED CSI (rCSI)

5.3.2 Long-term (Livelihood coping strategy)
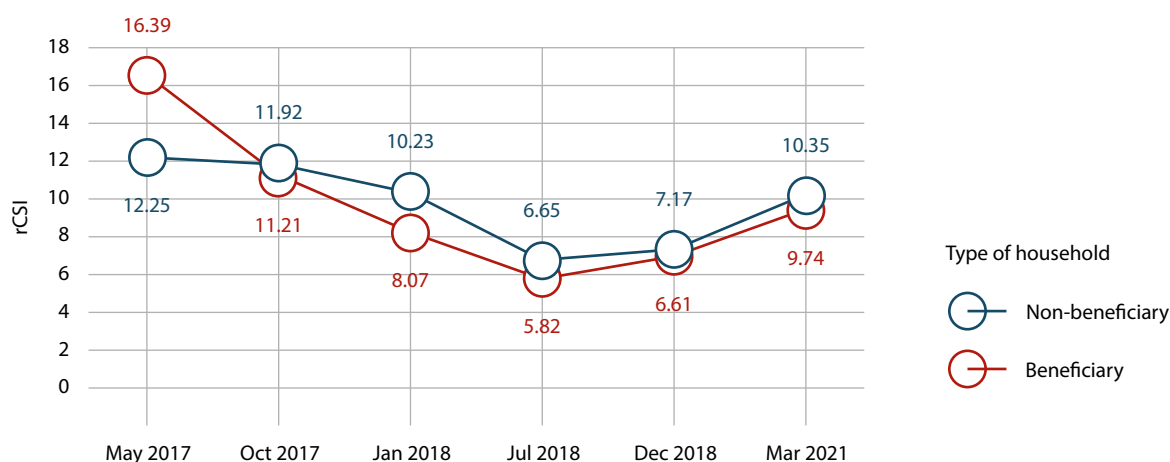
sistance (ineligible households improve, but at a less steep rate) before deteriorating gradually in 2019 and 2020, most likely due to the broader economic context.

Despite the challenging economic conditions, beneficiary households still demonstrated evident improvements from 2017 to 2020. The rCSI for beneficiary households fell by 41% from 16.39 in May 2017 to 9.74 in March 2020, whereas non-beneficiary households only showed a 16% decrease from 12.25 to 10.35 (Figure 26).

Adding to the above findings, impact analysis showed that rCSI is significantly improved (by 0.15 to 0.25 SD) at the 6-month follow-up in the beneficiary group. Specifically, it was observed that the treatment group was less likely to reduce i) the number of meals per day, ii) portion sizes, and iii) consumption among adults so that children can eat at the 6-month follow-up, although the effect likely diminishes with a longer period of follow-up.

We can therefore conclude that we have sufficient evidence to determine that the ESSN assistance helped beneficiaries to meet their basic needs as on all indicators observed they fared better than the non-beneficiaries.

5.3.2 Long-term (Livelihood coping strategy)

In addition to the evidence from short-term coping strategies mentioned above, longer term coping strategies are examined through the Livelihood Coping Strategies Index (LCSI). Households were asked if they had resorted to negative coping strategies over a longer recall period (in the last 30 days) – such as selling assets, reducing health expenditures, or withdrawing children from school.

The last PDM round (March 2020) results show that the most common livelihood coping strategies were borrowing food on credit, borrowing money from non-relatives, and reducing food expenditures. From the baseline, LCSI has significantly decreased (i.e. improved) again with a greater decrease among beneficiaries. LCSI for beneficiary households was reduced by 31%, from 5.5 to 3.77, whereas for non-beneficiary households, LCSI only decreased by 11%, from 4.36 to 3.89 (Figure 27).

FIGURE 27. LIVELIHOOD COPING STRATEGY INDEX (LCSI)
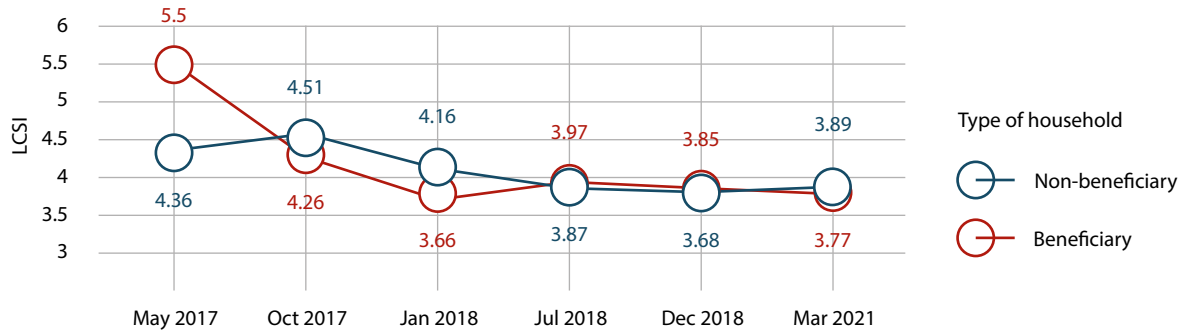
The impact of the assistance on LCSI shows results consistent with the previous analysis of rCSI at the 6-month follow-up. The beneficiary group relied more on livelihoods-based coping strategies at baseline, which is consistent with the fact that they were selected due to being more vulnerable. The need to rely on such strategies decreased quickly and overtook the non-beneficiary group following the assistance. From 2018 onwards, both groups show a similar level of livelihood coping.

Examining the components of the index, at the 6-month follow-up, the treatment group is less likely to sell household assets, dip into savings, borrow money from non-relatives, buy food on credit, or reduce expenditures on food, or to have moved or re-

turned to country of origin during the past 30 days. Overall, it can be assessed that ESSN cash assistance significantly supported beneficiary households to reduce negative livelihood coping strategies.

5.4 ECONOMIC CONDITIONS AND CAPACITY

5.4.1 Household debt

At baseline, the level of average household debt for beneficiaries and non-beneficiaries did not show a noticeable difference (1297 TL for beneficiary households and 1234 TL for non-beneficiary households). Undoubtedly influenced by the evolving macroeconomic context, household debt was lowest in 2018 and peaked in 2020. For beneficiary households, average debt decreased from 1297 TL at baseline to

FIGURE 28. AVERAGE DEBT (TL)
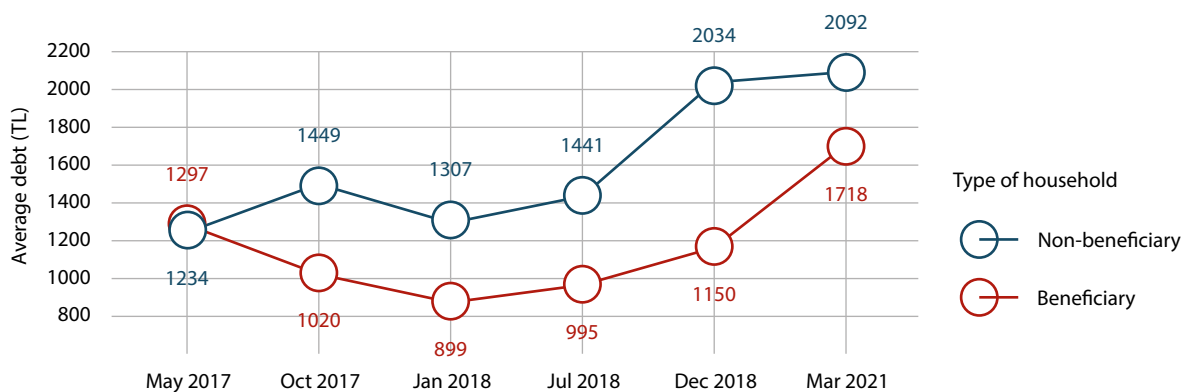
899 TL in January 2018, showing how the onset of the ESSN allowed households to improve their economic situation, but increased again to 1718 TL in March 2020 (Figure 28).

Although it was inevitable that the average debt increased from 2018 due to external shocks, beneficiary households managed their debt far better than their counterparts, as shown in the Figure 28. At the baseline, beneficiary households started with a higher level of debt. However, since the launch of ESSN cash assistance, average debt for beneficiary households has remained consistently lower compared to non-beneficiaries, which, despite the debt trend reversal, implies a continued positive impact of ESSN assistance on coping with debt.

5.4.2 Economic capacity to meet basic needs

Refugees' economic capacity is also a crucial element to be investigated when analysing whether their expenditures are sufficient to meet basic needs. It can be examined using the Minimum Expenditure Basket (MEB). As MEB captures the minimum essential needs for average individuals, it can be assessed that refugees whose monthly consumption is above MEB are likely to be able to meet their basic needs. As articulated in the introduction, the MEB for refugees in Turkey has increased by 43.6% from 2017 to 2020 (264 TL in June 2017 to 379 TL in March 2020) – again reflecting inflation induced by the progressive devaluation of the Turkish lira.

Despite the steep increase in the MEB value, it is noteworthy that the proportion of ESSN applicants (for both beneficiary and non-beneficiary) whose consumption is below MEB has constantly decreased. It indicates that the refugee households successfully maintained their expenditure levels to meet basic needs, despite the economic recession. From May 2017 to March 2020, the proportion of beneficiary individuals with consumption below MEB decreased from 74.5% to 55.3%, and that of non-beneficiary individuals decreased from 52.4% to 36%. It is impressive that both groups showed more than a 25% decrease. Nonetheless, it is also important to note that

continued assistance is required as over 50% of the beneficiaries still exhibit monthly expenditure below MEB. In the next section, various indicators will be used to examine the impact of ESSN assistance on the Refugee Multidimensional Poverty Index (RMPI).

5.5 REFUGEE MULTIDIMENSIONAL POVERTY INDEX

5.5.1 Methodology

Multidimensional poverty considers deprivations across a range of sectors, intending to capture a more comprehensive picture of the overlapping deprivations experienced by the poor. This is particularly useful for understanding the conditions in refugee communities, where individuals are often living in more tenuous circumstances than host communities, with potential issues relating to accessing education and health services, stable jobs, quality housing, and food security. The RMPI developed in Focus Area 2 uses 12 indicators of poverty within five key dimensions: education, health, food security, income resources, and living standards (Table 8). To identify the effects of the ESSN on RMPI we focus on the intensity of poverty, A_i; the weighted deprivation score of household $_i$; and headcount, H_i – whether a household is classified as multidimensionally poor or not: i.e., if A_i is at or above the poverty threshold.

To estimate the causal effects of the ESSN on multidimensional poverty we use an inverse-probability-weighted regression adjustment. This is a doubly robust method that, first, estimates propensity weights for the inverse-probability of treatment in order to balance control and treated groups according to observable characteristics. Then, using these weights, fits a weighted regression of the outcome variable to predict outcomes for each household with and without treatment. The difference between these potential outcomes identifies the estimated treatment effects. These effects can be averaged to identify statistics of interest. Here, we primarily focus on the average treatment on the treated (ATET), which is the

DIMENSION	INDICATOR	DEPRIVED IF...	WEIGHT
Education	School attendance	A household is deprived if children (girls and boys aged 6–17) are absent from school more than a semester.	1/10
	Highest education achieved	A household is deprived if neither the household head nor the second responsible person of the household (if applicable) has completed at least primary school.	1/10
Health	Illness	A household is deprived if more than half of the household members reported sick in the past 30 days. Sickness includes diarrhoea, fever/chills, or cough (i.e. not a simple cold).	1/10
	Treatment	A household is deprived if any member is not treated when sick.	1/10
Food Security	Consumption	A household is deprived if the household has a Coping Strategy Index (CSI) Score >18 (equating to using every consumption coping strategy at least three times per week).	1/10
	Diet	A household is deprived if the Dietary Diversity Score DDS is <6.	1/10
Income Resources	Precarious work	A household is deprived if members of the household begged or engaged in illegal or high-risk work.	1/10
	No income	A household is deprived if no household member worked within last 30 days.	1/10
Living Standards	Overcrowding	A household is deprived if there are more than 3 persons per room.	1/20
	Sanitation	A household is deprived if it does not have a toilet in the house.	1/20
	Winter assets	A household is deprived if it does not own more than one of the following winter assets: sufficient winter clothes, sufficient blankets, a heating stove, and central heating.	1/20
	Hygiene items	A household is deprived if its members do not have sufficient soap and hygiene items.	1/20

TABLE 8. STRUCTURE OF THE REFUGEE MPI

Note: This table is the same as Table 2 in Focus Area 2 section (page 11).

average effect of the ESSN on the eligible applicants. Ineligible applicants and non-applicants form the control group, which is used to estimate these effects.

The observable characteristics used are (1) household characteristics: region, arrival date, number of children, number of adults, and number of elderly; (2) household head characteristics: nationality, age, gender, and profession; and (3) ESSN eligibility criteria: dependency ratio, single female, elderly headed, single parent, disabled members and large family. The inclusion of ESSN eligibility criteria, alongside demographic characteristics, is important as this ensures that the control and treated groups are balanced in terms of their vulnerability to poverty.

This method allows the treatment effects of receiving ESSN assistance to be estimated based on observed characteristics. Potential outcomes can then be predicted to identify the expected levels of the outcome the eligible applicants would have had with and without ESSN assistance. This analysis is conducted below at the average level for intensity, headcount ratios, and separate dimensions of the RMPI. Further analysis on the distribution of treatment effects, which relates the intensity of poverty to the headcount ratio is also conducted using predicted potential outcomes. This is followed by a predictive analysis of changes in the headcount ratio according to the time of the survey and arrival time of the applicants.

5.5.2 Results

Average treatment on the treated

Table 9 shows the effects of the ESSN programme on the uncensored intensity of RMPI poverty. The predicted level of RMPI intensity that the eligible applicants' group would have had without the ESSN programme is 0.2331. The causal effect of the ESSN programme on RMPI intensity is a significant reduction of 0.058, down to 0.1751. In other words, without the ESSN programme, eligible applicant households were expected to be deprived in 23.31% of the (weighted) indicators, but, with the help of the programme, the intensity of poverty was reduced to 17.51%. This result is the ATET.

TABLE 9. RMPI INTENSITY: AVERAGE TREATMENT ON THE TREATED

	(1) **ATET** Coef. / S.E.
Treatment effects	-0.0580***
	(0.0138)
PO (no treatment)	0.2331***
	(0.0144)
N	4042

* p<0.10
** p<0.05
*** p<0.01

Table 10 (next page) shows the effect of the ESSN programme on the headcount ratio at different poverty thresholds. The first model shows the 20% threshold, where households are classified as poor if they are deprived in 20% or more of the weighted deprivations. The second model shows the 33.3% threshold, while the third model shows the 40% threshold. The headcount ratio that the eligible applicant group would have had without the ESSN programme is 0.666 (i.e., 67% of eligible applicants would have been in poverty) at the 20% threshold, 0.218 at the 33.3% threshold, and 0.178 at the 40% threshold. The ESSN is shown to significantly reduce the incidence of poverty at each of these thresholds. At the 20% level there is a significant reduction of 0.180, reducing the headcount ratio to 0.486, at the 33% level of 0.108 and at the 40% level of 0.1034.

TABLE 10. RMPI HEADCOUNT: AVERAGE TREATMENT ON THE TREATED			
	20% Coef. / S.E.	**33%** Coef. / S.E.	**40%** Coef. / S.E.
Treatment effects	-0.1798***	-0.1083**	-0.1034**
	(0.0437)	(0.0435)	(0.0426)
PO (No Treatment)	0.6655***	0.2178***	0.1784***
	(0.0354)	(0.0411)	(0.0413)
N	4042	4042	4042

* p<0.10
** p<0.05
*** p<0.01

Distributional and quantile treatment effects

To move beyond average treatment effects, we estimate the effects of the programme on the distribution of RMPI intensity. Graph A on Figure 29 shows the cumulative density functions (CDF) of the predicted potential outcomes of RMPI intensity. The plot shows at each level of RMPI intensity (x-axis) what the proportion of the population (quantile, y-axis) is with a level of intensity equal to or lower than that level (this is equivalent to the inverse of the headcount ratio at different threshold levels). Taking the threshold of 0.2, for example, we see that 0.43 have an intensity less than or equal to 0.2 (i.e., they are not considered poor) without treatment, and 0.72 with treatment. In other words, the headcount ratio or the percentage of people considered poor falls from 0.57 to 0.28 (or 55% to 28%).

Distributional treatment effects (DTE) and quantile treatment effects (QTE) in Figure 29 can be estimated to identify the effect of the ESSN programme on the RMPI headcounts and the distribution of RMPI intensity. These two effects are best explained in relation to the cumulative density plot (graph A). For a given level of RMPI intensity, if we take the vertical difference between the treated cumulative density function (CDF) and the control CDF, in the graph A, we get the DTE (see dashed line). For a given quantile of RMPI, if we take the horizontal difference between the treated CDF and control CDF, we get the QTE (see dotted line). Together, the DTEs and QTEs allow for insights into both how the ESSN programme reduces poverty headcounts (at different thresholds) and changes the intensity of poverty for those with differing initial levels of intensity.

The DTEs (graph C) can be interpreted as the increases (or decreases) in the proportion of the population who have a level of RMPI intensity below that threshold. What the results show is that the largest reductions in headcount ratios occurred between the 0.1 and 0.33 thresholds, i.e., for those who are poor, but not extremely so. The QTEs (graph B), on the other hand, show the changes in intensity at different parts of the distribution. These effects are smaller (but significant) at the lower end of the distribution (i.e., those with a low intensity) and increase towards the higher end of the distribution (but not significantly so). This indicates that the ESSN programme reduced the intensity of poverty to a greater degree for those with a higher intensity. These analyses together provide a more complete picture of the effect of the ESSN programme on the distribution of poverty among eligible applicants.

FIGURE 29. CUMULATIVE DENSITY FUNCTIONS, DISTRIBUTIONAL AND QUANTILE TREATMENT EFFECTS
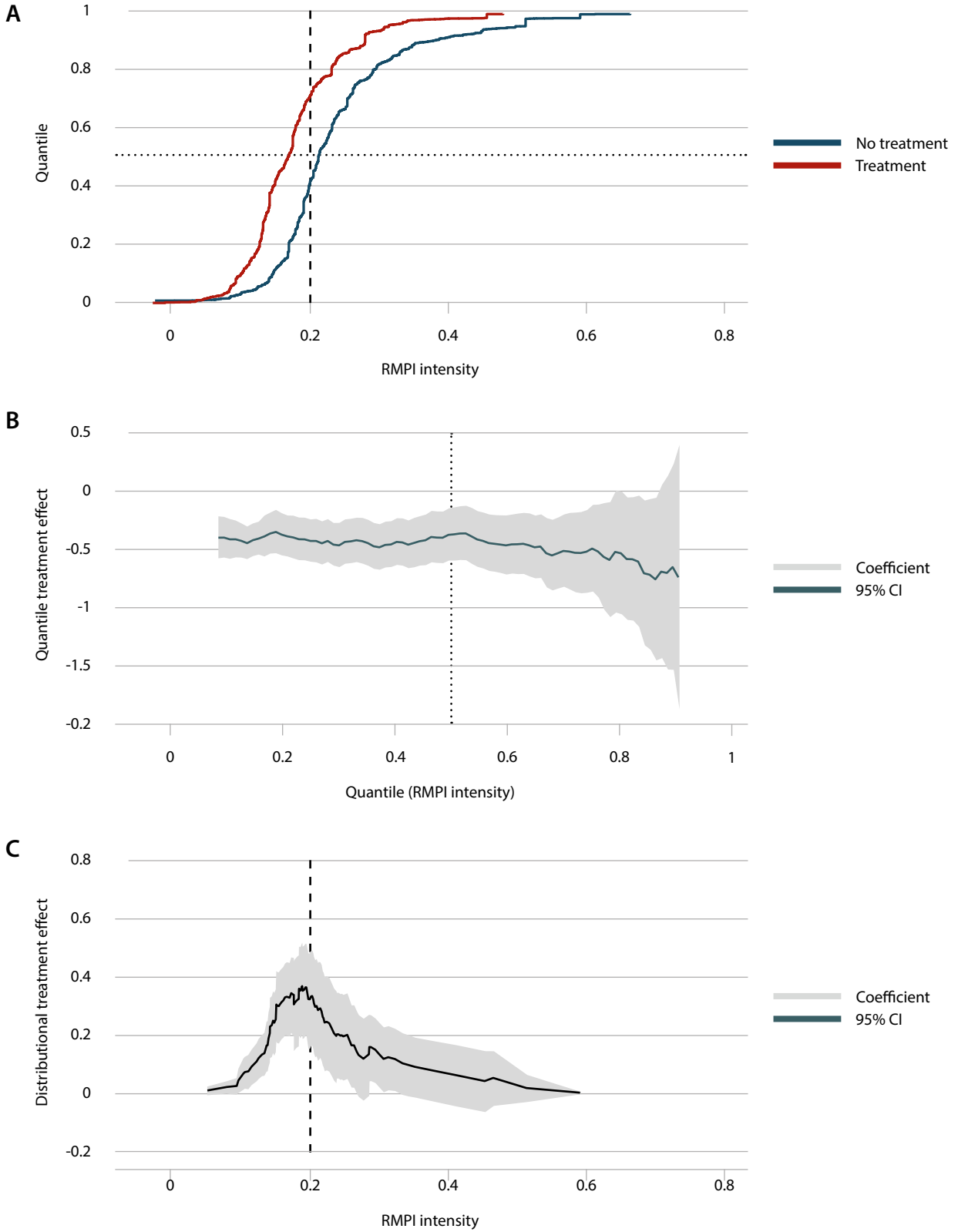
Dimensions

One benefit of using the RMPI is that the dimensions of poverty can be decomposed. Table 11 shows the effect of the ESSN programme on the dimensions of the RMPI, separately. These are weighted, so that if a household is deprived in all indicators in a particular dimension they would receive a 1, and with no deprivations, 0. Results show that, had the eligible beneficiary group not received the ESSN assistance, their deprivation in the dimension of food security (0.373) would be the greatest, followed by education (0.366), living standards (0.236), and ability to generate income (0.115). They would be least deprived in health (0.0764). The ESSN programme has led to significant reductions in deprivation in food security (-0.153), living standards (-0.079), and education (-0.063), but there have been no significant effects on health or ability to generate income. This finding is not unexpected since refugees in Turkey have good access to health services, largely thanks to the Government of Turkey's establishment of a social system that allows Syrian refugees to benefit fully from free health services in public hospitals throughout the country, as well as other nationalities with emergency condi-

tions. Even so, challenges over access to healthcare in areas like transportation and language barriers at the health centres partially remained. The ability to generate income was captured through measuring the number of household members who had worked within the last 30 days or who had begged or engaged in high risk or illegal work. ESSN's multi-purpose cash assistance, in spite of being an effective tool to help refugees meet their basic needs, was not designed to improve household capacity to secure long-term sustainable income sources and, therefore, has not been found to impact refugees' ability to generate income.

One potential limitation of our dataset is the inability to separately identify the effect the conditional cash transfer for education (CCTE) had on the RMPI. The CCTE provides cash payments to eligible families, which are conditioned on the regular school attendance of their children. Data on whether households receive CCTE support is not available for all waves of the CVME surveys except the last round. Based on the last round survey, we observe that 66.8% of ESSN-eligible applicant households also received the CCTE, compared to 27.8% of ineligible applicants. This shows that a significant number of those receiv-

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TABLE 11. RMPI WEIGHTED DIMENSIONS: UNCENSORED

	(1) Education Coef. /S.E.	(2) Health Coef. /S.E.	(3) Food Security Coef. /S.E.	(4) Income Resources Coef. /S.E.	(5) Living Standards Coef. /S.E.
Treatment effect	-0.0630*	-0.0177	-0.1528***	0.0230	-0.0794***
	(0.0352)	(0.0184)	(0.0341)	(0.0199)	(0.0285)
PO (no treatment)	0.3658***	0.0764***	0.3727***	0.1145***	0.2359***
	(0.0308)	(0.0170)	(0.0318)	(0.0192)	(0.0235)
N	4042	4042	4042	4042	4042

* p<0.10
** p<0.05
*** p<0.01

ing ESSN assistance also received the CCTE. This is expected as having children influences ESSN eligibility. Due to data limitations, we cannot run the inverse probability weighted regression (IPWRA) to separately identify the effect of the CCTE. However, by using our existing analysis, we can predict the potential outcomes for households with and without the CCTE. We observe that there is a significant average treatment effect on the RMPI headcounts (33.3% threshold) for households both with and without CCTE, where larger effects are observed for CCTE households. While this analysis is not causal, it indicates that we would still expect to observe significant effects of the ESSN assistance for those who did not receive the CCTE and that together these programmes could be complementary in reducing poverty. Further research would need to be conducted to ascertain the interaction between the ESSN and CCTE assistance, with data that would allow for such analysis.

Arrival time and wave

As we use three waves of the CVME dataset, we can predict the expected RMPI intensities that the eligible applicants would have with and without the ESSN assistance, across these waves. Figure 30 shows these

levels across Waves 3, 4, and 5.[20] Results show that, across the waves, RMPI intensity is decreasing, i.e., the average intensity of multidimensional poverty amongst eligible applicants is decreasing over time. The effect of the ESSN programme (the difference between the bars) is large and significant, for each wave.

In addition to this, we can predict the RMPI intensity among eligible applicants according to their arrival time in Turkey. Figure 31 plots the expected RMPI intensity that the eligible applicants would have with and without ESSN assistance for arrival times of less than 12 months, between one and three years, between three to six years, and before the conflict began. Results show extremely high levels of poverty for recent arrivals, with an average intensity of 0.325 for eligible applicants, if they had not received ESSN assistance. Over time, these levels of poverty do rapidly decrease, down to 0.17 after six years in Turkey. The predicted effect of the ESSN programme (difference between the blue and red bars), while significant across all arrival times, is greater for the more recent arrival times (<3 years). This highlights the importance of providing support quickly, given the high poverty among new arrivals. For the ESSN

FIGURE 30. PREDICTED INTENSITY ACROSS WAVES: ELIGIBLE APPLICANTS
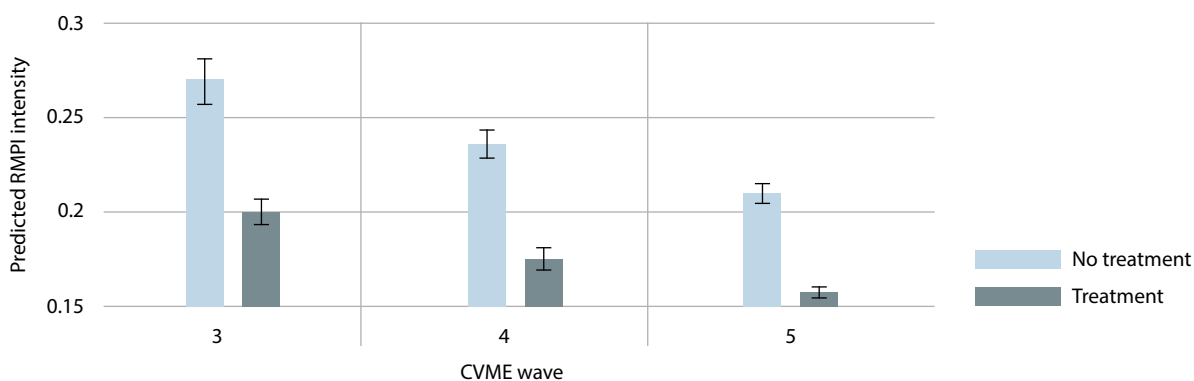
programme, this could mean that it may be a good idea to include all arrivals for the first six months, regardless of the targeting criteria, as we know this is the most vulnerable time. After an initial period of general assistance, the targeting criteria would apply. This may no longer be relevant today as there are barely any new arrivals, almost a decade after civil war erupted in Syria and with the borders currently closed. However, on other occasions and in future programmes stakeholders might take policy actions to ensure that recent arrivals are able to start receiving programme benefits to cover their immediate needs without necessarily waiting for a registration process to be completed.

FIGURE 31. PREDICTED INTENSITY ACROSS ARRIVAL TIME: ELIGIBLE APPLICANTS
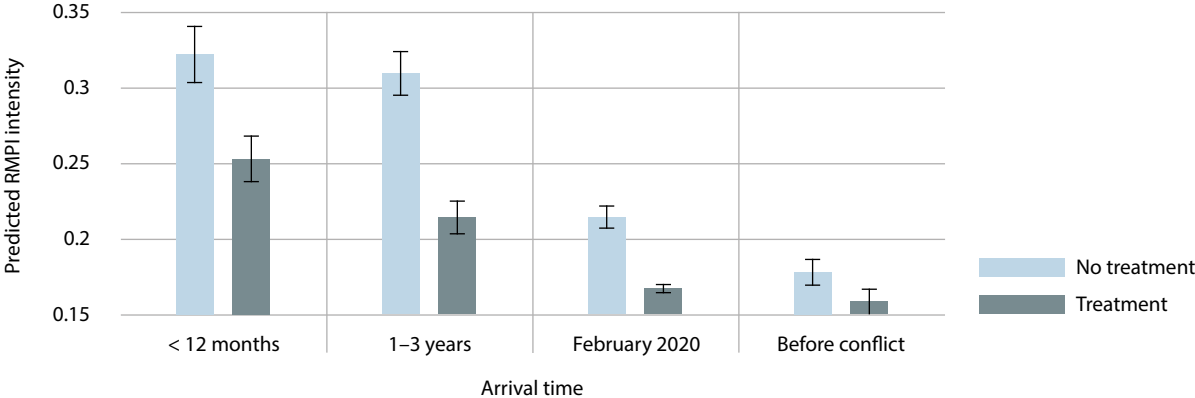
6. Unintended Impacts

The purpose of the ESSN programme is to alleviate the suffering of the most vulnerable among the refugees who experienced forced migration to Turkey due to a crisis in their country. However, any humanitarian intervention can have unintended impacts; the presence of such unintended consequences, which had been hypothesized as possibilities, was tested for throughout the programme's implementation period using quantitative and qualitative data.

In this section, the potential unintended impacts on (1) beneficiaries, (2) non-beneficiaries, and (3) the host community (as assistance is exclusively given to refugees in Turkey) have been examined.

6.1 METHODOLOGY

To examine ESSN's impact on the labour participation of refugees in Turkey, descriptive statistics from the Turkish Statistical Institute and the WFP-Türk Kızılay Livelihoods Survey, which covered 5,332 ESSN applicant households in 19 provinces between June and November 2018, were used to determine livelihood situations, activities, and patterns among refugees in Turkey.

For the study, which investigated the impact of the ESSN programme on the refugees' fertility based on CVME data, the researchers implemented the propensity score matching technique to compare the fertility behaviours of the two intrinsically different groups. By using the nearest neighbour matching and stratification methods, similar beneficiary and non-beneficiary households in terms of household characteristics other than number of children were identified. A logit model was used for analysis.

The impact of the ESSN on the social cohesion between the host and refugee communities was analysed through social cohesion surveys. The surveys were conducted online, both with refugee and host community members, and were nationally representative for the online population – a population skewed toward younger generations and slightly more male than female. In the five rounds between July 2017 and June 2019, a total of 16,498 people of whom 13,249 were Turkish citizens, participated in the surveys.

The potential impact of the ESSN on the economy of the host country was also studied. By using the administrative data from ESSN PDM data and secondary government data on economy, the researchers used the Leontief inverse method to determine the multiplier effect of the ESSN assistance. For the impact on the local economy, a difference in difference framework is used and regression analyses were conducted for education, health, labour market, food prices, and housing market outcomes.

The ESSN Impact study used a pre-assistance baseline and three follow-up panel-designed PDM surveys. The research team applied a propensity score matching technique to identify the causal impact; however, due to a violation of some assumptions, the intent-to-treat effect could not be captured. Instead, researchers presented 'value of treatment' estimates, which is the 'value of being an ESSN beneficiary' for an applicant. As always, the propensity score matching makes treated and untreated samples comparable by using the available variables. These included mostly demographic and geographic variables, but did not include information on Directorate General of Migration Management (DGMM) status, disability, education, and income. This is a limitation to keep in mind when discussing its findings. The study also suffered from very unequal attrition from the interview panel where non-beneficiaries deserted in much higher numbers making the comparability questionable. The analyses were modified so as to account for this unequal attrition. The ESSN's impact on pre-defined outcomes was then analysed; these included

total and per capita expenditure, food consumption score, coping behaviours, and school attendance of children. The study also identified a possible unintended impact of the ESSN: children between 6 and 17 years old moved from ineligible to eligible households, which is broadly discussed in section 3.5 (Özler et al., 2020).

KEY FINDINGS

1. The concerns over potential negative consequences of the ESSN programme were largely unfounded; the ESSN did not discourage labour participation among the refugees overall, but perhaps played a role in reducing formal employment of refugees. It also does not encourage non-beneficiaries to have more children to become eligible.

2. The ESSN has had a positive impact on the Turkish economy at the national and local level as it increased economic activity by injecting money into the economy. These funds created a multiplier effect by circulating through the economy and stimulating demand.

3. The ESSN potentially contributes to social cohesion between the host society and the refugees because it is 'international assistance' – which, despite deteriorating social cohesion indicators, remains the host population's preferred way of covering the needs of refugees.

6.2 LABOUR PARTICIPATION

The ESSN is a monthly multipurpose cash assistance programme. As it is regular assistance that is provided to those who are not officially employed, an important, long-debated question to ask is whether the assistance could be a potential disincentive for labour participation (Banerjee et al., 2017; Jonassen, 2013; Shepherd et al., 2011). The data from the livelihood survey conducted by the WFP and Türk Kızılay was used to examine refugee labour participation to determine (1) whether ESSN assistance discourages refugees from working altogether and (2) whether ESSN assistance discourages refugees from working formally to continue benefitting from the ESSN.

ESSN as a potential disincentive for labour participation in general (formal and informal).

The data indicates that in 84% of all ESSN applicant households, there is at least one working member.

The rest of the households reported that there is no working member in the household. Having a disability or being responsible for childcare were found to be the primary reasons for not working. In the households with working member(s), 47% of them worked regularly – that is 20 days a month – and 53% of them worked irregularly during the survey period.

Furthermore, among the ESSN beneficiary households, only 10% were 'unemployed and not looking for a job due to childcare and/or disability', and 9.3% stated that 'they were currently unemployed and looking for a job'. Even excluding the 0.8% who left their jobs recently and 0.2% in training, in 79.4% of the beneficiary households there was at least one person working.

WFP monitored the minimum acceptable cost of living for a refugee household in Turkey through the MEB. The MEB determines how much of basic needs

the ESSN covers, while survey data are used to estimate how much is covered by the refugees' income from labour. By subtracting the ESSN transfer and estimated income from labour, WFP calculates the remaining gap (Figure 32). Per capita income of a refugee household, on average, was 132 TRY (36 USD) for 2017, 142 TRY (29 USD) for 2018, and dropped to 134 TRY (24 USD) in January 2019, following the economic turmoil of the summer of 2018. The conversion of these figures to US dollars begins to show the true loss of purchasing power due to high inflation in Turkey during this period of time.

Between June 2017 and March 2020, the ESSN covered 42% of the MEB for beneficiaries, on average. Even at the time when the ESSN had the highest share in September 2017, after the top-ups were introduced, it was covering only 49% of the MEB. Therefore, the beneficiary households needed further income to fill the gap.

Although it was still possible to receive further assistance from other institutions, international and national institutions mostly avoided such duplications of assistance thanks to the cross-check and verification mechanism put in place by Türk Kızılay. After all, given that the ESSN assistance amount is not ade-

quate for refugees to cover their basic needs in spite of being the largest programme assisting refugees in Turkey, it is unlikely that assistance provided by other institutions would prevent refugee households from working altogether. If one excludes refugee households where no adult is able to work due to childcare or disability, there is at least one person working to generate income in every household. They were simply too poor or the assistance was too little to afford them the choice not to seek work.

ESSN as a potential disincentive for formal employment

Since 2016, all refugees in Turkey under temporary protection are allowed to apply for work permits in their province of residence. However, by design, ESSN eligibility status is lost in case of formal employment, which provides social security benefits along with a wage. Mechanically, when the monthly eligibility list is generated, all ESSN applications are checked against the eligibility criteria, but also any recipients for whom a social security number is detected are removed. Therefore, there has been a long-lasting debate on whether the ESSN would discourage formal employment among the beneficiaries.

FIGURE 32.   COMPARISON OF THE ESSN AGAINST THE MEB FROM JUNE 2017 TO MARCH 2020
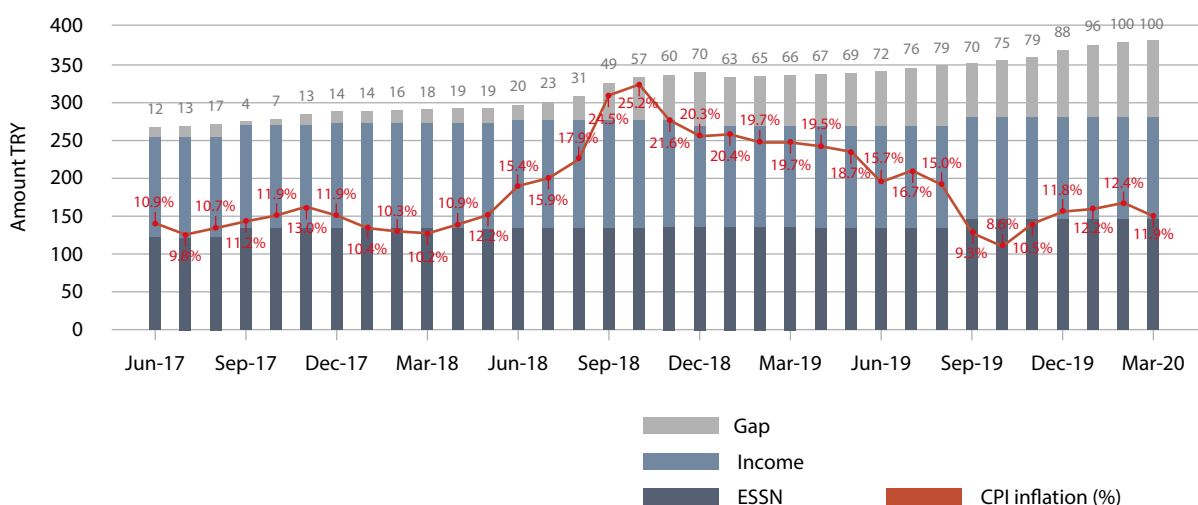
Note: This figure is the same as Figure 2 in Part 1 (Focus Area 1), and the figure in Appendix 1 of Focus Area 3 (page 94).

The data from a livelihoods survey conducted in 2018 by the WFP and Türk Kızılay indicated that only 3% of the ESSN applicants held work permits and were formally employed. This finding is in line with the official records in 2018 having demonstrated that, among the 1,349,949 refugees over 18 years old (Türkiyedeki Suriyeli Sayısı Aralık 2018, 2018), 34,573 of them (3%) held work permits (Çalışma İzni Verilen Suriyeli Sayısı, 2018). There are multiple reasons for the relatively low number of issued work permits. There is a maximum quota of foreign employees at any given business. Rules prohibit the employment of refugees below the minimum wage, which eliminates a motivation that employers might have for hiring refugees formally (Donmez-Kara, C. O., 2016). Besides, employers need to request the work permit and doing so is associated with bureaucracy and a fee. When given, the work permit only applies to the specific job and should the holder resign or be laid off, the work permit also becomes invalid. Agricultural work, often seasonal in nature, does not require a permit and, therefore, there are many reports of abuse in that sector. In summary, one may conclude that for many employers it is easier and cheaper to hire citizens when offering a formal job and, usually, citizens also bring better language skills and a better cultural fit to the workplace.

Considering that the average household size in the ESSN programme is 5.8 people (rounded to 6) and average assistance was 133 TRY with top-ups during the survey period (which ended before top-ups were increased in the summer of 2019), an average refugee household received a 798 TRY payment per month, which was half of the minimum wage in 2018 (1603 TRY). According to Livelihoods Survey data from 2018, on average, beneficiary households were able to generate 1012 TRY per month, mostly from informal labour, which was not necessarily full time. That is, a total of 1810 TRY, including the assistance for a beneficiary family of six, which was 203 TRY more than the minimum wage. Besides the reality that refugees have higher chances of employment when they accept lower pay without social security and fear of losing their current jobs if they demand formal em-

ployment (Icduygu & Diker, 2017), beneficiaries might be inclined to pursue informal employment in order to maintain their ESSN eligibility status and maximize their monthly income.

In January 2019, as a result of the steep increase in inflation triggered by the mid-2018 devaluation of the Turkish lira and the resulting economic crisis, the minimum wage was increased from 1604 TRY to 2020 TRY. Since ESSN assistance remained the same, it would now have been less likely to discourage refugees from working formally. On the other hand, it should also be noted that the crisis negatively influenced the supply of both formal and informal employment (WFP, 2020). Studies show that in economic downturns, it is harder for refugees and migrants to find jobs (Mask, 2018) and PDM data from December 2018 confirm that the monthly income generated by refugees per person from labour dropped from 142 TRY to 134 TRY (this has to be multiplied by 5.8 to get the household income). Furthermore, the further deterioration in economic activity due to the Covid-19 outbreak does not paint a positive picture for the near future.

As employee rights are not protected in the informal job market, it is possible we may observe even lower payments and fewer benefits for refugees – and some host community members – risking their lives and dignity. In such an environment with scarce employment opportunities, ESSN beneficiaries might feel obligated to accept exploitative job conditions in the informal sector to avoid losing their eligibility status.

Along with policy improvements to encourage formal employment of refugees, the employment criteria of the ESSN might be temporarily revised to facilitate refugees' integration into the formal job market and to help refugees find sustainable solutions in the long run. For example, if the ESSN benefit could taper off instead of being cut, or there could be a return guarantee should formal employment cease in the future, i.e., pausing assistance rather than discontinuing it.

6.3 FERTILITY BEHAVIOURS

The ESSN aims to assist the most vulnerable refugee households, thus, one of the targeting criteria is the presence of four or more children in the household. However, the criterion has raised some concerns among humanitarian actors about whether the ESSN unintentionally encourages non-beneficiaries to have more children to become eligible for the programme. Other empirical studies found positive, but weak, relationships between cash transfers (social welfare benefits, family allowances etc.) and fertility behaviours, signalling families generally do not tend to make fertility decisions in order to generate additional income (Schellekens, 2009).

The Paris 1 Demography Institute of Panthéon Sorbonne University, together with WFP, conducted a study to examine this hypothesis using the ESSN programme data from December 2016 to April 2019. Demographic profiles of beneficiary and non-beneficiary households are different by design due to the nature of ESSN targeting: beneficiaries that have a larger household size and more children compared to non-beneficiaries. Yet, the statistical methods explained above have enabled such a comparison. Findings indicate that beneficiaries have slightly higher fertility rates than non-beneficiaries (+0.06); however, this difference is not statistically significant. Even though the average number of children decreased significantly among Syrian refugees (3.07) compared to pre-conflict times (5.13) for all Syrian refugees in Turkey, households who already are beneficiaries continue to have additional children over time compared to non-beneficiaries, perhaps due to some level of income stability provided by the ESSN.

Also, findings suggest that, while the ESSN targeting criteria are not an incentive for ineligible households to have more children to become eligible for ESSN assistance, the criteria may encourage applicants to have their third child one month earlier than beneficiary households. The third child is often the one who triggers eligibility in a two-parent household.

The study also examined whether early marriages were occurring in order to meet the eligibility criteria. It was found that underage marriages were less likely to occur in eligible households, yet the difference between eligible and noneligible households is also not statistically significant. These findings indicate that the ESSN programme appears not to provide a perverse incentive for ineligible households to become eligible by adding underage children to the family through marriage.

There is anecdotal evidence that households tend to manipulate their household composition to become eligible for the programme, yet the prevalence of these attempts is unknown. The ESSN Impact Study conducted by the World Bank found that there were significant changes in household composition over time for the weighted eligible and ineligible groups. Within six months of the baseline survey, household size declined by 6.7% in the ineligible group and increased by 4.6% in the eligible group. The main driver of this change seems to be the change in young household members, in particular the number of children between the ages of 6 and 17. The results could suggest that the onset of ESSN may have induced the movement of children from ineligible to eligible households, especially within the first six months after baseline. Further analysis showed that children between 6 and 17 years old were sent from worse-off ineligible households to better-off eligible households to secure their food intake, which also led to a decrease in the per capita expenditure of the households and is therefore a negative impact created by the programme. The ESSN Impact Study hence suggests that adjustments should be made to targeting criteria – arguing that if the programme treated a larger group of households but offered a smaller cash transfer per individual, some of this churn in household composition could be avoided.

Although the ESSN Impact Study presents interesting findings, the methodology (propensity score matching) and the data used have some limitations. First and foremost, propensity score matching was selected as the best possible methodology, but it matches based
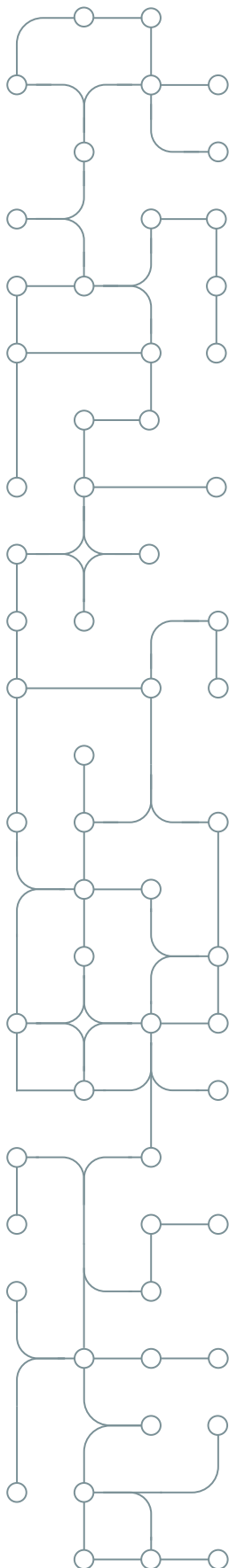
on the available variables between treatment and control groups. Estimates made using this methodology might be biased in the presence of unobservable variables that determine programme participation as well as some important observables such as disability (one of the targeting criteria), income, education, and registration status that could not be included in the analysis due to unavailability – hence violating the conditional independence assumption. Also, the likelihood of spillover effects between the two groups makes it very difficult to isolate the treatment effect by violating the stable unit treatment value assumption (SUTVA). The SUTVA violations also indicate that limited changes in total consumption may be due to contamination of the treatment group; likely spillover effects such as sharing assistance make it difficult to properly quantify the value of treatment. Another challenge was the large and differential attrition. Of the 8,690 households interviewed in the baseline survey, 24.7%, 28.9%, and 42.8% could not be reached in the respective follow-up surveys. It is worth mentioning that drop-out rates are considerably different between beneficiary and non-beneficiary households. In the first follow-up survey, it has not been possible to interview 33% of non-beneficiary households interviewed for the baseline survey, compared with 16% of beneficiary households interviewed for the baseline survey. This difference increases further in the following rounds of surveys, reaching 54% for non-beneficiary households and 32% for beneficiary households. The researchers corrected for this challenge in their analysis.

The above-mentioned challenges indicate the necessity of ground-truthing – as the findings, if found true, also may raise serious protection concerns that need to be tackled case by case and very carefully by the project partners and experts.

It is quite possible that there are other reasons that we cannot ascertain based on the available data. One straightforward explanation would be the 'organic' reasons of change in household compositions such as newborns, deaths, moving back to Syria/other countries, people moving to another age group, marriages,

divorces, and separations – although the propensity score matching should correct for these changes. Given that ESSN beneficiaries have, on average, more children, they would also tend to be further along in their life cycle. In other words, older families are more likely to be ESSN beneficiaries than younger ones. This may imply a significantly different attitude toward life in Turkey and an ability to adapt to it. While the propensity score matching again attempts to correct for this by comparing households of similar characteristics, it is unclear whether there are some elements here that are not measured that may compromise the ability to make households truly comparable – except for their ESSN status.

More importantly, field reality shows that, unlike the eligible group, the ineligible group cannot rely on any stable source of assistance such as the ESSN. Therefore, they may need to be more mobile to generate their income. Given income sources, access to employment, and skills were not captured in the interviews, we may in fact have two significantly different groups. This may imply ineligible households may have to move in search of income and it could in particular affect older children. It may also imply a bigger tendency to separate families, for example by an income earner moving elsewhere, or explain the need to send a child to live with a relative. In this regard, absolute figures show that the number of household members between 18 and 59 years old decreased by 464 people among ineligible households and only by 65 people among eligible households in the first follow-up survey as compared to the baseline survey.

Moreover, the ESSN targets households and not families. While the study finds children may have moved, we do not know whether this movement is away from their immediate families or back to their immediate families. It is possible that, prior to the ESSN, children lived with a household belonging to the extended family, for example due to better childcare availability (a single working parent may request such help), a better economic situation (we know that control households are better off than their treatment peers),

or in order to live closer to school. The ESSN assistance may have encouraged or reversed such a decision.

It is important to point out that such movement does not generate additional entitlement for the households receiving the children unless the household size in the respective Government of Turkey registration system is modified. The paper makes no such claim and the anecdotal evidence WFP has collected over the years does show that households at times do attempt to modify their officially registered household composition so as to remain or become eligible. Previous ESSN qualitative data confirmed that many households manipulated their composition in order to capture additional benefits; many of these manipulations involved officially registering additional children within their household through government institutions. This was a change in paperwork, rather than a change in actual household composition. Household composition in these surveys is based on respondents' declarations so it is possible that beneficiary households would align their survey responses with their official paperwork – thus the paperwork may have a spillover effect on the impact analysis.

Finally, all data was collected through phone interviews. All respondents may report the current household composition (at the time of the call) or report the original composition they know was reported when they entered the programme. Both treated and untreated households may have considered that their answers could influence their ESSN entitlement, although it was clearly stated that there is no connection between what is stated in the interview and the eligibility decision. While this may have encouraged both types of households to inflate their household size, it is unclear to us whether this would have affected both types in the same way.

Therefore, in the light of the study results, limitations, and discussions around the possible reasons for the quantitative findings, we believe that further qualitative research is needed to validate whether this movement actually took place and, if so, the reasons for it. Such ground-truthing could involve follow-up interviews with households who report having 'lost a

child' and those who reported having added one. The reasons for a possible movement could be analysed. Such follow-up research could not only validate what is observed in the data but also help understand whether parents do indeed send their children to other households or whether children are returning to their immediate families to share in the assistance. While both would be unintended consequences of the ESSN, the former may imply protection concerns and the latter may be a positive outcome in the sense that refugees do what they can to manage vulnerability within their extended families in a way that is not adequately captured at the micro-level by the ESSN targeting criteria. It is therefore not possible to determine without additional research whether what is observed in the data is an actual change, and, if so, if it is positive or negative.

6.4 SOCIAL COHESION

The Syrian refugee influx began in April 2011 and by 2014 Turkey had become the largest refugee-hosting country in the world (UNHCR, 2019). Besides refugees starting a new life in Turkey, the presence of refugees was novel and the host society had to adapt to this novelty. As it has been a decade and the crisis in Syria does not seem likely to end soon, anxiety among Turkish citizens about the permanent settlement of refugees has increased. Empirical studies have found that, as in other countries, the trends over the years show a decreasing acceptance of refugees and reduced solidarity (Erdogan, 2020; KONDA 2019).

In general, humanitarian interventions tend to increase social cohesion by reducing tension, providing relief, reducing competition over resources, and contributing to peacebuilding between conflicting communities (Delgado, 2019). During its operations, WFP emphasizes the 'Do No Harm' principle – that is, to not exacerbate conflict between groups as a result of providing assistance (WFP, 2016). As the ESSN is a programme that targets refugees only, the WFP's country office in Turkey has monitored perceptions among the host society regarding the assistance provided for refugees through Social Cohesion Surveys.

The overall findings, in line with other studies like The Syrian Barometer (Erdogan, 2020) indicate that the social cohesion index has deteriorated, most likely triggered by the economic downturn since mid-2018. The fierce refugee-return debates that were used to justify the Turkish military occupation of parts of Northern Syria, which intensified during the local elections in early 2018, may have been an additional cause or a consequence of the reduced social cohesion observed.

To monitor the impact of the ESSN on social cohesion, the survey had a specific section that focused on understanding how host community members perceive the vulnerability of refugees and the assistance provided to them to cover their basic needs. The findings show that most Turkish citizens think that refugees are not more vulnerable than the Turkish poor. This opinion became more prevalent over time; it increased from 44% in July 2017 to 52% in June 2019, which might be a result of the fading of the emergency nature of the refugee crisis. Nevertheless, the host population still agrees that refugees are in need of assistance. The host community was somewhat reluctant when asked about governmental assistance for refugees. Although more people were supportive of the Turkish government covering the basic needs of refugees between 2017 (41%) and 2018 (43%), perhaps due to the concerns over Turkish economy after the mid-2018 crisis, that support fell to 32% in 2019 (with another 24% of participants neither agreeing nor disagreeing). Even though financial assistance from the government is not seen favourably among the host community, there is more openness to sharing public facilities such as hospitals and schools with refugees: some 46% in July 2017, 50% in January 2018, and 42% in June 2019 agreed that refugees should benefit from public services.

While it is important to highlight that the Turkish host population is often not aware that the ESSN and other refugee assistance is paid for with EU or other donor funds and may therefore not take this fact sufficiently into account, support for the assistance pro-

vided by nongovernmental sources is big. Despite a decrease over time between July 2017 (55%) to June 2019 (49%), half of the host community still thinks that international organizations should be responsible for covering the basic needs of refugees (with another 21% who neither agree nor disagree). Since the ESSN is funded by ECHO, it corresponds with the host community's expectations that international assistance provides for the refugees in Turkey. Engaging in a discourse that emphasizes more clearly the foreign financing of the programme – particularly after the economic downturn – is likely to correct the misperception of 'refugees receiving salaries from the government' and may possibly reduce potential resentment among the host society. The focus group discussions also revealed that refugees did not experience mistreatment from their vulnerable Turkish neighbours for being ESSN beneficiaries. Using appropriate language about the ESSN and the governmental assistance provided for vulnerable people may reduce potential tensions over such assistance.

6.5 TURKISH ECONOMY

Currently, the ESSN is the largest multipurpose cash transfer programme in the world. Between December 2016 and November 2018, almost 3 billion Turkish Liras were delivered to over 1.5 million refugees in Turkey. Since refugees injected this money into the economy by purchasing goods and services from local stores and paying rents/utilities, etc., it has been argued that the ESSN assistance might indirectly contribute to the host community. In collaboration with WFP, Sabanci University conducted a study in 2020 to examine the impact of the money injected into the Turkish economy through ESSN assistance.

Literature shows that refugee arrivals in a community have a positive impact on the economy by increasing demand and therefore igniting expansion of both goods and labour supply (Altindag, Bakis & Rozo, 2018). It also changes the dynamics of informal employment. Studies show that, while the refugee labour supply leads to lower wages in the nonskilled sector and reduces employment of the host population in
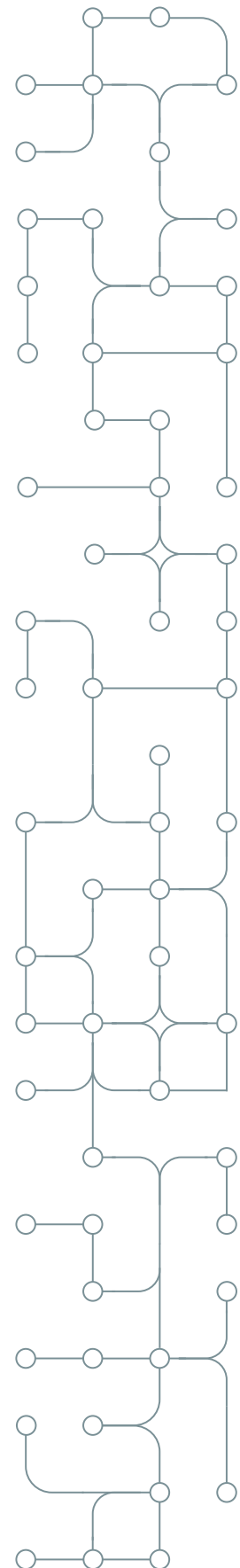
the sector, it also upgrades the host society to more skilled jobs with higher income (Constant, 2014).

The ESSN impact on economy study, while controlling for the presence of refugees and changes in the economic context, focused on analysing the specific impact of the ESSN. The researchers found that for every 1 TRY transferred through the ESSN there was 1.86 to 2.1 TRY worth of economic output generated. That is, the ESSN resulted in a positive contribution to the host society that is close to twice the amount transferred to ESSN beneficiaries.

Besides the national economy, the ESSN has an impact on local economies as well. The ESSN impact on economy study found a positive impact on new business creation and a decrease in unemployment insurance claims in locations where ESSN beneficiaries were concentrated in comparison to areas where there were fewer refugees present. Health and education services in local economies were also influenced by the ESSN transfers, at times in ways that would lead to additional expenditures for the Turkish government. The study determined a causal effect between the ESSN transfers and some important health and education indicators. According to the analysis, the ESSN increases the number of healthcare personnel in hospitals/health centres, obviously at a cost to the Turkish national budget, and better health outcomes were observed, such as reduced mortality rates in some provinces.

It was also found that the number of students in schools and classroom size increased. In some provinces with high refugee populations, a significant increase in the number of teachers – again at a cost to the national budget – was observed in elementary and middle schools. It could be argued that the increase in class size might affect the quality of education services. However, it should be noted that the increase in student numbers also indicates that the ESSN increases the schooling of children who would otherwise engage in child labour. Furthermore, education is one of the prominent indicators for migrant and refugee integration into the host communities. Lastly, some increases in rents, as well as in prices for some food items, have been observed in areas with a high concentration of refugees when compared to those that had fewer refugees, likely due to the increasing demand and added purchasing power of the ESSN beneficiaries.

7. Potential Impact of Non-Applicants

Throughout the ESSN project, monitoring activities were primarily focused on those who applied to the programme. As shown in the above analysis, these applicants were split into beneficiaries and non-beneficiaries. There is, however, another group: the non-applicants. These were refugees who for various reasons had not applied for ESSN assistance during the study period. This section explores their poverty levels, as well as the potential impact of ESSN on non-applicants if they had applied.

7.1 METHODOLOGY

Data was gathered on non-applicants in the CVME surveys, allowing for a comparison with the applicants. The following analysis will focus on the potential impact the ESSN could have had on non-applicants, using the RMPI.[21]

While in the previous analyses we can separate applicant households into beneficiaries and non-beneficiaries by their survey response, to identify the potential impacts of the ESSN on non-applicants a distinction between non-applicants, who would have been eligible, and those who would have been ineligible is needed. By using the eligibility criteria of the ESSN, both applicants and non-applicants can be split into eligible and ineligible.[22] We therefore consider four groups for comparison: ineligible applicants, eligible applicants, ineligible non-applicants, and eligible non-applicants.

We use the inverse-probability-weighted regression adjustment method described in Section 2.5. This method first estimates propensity weights for the inverse-probability of treatment and then, second, regresses potential confounders using an extensive list of covariates relating to household characteristics and ESSN eligibility criteria. This method allows for the estimation of separate treatment effects (of the ESSN) for different households, conditional on their observed covariates. With this, the potential outcomes for every household both with and without treatment (the ESSN) can be predicted. Hence, we can predict the potential outcomes of non-applicants (as they have overlapping characteristics with the applicant) with and without treatment. This analysis can be conducted separately for different outcomes of interest, below we focus on RMPI headcounts and the different dimensions of the RMPI.

It is important to note, that this analysis is a counterfactual analysis without a causal interpretation, as we cannot observe the actual eligibility status of the non-applicants (which we can for applicants), and estimates could be biased due to the omission of unobservable characteristics, which may affect outcomes. For future data collection used to assess programmes similar to the ESSN, gathering panel data inckuding non-applicants, with a pre-treatment baseline (as in the PDM) who might later become applicants, would allow for a more rigorous causal analysis to be undertaken. With the data available, however, the analysis below provides a basis for important discussion.

7.2 RESULTS

Figure 33 shows the predicted RMPI headcounts, at the 20% cutoff, across these four groups. The red bars show the expected potential outcome with the ESSN (treatment), the blue bars show the expected potential outcome without ESSN (no treatment). We observe significant differences between ineligible and eligible groups, for both applicants and non-applicants. Among non-applicants (without treatment), for example, 79.7% of eligible households are in poverty, compared to 53.5% of ineligible households. This confirms the overlap between the eligibility criteria and multidimensional poverty, and shows that it also remains true for non-applicants. Non-applicants are shown to face greater multidimensional poverty than applicants. Without treatment, 62.9% of eligible applicants are in multidimensional poverty, compared to 79.7% of eligible non-applicants. The difference between the red (with treatment) and blue (without) shows the predicted impact that the ESSN programme could have had. While effects are smaller for ineligible households, there are large and significant differences for eligible households, particularly for non-applicants. While eligible applicants are indeed receiving ESSN assistance, the non-applicants, even if eligible, are not.

FIGURE 33. PREDICTED POTENTIAL OUTCOMES OF RMPI HEADCOUNTS (20%): ELIGIBLE AND INELIGIBLE, APPLICANTS AND NON-APPLICANTS
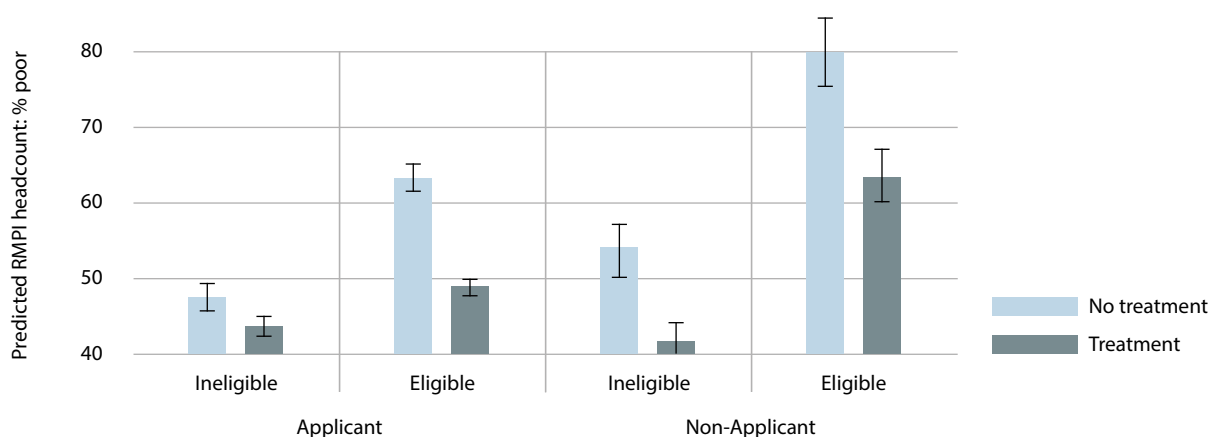
This highlights the importance of encouraging eligible non-applicants to apply for ESSN assistance.

Significant reductions in poverty for this group could occur. Even though the majority of non-applicants could have been encouraged to apply to the programme through further outreach activities, some 14% of the non-applicants could not apply to the ESSN programme because they were registered in another province. Refugees might tend to move to another location for employment purposes. Therefore, remedies should be found through policy discussions among stakeholders to assist those in need – such as tolerating movements, unless they became a habit, instead of castigating them for having moved to another province.

By decomposing the RMPI we can identify the dimensions in which the eligible non-applicants are particularly deprived, and, indeed, where the ESSN could have the most impact. Figure 34 shows the predicted potential outcomes of the uncensored weighted dimensions. Consistent with earlier analysis on applicants, eligible non-applicants (without treatment) are more deprived in education (0.40), food security (0.46), and living standards (0.3), with less deprivation in income resources (0.18) and health (0.08). Compared to the eligible applicants, without treatment

(see Table 4), levels are similar for education and health; however, non-applicants have higher levels of deprivation in food, income resources, and living standards. The differences between the blue and red bars show that the largest and most significant reductions would have been in food security (-0.13), living standards (-0.10), and education (0.66), with no significant difference in the health and income generation dimensions. As presented above, the ESSN's imperceptible impact on health and income generation is an expected finding, mainly due to existing government policy that provides refugees with free access to public hospitals throughout the country and the fact that the ESSN's multipurpose cash assistance was not designed to improve a household's capacity to secure income.

It is, however, important to consider the differences in characteristics of these four groups. Table 5 shows the descriptive statistics across these four groups: arrival time, region, characteristics of the household head, and their eligibility criteria. These statistics use data from CVME Waves 3 to 5, using sample weights, so they are representative of the population from March 2018 to February 2020. Of these, the starkest differences are in the arrival time. For applicants, only 3% of ineligible and 5% of eligible applicants arrived

FIGURE 34. PREDICTED POTENTIAL OUTCOMES OF RMPI UNCENSORED WEIGHED DIMENSIONS: ELIGIBLE NON-APPLICANTS
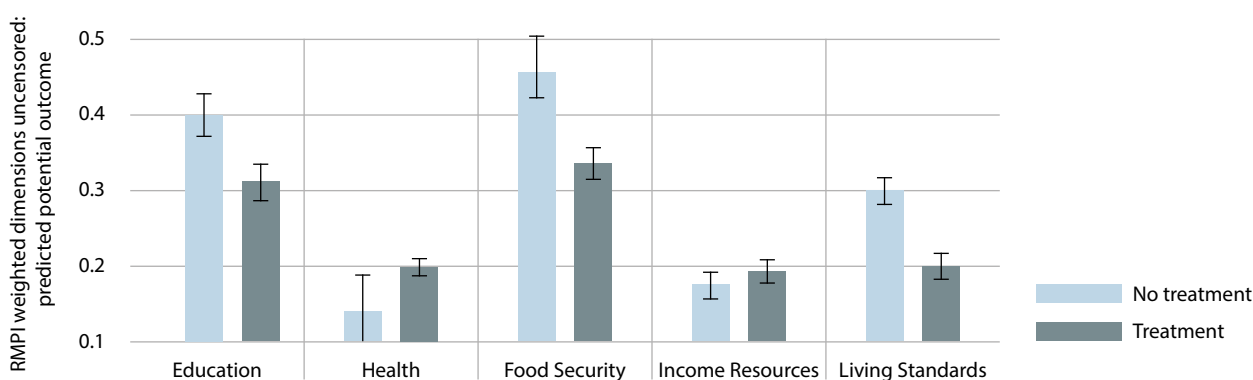
within the last 12 months, for non-applicants this is 17% and 34%, respectively. This recent arrival time of eligible non-applicants partially explains the high levels of multidimensional poverty and hopefully indicates that, in time, these non-applicants will apply. As analysis on eligible applicants shows (see Figure 31) arrival time has a significant effect on poverty levels, and potential reductions in poverty are highest for those with more recent arrival times.

The main regional differences stem from differences in Anatolia and the South-East. We observe non-applicants are more likely to have male and younger household heads (Table 12). While eligible households are still mostly male-headed, the percentage of female-headed ones is higher and the heads of households tend to be slightly older. With respect to the ethnicity of the household head, we observe that eligible non-applicants are more likely to be Afghan and less likely to be Syrian. While eligible non-applicant household heads are similarly skilled as applicants, ineligible non-applicants have more highly skilled jobs. This is a good sign as skilled refugees should have an easier time integrating themselves into the labour market and, therefore, earning sufficient income. Finally, across eligibility criteria, we see similar characteristics between applicants and non-applicants. When interpreting the results shown in Figures 30 and 31, this needs to be taken into account.

The evidence suggests that the ESSN would have helped if non-applicants applied, therefore facilitating their application process is recommended. According to the last round of the Comprehensive Vulnerability Monitoring Exercise (CVME5), 37% of non-applicant households did not apply to the ESSN because they believed, or were told, they were not eligible, 18.6% did not register with DGMM, 11.3% reported that SASF officers said that they would not meet the criteria, and 10.3% stated that they did not know about the ESSN. An additional 6% did not register with the Directorate General of Population & Citizenship Affairs (NÜFUS) and another 6% registered in another province, while only 9% said that they did not apply because they did not need an assistance. Con-

siderable effort over the course of the ESSN's implementation has been devoted to increasing awareness among refugees via the programme's implementing partners. In this regard, WFP and Türk Kızılay monitoring assistants in the field conducted sensitization exercises regarding applying for ESSN assistance during their visits to reduce the number of households that were not aware of the programme. They also reported cases to the Accountability to Affected Population (AAP) and Protection Unit that uses referral mechanisms to provide relief for refugees who cannot benefit from the ESSN programme as they do not meet some of the preconditions. Even though the efforts of the field staff provide some remedy, for a systematic improvement of the programme, policies such as only allowing applications for ESSN assistance in the provinces where applicants registered for temporary or international protection should be revisited. Another improvement could be the earlier recommendation to include all recent arrivals for a limited period of time in the ESSN before applying the eligibility criteria. Stakeholders might want to consider other ways of reaching out to non-applicants to encourage participation, especially among new arrivals given that a considerable amount of non-applicants did not know about the ESSN and believed that they would not be eligible. Once introduced, it would help to inform potential beneficiaries that they can be eligible through the SASF allowance even though they cannot meet the demographic criteria. This should become a focus on future outreach efforts. Lastly, as some refugees report difficulties in the registration process, implementing partners could further encourage governmental authorities (especially NÜFUS) to solve registration-related problems.

TABLE 12. DESCRIPTIVE STATISTICS: INELIGIBLE AND ELIGIBLE, APPLICANTS AND NON-APPLICANTS

	Applicants		Non-Applicants	
	Ineligible	Eligible	Ineligible	Eligible
Arrival Time				
<12 months	3%	5%	17%	34%
1-3 years	23%	18%	41%	23%
3-6 years	64%	62%	40%	42%
Before conflict	9%	16%	3%	1%
Region				
Istanbul	8%	5%	5%	8%
Aegean	16%	9%	8%	6%
Mediterranean	18%	15%	15%	21%
Anatolia	35%	30%	26%	45%
South-East	23%	40%	46%	20%
Household Head				
Female Headed	15%	21%	1%	11%
Age (Years)	41.48	40.07	39.4	37.11
Afghan	3%	4%	6%	17%
Iraqi	10%	8%	3%	11%
Syrian	87%	87%	91%	70%
Highly Skilled	4%	3%	14%	2%
Eligibility Criteria				
Dependency Ratio > 1.5	0%	85%	0%	86%
Single Female	0%	3%	0%	1%
Elderly Headed	0%	2%	0%	2%
Single Parent	0%	9%	0%	12%
Disabled Members	0%	18%	0%	12%
Num. Children >= 4	0%	55%	0%	44%
N	1030	2531	342	203

8. Concluding Remarks: Focus Area 3

Focus Area 3 aimed to incorporate all existing data and conduct analysis on intended benefits and unintended impacts of ESSN cash assistance. Diverse datasets and resources were used, including WFP monitoring results and various external studies. The analysis for intended benefits was mainly conducted by comparing the relative performance of beneficiaries and non-beneficiaries, while the analysis for unintended impacts covers non-applicants and the host community as well. The potential impact analysis mainly focused on non-applicants.

The analysis on intended benefits shows that ESSN cash assistance successfully supported beneficiary households to better meet their basic needs. Despite the macroeconomic changes and recession over the period, beneficiary households managed to increase their food consumption and promote nutritional well-being as compared to the pre-assistance baseline. Moreover, beneficiary households relied less on negative coping strategies both in the short- and long-term. Similarly, the debt level for beneficiaries remained lower than for their counterparts following the start of assistance. The RMPI analysis also demonstrated ESSN's positive impacts by showing that the assistance has led to significant improvements in food security, living standards, and education.

The unintended impacts of ESSN assistance were assessed from a variety of angles, including labour participation, fertility rates, social cohesion, external money injections, and potential impacts on non-applicants; the assessment also included the ESSN Impact study's findings on the movement of children from ineligible to eligible households (Özler et al., 2020). On the one hand, the analysis provides some indications that ESSN assistance may have served as a disincentive to ESSN beneficiaries from seeking formal employment due to their desire to retain

their eligibility status and maximize their short-term income. On the other hand, no significant impact was found for fertility rates and early marriage. The social cohesion assessment showed that, over time, a higher percentage of the host community came to believe that refugees are not more vulnerable than the Turkish poor. Nevertheless, almost half of the host community agreed that international organizations should cover refugees' basic needs. The impact of the ESSN programme on the Turkish economy was found to be positive in that every 1 TRY transferred through ESSN is worth 1.86 to 2.1 TRY in the output. However, a claim regarding the unintended impact of children being moved from ineligible to eligible households turned out to be limited by the available data and the methodology, which indicates that this claim requires ground-truthing and further qualitative research to prove its veracity.

The effects on RMPI were also analysed to explore the potential impact of the programme on those who had not applied (yet). Nearly 80% of eligible non-applicants were living in multidimensional poverty, a higher rate than among eligible applicants (62.9%). The predicted potential impact of the ESSN on multidimensional poverty is significant, even for eligible non-applicants. Eligible non-applicants are shown to have higher levels of deprivation in the dimensions of food security, income resources, and living standards than eligible applicants.

The above findings support the claim that ESSN cash assistance has successfully fulfilled its purpose to help beneficiary households meet their basic needs in the face of old (being a refugee) and new hardships (the economic context). Nevertheless, it is also shown that its impact has been weakened over time as the relative purchasing power beneficiaries gained

from the ESSN was devalued by inflation. In addition, unintended positive and negative impacts were also observed in various fields.

While the Turkish economy overall benefited from the influx of the ESSN funds, the ESSN may have been a disincentive in seeking formal employment.

8.1 RECOMMENDATIONS FOR FOCUS AREA 3

1. One of the challenges the ESSN programme faced was the drastic macroeconomic changes experienced, which resulted in the deterioration of programme gains. For future humanitarian cash-based assistance, it is recommended that the transfer value be indexed to the purchasing power of the beneficiaries to improve the programme's resilience to external changes and to ensure timely interventions for the vulnerable. In Turkey, this was hampered by the fact that national social protections are not indexed to inflation either, but indeed such an adjustment would seem a best practice for all programmes to combat poverty.

2. Stakeholders might want to consider providing some transfers immediately for new arrivals so they can address their urgent needs, even before the registration process has been completed. These are consistently the poorest group, and among those who benefited most from the ESSN programme.

3. As some refugees were not able to apply because they had moved provinces since registering, adjustments to the criteria should be made to enable them to access the programme in their new provinces.

4. Stakeholders might want to consider other ways of reaching out to non-applicants to encourage participation, especially among new arrivals. Once it had been introduced, it would help to inform potential beneficiaries that they can be eligible through the SASF al-

lowance even though they cannot meet the demographic criteria. This should become a focus for future outreach efforts.

5. As some refugees reported difficulties in the registration process, it is recommended to further encourage governmental authorities (especially NUFÜS) to solve registration-related problems.

6. For future projects, it may be helpful for baseline data to be collected from non-applicants to improve the identification of the impact of the programme.

7. Over time, attrition had become an obstacle for ESSN PDM panel rounds. An intensive tracking exercise found that the major reasons for attrition are changes in phone numbers and a lack of motivation. For future projects, it is recommended that contact information be updated on a regular basis and that new ways to motivate refugees to respond to surveys, for example by providing a financial incentive, especially for non-beneficiaries who otherwise have little to gain from making their time available, be considered.

8. Although beneficiary households have shown overall improvements, male-headed households outperformed female-headed households in most of the indicators. In this regard, additional gender-specific strategies should be considered for future projects or future phases of the ESSN.

9. Refugee households in Turkey do work to generate income, regardless of being ESSN beneficiaries or not. The causal impact of the ESSN on refugee employment warrants a more detailed analysis, such as a better understanding of employment conditions and job-seeking behaviours. These studies would also provide further insights on how to improve the design

of both basic needs assistance and livelihood projects, as well as ensuring pathways exist between them.

10. Social cohesion between the refugees and the host society indicates a decrease over time. It is unlikely the ESSN is to blame, but rather the deteriorating economic conditions for both communities as well as a natural fatigue with prolonged refugee responses that we see in many contexts. While data is not available to prove this, it is likely that, in the absence of the ESSN, social cohesion would have been much worse, as abject poverty among refugees could have irritated the host population and encouraged socially unacceptable coping behaviours.

References

Alkire, S. and Foster, J. E. (2011). 'Counting and multidimensional poverty measurement', J*ournal of Public Economics*, 95, 476–487.

Alkire, S., Foster, J. E., Seth, S., Santos, M. E., Roche, J. M., and Ballon, P. (2015). *Multidimensional Poverty Measurement and Analysis.* Oxford: Oxford University Press.

Altindag, O. Bakis, O. and Rozo, S. (2018). 'Are Refugees Good for Business? Evidence from Syrian Refugees in Turkey', *Working Paper*.

Banerjee, A., Rema, H., Kreindler, G. and Olken, B. (2017). 'Debunking the stereotype of the lazy welfare recipient: Evidence from cash transfer programs', *World Bank Research Observer*, 32, 155–184.

Çalışma İzni Verilen Suriyeli Sayısı (2020, April, 1). *Retrieved October 24, 2020.*

Constant, A. (2014). 'Do migrants take the jobs of native workers?' *IZA World of Labor* 2014:10.

Delgado, C., Jang, S., Milante, G. and Smith, D. (2019). *The World Food Programme's Contribution to Improving the Prospects for Peace*, Solna, Sweden: Stockholm International Peace Research Institute.

Donmez-Kara, C. O. (2016). 'The right to work of foreigners in Turkey: Syrians' situation in the labor market', *Üsküdar University Journal of Social Sciences*, 2, 151–174.

Erdogan, M. M. (2020). *Syrians Barometer 2019: A framework for achieving social cohesion with Syrians in Turkey*, Ankara, Turkey: Orion.

FAO (Food and Agriculture Organization of the United Nations) (1996). *Report of the World Food Summit*.

Guio, A.-C., Gordon, D., Najera, H., and Pomati, M. (2017). 'Revising the EU material deprivation variables', *Eurostat Statistical Working Paper*, Publications office of the European Union, Luxembourg.

Hacettepe University (2020). *An Analytical Study on the Contribution of Assistance to the Nutritional Well-being of Syrian Refugee Women and Children*.

Icduygu, A. and Diker, E. (2017). 'Labor market integration of Syrian refugees in Turkey: From refugees to settlers', *The Journal of Migration Studies*, 1(3), 12–35.

Jonassen, A. B. (2013). 'Regression discontinuity analyses of the disincentive effects of increasing social assistance', PhD dissertation, Department of Economics, Aarhus University.

Karlan, D. and Appel, J. (2011). *More than Good Intentions: How a New Economics is Helping to Solve Global Poverty*, New York: Penguin Group.

Klasen, S. (2000). 'Measuring poverty and deprivation in South Africa', *Review of Income and Wealth*, 46(1), 33–58.

References

KONDA (2019). *Konda Barometresi; Temmuz 2019*. Istanbul.

Macrotrends (2021). *'Turkey GDP growth rate 1961–2021'*.

Mask, J. (2018). 'Consequences of immigrating during a recession: Evidence from refugee resettlement program', *MRPA Paper 90456,* Munich Personal RePEc Archive.

OECD (2020). 'How to make integration policies future-ready?' *Migration Policy Debates 20*, OECD.

OPM (2020). ESSN Mid-Term Review 2018/2019, Oxford Policy Management.

Özler, B., Çelik, C., Cunningham, S., Facundo Cuevas, P., and Parisotto, L. (2020). 'Children on the move: Progressive redistribution of humanitarian cash transfers among refugees', *Policy Research Working Paper 9471*, World Bank.

Santos, M.E. and Villatoro, P. (2019). 'The importance of reliability in the multidimensional poverty index for Latin America (MPI-LA)', *The Journal of Development Studies*, 56(9), 1784–1789.

Schellekens, J. (2009). 'Family allowances and fertility: Socioeconomic differences', *Demography, 46(3)*, 451–468.

Shannon, D and Eva, L. (2019). *Multi-Purpose Cash Assistance and Health: An Analysis of the Emergency Social Safety Net (ESSN) Program for Refugees in Turkey.*

Shepherd, A., Wadugodapitiya, D., and Evans, A. (2011). 'Social assistance and the "dependency syndrome"', *Chronic Poverty Research Centre Policy Brief 22*, Chronic Poverty Research Centre.

Statista. (2020). *'Turkey: Unemployment rate from 1999 to 2020'.* [Online paper accessed on 23 March 2021].

The Sphere Project (2004). *Humanitarian Charter and Minimum Standards in Disaster Response.* The Sphere Project, the Steering Committee for Humanitarian Response (SCHR) and InterAction with VOICE ad ICVA.

Townend, J., Minelli, C., Harrabi, I., Obaseki, D.O., El-Rhazi, K., Patel, J., and Burney, P. (2015). 'Development of an international scale of socio-economic position based on household assets', *Emerging Themes in Epidemiology,* 12(13), 1–11.

United Nations Development Programme and Oxford Poverty and Human Development Initiative (2019). *How to Build a National Multidimensional Poverty Index (MPI): Using the MPI to Inform the SDGs*. Oxford: University of Oxford.

UN High Commissioner for Refugees (UNHCR) (2017). *A Guide to International Refugee Protection and Building State Asylum Systems, 2017, Handbook For Parliamentarians No. 27.* [Online paper accessed on 30 September 2020].

UN High Commissioner for Refugees (UNHCR) Jordan (2018). *Health Access and Utilization Survey*.

References

UN High Commissioner for Refugees (UNHCR) Lebanon (2018). *Health Access and Utilization Survey*. [Online paper accessed on 26 June 2019].

UN High Commissioner for Refugees (UNHCR) (2020). *Global Report 2019*. Geneva.

UNHCR. *Türkiyedeki Suriyeli Sayısı Aralık 2018.* (2018, January 31). [Online paper accessed on 24 October 2020].

WFP (World Food Programme) (2019). *Turkey Annual Country Report 2019. Country Strategic Plan 2018–19*. [Online paper accessed on 23 March 2021].

WFP (World Food Programme) (2020). *The ESSN Shelter Security, Focus Group Discussions Report*, January 2020.

World Bank (2017). *Monitoring Global Poverty: Report of the Commission on Global Poverty*. Washington, DC: World Bank.

WFP (World Food Programme) (2016). *Protection Guidance Manual (Emergency and Transitions Unit (OSZPH)*, Programme and Policy Division.

WFP (World Food Programme) (2019). *ESSN Post Distribution Monitoring (Cross-section rounds)*.

WFP (World Food Programme) (2018–2020). *ESSN Market Bulletin*.

WFP (World Food Programme) (2020). *CRF Indicator Compendium*.

WFP (World Food Programme) (2020). *Comprehensive Vulnerability Monitoring Exercise (CVME) Round 5*.

WFP VAM (World Food Programme Vulnerability Analysis and Mapping) (2019). *Comprehensive Vulnerability Monitoring Exercise Multidimensional Poverty Index.* May 2019. Online paper accessed on 30 September 2020].

WFP VAM (World Food Programme Vulnerability Analysis and Mapping) (2020). *Essential Needs Assessment. Guidance Note*. December 2020. [Online paper accessed on 27 January 2021].

World Food Summit (1996). *Rome Declaration on World Food Security*.

APPENDICES

FOCUS AREA 2 APPENDIX 1. Redundancy Results of CVME MPI

Dimension	Indicator	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	Frequency
1	A	1	1	0.038	0.136	0.153	0.178	0.156	0.071	0.063	0.080	0.058	0.176	0.255	0.170	0.784	0.163	0.133	13.4%
1	B	1	1	0.264	0.319	0.393	0.316	0.435	0.384	0.219	0.200	0.228	0.520	0.617	0.311	0.729	0.315	0.345	36.3%
2	C	0.038	0.264	1	0.221	0.122	0.609	0.163	0.549	0.124	0.090	0.552	0.115	0.042	0.462	0.772	0.721	0.572	6.9%
2	D	0.136	0.319	0.221	1	0.081	0.389	0.097	0.160	0.367	0.191	0.218	0.248	0.041	0.066	0.747	0.255	0.396	7.7%
3	E	0.153	0.393	0.122	0.081	1	0.468	0.766	0.331	0.200	0.212	0.621	0.160	0.261	0.183	0.587	0.689	0.411	7.53%
3	F	0.178	0.316	0.609	0.389	0.468	1	0.464	0.611	0.440	0.312	0.392	0.260	0.465	0.406	0.799	0.568	0.671	26.7%
3	G	0.156	0.435	0.163	0.097	0.766	0.464	1	0.490	0.139	0.113	0.573	0.341	0.667	0.305	0.683	0.624	0.426	11.8%
4	H	0.071	0.384	0.549	0.160	0.331	0.611	0.490	1	0.101	0.096	1	0.251	0.475	0.371	0.833	0.628	0.598	13.3%
4	I	0.063	0.219	0.124	0.367	0.200	0.440	0.139	0.101	1	0.865	0.101	0.387	0.081	0.350	0.793	0.243	0.210	7.0%
4	J	0.080	0.200	0.090	0.191	0.212	0.312	0.113	0.096	0.865	1	0.096	0.313	0.012	0.403	0.720	0.246	0.019	7.8%
4	K	0.058	0.228	0.552	0.218	0.621	0.392	0.573	1	0.101	0.096	1	0.238	0.480	0.274	0.543	0.597	0.422	19.3%
5	L	0.176	0.520	0.115	0.248	0.160	0.260	0.341	0.251	0.387	0.313	0.238	1	0.449	0.415	0.863	0.365	0.261	19.0%
5	M	0.255	0.617	0.042	0.041	0.261	0.465	0.667	0.475	0.081	0.012	0.480	0.449	1	0.870	0.996	0.316	0.607	5.7%
5	N	0.170	0.311	0.462	0.066	0.183	0.406	0.305	0.371	0.350	0.403	0.274	0.415	0.870	1	0.943	0.316	0.349	11.7%
5	O	0.784	0.729	0.772	0.747	0.587	0.799	0.683	0.833	0.793	0.720	0.543	0.863	0.996	0.943	1	0.585	0.896	63.2%
5	P	0.163	0.315	0.721	0.255	0.689	0.568	0.624	0.628	0.243	0.246	0.597	0.365	0.316	0.316	0.585	1	0.534	35.4%
5	R	0.133	0.345	0.572	0.396	0.411	0.671	0.426	0.598	0.210	0.019	0.422	0.261	0.607	0.349	0.896	0.534	1	22.6%

DIMENSIONS

1 Education
2 Health
3 Food Security
4 Income Resources
5 Living Standards

INDICATORS

A Absence from school because children need to work and/or assist family
B Absence from school for more than a semester
C More than half of the household reported sick
D Any member not treated when sick
E Household with unacceptable food consumption
F Household with CSI > 18
G DDS < 6
H No income source other than ESSN/other assistance or no income at all
I Begged
J Accepted high risk, illegal, socially degrading or exploitative temporary jobs
K No household member worked within last 30 days
L Crowding above three
M No kitchen in the house
N No toilet in the house
O Bad quality apartment
P No sufficient winter clothes
R Insufficient access to any of the items below: water, hygiene items, cooking fuel for cooking

Note: Examples of R0 that stand out are highlighted in red. Highlighted in grey is the indicator for which the CVME MPI made an exception to the adopted frequency rule of 50% ('Bad quality apartment').

FOCUS AREA 2 APPENDIX 2. Robustness Test Results

Selective robustness tests were conducted to assess the statistical strength of the identification function of the headcount ratio (H) and for the adjusted headcount ratio (M0, or RMPI). Robustness of results were analysed with first-order stochastic dominance (SD) and the Spearman's and Kendall's rank correlation coefficients for changes in the cross-dimensional cutoff k, set at 20%, at the regional level and for arrival time. Statistical inference analysis and robust pairwise comparisons were also used to gauge the sensitivity of the results given the sample population (and hence sampling error) from which the poverty classes were computed (see Alkire et al., 2015: pp. 232ff.; UNDP and OPHI, 2019: p. 97).

Figure A2.1 presents the SD analysis for a pair-by-pair cluster analysis for the adjusted headcount ratio at the regional level for different k levels ranging from 10% to 50%, thus within the vicinity of the chosen k value of 20%. SD is established when curves do not cross. We observe that for k values of 10% and 20%, the lines do not cross. However, the Istanbul and

Aegean regions cross lines between 20% and 30%, meaning that these rankings in the RMPI do not hold in the vicinity of 20% for those two regions. For three regions, however, rankings do hold for almost all alternative k values.

Similar results can be presented for arrival time (as shown in Figure A2.2). While all rankings hold for k values of 10% and 20%, the lines do cross for arrivals 'before conflict' and an arrival time of '1–3 years' close to a k value of 30%, and again for arrivals 'before conflict' and an arrival time of '3–6 years' at 30%. However, while arrivals 'before conflict' show a sharp decline in the adjusted headcount ratio with rising k values, the four other arrival times show greater robustness in this poverty class and all rankings hold for all k values.

As SD is considered the most stringent and hence strongest form of robustness (Alkire et al., 2015: pp. 235–238), these are results for this poverty class in the RMPI worth highlighting. Also note that placed

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FIGURE A2.1. SUBREGIONAL RMPI VALUES FOR DIFFERENT VALUES OF THE POVERTY CUTOFF k
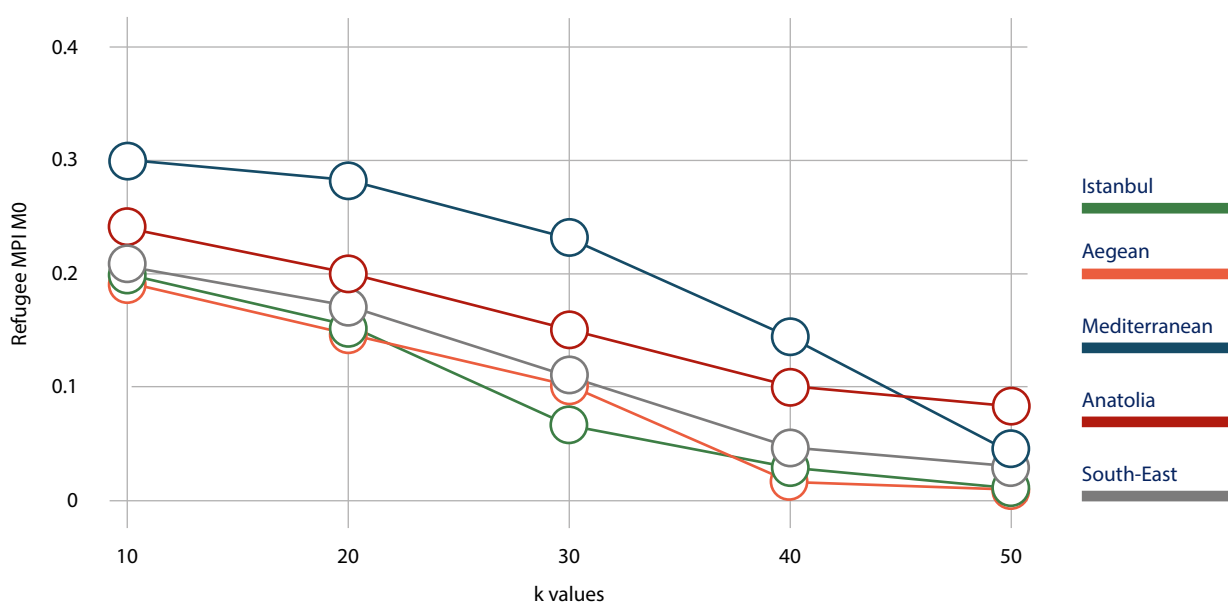
FIGURE A2.2. RMPI VALUES FOR DIFFERENT VALUES OF THE POVERTY CUTOFF k FOR DIFFERENT ARRIVAL TIMES OF REFUGEES
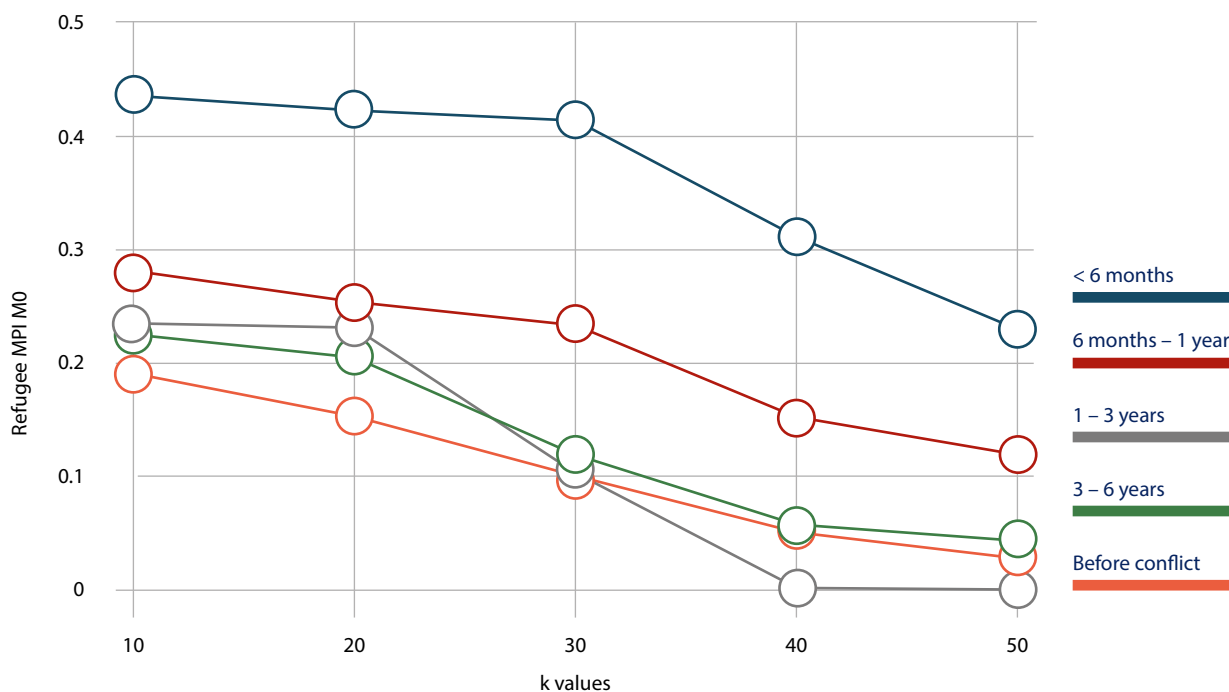
Note: Figure A2.2 is the same as Figure 1 in p. 15.

next to an SD analysis of another poverty class, the headcount ratio H, results seem more robust for breakdowns by arrival time – where rankings hold throughout all k values for arrivals less than 6 months ago, 6 months to 1 year ago and 3 to 6 years ago (see Figure A2.3) – when compared to regional results (see Figure A2.4). Yet, this finding needs to be seen in a refugee context where it seems reasonable that arrival time is a strong determinant of robust wellbeing outcomes. At the regional level for different k values we nonetheless find that the South-East region is consistently the poorest region by this poverty class, which is a robust indication of this region's poverty status (see Figure A2.4).

As a follow-up robustness test, Kendall's and Spearman's rank correlation coefficients were computed that ranked regions and arrival time from poorest to best-off under different k values. The Kendall rank correlation coefficient ($R^{\wedge}\tau$) then compares rankings

that are concordant where one ranking dominates the other in both the initial and the alternative specification, against the discordant rankings (those that change in rankings), divided by all possible rankings (see UNDP and OPHI, 2019: 97). Ranging from -1 to 1, a perfectly negative $R^{\wedge}\tau$ indicates the dis-concordance of rankings under different scenarios, whereas a value of 1 indicates a perfectly positive association between rankings. While similar, the Spearman's rank correlation coefficient computes the square of the difference in the ranks of two specifications and averages it across all subgroups. It is also bound between -1 and 1.

FIGURE A2.3. POVERTY RATES (H) FOR DIFFERENT VALUES OF THE POVERTY CUTOFF k FOR DIFFERENT ARRIVAL TIMES OF REFUGEES
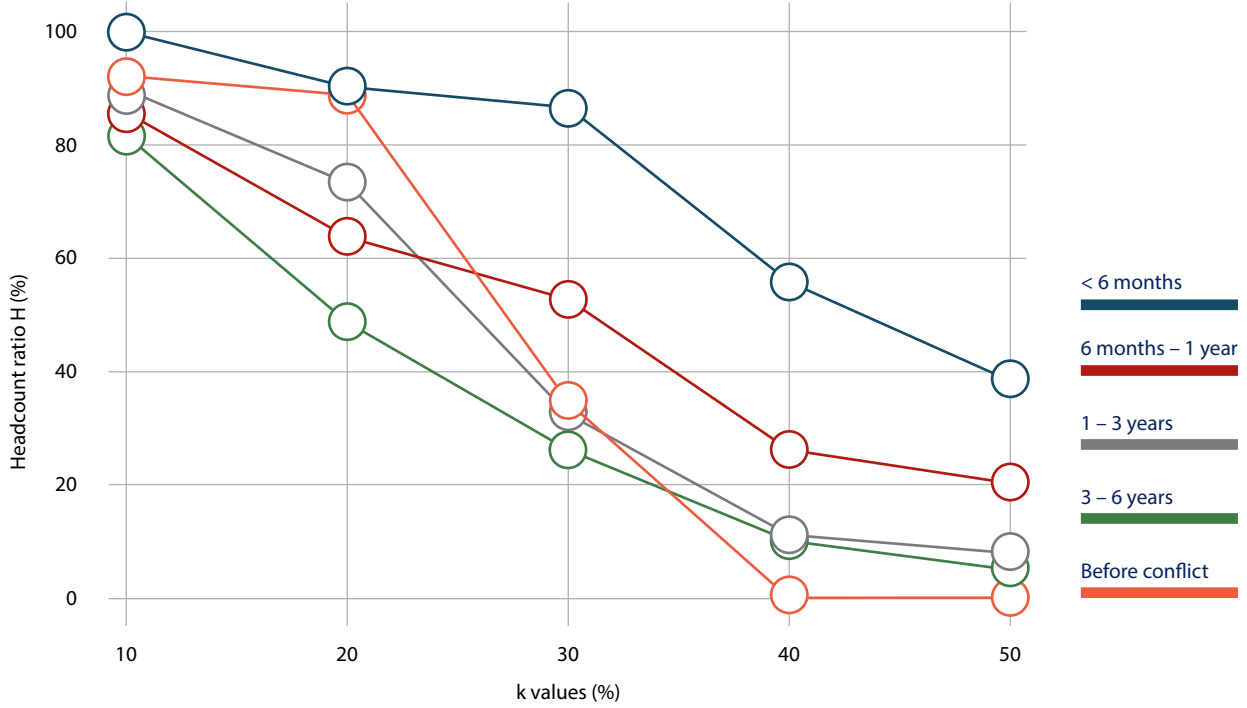
FIGURE A2.4. SUBREGIONAL POVERTY RATES (H) FOR DIFFERENT VALUES OF THE POVERTY CUTOFF k
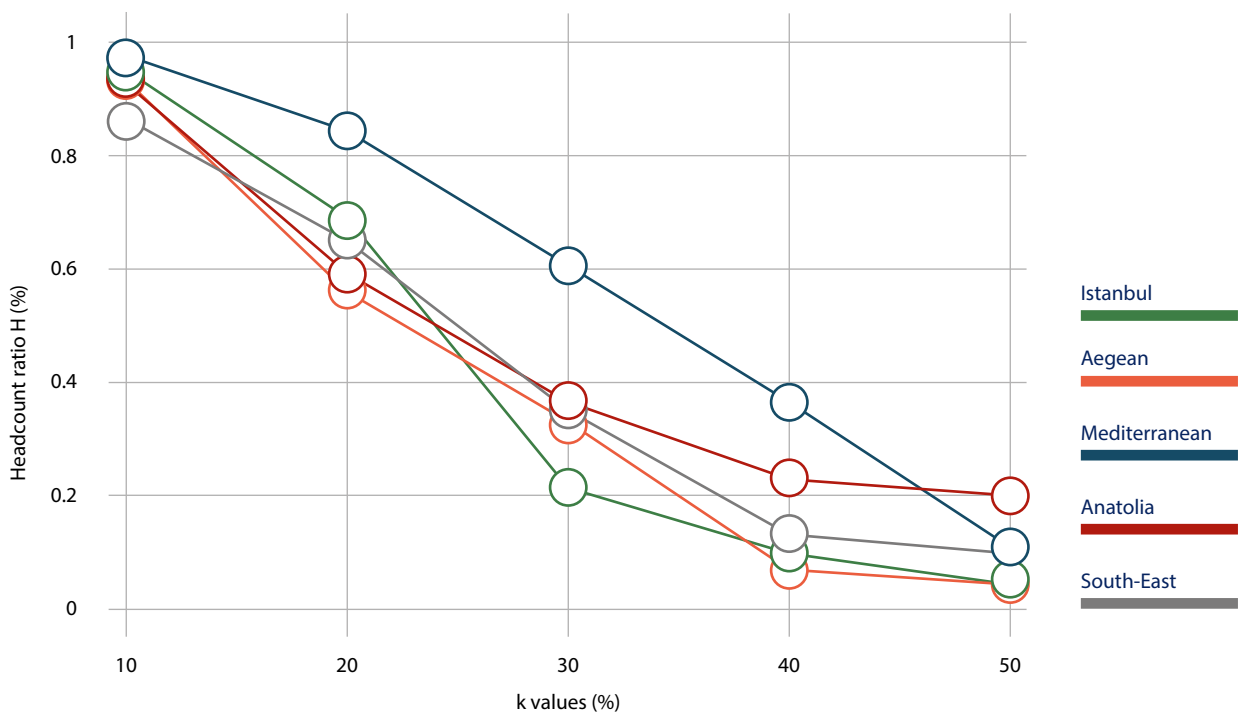
Table A2.1 presents the Spearman and Kendall rank correlation coefficients between the subregional rankings using the selected k value of 20%, and the ranking for alternative poverty cutoffs ranging from 10% to 50%. Given the results from the SD analysis we limit the presentation on the M0 results. The Spearman coefficient is higher than 0.90 for all alternative k values, showing that the differences in the rankings in this poverty class are minimal and almost perfectly positively associated. The Kendall coefficient ranges from 0.8 values of k = 30% and k = 50%, and 1 for k = 10% and k = 40%. This implies that at least 80% of the comparisons are concordant to k values in the closest vicinity to the selected k value of 20%.

different k values and statistically significant robust rankings are only achieved if the 95% confidence intervals do not overlap. If they do overlap, a hypothesis test is required to assert that subnational region A is poorer than region B.

Given five subregions in the sample, we find 10 possible pairwise comparisons (m(m-1)/2) and considered a pairwise comparison to be robust if the orderings established at baseline, set at 20%, are preserved under the alternative cutoffs scenarios. We find that 7 of the possible 10 pairwise comparisons were significant at baseline level, and 5 of 10 were significant under the alternative k values. Hence, the overall ratio

TABLE A2.1. CORRELATION OF RMPI AMONG SUBNATIONAL RANKS FOR DIFFERENT POVERTY CUTOFFS k

		k=20%
k=10%	Spearman	1.000*
	Kendall Tau-b	1.000*
k=30%	Spearman	0.900*
	Kendall Tau-b	0.800
k=40%	Spearman	1.000*
	Kendall Tau-b	1.000*
k=50%	Spearman	0.900*
	Kendall Tau-b	0.800

RMPI * indicates correlation coefficients significant at the 5% level or lower.

TABLE A2.2. CORRELATION OF RMPI FOR DIFFERENT POVERTY CUTOFFS k FOR DIFFERENT ARRIVAL TIMES OF REFUGEES

		k=20%
k=10%	Spearman	1.000*
	Kendall Tau-b	1.000*
k=30%	Spearman	0.900*
	Kendall Tau-b	0.800
k=40%	Spearman	0.700
	Kendall Tau-b	0.600
k=50%	Spearman	0.700
	Kendall Tau-b	0.600

RMPI * indicates correlation coefficients significant at the 5% level or lower.

Similar strong results can be reported for first arrival time (see Table A2.2).

Finally, we present results from statistical inference tests that investigated the percentage of pairwise comparisons for different k values ranging from 10% to 50% across the five subnational regions. The test computes the confidence intervals for RMPI for the

of robustness, that is the ratio of significant pairwise comparison at baseline against all possible pairwise comparisons, is 50%, whereas the significant only ratio of robustness (the ratio of significant pairwise comparisons at baseline and its alternatives), is 71%. Hence, we conclude that the orderings of regions are stable in half of the cases when k values are altered.

FOCUS AREA 2 APPENDIX 3. Refugee MPI results (MPI, H, A) by Regions, ESSN Status, Arrival Time, and Origin/Nationality

Region	Population Share (%)	RMPI	Confidence interval		H	Confidence interval		A	Confidence interval	
Istanbul	5.76	0.167	0.127	0.207	65.7%	51.5%	80.0%	25.4%	22.0%	28.8%
Aegean	11.61	0.152	0.082	0.221	52.9%	30.9%	74.9%	28.7%	24.1%	33.2%
Mediterranean	3.84	0.286	0.219	0.352	80.6%	65.2%	96.0%	35.4%	31.6%	39.3%
Anatolia	59.57	0.199	0.134	0.264	55.9%	45.0%	66.9%	35.6%	28.9%	42.3%
South-East	19.22	0.178	0.129	0.227	62.8%	43.5%	82.0%	28.4%	22.2%	34.5%
Beneficiary	50.81	0.194	0.145	0.244	61.3%	49.4%	73.2%	31.7%	27.3%	36.2%
Ineligible	36.13	0.140	0.106	0.173	49.8%	37.5%	62.1%	28.0%	24.5%	31.6%
Non-applicant	13.07	0.251	0.178	0.325	75.9%	59.9%	92.0%	33.1%	21.8%	44.4%

Arrival	Population Share (%)	RMPI	Confidence interval		H	Confidence interval		A	Confidence interval	
Less than 6 months	3.54	0.423	0.274	0.571	91.5%	77.3%	100.0%	46.2%	33.7%	58.7%
6 months–1 year	8.07	0.254	0.143	0.365	63.7%	43.3%	84.1%	39.9%	31.0%	48.7%
1–3 years	34.28	0.204	0.152	0.256	72.3%	57.7%	87.0%	28.3%	21.8%	34.7%
3–6 years	52.96	0.153	0.121	0.185	50.2%	40.7%	59.6%	30.5%	27.3%	33.6%
Before the confl	1.15	0.231	0.178	0.285	89.4%	76.2%	100.0%	25.9%	21.9%	29.8%

Origin*	Population Share (%)	RMPI	Confidence interval		H	Confidence interval		A	Confidence interval	
Afghan	7.69	0.460	0.375	0.545	98.1%	96.3%	99.9%	46.9%	38.7%	55.1%
Iraqi	20.06	0.142	0.088	0.196	49.6%	31.8%	67.5%	28.7%	25.3%	32.1%
Syrian	70.87	0.168	0.141	0.195	58.5%	48.4%	68.7%	28.6%	25.5%	31.7%

* Presented here, as well as in Appendices 4 and 5, are results for the three biggest nationality groups. Iranian, Palestinian, Somali, Sudani, and Turkish groups were also interviewed (combined sample size 1.39%).

FOCUS AREA 2 APPENDIX 4. Percentage Contributions by Region, ESSN Status, Arrival Time, and Origin/Nationality: Education and Health dimensions

		EDUCATION				HEALTH			
Region	PS (%)	SA	CI	HE	CI	IL	CI	TR	CI
Istanbul	5.76	14.3%	14.1 / 14.5	8.4%	8.3 / 8.6	4.6%	4.4 / 4.7	11.3%	11.2 / 11.5
Aegean	11.61	17.2%	16.9 / 17.4	14.5%	14.3 / 14.7	1.2%	1.1 / 1.2	10.9%	10.7 / 11.1
Mediterranean	3.84	20.4%	20.2 / 20.7	12.2%	12.0 / 12.4	0.0%	0.0 / 0.0	3.8%	3.7 / 3.9
Anatolia	59.57	13.4%	13.2 / 13.6	16.1%	15.9 / 16.3	6.1%	6.0 / 6.3	6.2%	6.1 / 6.3
South-East	19.22	14.4%	14.2 / 14.6	28.8%	28.6 / 29.1	0.0%	0.0 / 0.0	0.1%	0.1 / 0.1
ESSN Status	PS (%)	SA	CI	HE	CI	IL	CI	TR	CI
Beneficiary	50.81	12.3%	12.1 / 12.5	19.8%	19.5 / 20.0	5.3%	5.2 / 5.5	4.2%	4.0 / 4.3
Ineligible	36.13	9.4%	9.2 / 9.6	15.9%	15.7 / 16.1	1.2%	1.2 / 1.3	9.1%	8.9 / 9.2
Non-applicant	13.07	22.4%	22.2 / 22.7	20.6%	20.3 / 20.8	0.8%	0.7 / 0.8	2.1%	2.0 / 2.2
Arrival	PS (%)	SA	CI	HE	CI	IL	CI	TR	CI
Less than 6 months	3.54	11.7%	11.5 / 11.9	10.4%	10.2 / 10.6	0.1%	0.0 / 0.1	1.2%	1.1 / 1.3
6 months–1 year	8.07	11.7%	11.5 / 11.9	11.5%	11.3 / 11.7	4.2%	4.0 / 4.3	7.6%	7.5 / 7.8
1–3 years	34.28	14.4%	14.2 / 14.6	24.2%	23.9 / 24.4	4.3%	4.1 / 4.4	5.3%	5.2 / 5.5
3–6 years	52.96	16.8%	16.6 / 17.0	17.7%	17.5 / 17.9	2.3%	2.3 / 2.4	4.5%	4.4 / 4.6
Before the confl	1.15	5.8%	5.7 / 5.9	32.9%	32.6 / 33.2	0.0%	0.0 / 0.0	5.6%	5.5 / 5.7
Origin	PS (%)	SA	CI	HE	CI	IL	CI	TR	CI
Afghan	7.69	7.2%	7.1 / 7.4	18.3%	18.1 / 18.5	6.7%	6.6 / 6.9	1.8%	1.7 / 1.8
Iraqi	20.06	22.5%	22.3 / 22.8	14.5%	14.3 / 14.7	1.1%	1.0 / 1.1	12.5%	12.3 / 12.7
Syrian	70.87	16.5%	16.3 / 16.7	19.6%	19.4 / 19.9	1.9%	1.9 / 2.0	5.0%	4.8 / 5.1

PS   Population share   CO   Consumption   PW   Precarious work
CI   Confidence interval   DI   Diet   NI   No income

FOCUS AREA 2 APPENDIX 4. Percentage Contributions by Region, ESSN Status, Arrival Time, and Origin/Nationality: Food Security and Income Resources dimensions

Region	PS (%)	FOOD SECURITY						INCOME RESOURCES					
		CO	CI	CI	DI	CI	CI	PW	CI	CI	NI	CI	CI
Istanbul	5.76	24.0%	23.8	24.3	3.6%	3.4	3.7	21.4%	21.2	21.7	4.3%	4.2	4.4
Aegean	11.61	28.9%	28.6	29.2	5.2%	5.1	5.4	9.2%	9.0	9.4	2.3%	2.2	2.3
Mediterranean	3.84	9.1%	9.0	9.3	14.9%	14.7	15.2	11.3%	11.1	11.4	8.5%	8.3	8.6
Anatolia	59.57	15.1%	14.8	15.3	8.2%	8.0	8.4	0.9%	0.9	1.0	14.6%	14.4	14.8
South-East	19.22	8.3%	8.1	8.4	14.7%	14.5	14.9	6.4%	6.2	6.5	14.49%	14.2	14.6

ESSN status	PS (%)	CO	CI	CI	DI	CI	CI	PW	CI	CI	NI	CI	CI
Beneficiary	50.81	11.4%	11.2	11.6	9.7%	9.5	9.9	5.3%	5.2	5.4	15.0%	14.8	15.2
Ineligible	36.13	17.9%	17.7	18.1	10.0%	9.9	10.2	11.0%	10.9	11.2	13.3%	13.1	13.5
Non-applicant	13.07	14.3%	14.1	14.5	12.0%	11.8	12.1	4.8%	4.7	5.0	7.0%	6.8	7.1

Arrival	PA (%)	CO	CI	CI	DI	CI	CI	PW	CI	CI	NI	CI	CI
< 6 months	3.54	20.2%	20.0	20.5	18.2%	17.9	18.4	0.8%	0.7	0.8	15.1%	14.9	15.4
6 months–1 year	8.07	18.3%	18.1	18.6	16.7%	16.4	16.9	0.0%	0.0	0.0	11.5%	11.4	11.7
1–3 years	34.28	9.8%	9.7	10.0	9.7%	9.5	9.8	5.6%	5.5	5.8	15.3%	15.1	15.5
3_6 years	52.96	15.0%	14.7	15.2	8.6%	8.5	8.8	9.9%	9.8	10.1	8.3%	8.2	8.5
Before the conflict	1.15	18.5%	18.2	18.7	0.3%	0.2	0.3	0.0%	0.0	0.0	14.6%	14.4	14.8

Origin	PS (%)	CO	CI	CI	DI	CI	CI	PW	CI	CI	NI	CI	CI
Afghan	7.69	20.2%	19.9	20.4	7.9%	7.7	8.0	0.0%	0.01	0.03	15.6%	15.4	15.8
Iraqi	20.06	11.4%	11.2	11.6	8.2%	8.0	8.3	1.1%	1.02	1.13	12.3%	12.1	12.5
Syrian	70.87	12.3%	12.1	12.5	11.4%	11.2	11.6	8.7%	8.55	8.88	11.0%	10.8	11.2

PS   Population share
CI   Confidence interval

CO   Consumption
DI   Diet

PW   Precarious work
NI   No income

FOCUS AREA 2 APPENDIX 4. Percentage Contributions by Region, ESSN Status, Arrival Time, and Origin/Nationality: Living Standards dimension

LIVING STANDARDS

Region	PA (%)	OC	CI		SN	CI		WA	CI		HI	CI	
Istanbul	5.76	0.9%	0.8	0.9	0.3%	0.2	0.3	4.6%	4.5	4.7	2.3%	2.2	2.4
Aegean	11.61	1.1%	1.1	1.2	0.0%	0.0	0.0	4.2%	4.1	4.3	5.3%	5.2	5.5
Mediterranean	3.84	8.6%	8.5	8.8	10.4%	10.2	10.6	0.6%	0.6	0.7	0.1%	0.1	0.1
Anatolia	59.57	3.0%	2.9	3.1	2.8%	2.7	2.9	6.3%	6.1	6.4	7.3%	7.2	7.5
South-East	19.22	3.1%	3.0	3.2	5.0%	4.9	5.2	2.5%	2.4	2.6	2.2%	2.1	2.3

ESSN Status	PA (%)	OC	CI		SA	CI		WA	CI		HI	CI	
Beneficiary	50.81	4.5%	4.4	4.6	4.8%	4.6	4.9	4.5%	4.3	4.6	3.3%	3.2	3.4
Ineligible	36.13	2.0%	2.0	2.1	3.0%	2.9	3.1	2.7%	2.6	2.8	4.3%	4.2	4.5
Non-applicant	13.07	2.7%	2.6	2.8	3.7%	3.6	3.8	4.6%	4.5	4.7	5.1%	5.0	5.2

Arrival	PA (%)	OC	CI		SA	CI		WA	CI		HI	CI	
Less than 6 months	3.54	1.3%	1.2	1.3	3.7%	3.6	3.8	10.0%	9.9	10.2	7.2%	7.1	7.4
6 months–1 year	8.07	4.6%	4.4	4.7	1.0%	1.0	1.1	5.7%	5.5	5.8	7.1%	7.0	7.3
1–3 years	34.28	1.5%	1.5	1.6	2.5%	2.4	2.6	2.8%	2.7	2.9	4.6%	4.5	4.7
3–6 years	52.96	5.4%	5.2	5.5	5.7%	5.6	5.9	3.5%	3.4	3.6	2.1%	2.1	2.2
Before the confl	1.15	0.0%	0.0	0.0	7.3%	7.1	7.4	0.1%	0.1	0.2	15.0%	14.8	15.2

Origin	PA (%)	OC	CI		SA	CI		WA	CI		HI	CI	
Afghan	7.69	1.0%	0.9	1.0	4.0%	3.9	4.1	7.2%	7.1	7.4	10.0%	9.9	10.2
Iraqi	20.06	6.7%	6.6	6.8	0.7%	0.7	0.8	4.0%	3.9	4.1	5.0%	4.9	5.1
Syrian	70.87	3.8%	3.7	3.9	4.2%	4.1	4.3	3.2%	3.1	3.3	2.4%	2.3	2.5

PS   Population share
CI   Confidence interval

OC   Overcrowding
SN   Sanitation

WA   Winter assets
HI   Hygiene items

FOCUS AREA 2 APPENDIX 5. Uncensored Headcount Ratios by Region, ESSN Status, Arrival Time, and Origin/Nationality: Education and Health dimensions

		EDUCATION						HEALTH					
Region	PA (%)	SA	CI		HE	CI		IL	CI		TR	CI	
Istanbul	5.76	32.49	19.0%	49.7%	18.40	10.3%	30.6%	7.61	3.1%	17.4%	19.83	6.8%	45.7%
Aegean	11.61	51.28	30.2%	72.0%	25.92	11.6%	48.2%	1.75	0.5%	5.8%	16.57	3.9%	49.4%
Mediterranean	3.84	64.81	43.1%	81.7%	39.00	21.5%	59.9%	0.00	.	.	10.81	2.5%	36.3%
Anatolia	59.57	38.82	28.4%	50.4%	39.31	27.7%	52.3%	12.48	5.1%	27.6%	14.48	9.0%	22.4%
South-East	19.22	28.34	8.9%	61.5%	57.50	35.9%	76.6%	0.00	.	.	0.12	0.0%	0.7%
ESSN Status		SA	CI		HE	CI		IL	CI		TR	CI	
Beneficiary	50.81	34.86	24.4%	47.0%	42.83	28.6%	58.4%	10.60	4.1%	24.6%	9.93	5.8%	16.6%
Ineligible	36.13	22.28	15.0%	31.8%	31.44	20.7%	44.6%	1.73	0.8%	3.9%	12.98	5.9%	26.3%
Non-applicant	13.07	61.42	36.5%	81.5%	56.29	30.2%	79.3%	2.00	0.6%	6.8%	5.28	1.6%	16.0%
Arrival		SA	CI		HE	CI		IL	CI		TR	CI	
< 6 months	3.54	50.18	14.4%	85.8%	44.59	10.7%	84.4%	0.25	0.0%	1.3%	5.09	0.6%	31.0%
6 months–1 year	8.07	38.15	20.0%	60.4%	29.60	12.4%	55.4%	10.60	1.8%	43.7%	19.40	6.2%	46.7%
1–3 years	34.28	34.51	13.8%	63.5%	53.17	31.0%	74.2%	8.98	2.3%	29.5%	13.06	5.4%	28.5%
3–6 years	52.96	38.18	29.7%	47.5%	35.64	26.4%	46.1%	3.57	2.1%	6.0%	7.15	4.4%	11.5%
Before the conflict	1.15	14.41	2.1%	56.6%	77.24	39.5%	94.6%	0.00	.	.	12.99	1.6%	57.5%
Origin		SA	CI		HE	CI		IL	CI		TR	CI	
Afghan	7.69	33.9	9.7%	70.9%	84.70	61.9%	95.0%	31.03	7.2%	72.4%	8.08	1.58%	32.47%
Iraqi	20.06	44.3	28.2%	61.7%	23.14	11.3%	41.5%	3.00	0.9%	9.9%	28.84	13.05%	52.27%
Syrian	70.87	37.2	25.9%	50.1%	39.80	27.6%	53.4%	3.24	2.0%	5.2%	8.51	4.91%	14.35%

PS Population share
CI Confidence interval

SA School attendance
HE Highest education achieved

IL Illness
TR Treatment

FOCUS AREA 2 APPENDIX 5. Uncensored Headcount Ratios by Region, ESSN Status, Arrival Time, and Origin/Nationality: Food Security and Income Resources dimensions

|		FOOD SECURITY						INCOME RESOURCES					
Region	PS (%)	CO	CI		DI	CI		PW	CI		NI	CI	
Istanbul	5.76	46.83	30.5%	63.9%	5.93	1.8%	18.0%	38.09	21.0%	58.7%	7.21	2.9%	16.6%
Aegean	11.61	49.09	28.4%	70.1%	8.07	2.7%	21.6%	13.94	2.5%	50.6%	4.39	1.6%	11.6%
Mediterranean	3.84	26.04	11.1%	49.7%	42.69	22.0%	66.2%	32.93	16.6%	54.7%	24.16	7.5%	55.5%
Anatolia	59.57	34.05	22.9%	47.3%	17.03	9.1%	29.7%	1.91	0.7%	5.1%	33.41	21.8%	47.4%
South-East	19.22	19.17	8.8%	36.9%	28.65	12.2%	53.6%	13.47	5.1%	31.1%	27.06	10.7%	53.4%
ESSN Status	PS (%)	CO	CI		DI	CI		PW	CI		NI	CI	
Beneficiary	50.81	23.91	14.5%	36.8%	19.33	7.6%	41.0%	11.22	4.4%	25.6%	32.88	18.8%	50.9%
Ineligible	36.13	34.79	24.2%	47.1%	14.17	8.5%	22.8%	17.56	9.6%	30.0%	19.75	10.2%	34.9%
Non-applicant	13.07	37.34	16.9%	63.5%	33.79	14.9%	59.8%	12.19	5.2%	26.2%	18.54	6.4%	43.0%
Arrival	PS (%)	CO	CI		DI	CI		PW	CI		NI	CI	
< 6 months	3.54	86.09	56.6%	96.7%	83.47	55.8%	95.3%	3.34	0.5%	20.6%	64.15	26.7%	89.8%
6 months–1 year	8.07	50.12	28.9%	71.4%	45.00	24.1%	67.8%	0.05	0.0%	0.2%	37.62	17.9%	62.5%
1–3 years	34.28	24.89	12.3%	44.0%	20.07	6.4%	47.9%	12.45	5.1%	27.5%	32.14	14.3%	57.4%
3–6 years	52.96	27.33	19.7%	36.6%	14.27	8.7%	22.6%	16.66	9.9%	26.7%	15.52	8.8%	25.9%
Before the conflict	1.15	43.70	11.2%	82.6%	0.60	0.1%	5.0%	0.00	.	.	33.70	5.4%	81.8%
Origin	PS (%)	CO	CI		DI	CI		PW	CI		NI	CI	
Afghan	7.69	93.14	77.21%	98.19%	36.15	10.86%	72.45%	0.09	0.02%	0.39%	71.73	45.2%	88.6%
Iraqi	20.06	17.33	9.33%	29.92%	11.64	3.68%	31.27%	1.63	0.39%	6.56%	20.28	9.7%	37.6%
Syrian	70.87	25.55	18.35%	34.38%	20.49	12.26%	32.23%	15.90	9.99%	24.36%	20.35	11.8%	32.9%

PS Population share
CI Confidence interval
CO Consumption
DI Diet
PW Precarious work
NI No income

FOCUS AREA 2 APPENDIX 5. Uncensored Headcount Ratios by Region, ESSN Status, Arrival Time, and Origin/Nationality: Living Standards dimension

LIVING STANDARDS

| Region	PS (%)	OC	CI		SN	CI		WA	CI		HA	CI	
Istanbul	5.76	6.03	2.7%	12.9%	1.39	0.3%	5.8%	30.07	16.9%	47.6%	8.17	3.1%	19.6%
Aegean	11.61	4.26	2.0%	8.8%	0.07	0.0%	0.3%	16.99	8.3%	31.7%	19.80	5.8%	49.6%
Mediterranean	3.84	49.78	28.6%	71.1%	72.37	49.5%	87.5%	3.68	0.6%	18.4%	1.12	0.3%	3.7%
Anatolia	59.57	15.03	10.1%	21.8%	12.16	4.8%	27.4%	33.39	22.3%	46.7%	33.13	22.0%	46.5%
South-East	19.22	13.71	5.2%	31.6%	27.01	13.4%	46.9%	13.67	5.7%	29.4%	9.16	3.2%	23.7%
ESSN Status	**PS (%)**	**OC**	**CI**		**SN**	**CI**		**WA**	**CI**		**HA**	**CI**	
Beneficiary	50.81	21.28	12.4%	34.0%	21.32	11.1%	36.9%	23.56	14.3%	36.2%	14.39	7.0%	27.2%
Ineligible	36.13	7.66	4.3%	13.3%	14.19	8.6%	22.5%	18.10	10.5%	29.5%	15.83	9.3%	25.7%
Non-applicant	13.07	14.84	6.5%	30.5%	24.84	10.9%	47.1%	25.84	10.7%	50.3%	27.85	11.5%	53.3%
Arrival	**PS (%)**	**OC**	**CI**		**SN**	**CI**		**WA**	**CI**		**HA**	**CI**	
< 6 months	3.54	10.76	2.4%	37.2%	37.92	9.8%	77.5%	85.86	56.4%	96.6%	61.00	23.6%	88.8%
6 months–1 year	8.07	23.23	7.8%	52.0%	8.11	2.1%	26.4%	33.09	14.9%	58.2%	39.59	19.9%	63.3%
1–3 years	34.28	7.72	3.8%	14.9%	12.29	4.3%	30.4%	15.05	6.1%	32.7%	21.05	9.7%	39.8%
3–6 years	52.96	20.23	13.0%	30.1%	23.93	15.9%	34.4%	20.58	14.3%	28.7%	9.27	5.3%	15.8%
Before the conflict	1.15	0.00	.		33.70	5.4%	81.8%	0.60	0.1%	5.0%	69.50	28.8%	92.8%
Origin	**PS (%)**	**OC**	**CI**		**SN**	**CI**		**WA**	**CI**		**HA**	**CI**	
Afghan	7.69	9.15	2.0%	33.6%	37.00	10.9%	73.8%	67.01	38.8%	86.7%	93.35	79.9%	98.0%
Iraqi	20.06	22.35	10.8%	40.7%	4.69	2.6%	8.2%	16.06	8.5%	28.2%	26.06	13.6%	44.1%
Syrian	70.87	15.44	10.0%	23.1%	19.41	12.9%	28.1%	18.39	12.8%	25.7%	9.89	5.9%	16.1%

PS   Population share
CI   Confidence interval

OC   Overcrowding
SN   Sanitation

WA   Winter assets
HI   Hygiene items

FOCUS AREA 3 APPENDIX 1. Comparison of the ESSN against the MEB from June 2017 to March 2020
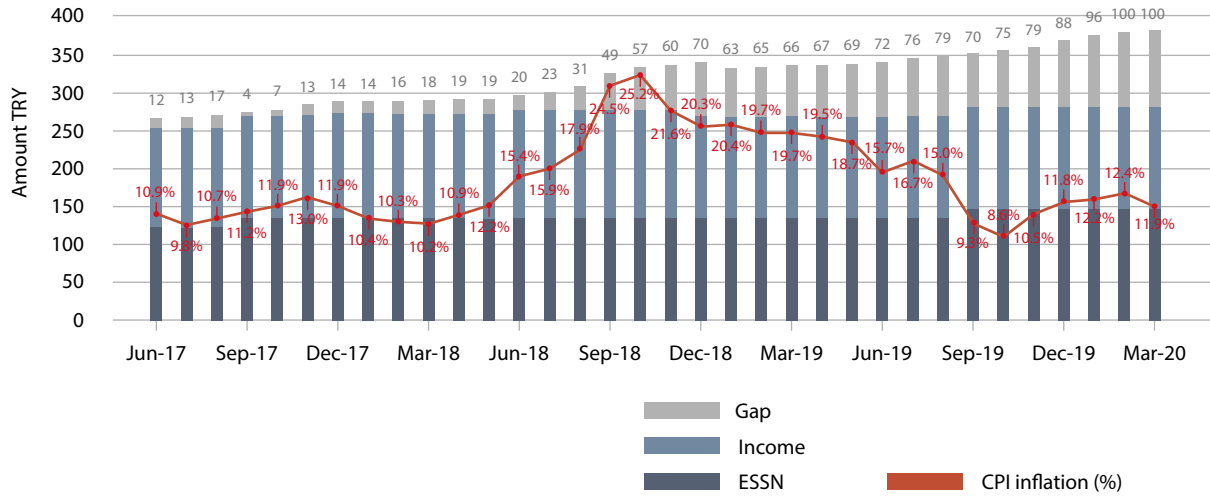
Note: This figure is the same as Figure 2 in Part 1: Focus Area 1, and Figure 32 in Part 2: Focus Area 2 and 3 (page 61).

FOCUS AREA 3 APPENDIX 2. Foreign Exchange Rate (1 USD/Turkish Lira)
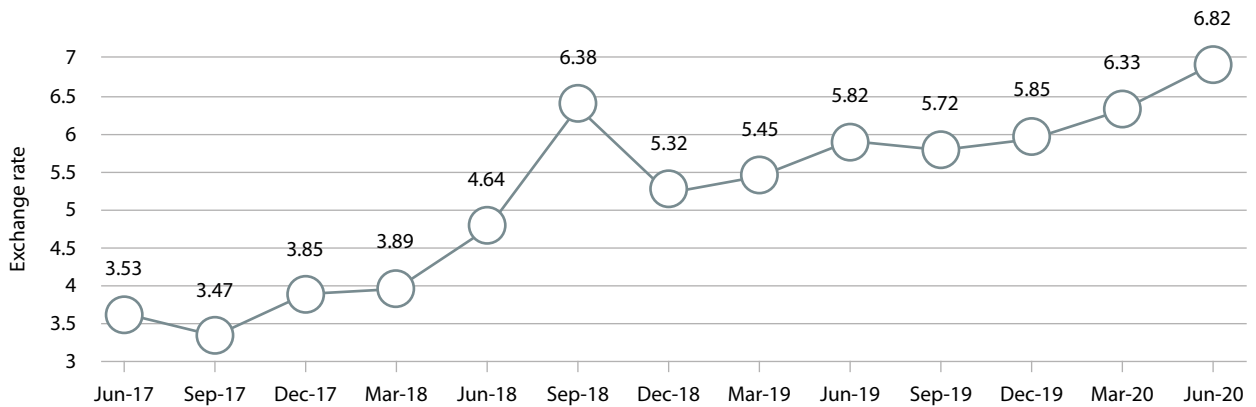
Endnotes

FOCUS AREA 2

1 In other words, in the absence of data for a representative survey of the refugee population in Turkey, the CVME used a two-staged sampling approach. In the first stage, GPS points were selected based on the density of the refugee population residing there using S3M (Simple Spatial Sampling), then respondent-driven sampling was used to select 25 households for each GPS point and weighted households based on their probability of being selected. This provided a representative sample for the refugee population living in Turkey. For further information on the CVME sampling method, see the *report.*

2 The AF method is a flexible approach that allows poverty to be measured in different dimensions and summarized in one index characterizing the overall level of deprivation. The method requires the selection of relevant dimensions, indicators, and weights; the identification of various deprivation cutoffs for each indicator; the setting of a cross-dimensional poverty cutoff to identify who is poor; and, finally, the computation of the MPI. Crucially, the choice of dimensions and indicators within the index reflect the context in which poverty is measured.

3 A practical recommendation for the CVME MPI is to reconsider the preemptive setting of the dimensions prior to the application of the PCA. PCA is a descriptive rather than a confirmatory statistical method. The approach allows for the identification of different component labels that possibly better reflect the underlying concept of the correlated indicators in each dimension. As noted by the CVME MPI, indicators with very high correlations should be avoided as it essentially leads to double counting. Yet, no working members in the households and having no income resources were retained despite high correlations because their exclusion would have impeded the use of the preemptively selected dimensions. By adopting a greater flexibility in the naming of component labels this trade-off could be solved.

4 One limitation of the construction of the indicator is that data were only available for the household head and the second household head (if applicable). In future applications of the RMPI, and if data were available, the indicator should also account for all eligible household members meeting a meaningful minimum age requirement, such as 10 years or older (such as is applied in the years of schooling indicator in the global MPI).

5 Disaggregated by reasons for their non-application, we found the highest MPI values for the group of non-applicants that did not register with the DGMM (0.418).

6 Note that toilets outside the house are common in the Mediterranean region (36 of 50 sampled households, 72%, in the Mediterranean region reported to use a toilet outside, compared to 29.6% of sampled households in South-East region to 2% in Aegean). Even if not shared with other households, these sanitation facilities were considered a sign of deprivation in both the CVME MPI and the RMPI. This may be revised in future applications of the measures.

7 Some households were ineligible even though they met demographic criteria for reasons such as not being registered with DGMM or the Population Agency, having moved to another province, formal employment, being removed by SASFs for not being vulnerable, etc.

Endnotes

8   Exclusion error is defined as the proportion of extreme poor in monetary terms among ESSN applicants who are ineligible for the cash assistance.

9   Surveys were conducted in locations where quotas were used by SASFs and the results are therefore not nationally representative. It is assumed that there is no significant difference among the locations where the surveys were conducted.

10 The moderate poverty line was 418.4 TRY and 445.1 TRY in 2019 and 2020, respectively, while the extreme poverty line was 243.4 TRY and 259 TRY in the same periods.

11 Unlike the per capita expenditure metric (which assumes that total household expenditure is distributed equally among the members and that members have similar needs), expenditure per adult equivalent takes account of the household composition and the different needs between individual members, e.g. children vs. adults.

12 World Bank Poverty Lines.

13 p=0.079, significant at 90% confidence interval.

14 See this paper on *construction of a Multidimensional Poverty Index*.

FOCUS AREA 3

15 MEB is defined as what a household requires in order to meet their essential needs, on a regular or seasonal basis, and its cost (WFP MEB Guidance Note, Dec 2020).

16 Exceptional assistance within the ESSN programme, through which SASFs may make a very limited number (not more than 5% of all applications received) of very vulnerable ineligible households eligible for the ESSN.

17 ESSN Post Distribution Monitoring Cross-section rounds (March 2019, September 2019).

18 For more information see *ch. 4, 'Minimum Standards in Shelter, Settlement and Non-Food Items'* in the *Humanitarian Charter and Minimul Standards in Disaster Response* by the Sphere Project (2004).

19 Shannon, D. and Eva, L. (2019). *Multi-Purpose Cash Assistance and Health: An Analysis of the Emergency Social Safety Net (ESSN) Program for Refugees in Turkey*.

20 Data collection period: CVME 3 (Mar–Aug 2018), CVME 4 (Sep–Dec 2018), CVME 5 (Nov 2019–Feb 2020).

21 Note that this is a counterfactual analysis, where outcomes are predicted; this is, therefore, not a causal analysis of the ESSN effect, but rather provides an informative discussion.

22 Households are eligible for the ESSN if they adhere to any of the following criteria: number of children is greater or equal to four, dependency ratio is greater or equal to 1.5, at least one disabled member, or they are a single-female, elderly-headed or single-parent household.