



A MULTI-SECTOR ASSESSMENT OF INFORMAL TENTED SETTLEMENTS IN JORDAN

Assessment Report

June 2014



REACH Informing
more effective
humanitarian action

CONTENT

SUMMARY	2
Abbreviations and acronyms.....	4
Geographical classifications.....	4
List of table, maps and figures	4
INTRODUCTION.....	5
METHODOLOGY.....	6
FINDINGS.....	8
Demographics and Settlement Profile.....	8
Livelihoods.....	10
Shelter.....	14
Water, Sanitation and Hygiene	15
Food Security.....	19
Health.....	23
Education.....	25
CONCLUSION.....	26
ANNEX 1: Assessment Questionnaire	27

About REACH

REACH is a joint initiative of two international NGOs - ACTED and IMPACT Initiatives - and the UN Operational Satellite Applications Programme (UNOSAT). REACH was created in 2010 to facilitate the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. All REACH activities are conducted in support to and within the framework of inter-agency aid coordination mechanisms. For more information visit: www.reach-initiative.org. You can write to us at jordan@reach-initiative.org and follow us @REACH_info

SUMMARY

As the Syrian crisis enters its fourth year and shows no signs of abating, the ever-increasing number of Syrians seeking refuge in neighbouring countries has consistently outpaced the mobilisation of humanitarian support. In Jordan alone, the total number refugees has risen 40,000 to 589,792¹ between December 2013 and April 2014. For Syrian refugees who are either unable or unwilling to reside formally established refugee camps and are unable to afford regular housing solutions within host communities, **Informal Tented Settlements (ITS) have become the default option, notably for the most vulnerable displaced Syrian households.**

The informal nature of these settlements means that access to shelter, food, water, sanitation, health, education, and other essential services is not officially established. Falling outside the relief response currently targeting refugees staying in managed camps and within host communities, **displaced Syrian households in ITS face serious difficulties in accessing the protection and assistance they need and are entitled to.**

In April 2014, REACH conducted a multi-sector assessment of Syrian refugee households in ITS commissioned by the United Nations Children's Fund (UNICEF). In late 2013, REACH had previously conducted an ITS assessment also in partnership with UNICEF² covering as well the assistance sectors of livelihoods, shelter, food security, health, education, and Water, Sanitation and Hygiene (WASH). The findings from this second assessment provide an updated overview of the main vulnerabilities, needs and coping mechanisms of Syrian refugees residing in ITS across the governorates of Ajloun, Al Balqa, Al Karak, Al Mafraq and Irbid³. Despite considerable efforts at stabilisation by the humanitarian community, a steady influx of Syrian refugees into both camps and host communities continues to challenge humanitarian actors.

Between December 2013 and April 2014, the total assessed ITS population increased by 113.2%, to 7,028 individuals). Overall this assessment covered a total of **87 informal settlements** representing a three-fold increase in the number of settlements identified to date. This confirms the trend observed in the previous UNICEF/REACH assessment and indicates that ITS may remain a fixed feature for Syrian refugees in Jordan.

More than half (55.5%) were reported to be children, amounting to 3,901 individuals aged less than 18 years of age, whilst the proportion of children under the age of 12 was found to be 34.8% (2,446) of the total ITS population. REACH calculated an average dependency ratio of 0.6 which indicates a high number of dependents relative to the total economically active population, although this does vary by governorate.

Only 41% of the school-aged ITS population was found to be attending school at the time of the assessment. The primary reason for non-attendance was reported to be the cost of schooling across 28.6% of households; this is closely followed by distance, which was reported as the primary barrier to school attendance by 22.3% of ITS households found to host school-aged children. Further research is recommended to assess how to mitigate the impact of cyclical migration and cost on children's access to schooling, notably by implementing mobile solutions for education infrastructure.

Considering that children account for the majority of the ITS population, this demographic trend means that **incorporating the sector-specific needs of children in any common response strategy is vital.** For example, given recent reports of polio outbreaks within Syria⁴ and the regional polio vaccination campaign which followed to stem its spread, humanitarian actors should keep in mind that **36% of at risk minors aged 0-59 months were reported as not vaccinated against polio by heads of households**⁵.

¹ UNHCR refugee population data, found at: <http://data.unhcr.org/syrianrefugees/country.php?id=107>

² Multi-sector Assessment of Informal Tented Settlements in Jordan, December 2013, REACH.

³ The site verification exercise conducted prior to the survey showed that these governorates hosted the highest number of ITS. Data on sites across other governorates was not available at the time of the assessment, but REACH's continuous monitoring exercise through key informants indicates that ITS also exist in the governorates of Amman and Zarqa.

Water, sanitation and hygiene (WASH) infrastructure and service provision was found to be severely inadequate across all assessed settlements. A small proportion (12.%, or a total of 11) of settlements was found to have no access to latrines within the settlement. However, across all assessed settlements, 57% of households (or a total of 666) reported no access to private or communal latrines, thereby indicating a potentially high incidence of open defecation across all assessed governorates.

Similarly, food emerged as one of the most acute unmet needs across ITS, although the level of humanitarian assistance reaching populations in these settlements varied considerably. Overall, 61.8% reported World Food Programme (WFP) assistance as their primary source of food. Despite this, **62% of households relying primarily on WFP assistance also reported buying food on credit and/or borrowing food from family and neighbours** to cope with shortages. This may mean that lack of access to assistance is not the major cause of food insecurity. Rather it may be that the capacity of that assistance to sustain a household's food and dietary requirements is inadequate, as well as the way in which this assistance is used which aggravates food insecurity. For instance, **nearly a quarter (23.8%) of households reported selling food assistance to generate an income.**

Furthermore, governorate-level findings indicate that 41% of ITS households had an acceptable Food Consumption Score⁶ (FCS) and 59% were classified as poor or borderline. Dietary diversity was found to be significantly lower in ITS than in Al Za'atari, where REACH/WFP⁷ findings indicate that 95% of households had an acceptable FCS. Finally, 42.1% (or a total of 492) households were found to be food insecure, with **Al Balqa hosting the highest proportion of food insecure households (50.4%).**

Livelihoods findings appear to refute the commonly held notion that ITS residents are economically active migrant workers. Heads of households were found to be working an average of 1.8 days over the course of the seven days prior to the survey. ITS residents in Al Mafrq fared comparatively worse than ITS residents in other governorates in regards to livelihoods. Overall, **average incomes (71 JOD)** were largely consistent across assessed governorates, with Al Karak's ITS households earning the highest and Ajloun's ITS the lowest incomes at the time of the assessment. The **primary source of income was agricultural waged labour**, reported by a majority of households (53.6%) across assessed settlements.

Overall, this assessment has enabled REACH to compile a comprehensive dataset on the vulnerabilities, needs and service gaps faced by ITS residents to facilitate settlement-level targeted assistance to refugee populations. **Sector needs are highly context specific and depend on variables such as settlement demographics, access and use of assistance as well as geographic location.** Despite marked shifts in the means by which ITS residents access basic services, the private provision of food, water, and other basic life commodities is still widespread and has tangible effects on resource scarcity, food insecurity and health outcomes.

⁶ The FCS is a composite score based on dietary diversity, frequency of consumption and relative nutritional importance of different food groups. Food items are grouped into 8 standard food groups with a maximum value of 7 days per week. The consumption frequency of each food group is multiplied by an assigned weight that is based on its nutritional content. In order to ensure data quality, enumerators were trained to ask this question to the most senior female member of household who, for cultural reasons, is more likely to be familiar with dietary diversity and food consumption patterns in the household.

⁷ WFP/REACH, "Comprehensive Food Security Monitoring Exercise", May 2014.

Abbreviations and acronyms

FCS	Food Consumption Score
ITS	Informal Tented Settlement
NGO	Non-Governmental Organisation
RRP6	Regional Response Plan 6
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme

Geographical classifications

Governorate	The highest administrative boundary below the national level. Jordan has 12 governorates.
District	Governorates are divided into sub-districts. There are 51 districts in Jordan.
Sub-district	Districts are sub-divided into sub-districts, of which there are 89 in Jordan.

List of table, maps and figures

Table 1: Total of assessed settlements and individuals.....	7
Table 2: Settlement profiling by governorate	8
Map 1: Average income, expenditure and debt by household	13
Map 2: Proportion (%) of households with access to latrines	16
Map 3: Proportion (%) of food insecure households	21
Map 4: Proportion of children aged 0-59 months reported as not vaccinated against polio.....	24
Figure 1: Al Mafraq ITS population pyramid	9
Figure 2: Al Balqa ITS population pyramid.....	9
Figure 3: Irbid ITS population pyramid	9
Figure 4: Reported primary sources of income	11
Figure 5: Governorate level average number of days worked by the head of household and other household members reported as working over the course of the 7 days before the assessment	11
Figure 6: Governorate level average debt to income ratio	12
Figure 7: Governorate level average debt load and household income	12
Figure 8: Reported rates of access to private and/or communal latrines	15
Figure 9: Reported primary sources of water by proportion (%) of households	17
Figure 10: Average number of days spent without water per household by governorate.....	18
Figure 11: Type of coping strategy used to overcome water shortages by proportion (%) of households	18
Figure 12: Reported primary sources of food by governorate	19
Figure 13: Food consumption scores by governorate	20
Figure 14: Food security indexing by governorate	22
Figure 15: Food security indexing by reported primary food source	22
Figure 16: Comparison of the prevalence of medical ailments amongst minors aged 0-4 and older cohorts	23
Figure 17: Reported rates of attendance for school aged children aged 5-17 years by governorate	25

INTRODUCTION

As the Syrian crisis enters its fourth year and shows no signs of abating, the ever-increasing number of Syrians seeking refuge in neighbouring countries has consistently outpaced the mobilisation of humanitarian support. In Jordan alone, the total number of refugees has risen from 40,000 to 589,792⁸ between December 2013 and April 2014. For Syrian refugees who are either unable or unwilling to reside in formally established refugee camps and are unable to afford regular housing solutions within host communities, Informal Tented Settlements (ITS) have become the default option, notably for the most vulnerable displaced Syrian households.

The informal nature of these settlements means that access to shelter, food, water, sanitation, health, education, and other essential services is not officially established. Falling outside the relief response currently targeting refugees staying in managed camps and within host communities, displaced Syrian households in ITS are facing serious difficulties to access the protection and assistance they need.

Against this backdrop, the purpose of this report is to provide an updated overview of the major vulnerabilities, needs and coping mechanisms of Syrian refugees residing in ITS across the governorates of Ajloun, Al Balqa, Al Karak, Al Mafraq and Irbid⁵. Whilst a previous REACH assessment, also supported by the United Nations Children's Fund (UNICEF), outlined these needs and provided an impetus to the emergency response during the winter storms of December 2013, a shift in the Government of Jordan's policy towards ITS in early January 2014 resulted in several rounds of evictions which, in turn, lead to multiple displacements and the effective exclusion of ITS from common response strategies. The situation was then compounded by the exponential growth in the number of settlements observed during the four month period between the two REACH assessments, essentially meaning that the need for a concerted humanitarian effort steadily grew as the aid effort lost traction and eventually subsided. Consequently, pervasive information gaps continue to hamper the humanitarian response.

With this in mind, UNICEF commissioned REACH to conduct a household survey over the course of April 2014. The findings from this second assessment provide an updated overview of the main vulnerabilities, needs and coping mechanisms of Syrian refugees residing in ITS across the governorates of Ajloun, Al Balqa, Al Karak, Al Mafraq and Irbid⁹. As such, this report will present findings on demographics, livelihoods, shelter, Water, Sanitation and Hygiene (WASH), food security, health and education with a view to inform better targeted assistance and service provision across these sectors.

⁸ UNHCR refugee population data, found at: <http://data.unhcr.org/syrianrefugees/country.php?id=107>

⁹ The site verification exercise conducted prior to the survey showed that these governorates hosted the highest number of ITS. Data on sites across other governorates was not available at the time of the assessment, but REACH's continuous monitoring exercise through key informants indicates that ITS also exist in the governorates of Amman and Zarqa.

METHODOLOGY

DEFINING INFORMAL TENTED SETTLEMENTS

There is no consensus about what actually constitutes an “informal settlement” either in policy-making or academic circles. For the purpose of this analysis, REACH used the generic definition published by the UN Habitat Programme: “unplanned settlements and areas where housing is not in compliance with current planning and building regulations”. Although useful, it does not address the full spectrum of factors which lead to the establishment of informal settlements within the context of the Syria crisis.

In Jordan, ITS are best defined in terms of two inter-related factors: a) settlement size¹⁰ and b) the land tenure pattern, both of which interact to determine welfare and vulnerability outcomes across settlements. In Jordan, REACH utilised a standardised settlement size of four households to determine target settlements and this allowed REACH to expand coverage to 87 settlements. Whilst a cap on settlement size was a necessity in terms of programmatic needs,¹¹ the definition is best understood in terms of land tenure patterns which are unique to each settlement. Here, effectively, non-existent land and labour rights, the lack of official cost-recovery mechanisms for the utilisation of municipal services as well as minimal social protection under the law mean that settlements are necessarily transient by nature and settlement locations are often determined by the availability of income-generating activities and the availability of access to municipal services. Where either is unavailable or exhausted, settlements may migrate to other areas once residents determine where access can be re-established.

DATA COLLECTION AND ANALYSIS

REACH used a two-stage methodology for this assessment. Given how dynamic the migration patterns of settlement residents can be, the first stage of this assessment was a verification and site mapping exercise. REACH field teams were deployed to areas of Jordan known to host informal settlements and collected geo-referenced settlement-level information, also recording the number of households and an approximation of the number of people, using the Global Positioning System (GPS)-enabled Open Data Kit (ODK) platform across the governorates of Ajloun, Al Balqa, Al Karak, Al Mafraq and Irbid. The purpose of this exercise was to enable planning by addressing information gaps and reducing the amount of time spent physically searching for settlements through key informants, non-governmental organisations (NGOs) and service providers, for example.

Once this verification exercise was completed and ITS location maps were generated, REACH field teams were deployed to these pre-identified sites to conduct a survey of each settlement. Each refugee household was requested to answer a comprehensive, multi-sectoral survey designed to allow REACH to develop a dataset on the welfare, needs and vulnerabilities affecting settlement residents and to facilitate future thematic interventions. For the purpose of this assessment, a household was defined as a set of individuals or families sharing a corresponding set of shelters or a compound. Where appropriate, this was done on a self-defined basis¹². No individual household or household identifiers were collected. This approach ensured households could provide information in confidence, thereby reducing household bias and mitigating any potential protection concerns.

The indicators included in the data collection tools are based on those used in the Syria Regional Response Plan 6 (RRP6), as well as standardised questions and indicators developed by REACH for previous assessments and the ITS Task Force which operated temporarily in early 2014. In order to ensure comparability of data, this questionnaire was also standardised with the previous REACH assessment tool used in December 2013.

¹⁰ Which varies according to programmatic needs.

¹¹ Smaller settlements are more mobile and therefore more difficult to track and deliver assistance to, hence the regional standard of four households.

¹² This means that where enumerators were unclear, heads of households were requested to delineate household boundaries themselves to ensure that no overlaps occurred during data collection.

The entirety of the data collection was done using ODK mobile data collection platform using smart-phone and GPS-enabled technology to reduce the incidence of inaccuracies and inconsistencies in the data collection and cleaning processes and, wherever possible, semi-structured, ad hoc key informant interviews and focus group discussions were conducted with settlement residents to supplement quantitative data with qualitative insights.

Table 1: Total of assessed settlements and individuals

Governorate	Total number of ITS/governorate	Total ITS population/ governorate	Percentage (%) of children/governorate
Ajloun	1	15	53.0
Al Balqa	20	1,790	53.4
Al Karak	2	85	60.4
Al Mafraq	58	4,222	56.3
Irbid	14	890	54.2

CHALLENGES AND LIMITATIONS

The most significant challenge faced by REACH was imperfect information regarding site locations which occurred during the data collection phase. Despite the site verification exercise which was conducted prior to the household survey, the high mobility of settlement residents meant that several smaller settlements had moved during the seven day period between the two assessments.

What follows from this is the limitation on the validity of the dataset which was collected. Follow-up key informant interviews suggest that three settlements from the southern governorates had migrated to Al Mafraq governorate, meaning that the geospatial analysis presented here needs to be updated. Although the best that can be hoped for in this dynamic context is a snapshot of needs, continuous longitudinal surveys are required to ensure the validity and quality of data.

The second and final limitation is the verification of the veracity of responses to certain questions. One example is that of vaccination rates; given the limited knowledge that ITS residents possess regarding health issues, as well as poor record-keeping, it is difficult to verify whether at-risk minors aged 0-59 months had truly received polio and/or measles vaccinations. Further research is recommended.

FINDINGS

This section of the report presents the main findings of the multi-sector survey, including:

- Demographic trends and settlement profiling.
- Livelihoods outcomes, including incomes, expenditure and debt patterns.
- Shelter options and land tenure patterns, including the quality of shelter infrastructure and access to municipal services.
- Water, sanitation and hygiene findings, specifically, access to sanitation infrastructure, water scarcity and water sourcing strategies.
- A food consumption and food security analysis, including the frequency and type of coping strategies
- Health outcomes and needs, the distribution of medical ailments across demographic groups (especially as they pertain to minors aged 0-59 months) and measles and polio vaccinations rates.
- School attendance rates and the major reported education access barriers.

DEMOGRAPHICS AND SETTLEMENT PROFILE

This section outlines data collected on ITS as well as the demographic trends which characterise ITS in each assessed governorate. Children comprise the majority of Jordan's ITS population, with the highest proportion of minors found in Al Mafraq governorate. This is also where the highest number of ITS was identified.

Overall, this assessment covered a total of **87 informal settlements, 1,169 households** and 7,028 individuals across the five governorates of Ajloun, Al Balqa, Al Karak, Al Mafraq and Irbid. These figures represent a three-fold increase in the number of settlements and a staggering **113.2%¹³ increase** in the number of settlement residents in comparison to previous UNICEF/REACH data gathered in December 2013. The potential for expansion in ITS numbers was highlighted in the previous report and as such, these figures may well be indicative of the fact that ITS may remain a fixed feature of the Syrian refugee crisis in Jordan.

Table 2: Settlement profiling by governorate

Governorate	Total number of ITS/governorate	Total ITS population/governorate	Percentage (%) of children/governorate	Average dependency ratio/ governorate
Ajloun	1	15	53.0	1.3
Al Balqa	20	1,790	53.4	0.7
Al Karak	2	85	60.4	0.7
Al Mafraq	58	4,222	56.3	0.7
Irbid	14	890	54.2	0.9

Population and demographic trends vary considerably both by ITS and by governorate. Across Al Mafraq's 54 settlements, for instance, settlement population figures vary from a low of 15 individuals in one settlement to a high of 336 individuals. Although such variation is to be expected given the density of settlements in this governorate, clear differences in demographic and settlement trends between governorates can also be observed. Despite hosting comparatively fewer settlements overall (a total of 20), Al Balqa's ITS display similar disparities between settlements and settlement size can vary from a low 30 to a high of 433 individuals.

¹³ UNICEF/REACH, Informal Tented Settlements in Jordan: A Multi-sector Baseline Assessment (December 2013).

Contextually, these differences can be attributed to several interdependent factors acting to determine demographic outcomes and the spatial distribution of informal settlements in Jordan as a whole. Spatial, demographic and livelihoods data, as well as key informant interviews and focus group discussions conducted at the time of the household survey, all seem to suggest that cultural tendencies towards migration, displacement trends within Jordan and the search for casual employment all weigh heavily on the decision of a household to reside in an ITS.

For instance, it may be that the reason for comparatively more settlements in Al Mafraq than in Al Balqa is due to the location of Al Za'atari refugee camp. Anecdotal evidence suggests that because of the camp's location in Al Mafraq and the limited resources ITS residents have at their disposal upon arrival, settlements in this governorate serve as a cost-effective and geographically convenient location in which to settle in the immediate aftermath of leaving the camp.

Equally, Al Balqa's¹⁴ comparative advantage in agricultural production means that it attracts a higher proportion of individuals from adult-age classes who are physically able to carry out demanding agricultural labour. It is possible to infer that the proportion of minors is higher in Al Mafraq than in Al Balqa because of this.

A cross-comparison of the governorate-level population pyramids for Al Mafraq, Al Balqa and Irbid conveys the importance of demographics well. For instance, despite the fact that the proportion of children under the age of 18 is largely similar across Al Balqa, Al Mafraq and Irbid at 56.3%, 56.2% and 53.4% respectively, the demographic composition of the minor cohorts themselves varies significantly. At 1,672, there are comparatively more minors under the age of 11, in absolute terms, in Al Mafraq (where the proportion of minors under the age of 12 is 39.8%) than in Al Balqa (where the proportion of minors under the age of 12 is 33.4%) or Irbid (the proportion of minors under the age of 12 is 32.7%).

The actual length of residency in a given area seems to be determined by a more complex set of variables including settlement size, the proximity of income-earning opportunities, the frequency and quality of service provision and the demographic composition of each settlement.¹⁵ Larger settlements tend to remain geographically fixed because residents develop communal coping mechanisms – such as inter-household borrowing – to overcome resource constraints. This may foster dependency and acts as a disincentive for settlement residents to migrate.

Figure 1: Al Mafraq ITS population pyramid

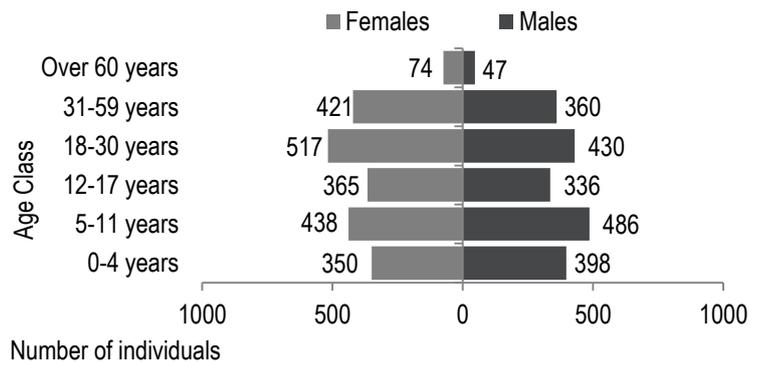


Figure 2: Al Balqa ITS population pyramid

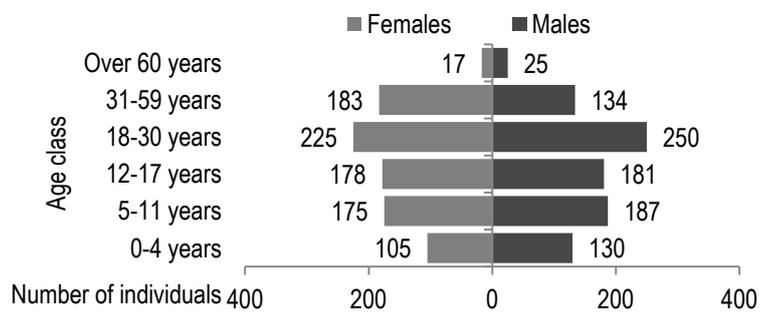
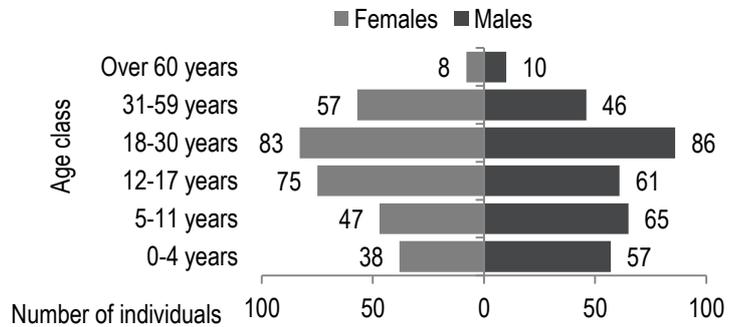


Figure 3: Irbid ITS population pyramid



¹⁴ In particular the Da'ir Alla, Jordan Valley region of Al Balqa.

¹⁵ Higher proportions of children, for example, make settlements less mobile and more likely to stay fixed; for example a higher dependency ratio requires higher financial outlays and site selection with more dependents may be more expensive.

Data on intentions indicates that 94.2% of assessed households in Al Mafraq have no intention of leaving this governorate within the foreseeable future, whilst 59.9% of households in Al Balqa intend to leave within the next two weeks. As such, **the distribution of minors displayed in Figures 1, 2 and 3 seems to suggest that the propensity to remain geographically fixed increases as the number of children in the settlement rises**, hence the comparatively higher number of settlements and settlement residents in Al Mafraq. An analysis of settlement and governorate-level dependency ratios¹⁶ also seems to corroborate this assumption further. For example, at the time of the assessment the Governorate-level average dependency ratio for Al Mafraq and Al Balqa was 0.6 and 0.7, respectively.

Moreover, a statistical analysis¹⁷ of the demographic data revealed a strong negative correlation between the household dependency ratio and the number of days worked by the head of household. This in turn suggests that a higher number of dependents require more attention and hence act as a deterrent for employment in households with comparatively higher dependency ratios.

LIVELIHOODS

This section presents an analysis of livelihoods outcomes for income, expenditure and debt. On average, earned income was 71 JOD in the 30 days prior to the survey, whilst the average debt-to-income ratio was 8:1, with substantial variation by governorate. Irregular agricultural waged labour was reported as the primary source of income for the majority of assessed households.

What the two REACH assessments clearly revealed is that ITS **residents were found to be drawn from the poorest socio-economic strata of Syrian society**; essentially poorly educated, unskilled agricultural labourers and migrant workers unable to support themselves in formal rented housing.¹⁸

Consequently, the employment opportunities available to them within Jordan are confined to pre-conflict professions such as casual agricultural labour, reported by 52% of settlement households as the primary source of income. A time-series analysis of UNICEF/REACH data indicates a three per cent point decrease in the proportion of households reporting agricultural labour as a source of income between December 2013 and April 2014. **This relatively stable trend thus illustrates the continued and heavy reliance on casual agricultural labour.**

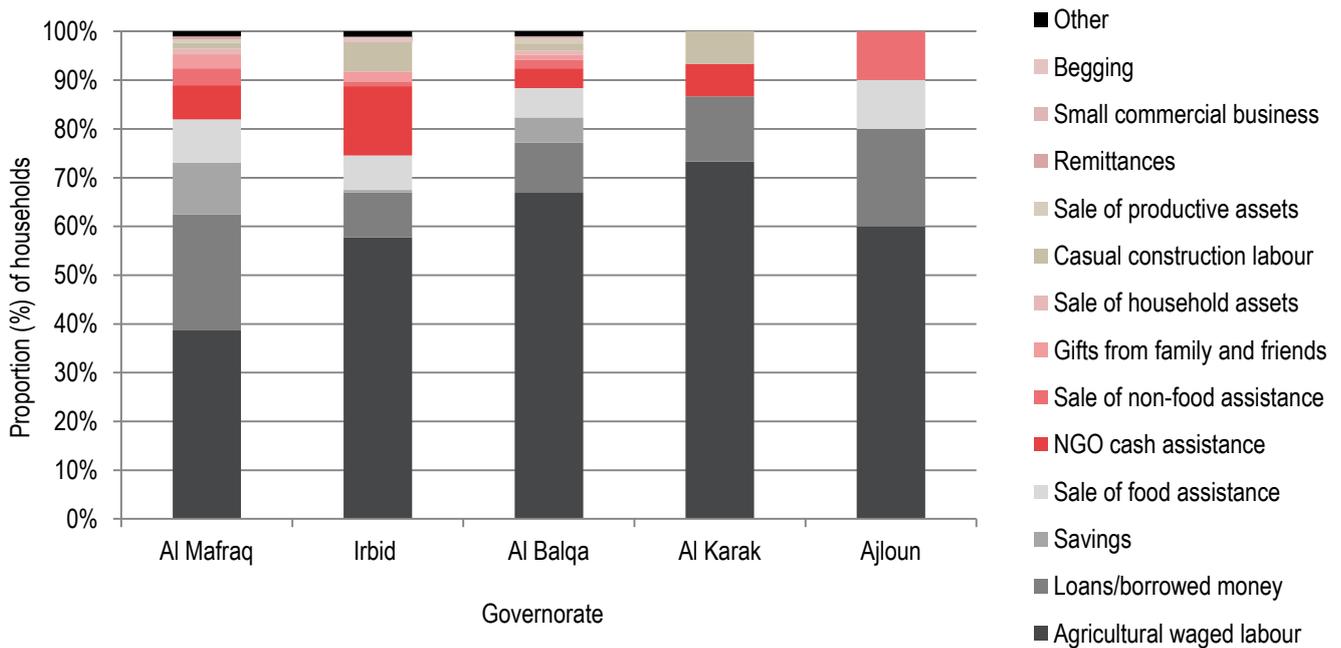
Findings also indicate substantial diversity in livelihood outcomes across assessed settlements and governorates. Across all assessed settlements, every household reported having generated an income over the course of the seven days prior to the assessment, with the **average reported household income at 70.5 JOD** over the course of the 30 days prior to the assessment.

¹⁶ In economics and demography, the dependency ratio is an age-population ratio of those typically not in the labour force (the dependent part) and those typically in the labour force (the productive part). It is used to measure the pressure on productive population. The dependency ratio for this particular assessment was modeled according to the OECD standard which specifies the economically inactive as individuals between 0-15 years and over 60 years. Given the contextual differences and a small rate of child labour, dependents were classified at individuals aged between 0-11 and over 60 for the purpose of this assessment. It was calculated by dividing the total number of dependents by the total number of potentially economically active individuals in each household.

¹⁷ A Pearson Correlation coefficient of 0.624

¹⁸ REACH, Informal Settlements in Northern Syria (forthcoming).

Figure 4: Reported primary sources of income



Furthermore, agricultural waged labour appears to be the primary means of servicing basic needs for the majority of ITS households across all governorates with the exception of Al Mafraq, where the methods of income generation are by far the most diverse. Whilst casual agricultural labour was reported as the primary source of income for 38.7% of households in this governorate, 23.8% relied on debt to finance basic needs. This stands in contrast to Al Balqa’s settlements where 67.1% and 10.4% relied on these primary sources of income, respectively. At 9%, the highest proportion – as well as absolute number of households – amongst all governorates relied on sales of food assistance to meet basic needs.

Given the sheer scale of the expansion in the ITS population in Jordan – and in Al Mafraq in particular – it can be argued that increased competition for employment has not been met with a concomitant increase in the supply of employment opportunities, thereby compelling a small portion of households to rely on negative coping mechanisms such as debt-fuelled consumption and sales of household assets, to generate an income. This hypothesis also holds true once we consider findings for the number of days worked per household.

Figure 5: Governorate level average number of days worked by the head of household and other household members reported as working over the course of the 7 days before the assessment

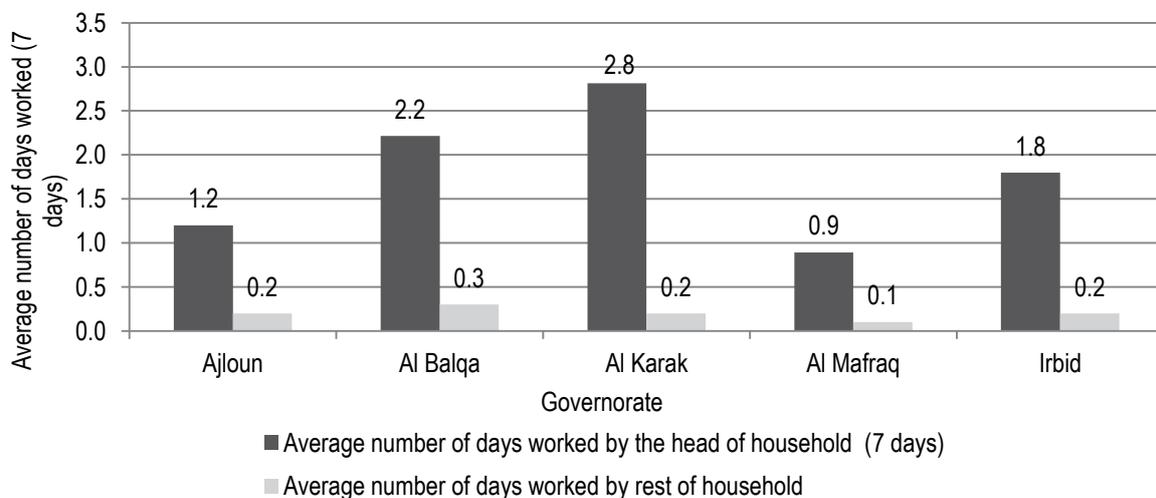


Figure 5 above exemplifies this well. **At 0.9, 2.8 and 2.2, the average number of days worked by the head of household is lowest in Al Mafraq and highest in Al Karak and Al Balqa, respectively.** This also holds true for other household members; in Al Mafraq the average number of days worked was 0.1, which is twice as low as in Irbid and three times lower than in Al Balqa. Once we consider that Al Mafraq is host to the largest ITS population in Jordan, we can argue that the saturation of the casual or informal labour market in Al Mafraq by ITS residents may have led to increased competition and fewer working days per capita overall.

In turn, this seems to have compelled settlement residents in this governorate to resort to negative coping mechanisms to service basic household and familial needs. This is perhaps also why the proportion of households (23.8%) relying on inter-household borrowing¹⁹ is comparatively higher in Al Mafraq than anywhere else. In the face of scarce employment opportunities, the communal pooling of resources acts as a makeshift welfare net which fosters settlement-level resilience to exogenous shocks. These practices also appear to be more prevalent

in Al Mafraq's three largest settlements (which host 336, 220 and 215 individuals) where 41%, 37.2% and 46.6% of households, respectively reportedly relied on borrowed money as a primary source of income. Despite the fact that such social cohesion appears to attenuate some of the harsher economic challenges that ITS households face, communal borrowing practices also carry the risk of accruing long-term household debt. The average household debt-to-income²⁰ ratio for all assessed governorates is 8:1. **At 20:1, the highest debt-to-income ratio is for ITS in Ajloun²¹ and lowest in Al Karak²².**

Figure 6: Governorate level average debt to income ratio

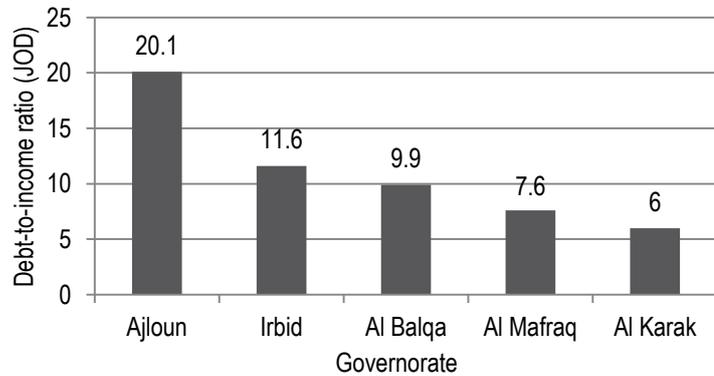
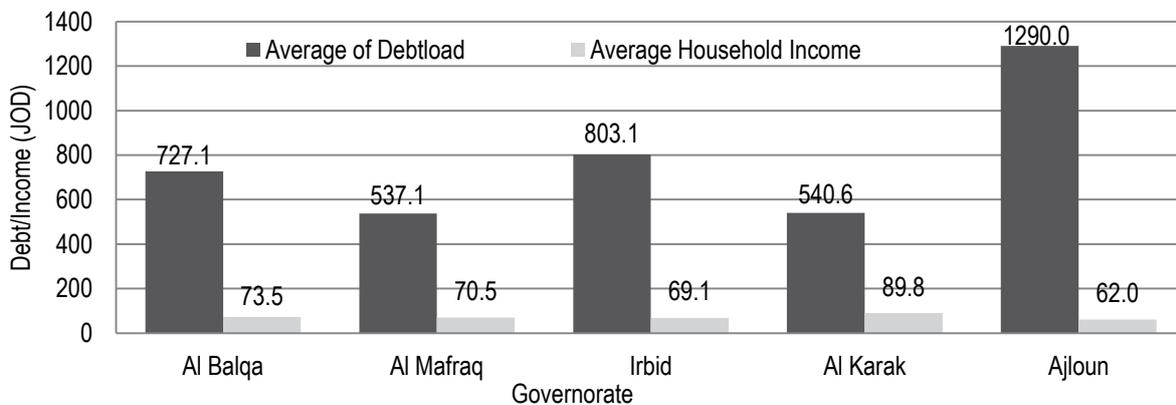


Figure 7: Governorate level average debt load and household income



Average incomes were largely stable across assessed governorates, with Al Karak's ITS households earning the highest and Ajloun's ITS the lowest incomes at the time of the assessment. The average for the governorates of Al Balqa, Al Mafraq and Irbid – which host the largest ITS population in the country – was 71 JOD, which indicates that despite comparatively higher numbers of working days in Al Balqa, hourly or daily wages are perhaps lower than the income that is generated in Al Mafraq or Irbid.

¹⁹ Key informant and focus group discussion data from the field indicates that the primary method of borrowing is from other, neighbouring households because ITS residents own no land and are in possession of very few assets which can be monetised or used as collateral in formal or more established informal borrowing practices. This could also be attributable to cultural norms and as such, further research is recommended to fully understand this phenomenon.

²⁰ Income as defined by money earned, in JOD, over the course of the 30 days prior to the assessment.

²¹ Which hosted a single settlement at the time of the assessment.

²² Which hosted two settlements at the time of the assessment.

SHELTER

This section outlines findings on shelter, land tenure patterns and access to municipal services. Findings indicate a significant reduction in the proportion of households reported as paying rent, as well as a significant increase in the use of and access to municipal services in comparison to the assessment conducted in December 2013.

Overall, 97% of households resided in tents that are either provided by UNHCR or privately purchased, while only 3% of households were found to be living in makeshift shelters, constructed from corrugated iron, tarpaulin and plastic sheeting. Anecdotal evidence indicate that families or households that were living in makeshift shelters had been forced to sell their UNHCR-provided tents to cover basic needs and were left without adequate resources to purchase a replacement. These shelters were observed to be structurally weak, offering minimal protection from extreme weather and only prevalent amongst the poorest, most vulnerable, settlement residents. Although relatively uncommon in the Jordan context, makeshift shelters could here serve as a relatively effective proxy for acute household vulnerability.

Although data on shelter type was largely uniform across all five governorates in Jordan, land tenure patterns displayed a degree of diversity. Given that settlements tend to cluster in close proximity to private land as a means of accessing income-generating opportunities and informal municipal services, private land tenure is the predominant form of occupancy at 94.0% of assessed households. A minority of settlements were found to reside on public land (6%), including only four settlements in Al Balqa and Al Mafraq governorates.

Key informant interviews indicated that these sites were chosen with the explicit approval of the local authorities and were not subject to the concomitant rent costs that private land tenure incurs. The need to be located in close proximity to sources of livelihood provides landowners with leverage that in turn renders informal settlement residents susceptible to predatory pricing practices. The average cost of rent per month for the majority that did pay rent was placed at approximately 20JOD per household across all five governorates.

This represents a decrease of 7JOD in the average cost of rent for those households reported as paying rent and means that **the proportion of households reported as paying rent is 53.1% lower than December 2013. It also means that rent consumes, on average, 28.4% of total household income²³** for the proportion of settlements or households who were reported to be paying. This may be indicative of an evolution in the means by which ITS residents select sites or negotiate compromises with the landowner to lower expenditure on land; as such, this can be considered a new and innovative coping mechanism. Finally, it should be noted that 96% of households reported having access to electricity, so proximity to livelihoods opportunities cannot therefore be considered the sole pull factor.

87%

of households reported not paying rent

14.4%

of households reported having been threatened with eviction

93.8%

of households have an informal municipal electricity connection

²³ Average household income for all assessed settlements.

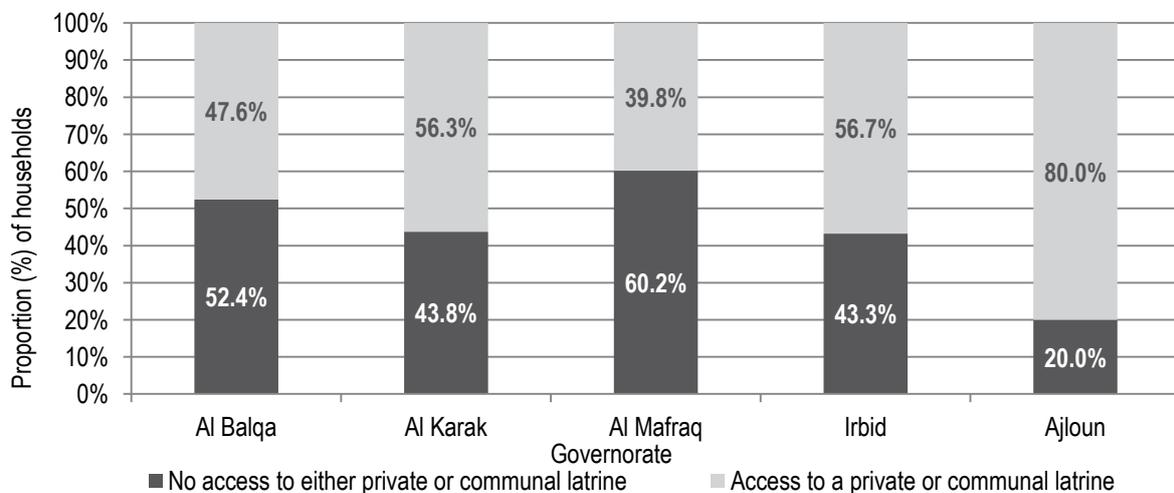
WATER, SANITATION AND HYGIENE

This section presents findings collected for water, sanitation and hygiene. (WASH) infrastructure and service provision was found to be severely inadequate across all assessed settlements. Where available, the quality of latrine infrastructure proved to be inadequate and overcrowding was widespread. Despite a marked shift to the use of municipal water services in comparison to December 2013 data, private water vendors were the primary source of water for the majority of households.

A small proportion (12.6%, or a total of 11) of settlements was found to have no access to latrines within the settlement. Furthermore, across all assessed settlements, **57.2% of households (or a total of 666) reported no access to private or communal latrines, indicating a potentially high incidence of open defecation.** What is important to consider is that the availability of latrine infrastructure in a given settlement does not guarantee access for all households. Whilst some households may construct shared or communal infrastructure, findings indicate that households with private latrines restrict access to members of the household only. Amongst the remaining 43% of households that reported access, 22% were found to have access to communal latrines²⁴.

For the minority households that reported access, overcrowding and intensive usage of the available sanitation infrastructure may be leading to degradation. In Al Mafrq, for instance, **the average number of people per available latrine across all assessed settlements is 15.1**, although in one settlement, this figure stands at 86 when a single communal latrine exists in the entire ITS. Given that the SPHERE standard for such settings is 20 people per available latrine²⁵, the capacity to dispose of human waste in a sanitary way appears to be extremely limited in ITS, which provides a fertile breeding ground for the transmission of disease-causing organisms from one person's faeces to another person as well as the infiltration of the water and food supplies.

Figure 8: Reported rates of access to private and/or communal latrines

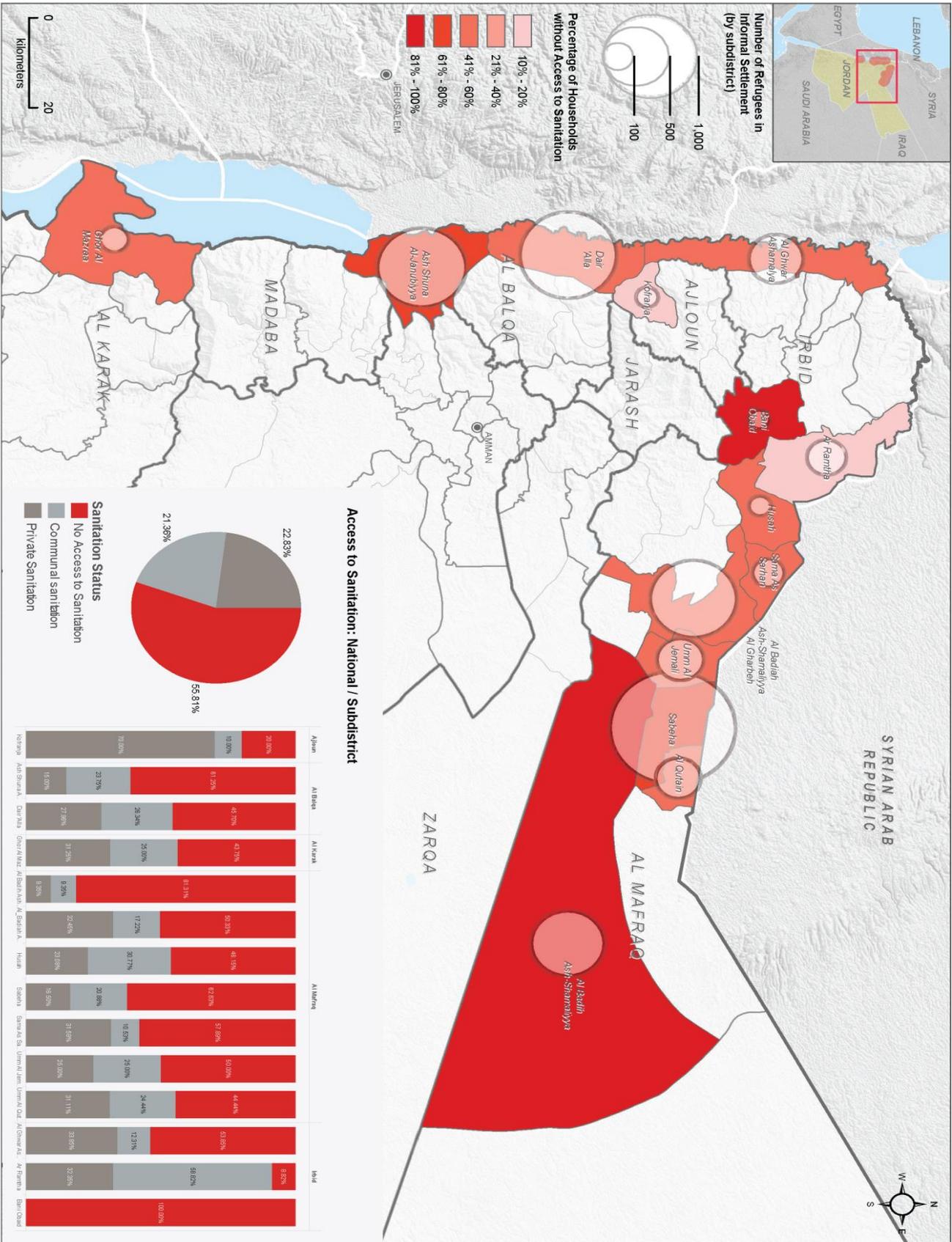


At 60.2% and 52.4%, the **highest proportions of households reporting no access to either private or communal latrines were found in Al Mafrq and Al Balqa**, respectively, which also host the highest ITS population of all five assessed governorates. Poor hygiene practices, severely inadequate sanitation infrastructure and the sheer size of the ITS population are all indicative of a public health problem in ITS and potential responses need to take into consideration the type of land tenure and the prospect for mobile solutions if these problems are to be addressed.

²⁴ Based on field observations, communal latrines are shared by multiple households or by the entire settlement, although this depends on ITS size, amongst other things.

²⁵ Available at: <http://www.spherehandbook.org/en/excreta-disposal-standard-2-appropriate-and-adequate-toilet-facilities/>

Map 2: Proportion (%) of households with access to latrines



unicef

Northern JORDAN - Syrians in Informal Settlements

Percentage of Households with Access to Sanitation

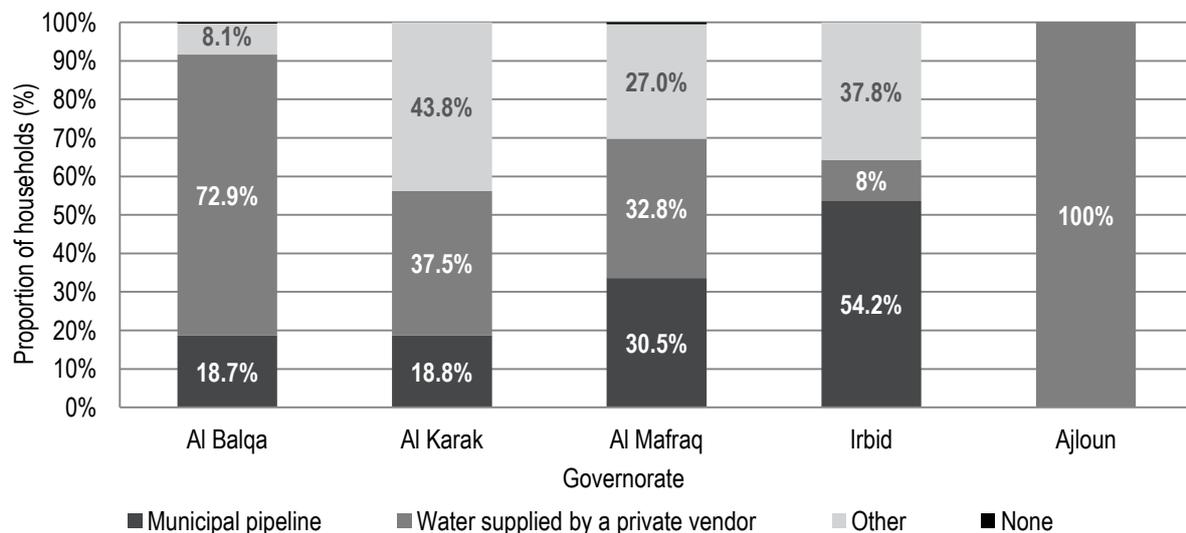
For humanitarian relief purposes only
Production date: 03-Jun-14

REACH An initiative of ACTED, IMPACT Initiatives and UNOSAT

REACH Informing more effective humanitarian action

Overall, **53.4% of assessed households reported private vendors as their primary source of cooking, drinking and washing water,**²⁶ and **34% relied on municipal connections as their primary sources of water for the household.** This represents a marked shift amongst ITS where, at 14.1%, previous UNICEF/REACH data placed the proportion of ITS households relying on municipal connections considerably lower in December 2013. This increase in reliance on municipal connections may be a coping strategy developed by households due to intermittent water provision which was comparatively higher in December 2013 when the average number of days spent without water was reported to be 2.1 across all assessed settlements.

Figure 9: Reported primary sources of water by proportion (%) of households



Findings for the April 2014 assessment indicate that the average number of days spent without water was lower overall at 1.7, but also that **the number of days spent without water was, on average, comparatively higher for households relying primarily on private vendors (1.8 days) than for households relying on municipal connections (1.2 days).**

A statistical analysis of the data on water provision indicates that there is a strong²⁷ and positive correlation between the cost of water (reported as an average of 7.8 JOD per household reported as paying for water at the time of the assessment), the number of people per household and household debt load. In regards to household size, the cost of water appears to rise exponentially with each additional person in the household.²⁸ Debt loads also appear to increase significantly as the cost of water rises,²⁹ indicating that in order to surmount higher water costs, households resort to debt.

Furthermore, water from a fixed source was the most frequently reported secondary source for an additional 70% of households. The diversification of water sources may be a coping mechanism which ensures that settlement residents are better placed to absorb shocks or interruptions to the provision of the service.

At 70.9%, findings indicate that private water vendors are the primary source of water only for settlements found in Al Balqa, whilst ITS in the remaining four governorates relied on a variety of municipal water services and privately purchased store and/or market bought water. Once we consider that 59.9% of households in Al Balqa intend to leave the Jordan Valley region within the two weeks following the assessment, this reliance on a short-term service option becomes clearer; for instance, **73.6% of all households intending to leave also rely on private vendors as their primary source of water.**

²⁶ Anecdotal evidence suggests that ITS residents do not, or may not have the resources to, distinguish between drinking and cooking/washing water.

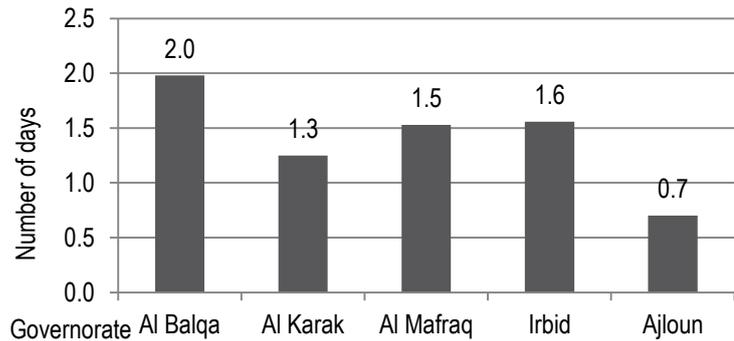
²⁷ Pearson correlation coefficient of 0.563.

²⁸ Yielding a Pearson Correlation of 0.418,

²⁹ Yielding a Pearson Correlation of 0.505,

Seasonal migration acts as a disincentive for ITS residents in Al Balqa to invest time and resources in establishing access to a more formal or secure connection and may therefore be more inclined to maintain an *ad hoc*, need or demand-based flexible arrangement with private vendors in the area. Whilst the highest proportion (37.5%) of households making use of municipal services was found in Al Karak (which hosted two settlements at the time of the assessment), the highest usage of municipal water services in absolute terms (across a total of 210, or 32.8% of households), was reported in Al Mafraq. Generally, private water vendors are used when access to formal networks is limited or intermittent, or perhaps when households migrate regularly. As such, water sourcing strategies in Al Balqa's settlements are understandably homogenous.

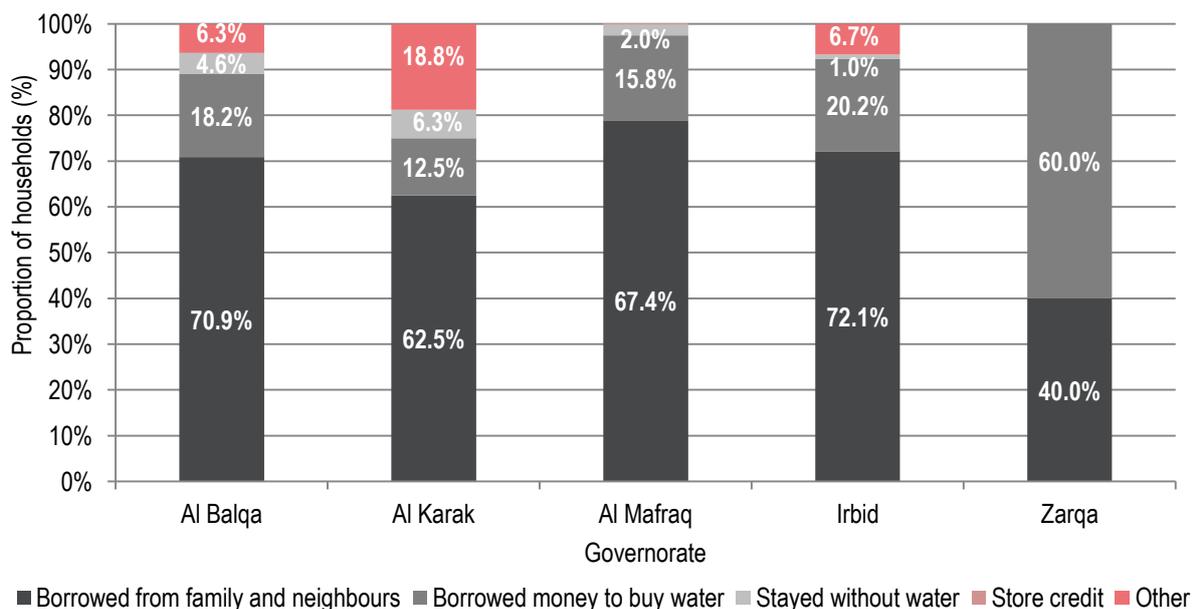
Figure 10: Average number of days spent without water per household by governorate



Water scarcity and/or shortages appeared to be an issue across all assessed governorates, experienced on average two days a week per assessed household. Shortages were longest in Al Balqa where 70.9% of households relied on private water provision, which again points to the unreliability of the service. Although Ajloun's single ITS also relied entirely on private water vendors, it appears to be far easier to service a single settlement as opposed to 20, which may be why Al Balqa experiences comparatively higher water scarcity.

Households resorted to a largely uniform set of coping strategies when faced with water scarcity and **62.6% of households reported primarily borrowing water from family and neighbours to overcome shortages** across all assessed settlements. Given the comparatively longer water shortages in Al Balqa, a slightly higher proportion (70.9%) of households relied on borrowing water from family and neighbours than in other governorates. Despite this, at 25.3%, a significant proportion of all assessed households also reported borrowing money to purchase water as their primary coping mechanism, which again points to the propensity of ITS residents to resort to debt-fuelled consumption if other options are exhausted or unavailable. This mechanism was most common in Irbid, where 20.2% of households reported using debt to address water shortages. As with communal borrowing practices, the pooling of resources appears to attenuate the most acute basic service gaps.

Figure 11: Type of coping strategy used to overcome water shortages by proportion (%) of households

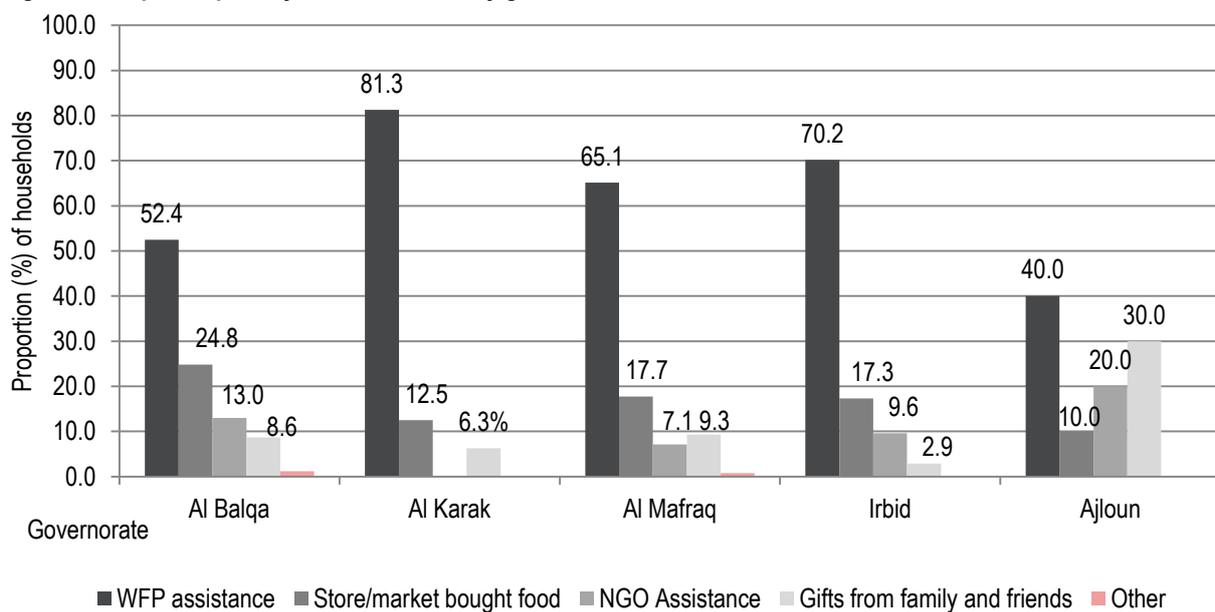


FOOD SECURITY

This section presents the analysis of food consumption and food security patterns across assessed governorates. Overall, 59% of assessed households had a borderline or poor food consumption score and an analysis of the frequency of consumption of different food groups indicates pervasive micronutrient deficiencies amongst ITS households. Finally, **42.5% of households were food insecure at the time of the assessment.**

Food emerged as one of the most acute unmet needs across ITS in Jordan, although the level of humanitarian assistance reaching Syrian refugees in settlements varied considerably across the country. Overall, 61.8% reported WFP assistance as their primary source of food. Despite this, **62.4% of households relying primarily on WFP assistance also reported buying food on credit and/or borrowing food from family and neighbours to cope with shortages** in the 30 days prior to the assessment. Key informant interviews indicate that the large distances from some settlements to food distribution points form a major barrier in accessing regular assistance for households in remote locations in Jordan.

Figure 12: Reported primary sources of food by governorate



Furthermore, governorate-level findings indicate that **41% of ITS households had an acceptable Food Consumption Score³⁰ (FCS) and 59% were classified as poor or borderline.** Frequency and diversity in food consumption was found to be significantly lower in ITS than in Al Za'atari, where REACH/WFP³¹ findings indicate that 95.0% of households had an acceptable FCS. It is also worth noting that the FCS proxy is only based on current consumption and does not account for seasonality or vulnerability to future exogenous shocks which could threaten future consumption patterns, nutritional intake and/or food security status. Given that migration patterns are often sporadic, household food sources may also shift in tandem and with this, the sustainability of these food sources, the consumption pattern and nutritional intake. Indeed, anecdotal evidence collected from key informant interviews seems to confirm this.

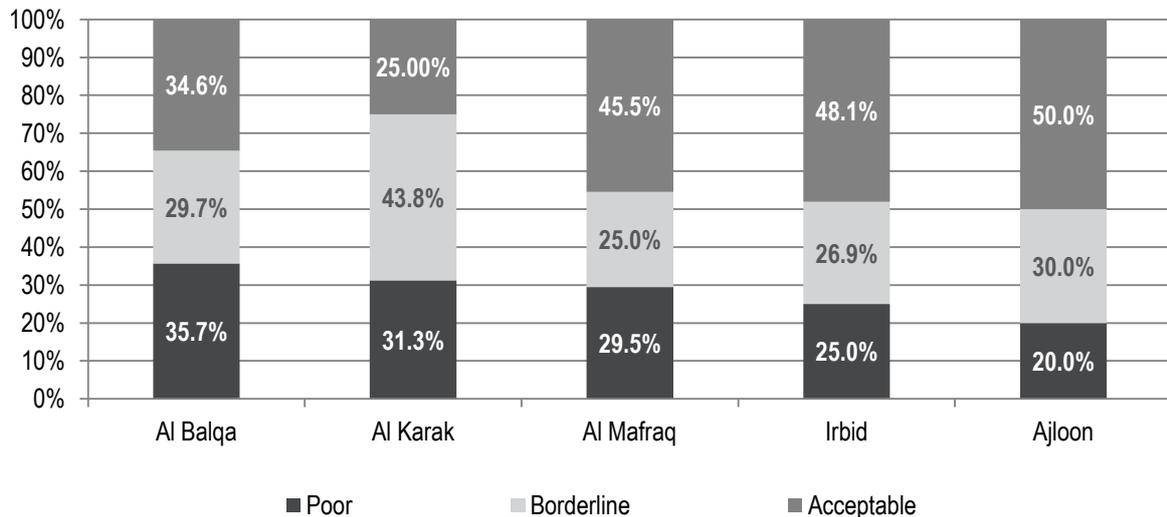
Among the households with a poor FCS, 85.6% did not consume animal protein or meat at all; a further 74.2% reported not consuming milk and dairy products at all over the course of the seven days prior to the assessment.

³⁰ The FCS is a composite score based on dietary diversity, frequency of consumption and relative nutritional importance of different food groups. Food items are grouped into 8 standard food groups with a maximum value of 7 days per week. The consumption frequency of each food group is multiplied by an assigned weight that is based on its nutritional content. In order to ensure data quality, enumerators were trained to ask this question to the most senior female member of household who, for cultural reasons, is more likely to be familiar with dietary diversity and food consumption patterns in the household.

³¹ WFP/REACH, Comprehensive Food Security Monitoring Exercise (forthcoming)..

Furthermore, a high proportion (80.6%) did not consume oil and fat, indicating extreme micronutrient deficiencies amongst this sub-set of households. Consequently, the food groups most consumed by those households with a poor FCS were cereals (83.6% consumed this for each of the seven days prior to the survey) and white tubers (which were consumed every day by 18.9% of households). These are characterised by their low nutritional value and which indicate substantial access problems to high-nutrient food groups for settlement residents across the assessed governorates as a whole.

Figure 13: Food consumption scores by governorate

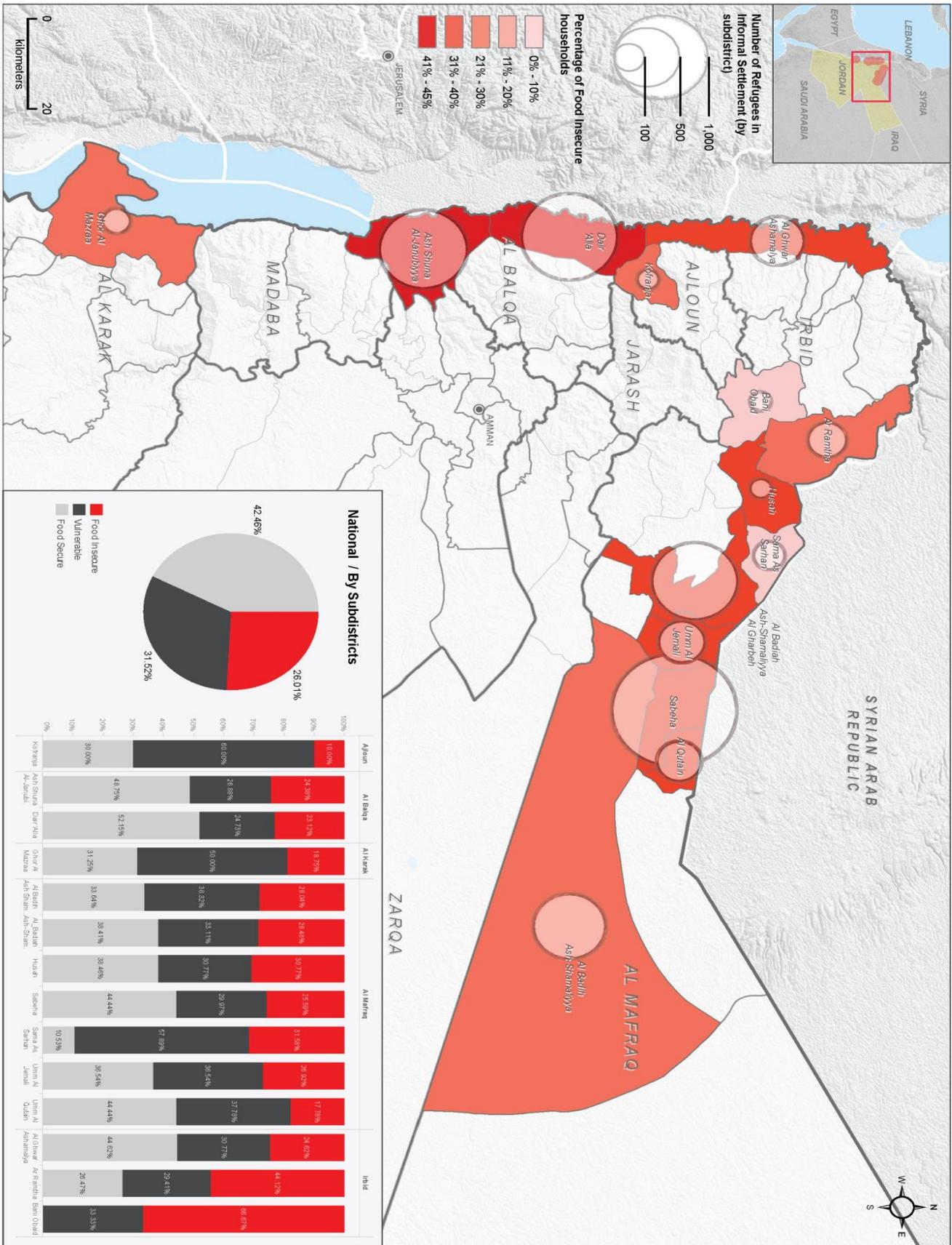


Similarly, 19.2% of households with a poor FCS did not consume any vitamin A-rich vegetables during the seven days prior to the survey and 28.3% reported consuming vegetables between 4-7 days; 97.2% of households did not consume any iron-rich food groups such as fish. Although a small proportion within this subset consumed vegetables on a regular basis, 54.8% of households and 71.6% of households within the borderline and acceptable FCS groups consumed vegetables more than 4 days a week, respectively. This indicates that access to and consumption of vegetables is regular.

The most common source for vitamin A was milk (25.8% of households reported drinking milk 1 to 3 times), but even this food group was only consumed a maximum of 3 times, indicating that high-nutrient food groups are either carefully rationed or are unavailable to settlement residents because of pricing or other access issues.

It should be noted that this food consumption pattern implies a risk of pervasive micronutrient deficiencies and poses a considerable health risk, especially for iron deficiency anaemia. This applies in particular to children and pregnant women, for whom it is recommended to have a daily intake of vitamin-A rich fruit, vegetables and meat or fish.

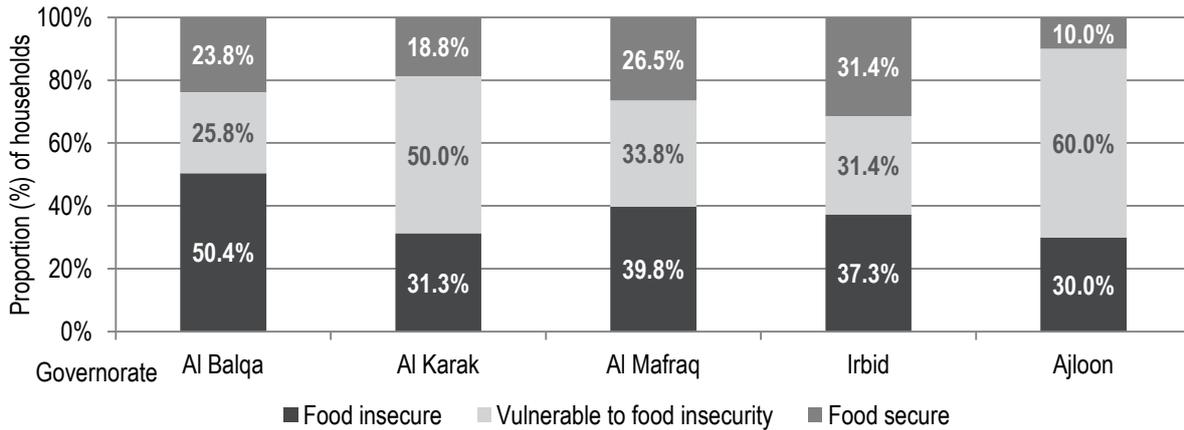
Map 3: Proportion (%) of food insecure households



Northern JORDAN - Syrians in Informal Settlements
Percentage of Food Insecure households

For humanitarian relief purposes only
Production date: 03-Jun-14

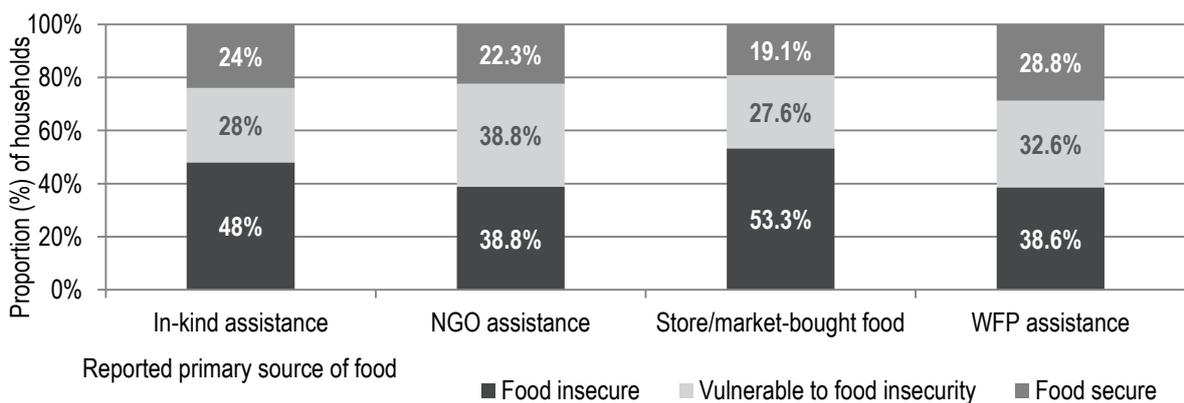
Figure 14: Food security indexing by governorate



Furthermore, REACH derived a composite food security index³² based on FCS, 30 day food expenditure patterns, total household income and 30 day coping mechanisms to deal with food shortages³³, the first use of which was a joint REACH/WFP³⁴ food security assessment in Jordan. Findings indicate that a total of **492 households (42.5%) were reported as food insecure at the time of the assessment, with Al Mafraq's ITS displaying the highest number of food insecure households** in absolute terms. This is also where 65.1% of households relied primarily on WFP food assistance to meet household food needs. As Figure 13 above illustrates, the only significant outlier was Al Balqa, where 50.4% of households were found to be food insecure.

The highest proportion of food insecure households (53.3%) was found amongst the subset which reported privately purchased food as their primary food source (19.2% of all assessed households). This indicates that the reliance on private financial resources to access in ITS aggravates food insecurity in the short term. Whilst this may not be due to food price volatility or high food prices nationally across Jordan, limited resources mean that prices are higher for ITS residents in relative terms. Furthermore, the average debt load for the households relying primarily on privately purchased food is – at 767.86 JOD – comparatively higher than for all other households which reported relying on some form of assistance to access food; 17% of these households resorted to debt-fuelled consumption, indicating that in addition to rendering these ITS residents more susceptible to food insecurity, primarily relying on private means to access food also poses negative consequences for household economics and cash flow vulnerability.

Figure 15: Food security indexing by reported primary food source



³² FSI scores using the CARI approach are calculated using a 2-step process, where the 3 indicators (FCS, % food expenditure share, and livelihoods-based coping strategy index (CSI)) are used to calculate the FSI are first converted into a 4-point scale, and then the converted (4-point) scores are averaged (% food expenditure share and livelihoods-based CSI scores are averaged first, and the resulting average is then averaged with the FCS). REACH used a semi-CARI approach to calculate the FSI score, where the first step was used, but not the second). Instead a grid system developed by WFP to categorize households as either food secure, vulnerable, or food insecure was used.

³³ The first use of this index was a joint REACH/WFP food security assessment in Jordan; it was then re-used here to allow for comparison between refugee camps, host communities and ITS.

³⁴ WFP/REACH, "Comprehensive Food Security Monitoring Exercise", April 2014.

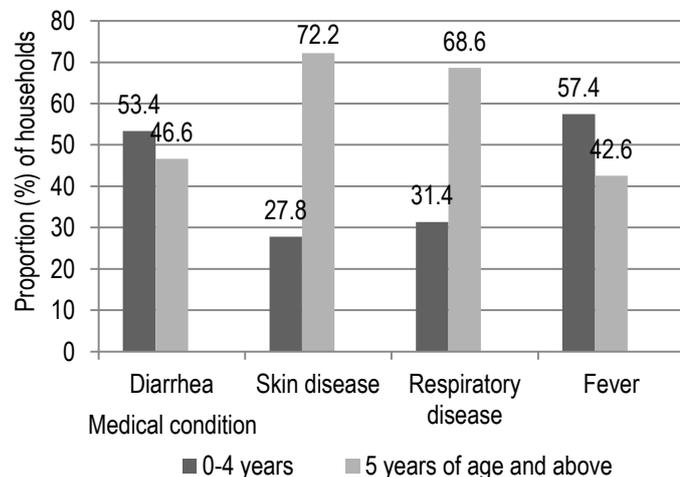
HEALTH

This section outlines findings on health outcomes and the prevalence of medical conditions across demographic groups. The prevalence of diarrhoea and fever, for example, is disproportionately higher amongst children aged 0-59 months than amongst older cohorts. Furthermore, the reported polio vaccination rate for at-risk children aged 0-59 months was 64% at the time of the assessment; overall, a caseload of 393 children.

Health problems amongst informal settlement residents were found to be widespread across the assessed settlements. Overall, 15% (a total of 1,074) of assessed individuals were reportedly affected by health problems such as diarrhoea, fever, skin disease and/or respiratory disease³⁵ during the 30 days prior to the assessment. Findings further indicate that the distribution of medical ailments across demographic groups is largely uniform and overall, that **the prevalence of health problems is disproportionately higher amongst children under 5 than amongst older cohorts**. This is illustrated by the prevalence of diarrhoea and fever amongst settlement populations, where, **at 53.4%, the proportion of minors aged 0-4 years affected by these problems is higher than amongst those aged 5 years and older**.

In light of the data on water provision presented above, this rate of medical problems is not surprising. For instance, the analysis revealed a **26% higher prevalence of diarrhoea amongst minors aged 0-59 months in settlements which reported exclusively relying on water provision by vendors**, indicating that diarrhoea incidence partially be attributable to poor water treatment providers and settlement water storage such as lack of access to safe water and poor health may be further aggravated by lack of access to medical care. Among households which reported health problems during the 30 days prior assessment, only 34% reported accessing healthcare services.

Figure 16: Comparison of the prevalence of medical ailments amongst minors aged 0-4 and older cohorts



Previous UNICEF/REACH³⁶ data suggests that there are no major institutional or cost-related impediments to accessing healthcare services. Whilst challenges such as perceived healthcare costs (which were cited as a primary challenge by 20% of households) and distance (by 41% of households) do exist, the lack of available services does not seem to be a problem. Physical barriers such as distance and lack of information regarding the free provision of healthcare seem to be the main impediments. These findings are in line with a previous REACH assessment conducted in host communities in partnership with the Foreign and Commonwealth Office (FCO)³⁷.

Finally, vaccination rates for polio and measles were reported to be 64% and 70%, respectively, amongst children aged 0-59 months. In terms of polio vaccination caseload, this amounts to a total of **393 at-risk children in settlements across five governorates who have may still need to receive polio vaccinations**³⁸. This is of concern considering recent reports of polio outbreaks within Syria³⁹ and the relatively high mobility of settlement residents across Jordan.

³⁵ Given the generally poor knowledge that ITS residents have of health issues, these were the best approximations – or proxies – for medical ailments that REACH was able to derive from the pilot assessment and as such, only these categories were gauged.

³⁶ UNICEF/REACH: "Informal Tented Settlements in Jordan: A Multi-sector, Baseline Assessment"

³⁷ Foreign and Commonwealth Office/REACH, "Evaluating the Effect of the Syrian Refugee Crisis on Stability and Resilience in Jordanian Host Communities; Preliminary Impact Assessment", January 2014.

³⁸ As these vaccinations are not marked on a health card there is no way of verifying the veracity of the head of household's statement, although REACH did take measures to ensure that polio vaccinations were explained properly to the respondents. For instance, OPV was described as "two drops".

³⁹ World Health Organisation: <http://www.who.int/mediacentre/news/statements/2013/polio-syria-20131113/en/>

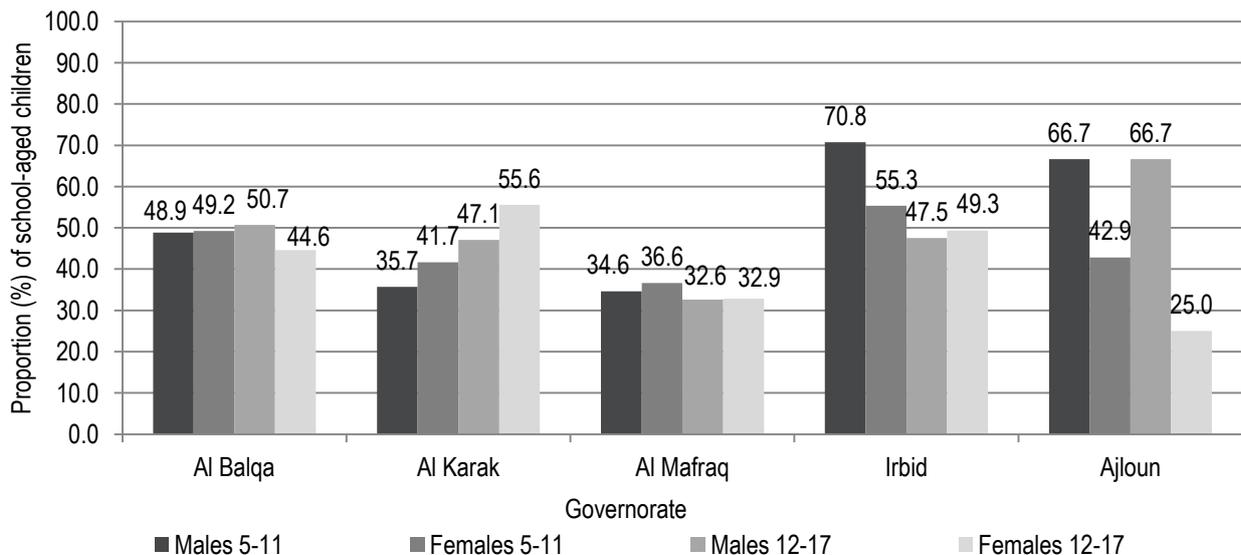
EDUCATION

This section details findings collected on school attendance rates and the reported barriers to attendance. The analysis indicates that the majority of school-aged children were not attending school at the time of the assessment, although further research is recommended to verify the veracity of this data. Although a small proportion of school-aged children was reported as working at the time of the assessment, the major barriers to attendance were distance, cost and cyclical and often ad hoc migration patterns.

The assessment revealed moderate rates of school attendance amongst children residing in informal settlements and overall, **60% of the school-aged settlement population was reported to not be attending school at the time of the assessment**⁴⁰. The lowest school attendance rates for school-aged children were reported in Al Mafraq, where the average rate of attendance was 34.2% regardless of age class or sex. This becomes even more significant when we take into account that the majority of assessed settlements were found in close proximity to urban or peri-urban areas where education facilities exist and are open to Syrian refugees.

Contrary to local perceptions, Syrian children residing in informal settlements in Jordan do not abandon formal schooling because of child labour, which was cited as a reason for non-attendance by only 6% of assessed households which hosted school-aged children. Instead, they are predominantly deterred from attending by schooling costs – 52% of households reported this as the predominant access barrier. Furthermore, cyclical migration patterns may render access to formal schooling intermittent, thereby reducing incentives to enrol.

Figure 17: Reported rates of attendance for school aged children aged 5-17 years by governorate



⁴⁰ Unlike with Food Consumption Scoring, enumerators were unable to interview children directly for protection reasons and as such, were compelled to interview the heads of households regarding school attendance. Because of the social stigma attached to non-attendance, the veracity of this data cannot be confirmed as non-attendance is constantly under-reported. Further research is required.

CONCLUSION

Through this assessment REACH has compiled a comprehensive dataset on the vulnerabilities, needs and service gaps faced by ITS residents to facilitate settlement-level targeted assistance to refugee populations. Sector needs are highly context-specific and are dependent on variables such as settlement demographics, access and use of assistance as well as geographic location. Overall, the private provision of food, water, and other basic commodities is still widespread and impacts on resource scarcity, food insecurity and health issues.

Food insecurity appeared to be widespread, and given the financial resource constraints that have been outlined in this report, access to and consumption of high-nutrient food groups was severely inadequate. Although lack of access to WFP food assistance does not appear to be the major cause of food insecurity, its scope and size contributed greatly to it. This is compounded by the pervasive micronutrient deficiencies which ITS households face as a result of resource constraints and other access barriers, all of which have negative consequences for at-risk groups such as children and pregnant and lactating women. *Ad hoc* migration patterns are also an aggravating factor due to interruptions to food supplies which require time and resources to be re-established and which in turn may confront ITS residents with trade-offs for other basic services.

The severe shortage in the provision and use of WASH infrastructure has had negative effects across the health and water sectors. Poor hygiene practices and inadequate capacities to store water properly strongly correlates with the prevalence of medical ailments such as diarrhea. Another issue is the open defecation which often leads to the spread of infectious diseases. Where water is mainly provided by private vendors, the provision of adequate water storage infrastructure could address many of the health and cost-related externalities that are generated as a result of this service. Similarly, infrastructure rehabilitation, hygiene promotion and facilitation of access to latrines could effectively address many of the entrenched health and hygiene issues that refugees in ITS face. Nevertheless, it is worth noting that this may often be limited by the land rights of the ITS tenants, thus requiring mobile or temporary solutions which are tailored to often *ad hoc* migration patterns.

Minors, who comprise over half of ITS residents across the assessed governorates and who are by definition dependent on older population cohorts to facilitate access to basic services, appear to face substantial human capital deficits and challenges. In terms of their health status, children aged 0-59 months are afflicted by disproportionately higher rates of fever and diarrhea than the remaining demographic groups combined. Equally, 36% of all at-risk children aged 0-59 months have reportedly yet to be vaccinated against polio. These findings also tie in with the 2014 Syria Regional Response Plan's sectoral priorities for health, which specify that increasing and expanding routine vaccination coverage are priorities for Jordan. Likewise, resource constraints, geographic remoteness and cyclical migration patterns all appear to deter school enrolment and as such, the majority of school-aged children are reportedly not attending school.

Whilst the resilience of ITS households is strengthened by communal sharing of scarce available local resources through informal lending, borrowing, and other coping mechanisms, when an exogenous shock affects the whole ITS – for instance, when an income source is exhausted or when eviction occurs – this coping mechanism becomes insufficient. Conversely, whilst this pooling of private resources may offer short-term relief, vulnerability is further compounded in the long-term by the accumulation of debt and the opportunity costs that trade-offs forced by resource scarcity entail across the sectors of food security and education in particular. This is clearly evident once we consider that 42.1% of households are insecure and 59.4% of households had a poor FCS.

With so many resource constraints and service gaps, the list of ITS needs and vulnerabilities that REACH has identified in Jordan thus far is extensive; from entrenched food insecurity, poor attendance rates for school-aged children to widespread open defecation, there are multiple and often overlapping areas where humanitarian assistance could be effectively targeted in a coordinated manner. In terms of human capital, the needs of minors should be integrated into any response; whilst humanitarian actors have already worked to establish informal education centres, for instance, the ever-increasing number of ITS residents means that this response may need to be scaled up to prevent further loss of schooling. This also holds true for health and where geographic remoteness or lack of travel options prevents access to life-saving healthcare services; mobile interventions or home visits may offer an effective solution to this problem.

Overall, needs are evidently substantial and are growing steadily as the number of Syrian refugees being priced out of formal host communities and opting for ITS continues to grow. Contrary to popular perceptions, the heavy reliance on casual agricultural labour and other informal income sources is not the primary cause of residency in an ITS and settlement residents are not economic migrants. Residency is in itself a coping mechanism which allows access to basic services such as water and electricity which the household may have had to forego in formal accommodation. To that end, as part of the commitment of humanitarian actors to aid the victims of the Syrian crisis wherever and whenever possible, it is important not to overlook what could potentially become a rapidly growing humanitarian crisis.

In the medium term, REACH will continue to conduct household surveys to ensure that the needs of ITS residents are continuously updated, recognised and addressed. This will primarily be done through presentations at inter-sector and inter-agency forums, the timely dissemination of findings and data to the relevant humanitarian actors who deliver assistance in ITS in Jordan. To that end, REACH, on behalf of UNICEF, will be launching a third nation-wide, multi-sector household survey of ITS in mid-June which will cover all 12 governorates and will span all of the sectors and indicators covered thus far. A site verification exercise conducted in lieu of this assessment has already tentatively identified an additional 4,000 individuals in the southern governorates of Jordan and follow-up key informant interviews suggest that the ITS population of Al Mafraq has also expanded following the closure of Al Za'atari camp to new arrivals. In addition to this, REACH recently produced a regional comparative analysis of ITS spanning northern Syria, Lebanon and Jordan. This, including all other REACH reports and products from Jordan and other MENA countries can be found on the UNHCR data portal, the online REACH resource centre as well as other relevant online platforms.

ANNEX 1: ASSESSMENT QUESTIONNAIRE

Household Profile

1. Governorate (**Cascading**)
2. How many families live in your household?
3. 3a. How many people live in your household?
3b. How many household members do you have in each of these age-groups? (**constraint: total values cannot exceed value entered for "Number of people"**)
Male 0-4y 5-11y 12-17y 18-30y 31-59y 60+y
Female 0-4y 5-11y 12-17y 18-30y 31-59y 60+y
4. 4a. Are any members of your household disabled? (**select one**) Yes No
4b. If yes, then how many members of your household have the following disabilities? (**insert looping for each disability type; cannot be greater than the value entered for Q3a**)
 Physical Mental Visual Auditory/Hearing
Male 0-4y 5-11y 12-17y 18-30y 31-59y 60+y
Female 0-4y 5-11y 12-17y 18-30y 31-59y 60+y
5. 5a. Are you from Syria?
5b. If yes, where are you from? (cascading from governorate to sub-district)
6. Is this household registered with? (**select one "Yes/No" for each option**)
a) UNHCR: Yes No
b) Ministry of Interior: Yes No
c) Local police station: Yes No

Livelihoods

7. What were your household's top 3 ways of paying for basic needs over the last 30 days? (**select and rank top 3 options; insert constraint on duplicate responses**)
a) Savings
b) Sale of household assets (jewellery, household appliances, furniture, etc.)
c) Sale of productive assets (tools, machinery, vehicles, etc.)
d) Begging
e) Agricultural waged labour
f) Skilled daily labour (construction, carpentry, etc.)
g) Loans/borrowed money
h) Sale of food assistance
i) Sale of non-food assistance
j) Cash from charities
k) Remittances
l) Owner of small commercial business
m) Gifts from family/friends
n) None
o) Other
8. How many days did the Head of Household work over the last 7 days? (**cannot be greater than 7**)
9. How many members of your household worked over the last 7 days? (**insert constraint; cannot be greater than the value entered for Q3a**)
Male 0-4y 5-11y 12-17y 18-30y 31-59y 60+y
Female 0-4y 5-11y 12-17y 18-30y 31-59y 60+y

10. How many days did children under 18 work over the last 7 days? **(cannot be greater than 7)** Days
11. What was your household's total income (excluding savings) over the last 30 days? JOD
12. How much money – in JOD – did you spend on the following basic needs over the last 30 days?
- Housing/rent: JOD
 - Food: JOD
 - Electricity/cooking heating fuel: JOD
 - Health: JOD
 - Water: JOD
13. In the last 30 days have you had enough fuel to meet daily household needs?
14. 14a. Is your household currently in debt? Yes No
- 14b. If yes, then how much debt? JOD
- 14c. If yes, then what are the top 3 reasons that you took on this debt? **(select and rank top 3 options; insert constraint on duplicate responses; None as a secondary option – skip logic to next question if selected for second or third choice)**
- To buy food
 - To pay for housing/rent
 - To pay for health expenses
 - To pay for education expenses
 - To pay for clothing
 - To buy tools and machinery
 - To pay for household costs (electricity, fuel)
 - To pay for water
 - To pay for transport costs
 - None
 - Other

Shelter

15. What type of shelter do you live in? **(select one)**
- Tent Makeshift shelter (modified tent) Other
16. Is the land you live on public (government property) or private? **(select one)** Public Private
17. 17a. Do you pay rent? Yes No
- 17b. If yes, then how much do you pay every month? JOD
18. Has your household been threatened with eviction – by police, government officials or the landowner – over the course of the last 30 days? Yes No
19. 19a. Does your household have an electricity connection? **(if No, skip to Q18)** Yes No
- 19b. If yes, what is the source of this electricity?
- Diesel generator
 - Municipal connection (formal)
 - Municipal connection (informal)
 - Other
20. Over the course of the last 30 days, how many days did you spend without access to electricity?
- JOD

Water and Sanitation

21. Currently, what is your household's primary source of drinking and washing water?
- Water supplied by a private vendor
 - Municipal pipeline (informal)
 - Municipal pipeline (formal)
 - None
 - Other
22. On average, how much did you pay for this water over the last 30 days? JOD
23. Over the course of the last 30 days, how many days did you spend without access to water? (**value cannot be greater than 30**) Days
24. If you did not have access to drinking and washing water at some point over the last 30 days, what did you do to cope with this? (**select one**)
- Borrowed from family/neighbours
 - Borrowed money to buy water
 - Shop credit
 - Nothing (stayed without water)
 - Other
25. 25a. Does this household have a private toilet? (**if No, go to Q23b; if Yes, skip to Q23c**)
 Yes No
- 25b. If no, do you have access to a communal toilet? Yes No
- 25c. If you have a private toilet, what type of toilet does your household use? (**select one**)
- Traditional open pit without slab
 - Latrine with cement slab
 - Other
26. How do you dispose of your household waste? (**select one**)
- Collective bin
 - Rubbish pit/unused septic pit
 - Burn
 - Dump near the household
 - Dump in an open field
 - Other

Health

27. 27a. Has a member of your household had any of the following health problems over the last 30 days? (**select one "Yes/No" for each option**)
- Diarrhea Yes No
 - Skin disease Yes No
 - Respiratory disease Yes No
 - Fever Yes No
- 27b. If yes, then which members of your household suffered from these? (**looping based on "Yes" entered for each option**)

- Male 0-4y 5-11y 12-17y 18-30y 31-59y 60+y
 Female 0-4y 5-11y 12-17y 18-30y 31-59y 60+y
28. 28a. Did you have professional treatment? (if No, then skip to Q29) Yes No
 28b. If yes, then which of the following did you visit?
 a) Primary health clinic
 b) Public hospital
 c) Maternal services
 d) Community services
 e) NGO clinic
 f) Pharmacy
 g) Other
 28c. Was any of the treatment subsidized or free? (select one)
 a) Free
 b) Subsidized
29. How many children aged 0-4 years have received polio vaccinations (2 drops)? (insert constraint: value entered cannot be greater than value for Q3b for the 0-4 years range) Children
30. How many children aged 0-4 years have received measles vaccinations? (insert constraint: value entered cannot be greater than value for Q3b for the 0-4 years range) Children

Food Security

31. What were the top 3 sources of food for your household over the last 30 days? (select and rank top 3 options; insert constraint on duplicate responses; None as a secondary option – skip logic to next question if selected for second or third choice)
 a) WFP assistance
 b) Store/market bought food
 c) NGO assistance
 d) Gifts from family and friends
 e) None
 f) Other
32. How much did you spend on food over the last 30 days? JOD
33. How many meals does your household usually eat in a day?
34. Over the last 7 days, how many days did you consume the following foods? (no value can be greater than 7, ie. 7=7 days)
 a) Cereals (bread, pasta, wheat flour, bulghur)
 b) White tubers and roots (potato, sweet potato)
 c) Vegetables, yellow tubers, leaves
 d) Fruits
 e) Meat
 f) Eggs
 g) Fish and other seafood
 h) Pulses, nuts and seeds (beans, chickpeas, etc.)
 i) Milk and dairy products

- j) Oil and fats
 - k) Sweets (sugar, honey, jam, cakes, sweet coffee)
 - l) Spices and condiments
35. During the last 7 days, how many times (in days) did your household do any of the following in order to cope with lack of food? **(no value can be greater than 7, ie. 7=7 days; 0 = None, 1 = 1 day, 2 = 2 days, 3 = 3 days, 4 = 4 days, 5 = 5 days, 6 = 6 days, 7 = Everyday)**
- a) Eat cheaper food that is not as good as normal
 - b) Borrowed food or received help from friends or relatives
 - c) Eaten less meals a day than normal
 - d) Eaten smaller amounts of food than normal at meals
 - e) Adults eat less so younger children can eat
 - f) Women eat less so men and small children can eat
 - g) Men eat less so women and small children can eat
36. In the past 30 days, has your household done any of the following to meet basic food needs? **(0 = No, 1 = Yes, 2 = No, because I have already used this up)**
- a) Spent savings
 - b) Bought food on credit or borrowed money to buy food
 - c) Spent less money on other needs (eg. education/health)
 - d) Sold household assets (jewelry, phone, furniture, etc)
 - e) Sold productive goods/assets (sewing machine, tools/machinery, car, livestock, etc)
 - f) Taken jobs that are high risk, illegal and/or socially degrading
 - g) Sent adult household members to beg
 - h) Sent children household members to beg

Education

37. How many of the school-aged children in your household attend school? (school-aged children defined as 5-17 years of age) **(insert constraint: value entered cannot be greater than value for Q3b for the 5-17 years range)**
- Male 5-11y 12-17y
- Female 5-11y 12-17y
38. If some do not attend school, then what are the top 3 reasons for this? **(select and rank top 3 options; insert constraint on duplicate responses; None as a secondary option – skip logic to next question if selected for second or third choice)**
- a) Lack of funds to send children to school (materials, uniforms, books, etc.)
 - b) Child labour
 - c) Distance
 - d) Not enough space in schools
 - e) Refused enrollment
 - f) Lack of transport
 - g) Safety and security issues
 - h) The household relocates too often for children to enroll
 - i) Children have been out of school too long to go back

- j) None
- k) Other
- l)

Intentions

39. 39a. Does your household intend to leave this settlement? **(select one)**
 Yes No Don't know
- 39b. If yes, then when do you intend to leave? **(select one)**
 Now less than 2 weeks 2 weeks – 1 month 1-3 months 3-6 months
 Don't know
- 39c. If yes, then where do you intend to go? **(select one)**
- a) Host community **(specify Governorate)**
 - b) Return to Area of Origin in Syria
 - c) Another settlement **(specify Governorate)**
 - d) Another country
 - e) Refugee camp
- 39d. If yes, then why do you intend to go? **(tick and rank top 3 reasons; insert constraint on duplicate responses)**
- a) Lack of employment/income earning opportunities in this area
 - b) Inadequate access to health services in this area
 - c) Inadequate access to education in this area
 - d) Inadequate water in this settlement
 - e) Poor quality of shelter in this settlement
 - f) Joining friends/family
 - g) Cost of food in this area is too high
 - h) Cost of housing in this area is too high
 - i) Eviction
 - j) Safety/security concerns in this area
 - k) Improved security in Area of Origin
 - l) Depleted savings
 - m) None
 - n) Other

Location

Please collect the GPS coordinates of this settlement to an accuracy of 5 metres.