

IRAQ

# Multi-Sector Needs Assessment III (MSNA III)

*Syrian Refugees in Host  
Communities of Kurdistan Region  
of Iraq (KR-I)*

December 2017



**UNHCR**  
The UN Refugee Agency

**IMPACT**

Shaping practices  
Influencing policies  
Impacting lives

Given the prolonged crisis in Syria over the last seven years, Syrian refugees continue to live within the host communities of neighbouring countries, including Iraq. As of December 2017, 247,057 Syrians were registered with United Nations High Commissioner for Refugees (UNHCR) in Iraq, ninety-seven per cent of whom are hosted in the Kurdistan Region of Iraq (KR-I).

Despite ongoing assistance programmes, needs of refugees gradually increase due to limited socio-economic and livelihood opportunities. The concurrent massive internal displacement of the population due to military operations conducted across Iraq, and in Mosul and Ninewa in particular, has increased humanitarian needs across the region and stretched the government's capacity to respond to the needs of refugees and their host communities. Basic services and infrastructures continue to be stretched to serve an increased population.

In order to inform humanitarian and governmental planning, and to guide the Regional Refugee & Resilience Plan (3RP) process, UNHCR launched a third round of the Multi-Sector Needs Assessment (MSNA) of registered Syrian refugees in host communities in KR-I in August-September 2017.

This assessment has been carried out in coordination with IMPACT Initiatives and is in line with aid organizations' commitments made at the Grand Bargain to *"provide a single, comprehensive, cross-sectoral, methodologically sound and impartial overall assessment of needs ... to inform strategic decisions on how to respond"*.

Research questions were designed specifically to ascertain priority needs of refugees and their households, identify key gaps in assistance, and highlight areas where targeted programme interventions are most needed.

With thanks to all those who contributed, primarily the Syrian refugees, who provided information on their needs. We trust the assessment can support humanitarian actors and decision-makers in taking prompt, evidence-based decisions, which in turn will offer solutions for more effective programmes to support refugees and the communities who are generously hosting them.



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#### **About IMPACT**

IMPACT Initiatives (IMPACT) is a leading Geneva-based think-and-do-tank. The organization implements assessment, monitoring & evaluation and organisational capacity-building programmes in direct partnership with aid actors or through its inter-agency initiatives, REACH and AGORA. Headquartered in Geneva, IMPACT has an established field presence in over 20 countries across Africa, Middle East and North Africa, Central and South-East Asia, and Eastern Europe.

## Summary

Since the outbreak of violence in 2011, large numbers of Syrians were displaced to neighbouring countries, including Iraq. As of September 2017, there were 146,000 Syrian refugees registered as living in host communities in the Kurdistan Region of Iraq (KR-I).<sup>1</sup> The vulnerability of this population as a result of prolonged displacement has been compounded by domestic conflicts and internal displacement, further straining the municipal and aid services on which the majority of the population rely. However, the humanitarian response has been constrained by a lack of comprehensive and evidence-based understanding of the needs and vulnerabilities of this population at both governorate and district level.

To fill this gap and inform humanitarian and governmental planning in 2018, and to guide the Regional Refugee & Resilience Plan (3RP) process, the United Nations High Commissioner for Refugees (UNHCR) launched a third round of the Multi-Sector Needs Assessment (MSNA) of registered Syrian refugees in host communities in KR-I, implemented by IMPACT Initiatives. Research questions were designed specifically to ascertain priority needs of refugee cases and their wider households, identify key gaps in assistance, and highlight areas where targeted programme intervention is most needed.

Data collection took place between 21 August and 9 September 2017, using a structured, close-ended questionnaire administered to a randomly selected sample of UNHCR registered Syrian refugee cases in KR-I host communities, stratified at the district level. A total of 1,198 Syrian refugee cases were interviewed and asked to report on their case, and any other members in the wider household.<sup>2</sup> Findings are representative with a confidence level of 96% and margin of error of 3% at the KR-I level. Findings are also generalisable to the target population at the governorate level with a 95% level of confidence and 5% margin of error.<sup>3</sup>

Overall, priority needs were found to differ across governorates. For example, shelter and health based needs were identified as particularly acute in Dohuk, whilst food insecurity was highest in Sulaymaniyah, and protection concerns relating to registration and documentation were most considerable for households in Erbil. Across KR-I, these sector specific needs stemmed from an overall economic vulnerability faced by all Syrian refugee cases and their wider households. Accordingly, reported key gaps in assistance focused on cash based and employment needs, highlighting livelihoods and economic security as key areas for targeted intervention.

Specific findings are detailed below, relating to demographics, and the following sectors: (1) movement and intentions, (2) shelter, (3) WASH, (4) health, (5) food security, (6) livelihoods, (7) basic needs, (8) access to public services and information, (9) education, (10) protection, and (11) social cohesion.

## Key Findings

### Demographics

- Males and females represented roughly equal proportions of the population (51% and 49%, respectively). Minors under the age of 18 comprised 42% of the total population, whilst working-age adults (18 to 59 years old) constituted the majority (55%) of the population.
- The largest proportion of Syrian refugee households arrived to the KR-I in 2013 (40%). A quarter of households arrived a year earlier, in 2012 (24%). Double the number of households in Dohuk arrived in 2012 (43%), compared to households in Erbil and Sulaymaniyah (19%).
- At KR-I level, the vast majority of households were male-headed (94%). However, across governorates, this varied from 96% in Dohuk to 89% in Sulaymaniyah.

<sup>1</sup> UNHCR Information Sharing Portal. Accessed 30.10.2017.

<sup>2</sup> Household is identified as a group of one or more cases sharing the same shelter, while a case is identified as a group of people registered with UNHCR as a single family unit, and sharing a registration ID.

<sup>3</sup> All indicators have been disaggregated to the lowest geographic level to which statistically significant findings could be obtained. See methodology for further details.

- The average dependency ratio was 49% at the KR-I level.<sup>4</sup> Furthermore, 17% of all households reported that the head of household was suffering from a chronic illness.

### Movement and intentions

- 14% of households reported an intention to move in the three months after interview. This was higher in Erbil (18%) than in Sulaymaniyah (11%), or Dohuk (7%).
- Over half (54%) of households that intended to move wanted to move to a different country (not including Syria). A further 20% intended to return to their Area of Origin (AoO) in Syria.
- The most frequent reasons households cited for intending to leave their current location were for employment opportunities (56%), wanting better access to services (56%), and cost of living in their current location (23%).

### Shelter

- Almost all households were living in independent housing (94%). A similar proportion of households provided for their accommodation by renting (93%). Of households that were renting, the average cost of rent per month at the KR-I level was almost 210,000 IQD (175 USD), although this was lower in Sulaymaniyah than in Dohuk or Erbil: 175,000 (150 USD), compared to 215,000 IQD (180 USD).
- 48% of renting households reported possessing written contracts and 47% reported having verbal agreements, whilst 5% had neither a written contract nor verbal agreement. The highest proportion of renting households without either was recorded in Sulaymaniyah (12%), followed by Dohuk (10%).
- Amongst households with some form of rental contracts, households in Dohuk reported significantly shorter contract lengths than those in Erbil in Sulaymaniyah: three months compared to ten for written contracts, while the average length of a verbal agreement was less than one month.
- All households had an electricity connection providing at least two hours of electricity per day, with the vast majority having six or more hours per day (97%). Almost all households did not experience any shortage of cooking or heating fuel in the 30 days prior to interview (99%).
- At least one shelter issue was observed in over half of all households (58%). Of shelters with at least one issue identified, the most frequently observed issue was damp walls (30%), followed by broken windows (28%) and rodents (23%).

### WASH

- All households reported having access to functional latrines. The average ratio of facilities to household members was 1:2.
- The majority of households reported using a private connection to the municipal network as their primary source of all-purpose water (86%) and drinking water (89%), although perceived quality of water varied by governorate. A higher proportion of households in Dohuk did not perceive the water to be safe to drink: 59% compared to 14% in the other two governorates.
- Of the households that perceived their water not to be safe to drink, over half did not use any water treatment method (52%). At governorate level, a smaller proportion of households in Erbil used filters than in the other two governorates: 18% compared to 60%.
- The majority of households (83%) did not experience any days without access to drinking water in the 30 days prior to interview. However, 8% of households reported experiencing shortages of up to one week, and 9% of households for one week or more. Considerably fewer households in Dohuk experienced water shortages than in other governorates: 2% compared to 22%. Over half of households that experienced drinking water shortages reported reducing their consumption (55%) as a means of coping with the lack of access.

### Health

- Across the KR-I, 29% of households had at least one member suffering from a chronic illness at the time of interview, the vast majority of whom reportedly took medication and received treatment regularly (93%). For a

<sup>4</sup> Dependency ratio is calculated by the number of working-aged adults (18 to 59 years) as a proportion of the total household population.

quarter of households, there was at least one member over the age of five suffering from a chronic illness, and for 3%, at least one member aged five or under. In 1% of households there was at least one member in each age group suffering from a chronic illness

- In addition, 6% of households had at least one member with a permanent disability. The demographic group with the highest frequency of households with a member with a disability was males aged 18 to 59 (39%). The most frequently cited type of disability was physical (73%). A further 13% of households reported that at least one household member suffered from a health issue in the two weeks prior to interview.<sup>5</sup> The majority of these households reportedly sought professional medical treatment (85%); of these households, 85% visited a public health facility.
- However, the relatively higher proportion of households in Dohuk reporting at least one member with a chronic illness or experiencing a health issue compared to other governorates (43% and 38% compared to 25% and 6% respectively) reflects greater health needs amongst households in Dohuk.
- Findings also suggest that there is a particular need to improve awareness and access to information about the availability of free public health services in Dohuk, as fewer households were aware that Syrian refugees have this entitlement (35% compared to 81% in Sulaymaniyah or 93% in Erbil).
- 95% of households had at least one woman of reproductive age (12 to 59 years), 35% of which had at least one woman who was pregnant and/or lactating at the time of interview. Of these households, approximately half visited private ante-natal clinics (52%), whilst the remainder attended public clinics.
- Amongst the total population of children aged five and under, 73% had been vaccinated against polio, 73% against measles, and 70% against diphtheria, tetanus, and pertussis (DTP).

### Food security

- The majority of households (80%) reported purchasing from a store or market as the primary means of obtaining food in the 30 days prior to interview. However, a greater proportion of households in Dohuk purchased food on credit than in other governorates: 34% compared to 13%. This may indicate greater economic vulnerability amongst households in the governorate.
- Almost all assessed households had an 'Acceptable' Food Consumption Score (FCS; 99%); 1% of households had a 'Borderline' FCS, and less than 1% households scored 'Poor'.<sup>6</sup> Furthermore, the vast majority of households had eaten three meals in the day prior to interview (92%) and 0% of households reported having no meals.
- Across the KR-I, 67% of households used at least one consumption-based coping strategy in the seven days prior to interview due to insufficient access to food. Households in Sulaymaniyah had the highest proportion of households using at least one coping strategy compared to the other governorates (87% compared to 63%), and the highest proportion using three or more: 36% compared to 10%.
- Of households who used one or more strategies to cope with insufficient access to food, the most commonly employed strategies involved dietary change (87%), almost half rationed their food (49%), and over a quarter attempted to increase short-term household food availability (27%).<sup>7</sup> A higher proportion of households in Sulaymaniyah employed rationing strategies, (68%), compared to Erbil (42%) or Dohuk (40%).
- Average household food expenditure in the 30 days prior to interview was reportedly nearly 250,000 IQD, or over 200 USD, across the KR-I.<sup>8</sup> For all households, the average food expenditure as a share of total household expenditure was 42%, which did not vary considerably across governorates.

<sup>5</sup> Households were asked to report the number of members that fit each category and may therefore be represented in multiple categories.

<sup>6</sup> The food consumption score was calculated using WFP's Consolidated Approach to Reporting Indicators of Food Security (CARI), and measures households' current status of food consumption based on the number of days per week a household is able to eat items from nine standard food groups weighted for their nutritional value.

<sup>7</sup> For this analysis, dietary change involved relying on less preferred and less expensive foods. Rationing strategies included limiting portion sizes, reducing portion sizes for adults, and reducing the number of meals eaten per day. Increasing short-term household food ability covered borrowing food and exchanging food for diversity. Finally, decreasing numbers of people refers to households that sent minors (under 18) to work.

<sup>8</sup> Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017.



- However, considerable variations in average food expenditure were found across all governorates. The lowest average expenditure was reported in Sulaymaniyah (170,000 IQD), and the highest in Dohuk (295,000 IQD), meaning that total expenditure on food was much lower amongst households in Sulaymaniyah.
- These findings suggest that households in Sulaymaniyah governorate may face greater difficulties in accessing sufficient amounts of food as well as maintaining sustained access to food in the longer term, when compared with households in Dohuk and Erbil.

### Livelihoods

- 91% of households had a source of income in the prior 30 days. For 38% the primary source was agricultural wage labour, followed by skilled wage labour (21%), and low skilled service (19%).
- In 74% of households a male member aged 18 to 59 worked in the seven days prior. The highest rate of employment for this group was recorded in Sulaymaniyah (82%), and lowest in Dohuk (68%).
- Employment among minors emerged as a particular concern. Almost a fifth of households reported a male minor, 12 to 17 years, working in the week prior to interview (18%). This was particularly high in Sulaymaniyah (24%) compared to Dohuk (15%) or Erbil (17%). This was not reported as a coping strategy, which may suggest that this is a more regular behaviour among households, as indicated by the high proportion of boys not anticipated to attend formal school, due to needing to work.
- At the KR-I level, average gross household income in the 30 days prior to interview was reportedly 540,000 IQD (455 USD). The average was considerably lower in Sulaymaniyah compared to the other two governorates: 460,000 IQD (385 USD) compared to 555,000 IQD (470 USD). However, the average net income in Sulaymaniyah was + 20,000 IQD (20 USD). In contrast, households in Dohuk and Erbil had a negative net income: -150,000 IQD (-125 USD) and -25,000 IQD (-20 USD), respectively. This highlights that households in the two governorates may be accruing debt each month, with households in Dohuk more so than those in Erbil.
- 83% of total household expenditure went towards essential needs of food, rent, and utilities. Households in Erbil had the highest proportion of expenditure on essential needs (85%), compared to 83% in Sulaymaniyah and 77% in Dohuk. The breakdown of total household expenditure by governorate for food was: 42% in Dohuk, 43% in Erbil, and 39% in Sulaymaniyah. For rent: 28% in Dohuk, 34% in Erbil, and 37% in Sulaymaniyah.
- Across the KR-I, 68% of households were in debt; this was significantly higher in Dohuk (79%), compared to the other two governorates (65%). Furthermore, although the vast majority of households employed livelihoods-based coping strategies in the 30 days prior to interview (90%), households in Dohuk had both a more prevalent, and more extensive reliance on debt as a coping strategy. Seventy-three percent (73%) of households in Dohuk relied on borrowing or had exhausted this strategy, compared to 51% of households in the other two governorates. The findings indicate a considerable and long-term household reliance on debt in Dohuk in particular.

### Basic needs

- 23% of households were unable to afford basic needs at some point since arriving in their current locations. Of those households that have been unable to afford basic needs, the most frequently unaffordable needs were: shelter (64%), followed by healthcare (59%), food (45%), and water (23%). Inability to afford basic needs varied considerably by governorate: 7% in Dohuk, 23% in Erbil, and 44% in Sulaymaniyah. Although households in Sulaymaniyah had a positive average net income whereas households in Dohuk and Erbil did not, they reported the lowest average gross household income overall, which may reflect the impact of low income on purchasing power.<sup>9</sup>
- The most frequently cited priority needs for households were cash assistance for housing (71%), access to employment (55%), and more food (31%). However, this varied slightly between governorates, with 76% of households in Dohuk and Erbil reporting cash assistance for housing as a priority need. 68% of households

<sup>9</sup> Average gross household income in Sulaymaniyah was 460,000 IQD (385 USD), compared to 555,000 IQD (470 USD) in Dohuk and Erbil.

in Erbil also identified access to jobs and employment as a priority. Almost half of households in Sulaymaniyah and Dohuk needed a greater quantity of food (46%) compared to 22% in Erbil. A quarter of households across the KR-I needed better quality food (24%).

### Access to public services and information

- The vast majority of households perceived access to public services such as education, shelter, or health in their area as neutral (75%), and 19% found such services to be good or excellent. Of the households that reported access to be 'bad' or 'very bad' (6%), 61% reported that this was due to insufficient funds.
- The majority of households reported friends and family to be their main source of information (79%), followed by the internet and social media (72%), and television (60%). The most trusted sources of information reflected those most frequently used, with 58% of households reporting television as their most trusted source, followed by friends and family (47%), and the internet and social media (42%). In Sulaymaniyah, 47% of households also used community leaders, and 45% cited them as one of their most trusted sources, reflecting the higher proportion of households in the governorate reporting regular personal access to their local community leader.
- Two-thirds of the households highlighted information about job vacancies and aid distributions (65% and 63% respectively) as the most important topics they needed information on, further highlighting access to employment as a priority for many households.

### Education

- Almost half of households had at least one school-aged child (44%).<sup>10</sup> Of children in this age group, 64% reportedly attended formal school in the previous school year, 1% attended informal education (IFE) programmes, and 12% had dropped-out within the last year, indicating that 23% had been out of formal school for at least one year. Overall attendance was relatively consistent across the governorates, but generally higher for all school-aged girls than boys (67% compared to 64%).
- Attendance was highest for children aged 12 to 14 years, and reduced considerably for adolescents aged 15 to 17. Drop-out rates differed for boys and girls, however. The drop-out rate remained stable at 5% for girls between the ages of 6 to 11 and 12 to 14, and then increased considerably to 24% amongst adolescent girls. The most notable increase in drop-outs for boys occurred between the ages of 6 to 11, and 12 to 14, where the rate doubled from 9% to 20%, after which it remained constant.
- The overall proportion of school-aged children that previously attended and were predicted to attend was roughly equivalent: 64% and 65%. However, predicted attendance decreased, comparative to previous attendance, for children aged 12 to 17. The decrease was most considerable amongst adolescent boys, aged 15 to 17 years: from 53% to 37% in the upcoming school year.
- For adolescents, the most frequently cited reasons for predicted non-attendance highlighted household economic security as a factor. For boys aged 12 to 17, this was needing to work (36%), and for girls aged 12 to 14 years, a lack of funds (56%). Consequently, addressing overall household economic vulnerability may address lower education attendance rates amongst school-aged children.

### Protection

- 44% of households with children aged 3 to 17 did not have access to safe, child-friendly spaces outside of the home. However, the vast majority of households, felt physically safe when leaving the home (93%).
- Approximately half of all households reported having regular personal access to their local community leader (51%), although this ranged across governorates: 63% in Sulaymaniyah, 52% in Erbil, and 37% in Dohuk.
- Nearly all households (96%) were reportedly registered with UNHCR. However, a lower proportion of households were reportedly in possession of KR-I residency cards (70%).
- Nearly two-thirds of households (66%) knew where to obtain civil documentation, which is essential for national registration procedures. However, Erbil had both the lowest proportion of households with KR-I residency

<sup>10</sup> "School-aged" was defined as 6-17 years old.



(62%), and the highest proportion that did not know where to obtain civil documentation (33%), highlighting a need for legal support services or access to information about documentation amongst households in Erbil.

### Social cohesion

- Over half of households viewed community support upon arrival in neutral terms (56%). Moreover, 42% of households perceived the degree of support they had received from their local communities when they arrived to be 'good' or 'extremely helpful'. Furthermore, 75% perceived levels of hospitality to have stayed the same in the three months prior to interview.
- Less than 1% of households had reportedly been involved in a civil or legal dispute in the three months prior to interview. However, given potential sensitivities regarding this subject, it is possible that the prevalence of such disputes was underreported.

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## Geographic Classifications

<b>KR-I</b>	Kurdistan Region of Iraq, a devolved federal entity in the north of Iraq
<b>Governorate</b>	The highest administrative boundary below the national level. The KR-I has three governorates: Dohuk, Erbil, and Sulaymaniyah
<b>District</b>	Governorates are divided into districts
<b>Host Community</b>	Communities in their area of origin accomodating displaced persons (including both internally displaced persons and refugees)

## Abbreviations and Acronyms

<b>3RP</b>	Regional Refugee & Resilience Plan
<b>ANC</b>	Ante-Natal Clinic
<b>AoO</b>	Area of Origin
<b>CoO</b>	Country of Origin
<b>DPT</b>	Diphtheria, Pertussis, and Tetanus vaccination
<b>FCS</b>	Food Consumption Score
<b>KII</b>	Key Informant Interview
<b>KR-I</b>	Kurdistan Region of Iraq
<b>MSNA</b>	Multi-Sector Needs Assessment
<b>ODK</b>	Open Data Kit
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>WASH</b>	Water, Sanitation, and Hygiene
<b>WFP</b>	World Food Programme



## Introduction

Since the outbreak of violence in 2011, large numbers of Syrians were displaced to neighbouring countries of Iraq, Jordan, Lebanon, and Turkey. Now in the seventh year of conflict, the United Nations High Commissioner for Refugees (UNHCR) estimates that 244,235 Syrian refugees reside in Iraq, the vast majority of whom (97%) have settled in the Kurdistan Region of Iraq (KR-I).<sup>11</sup> As of September 2017, around 146,000 of these refugees were registered as living in host communities, while the remaining 89,000 have settled in formal camps, across the three governorates of the KR-I: Dohuk, Erbil, and Sulaymaniyah.

The vulnerability of these populations has been compounded by escalating conflict in Iraq since early 2016; at the time of data collection, International Organization for Migration's Displacement Tracking Matrix (IOM DTM) recorded 1,092,204 IDPs living across Dohuk, Erbil, and Sulaymaniyah governorates.<sup>12</sup> To support displaced persons, local officials, international aid agencies as well as local aid agencies, offer a range of assistance and services. However, this increase in population has resulted in a corresponding demand on municipal and aid services in the most-affected areas.

Between 21 August and 9 September 2017, IMPACT Initiatives, in support of UNHCR, conducted a third Multi-Sector Needs Assessment (MSNA) of Syrian refugees residing in KR-I host communities. The primary objective of this research is to provide comprehensive and evidence-based understanding of multi-sectoral needs and vulnerabilities amongst Syrian refugees living in KR-I host communities. Furthermore, findings across and within sectors will be used to inform humanitarian and governmental planning, and specifically to guide the Regional Refugee & Resilience Plan (3RP) process.

In order to identify gaps in assistance provided in the current humanitarian landscape, this MSNA was broader in scope than the previous iterations looking at out-of-camp Syrian refugees in the KR-I.<sup>13</sup> The assessment produced findings at both district and governorate level, reflecting the need for more granular information about the out-of-camp population, and how their needs may differ based on location. Furthermore, given the prolonged nature of displacement, indicators were expanded to cover more complex and development focused issues, such as a more comprehensive questioning of income and livelihoods, as well as protection, information, and access to public services.

This report provides a detailed description of the methodology and challenges and limitations encountered, and then outlines the key assessment findings, to the governorate level where generalisable with a quantifiable degree of precision, organised into the following sections:

- Demographics
- Movement and Intentions
- Shelter
- WASH
- Health
- Food security
- Livelihoods
- Basic Needs
- Access to Public Services and Information
- Education
- Protection
- Social Cohesion

<sup>11</sup> UNHCR Information Sharing Portal. Accessed 30.10.2017.

<sup>12</sup> IOM Iraq, Displacement Tracking Matrix, DTM Round 78, August 2017. Accessed 30.10.2017.

<sup>13</sup> The first MSNA of Syrian refugees residing out-of-camp in the KR-I was conducted in September 2014, and the second in March of 2015.

## Methodology

The assessment was implemented using a quantitative data collection methodology, consisting of a structured questionnaire administered to a random sample of UNHCR-registered cases residing in KR-I host communities.<sup>14</sup> Data collection took place between 21 August and 9 September 2017. In total, 1,198 Syrian refugee cases were interviewed and asked to report on their case, and any other members in the wider household.<sup>15</sup>

### Objectives and research questions

The overall objective of the assessment was to provide a comprehensive, evidence-based understanding of multi-sectoral needs of Syrian refugees residing outside of camps in Dohuk, Erbil, and Sulaymaniyah, towards informing the 2018 – 2019 Regional Refugee & Resilience Plan (3RP).

This was achieved through answering the following research questions:

- *Research Question 1:* What are the priority needs of Syrian refugees in KR-I host communities, within and among sectors?
- *Research Question 2:* Where are the gaps in assistance provided to meet the specific needs of Syrian refugees in the KR-I host communities?
- *Research Question 3:* Where is targeted programme intervention most needed across the KR-I to cover those gaps?

### Sampling

A stratified simple random sample was drawn, using the UNHCR Refugee Assistance Information System (RAIS) database of case registration figures for Syrian refugees living in host communities in KR-I. The sample was stratified by district of residence, and therefore calculated based on UNHCR figures of the registered population of interest in each district (see Table 1). In order to maximise district-level coverage, and ensure comparability with the MSNA II conducted in 2015,<sup>16</sup> districts where the number of UNHCR registered cases was less than 120 were combined into a single sampling unit.<sup>17</sup>

Where district populations were 68 cases or smaller, a census was attempted. For district populations larger than this, random samples were drawn to yield a confidence level and margin of error of 90% and 10% at the district level, and 95% and 5% at the governorate level. This ensured a final confidence level of 96% and margin of error of 3% at the KR-I level. The calculated sample was then increased by 45% to create a buffer. This ensured the selected beneficiary lists were large enough to contact the necessary sample, and also accounted for cases that had moved district, or were unwilling or unable to respond. The sample size, representing the final total number of cases interviewed for the assessment, is shown in Table 1.

### Data collection

Direct data collection was conducted in all districts between 21 August and 9 September 2017. In order to check addresses and confirm participation, enumerators established a call-centre in Dohuk to call cases each morning prior to deploying to data collection areas.

Enumerators recorded interview responses digitally using Open Data Kit (ODK), a quantitative data collection smartphone application, supervised by a team of IMPACT field coordinators, and managed by the Operations Coordinator and Assessment Officer. Although the unit of sampling was the refugee case, questions were asked concerning the whole household in which each case resided.

<sup>14</sup> See Annex 1 for the full questionnaire.

<sup>15</sup> Household is identified as a group of one or more cases sharing the same shelter, while a case is identified as a group of people registered with UNHCR as a single family unit, and sharing a registration ID.

<sup>16</sup> REACH Iraq, MSNA II: Multi-Sector Needs Assessment of Syrian Refugees Residing in Host Communities, April 2015.

<sup>17</sup> In Dohuk, the combined districts included: Akre, Bardarash, and Shekhan. In Erbil, the combined districts included: Choman and Soran. In Sulaymaniyah, the combined districts included: Chamchamal, Darbandihkar, Dokan, Halabja, Kalar, Penjwin, and Rania.

Completed interview forms were uploaded to the UNHCR Kobo server hosted in Switzerland and stored on the IMPACT HQ Kobo account managed by IMPACT HQ data focal points, in compliance with contractual information management requirements with UNHCR.

Table 1: Population of interest and sample size, by governorate and district

Governorate	District	District population (cases)	District sample (cases)
Dohuk	<i>Dohuk combined</i>	990	52
	<i>Amedi</i>	594	83
	<i>Dohuk</i>	2,132	105
	<i>Sumel</i>	4,071	80
	<i>Zakho</i>	3,266	94
	<i>Dohuk subtotal</i>	11,053	414
Erbil	<i>Erbil combined</i>	233	69
	<i>Erbil</i>	31,330	131
	<i>Khabat</i>	156	0
	<i>Koisnaj</i>	527	82
	<i>Makmur</i>	56	16
	<i>Mergasur</i>	49	22
	<i>Rawanduz</i>	38	17
	<i>Shaqlaw</i>	678	78
	<i>Erbil subtotal</i>	33,067	415
Sulaymaniyah	<i>Sulaymaniyah combined</i>	1,367	74
	<i>Pshdar</i>	2	2
	<i>Said Sadeq</i>	215	80
	<i>Sharbazher</i>	21	21
	<i>Sulaymaniyah</i>	7,430	192
	<i>Sulaymaniyah subtotal</i>	9,035	369
<i>KR-I</i>		53,155	1,198

## Analysis

Once collected, all data was cleaned by an IMPACT assessment officer before conducting analysis. As a stratified sampling methodology was utilized, records were weighted to ensure the population is represented accurately, and proportionally, in the results.

Analysis was conducted using SPSS quantitative statistical analysis software, with relevant statistical significance tests performed. Type of test used and results are footnoted throughout the report, where relevant. This was conducted to ascertain where an observed difference between two groups in the results existed in the population from which the groups were sampled, or was a product of a sampling error. Where the p-value produced by the test was less than or equal to 0.05 the result was considered to be statistically significant with a 5% probability of observing the value by chance.<sup>18</sup>

<sup>18</sup> The significance level was established as 5% (or p-value at 0.05), in accordance with standards of best-practice in statistical significance testing for quantitative research in the social sciences.

## Challenges and Limitations

- **Enumerators encountered high non-response rates when contacting randomly selected cases.** The majority of phone numbers listed in the RAIS database were found to no longer be operational, either because the number had been disconnected, the SIM card was given to someone else, or the mobile phone was switched off. As a result, enumerators had to increase the sample buffer to over 50%, and therefore greatly increase the number of calls needed. In particular, this created a challenge in districts where a census of all cases was conducted, as enumerators exhausted the number of cases that could be called and at times still did not meet the sample target.
- **Due to small district level sample sizes, differences in district level findings could not be tested for statistical significance.** Consequently, all findings are reported primarily at KR-I level and disaggregated to governorate level when differences between governorates are significant.
- **Biases due to self-reporting of household level indicators may exist.** Certain indicators may be under-reported or over-reported, due to the subjectivity and perceptions of respondents. These biases should be taken into consideration when interpreting findings, particularly those pertaining to sensitive indicators.
- **Findings based on the responses of a subset of the sample population have a lower confidence level and higher margin of error.** For example, questions asked only to households with school-aged children, or only to households who reported needing access to healthcare services, will yield results with a lower precision. Findings based on small subsets of the sample may be indicative only and are noted as such in the report.



## Findings

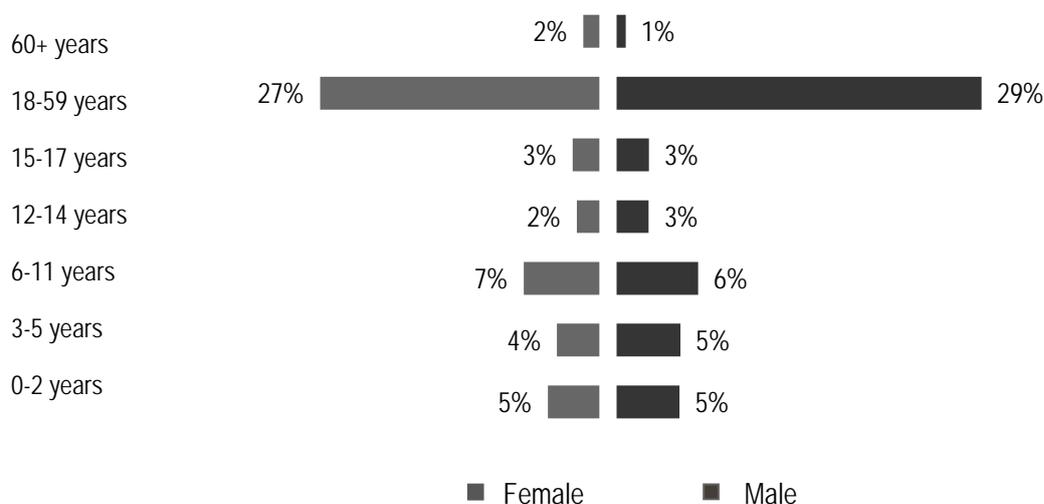
### Demographics

#### Population Demographics

Overall, demographic trends were relatively similar across the KR-I. Males and females represented roughly equal proportions of the population, at 51% and 49% respectively.

Children under the age of 18 comprised 42% of the total population, with children aged 5 years and under comprising 19%. Working-age adults (18 to 59 years) constituted the majority of the population, accounting for 55% of all registered refugees.<sup>19</sup>

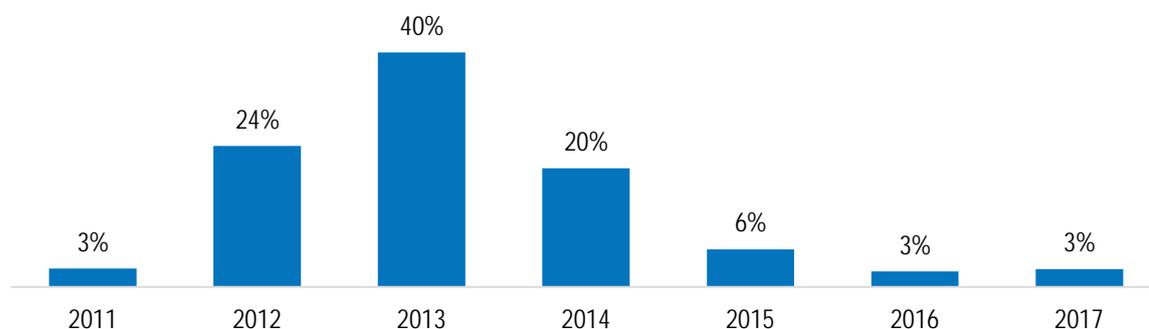
Figure 1: Age and sex demographics of Syrian refugees in host communities in KR-I



#### Year of Arrival

For 40% of households, the first member arrived in the Kurdistan Region of Iraq in 2013. For a further 24%, the first member arrived in 2012 (24%), and in 2014 for another 20%. However, variation across governorates in the proportion of households that arrived in 2012 was notable for Dohuk in relation to the other governorates: 43% compared to 19% in Erbil and Sulaymaniyah. Correspondingly, 11% of households in Dohuk arrived in 2014 and 2015, compared to 40% in the other governorates.<sup>20</sup>

Figure 2: Proportion of households by year that the first member of the household arrived in KR-I



<sup>19</sup> Governorate level variations were statistically significant, but minimal, with no more than 1% or 2% differences, and have therefore not been reported here.

<sup>20</sup> Governorate level variations were significant for the proportion of households that arrived in their location at the time of interview in 2012, using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Sulaymaniyah and Erbil. Comparisons are therefore reported between Dohuk and the combined 'other' districts.

## Household Demographics and Vulnerability

Certain core household characteristics were assessed. These serve both as independent indicators, as well as potential disaggregations through which to better contextualize multi-sectoral findings and understand overall household vulnerabilities.

Female headed households were typically more vulnerable, based on the understanding that there may be fewer working-aged males in the household to contribute to income generation.<sup>21</sup> At KR-I level, the vast majority of households were male headed (94%), with only 6% of households reporting having a female head. However, households in Sulaymaniyah may be more economically vulnerable, as 11% were female headed, compared to 4% in Dohuk and 5% in Erbil. The average age of the head of household was 36 years across the KR-I.<sup>22</sup>

Average household size at KR-I level was five individuals. However, there were slight variations observed in the average household size across governorates.<sup>23</sup> Household size is a particularly useful indicator when assessing household vulnerability. For example, smaller, and especially single person households, may be economically vulnerable as there are fewer members to generate income. Conversely, larger sized families typically require greater resources to afford basic needs such as food. Average household size is therefore an important indicator when analysing economic vulnerability and food security.

Table 2: Average size of household, by governorate

Governorate	Average size of household
<i>Dohuk</i>	6
<i>Erbil</i>	5
<i>Sulaymaniyah</i>	4
<i>KRI-I</i>	5

Beyond average size, the demographic composition of the household is also an important indicator through which to assess vulnerability. The age dependency ratio, for example, indicates the proportion of the household that are members of the adult working-age population, versus those that are typically dependent i.e. children and the elderly, and therefore levels of household financial stress.<sup>24</sup> The average dependency ratio was consistent across governorates, at 49%.<sup>25</sup>

Households where the principal applicant or head has a chronic illness may also be more vulnerable, as the individual, who is typically the primary income earner, is likely to be limited in their capacity to work, if able to at all. At the KR-I level, 17% of households reported that the head of household was suffering from a chronic illness.<sup>26</sup> However, the extent to which a chronically ill head of household may signify economic vulnerability is potentially dependent upon the type of illness. Of the 17% of households, the most frequently cited type of chronic illness was high blood pressure (36%), followed by diabetes (33%), and heart disease (27%).<sup>27</sup>

These findings suggest that in terms of demographic indicators, governorate level variations in household vulnerability were minor. However, the variation in household size may be significant when analysing household income, expenditure, economic vulnerability, and food security.

<sup>21</sup> Head of household is defined as the principal applicant of the UNHCR case and the main decision-maker regarding the household budget and expenditures.

<sup>22</sup> Governorate level variations were not statistically significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

<sup>23</sup> Governorate level variations were statistically significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

<sup>24</sup> The dependency ratio is calculated here as the number of working-age adults (18 to 59 years) in the household, as a proportion of the total household population. This does not represent the comprehensive dependency ratio, which accounts for additional specific needs such as persons with disabilities or chronic illness.

<sup>25</sup> Governorate level variations were not statistically significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

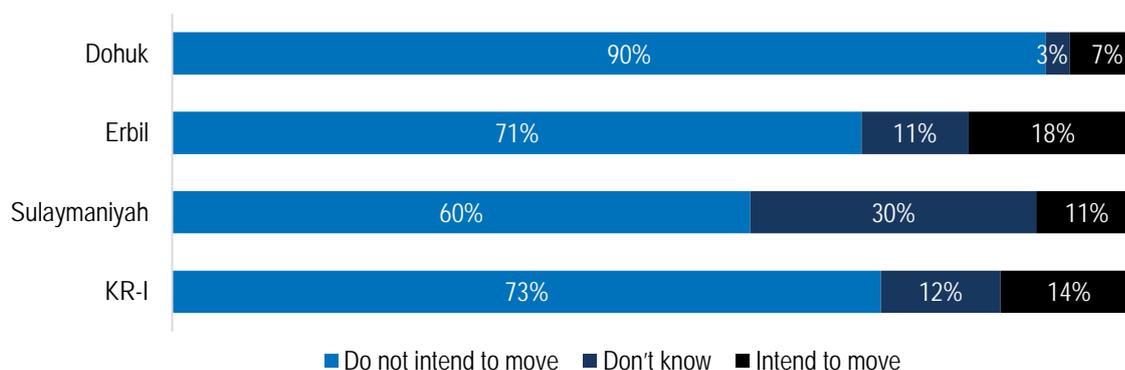
<sup>26</sup> Governorate level variations were not statistically significant using Pearson's Chi-squared significance tests and multiple comparison tables.

<sup>27</sup> Multiple options could be selected.

## Movement and Intentions

Around three quarters of households across the KR-I did not intend to move to a different location in the three months following the interview (73%).<sup>28</sup> The lowest proportion of households intending to move was recorded in Sulaymaniyah (60%), and the highest in Dohuk (90%). The highest proportion of households intending to move was found in Erbil (18%).

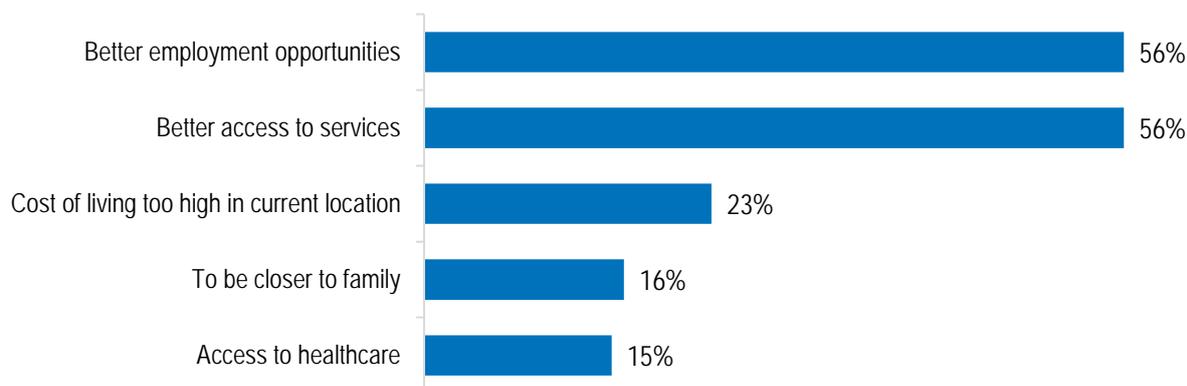
Figure 3: Proportion of households that intend to move to a different location in the three months following data collection, by governorate



Of the 14% of households across the KR-I that intended to move in the three months after interview, the majority did not know when (76%). However, 18% intended to leave within the two weeks following interview, and 8% in more than two weeks.<sup>29</sup>

Over half (54%) of households that intended to move wanted to move to a different country (not including Syria), whilst 20% intended to return to their Area of Origin (AoO) in Syria. The remainder intended to stay in the same district (21%) or governorate (6%).<sup>30</sup> The most frequently cited reasons for planning to move were better employment opportunities (56%), and better access to services (56%).

Figure 4: Top five most frequently cited reasons for intending to leave location, of households intending to leave<sup>31</sup>



These findings may indicate a small portion of the population who are particularly economically vulnerable, and who are seeking to improve their standard of living and livelihoods security through moving from their current location.

<sup>28</sup> Governorate level variations were statistically significant, using Pearson's Chi-squared significance tests.

<sup>29</sup> Due to the small sample size of households that intended to move in the next 3 months after interview, further disaggregation by intended time, location, or reason for, movement could not be tested as statistically significant at the governorate level, using Pearson's Chi-squared significance tests.

<sup>30</sup> As above for when households intended to move.

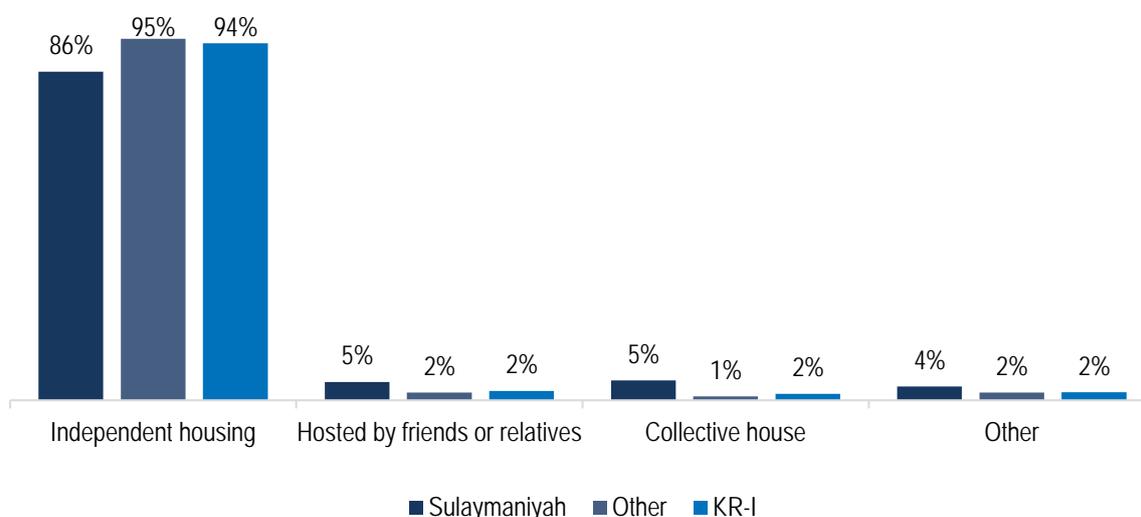
<sup>31</sup> Multiple options could be selected.

## Shelter

### Shelter Type and Capacity<sup>32</sup>

The vast majority of households lived in independent housing (94%). An additional 2% were hosted by friends or relatives, another 2% lived in collective housing, and 2% 'other'.<sup>33</sup> This shows an increase in cases living in independent housing, when compared to MSNA II, conducted in 2015, where 80% of refugee households reported living in independent housing, 17% in shared/collective housing, 4% were hosted by friends or relatives and 1% reported other.<sup>34</sup> However, there was a notable variation in the proportion of households that lived in independent housing between Sulaymaniyah and the other two governorates: 86% compared to 95%. Correspondingly, a higher proportion of households in Sulaymaniyah were living in collective housing or hosted by friends or relatives.<sup>35</sup>

Figure 5: Proportion of households by type of accommodation and governorate



The average number of rooms occupied by a household was three, excluding kitchen and WASH facilities.<sup>36</sup> However, there was a small variation at the governorate level, with the highest average in Dohuk and Erbil, and the lowest in Sulaymaniyah.<sup>37</sup> The average ratio of household member to room was one person to just over half of one room, or two persons to one room (1:0.6).<sup>38</sup>

Table 3: Average number of rooms (excluding kitchen and WASH facilities) in the household's shelter, by governorate

Governorate	Average number of rooms
Dohuk	3
Erbil	3
Sulaymaniyah	2
KRI-I	3

<sup>32</sup> The shelter capacity was measured by average number of people per room. The number of metres per person was not recorded.

<sup>33</sup> 'Other' includes 'collective center' (11 households), 'garage' (1 household), 'unfinished shelter' (8 households), and 'other' (5 households).

<sup>34</sup> REACH Iraq, MSNA II: Multi-Sector Needs Assessment of Syrian Refugees Residing in Host Communities, April 2015.

<sup>35</sup> Governorate level variations were significant for the proportion of households by type of accommodation using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Comparisons are therefore reported between Sulaymaniyah and the combined 'other' districts.

<sup>36</sup> Given different accommodation types, this can be both the average number of rooms that a private shelter consists of, or average number of rooms occupied by a household out of a larger shelter, for households in communal or shared accommodation.

<sup>37</sup> Governorate level variations were statistically significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

<sup>38</sup> Governorate level variations were not statistically significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

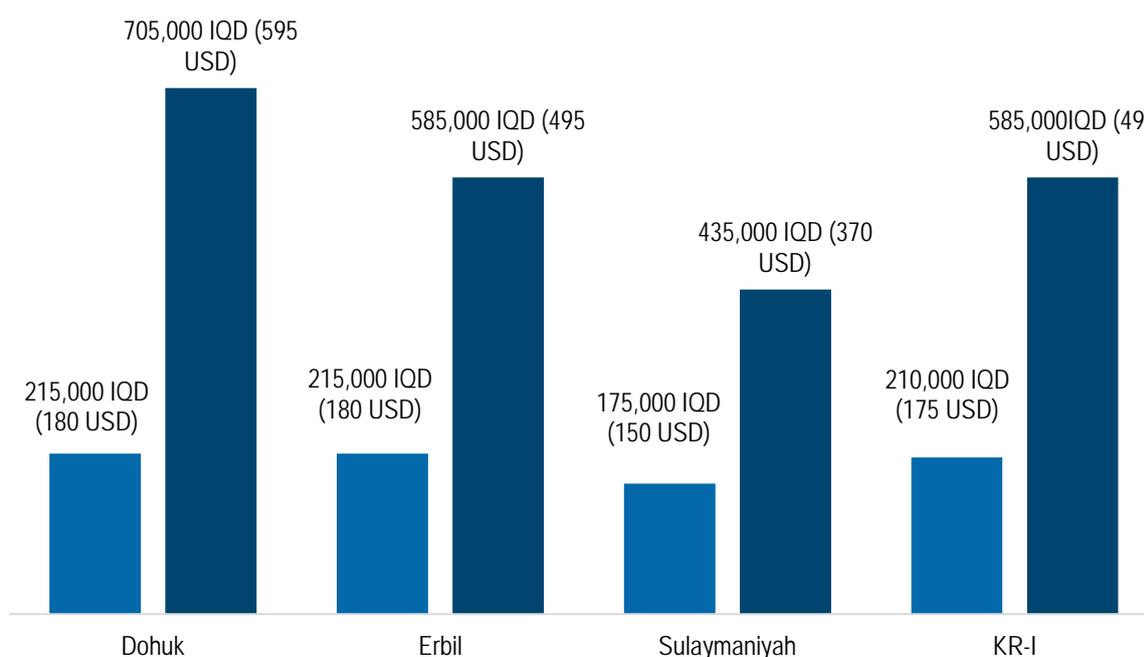
The larger proportion of households in Sulaymaniyah living in shared housing may explain why households in the governorate had the lowest average number of rooms, excluding kitchen and WASH facilities.

## Rent and Rental Contracts

The vast majority of households provided for their accommodation by renting (93%). Two percent (2%) of households provided for accommodation through labour exchange, and another 2% reported that their accommodation was free.<sup>39</sup> Over half of households with free accommodation were hosted by relatives and friends (56%).<sup>40</sup> Overall, the majority of Syrian refugee households in the KR-I host community were renting independent housing (90%).

Of households renting, the average cost of rent per month at the KR-I level was almost 210,000 IQD, or over 175 USD.<sup>41</sup> However, average cost of rent was much lower in Sulaymaniyah compared to the other two governorates: 83% of the KR-I average compared to 102%.<sup>42</sup> This may be a reflection of the lower proportion of households in independent housing in the governorate, as average rent was greater for independent housing than for collective housing or centres: just above 210,000 IQD (180 USD), compared to 135,000 IQD (115 USD).

Figure 6: Average cost of rent and total household expenditure per month in IQD (rounded to the nearest 5,000), by governorate



Over half of all households living in rented accommodation reported that they did not have a written rental contract (52%). As a proportion of all households that were renting accommodation, 48% had written contracts, and 47% had verbal agreements, whilst 5% had neither written contract nor verbal agreement (see Figure 7).<sup>43</sup>

<sup>39</sup> Governorate level variations level were not statistically significant using Pearson's Chi-squared significance tests and multiple comparison tables.

<sup>40</sup> This constituted 13 of 23 households in free accommodation. Given the small sample size, this finding should be considered as indicative only.

<sup>41</sup> Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017.

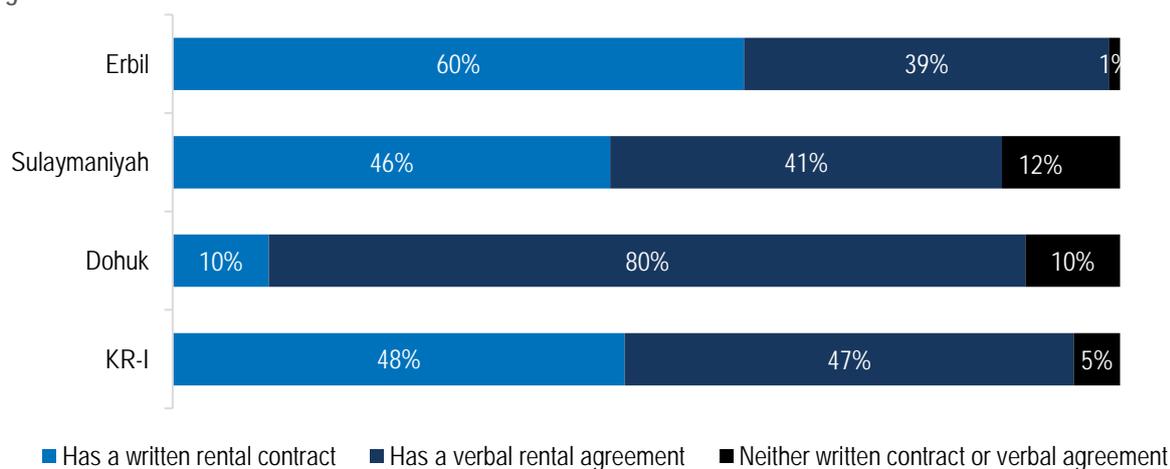
<sup>42</sup> Governorate level variations were significant for the proportion of households by type of accommodation using ANOVA statistical testing. However, Tukey's HSD multiple comparison tables found that the only significant variation was between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Comparisons are therefore reported between Sulaymaniyah and the combined 'other' governorates.

<sup>43</sup> Governorate level variations level were statistically significant using Pearson's Chi-squared significance tests and multiple comparison tables for proportion of renting households with a written rental contract, those with a verbal rental agreement, and those with neither.

However, there were considerable variations at the governorate level. In Dohuk, only 10% of households had written rental contracts, compared to 46% in Sulaymaniyah, and 60% in Erbil. However, the highest proportion of renting households with a verbal rental agreement was recorded in Dohuk (80%). This indicates that whilst not formal, the majority of households in Dohuk have at least an informal arrangement with landlords.

The highest proportion of renting households without either a written contract or verbal agreement was recorded in Sulaymaniyah (12%), closely followed by Dohuk (10%). These households are particularly vulnerable to exploitation by landlords, and would be disadvantaged in cases of tenancy disputes. Furthermore, a lack of formal evidence of tenancy may have implications for documentation, and consequently residency, highlighting potential cases in need of protection assistance in the form of legal counselling or representation.

Figure 7: Proportion of households living in rented accommodation and in possession of a rental contract, by governorate



Of the 48% of renting households with written rental contracts, the average contract length was 10 months.<sup>44</sup> Of the 47% of renting households with verbal agreements, the average length was lower: six months.<sup>45</sup> However, this varied by governorate. The average length of written contracts and verbal agreements was considerably lower in Dohuk (three months and less than one month respectively), compared to Sulaymaniyah and Erbil, where the average contract or agreement lengths were between nine and eleven months.

The average length of verbal rental agreements in Dohuk is particularly concerning given the large majority of renting households in the governorate, suggesting that there is **greater need for sustained and reliable housing options in Dohuk compared to other governorates.**

Table 4: Average length of written rental contracts and verbal rental agreements, by governorate

Governorate	Average length of written rental contract (months)	Average length of verbal rental agreement (months)
<i>Dohuk</i>	3	<1
<i>Erbil</i>	10	9
<i>Sulaymaniyah</i>	10	11
<i>KRI-I</i>	10	6

<sup>44</sup> Governorate level variations were significant for the average number of months for a written rental contract using ANOVA statistical testing. However, Tukey's HSD multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' governorates.

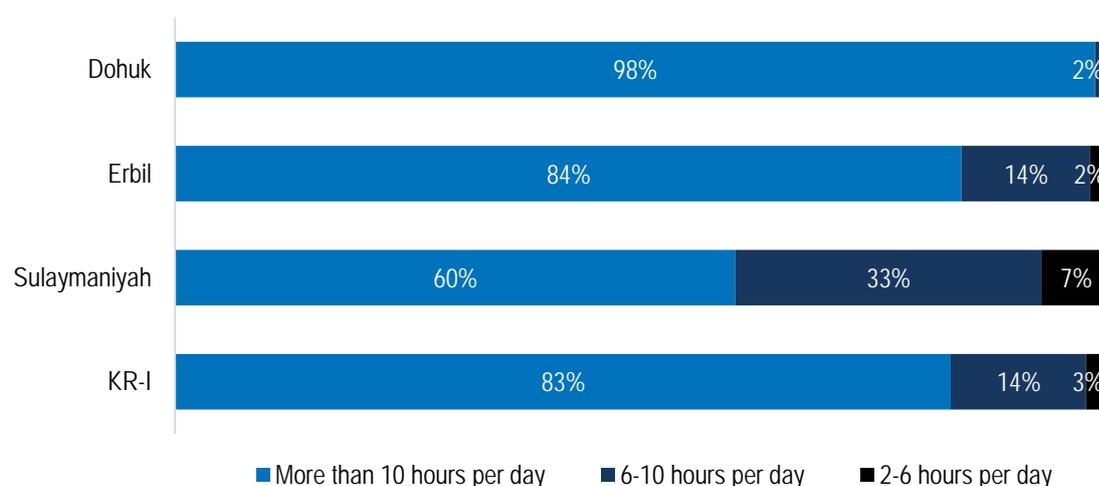
<sup>45</sup> Governorate level variations were statistically significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

Of all households (renting and non-renting), the vast majority had not been threatened with eviction in the 30 days prior to interview (98%). However, the proportion of households that had been threatened with eviction was significantly lower in Erbil (<1%, or 1 household), compared to the other governorates (4%).<sup>46</sup> Those that reported having been threatened with eviction constituted 20 households. Of these, 16 provided for accommodation through renting, of which: two had a written rental contract, eleven had a verbal agreement, and three had neither a written contract nor a verbal agreement.<sup>47</sup>

### Utilities: Electricity

In general, all households had at least two hours of electricity connection per day, with the vast majority having at least six hours per day (97%).<sup>48</sup> However, this did vary considerably across all three governorates, with nearly all households in Dohuk (98%) reporting having more than 10 hours of electricity per day, compared to 84% in Erbil and only 60% in Sulaymaniyah.<sup>49</sup>

Figure 8: Proportion of households by hours of electricity per day, by governorate



However, variation in hours of electricity per day does not appear to be linked to the source of electricity per se. The most common source of electricity across the KR-I was a municipal connection (92%), which was the most frequently used source in all governorates.<sup>50</sup> The second most commonly used source was a communal diesel generator; three quarters of households across the KR-I had access to one.

However, there were notable variations at the governorate level across all source types. Although the same proportion of households in Dohuk and Sulaymaniyah had access to a municipal connection (82%), a far higher proportion of households in Dohuk had access to a communal diesel generator (90%) than in Sulaymaniyah (49%).

<sup>46</sup> Governorate level variations were significant for the proportion of households that had been threatened with eviction in the 30 days prior to interview, using Pearson's Chi-squared significance testing. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates.

<sup>46</sup> Governorate level variations were statistically significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

<sup>47</sup> Findings related to households that had been threatened with eviction have been reported as figures and not proportions due to the small sample size. These findings should be considered as indicative only.

<sup>48</sup> With the exception of one household in Sulaymaniyah. Whilst these findings are representative of the refugee population in the community, this does not necessarily reflect the electricity access situation for the community as a whole. Further research would need to be conducted to provide this additional contextual information.

<sup>49</sup> Governorate level variations were statistically significant using Pearson's Chi-squared tests and multiple comparison tables.

<sup>50</sup> Governorate level variations were significant for the proportion of households by electricity source type, using Pearson's Chi-squared significance testing. Multiple comparison tables found that for communal diesel generators, all governorate variations were significant. However, for municipal connections and private diesel generators the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates.

Across the KR-I, 85% of households had access to two sources of electricity, and 15% to one. However, in Sulaymaniyah, 65% of households had access to two sources of electricity, compared to 90% in Dohuk and Erbil. This suggests that variation in hours of electricity per day may be related to the number of different sources available to households.

Table 5: Proportion of households with electricity connection, by source and governorate<sup>51</sup>

Governorate	Municipal connection	Communal diesel generator	Private diesel generator
Erbil	98%	77%	14%
Dohuk	82%	90%	27%
Sulaymaniyah	82%	49%	27%
KRI-I	92%	75%	19%

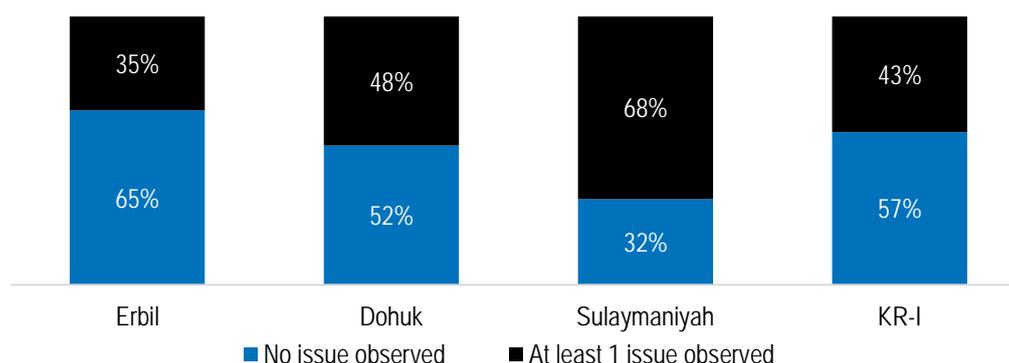
### Utilities: Fuel

Almost all households experienced no shortage of cooking fuel in the 30 days prior to interview (99%). This varied slightly at the governorate level, with 100% in Erbil, compared to 96% in the other governorates.<sup>52</sup> The majority of households purchased gas as their main source of cooking fuel (89%), followed by municipal gas (9%) and kerosene (2%).<sup>53</sup> However, variations at the governorate level were not notable. As with cooking fuel, the vast majority of households experienced no shortages of heating fuel in the 30 days prior to interview (<1%).<sup>54</sup> Over half of all households reported that Kerosene was their main source of heating fuel (59%), followed by oil (30%) and gas (7%).<sup>55</sup>

### Shelter Concerns

Enumerators were asked to report any shelter related concerns based on direct observation. Over half of all households did not have any observable shelter issues (57%), although this did vary at the governorate level.<sup>56</sup> Two thirds of households in Sulaymaniyah were observed as having at least one shelter issue (68%), compared to almost half in Dohuk (48%), and just over one third in Erbil (35%).

Figure 9: Proportion of households where one or more issues with the shelter were observed by enumerators, by governorate



<sup>51</sup> Multiple options could be selected.

<sup>52</sup> Governorate level variations were significant for the proportion of households that had not experienced fuel shortages, using Pearson's Chi-squared significance testing. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates.

<sup>53</sup> Governorate level variations were significant using Pearson's Chi-squared significance testing, for certain fuel sources. However, findings were not notable.

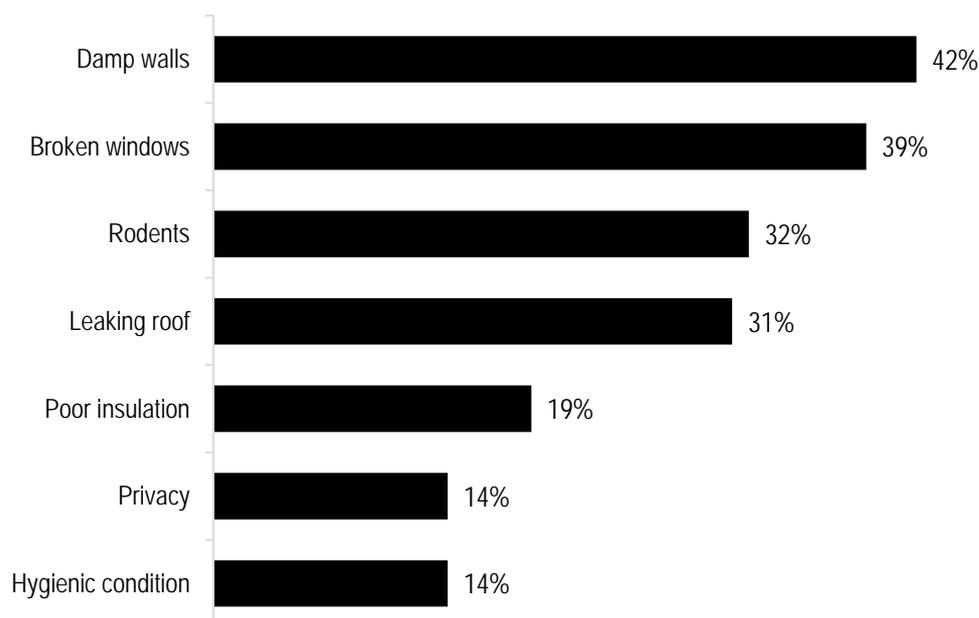
<sup>54</sup> Governorate level variations were not significant using Pearson's Chi-squared significance testing. Only 4 households reported experiencing shortages.

<sup>55</sup> Governorate level variations were not significant using Pearson's Chi-squared significance testing.

<sup>56</sup> Governorate level variations level were statistically significant using Pearson's Chi-squared tests and multiple comparison tables.

However, the proportion of households where three or more issues were observed was lower in Erbil (7%), compared to Dohuk or Sulaymaniyah (16%).<sup>57</sup> This highlights greater needs with respect to shelter quality in Dohuk and Sulaymaniyah. Of the 43% of households where at least one issue was observed, the most frequently observed issue was damp walls (42%), followed by broken windows (39%) and rodents (32%).<sup>58</sup>

Figure 10: Frequency of type of shelter concerns observed, of households with at least one issue



However, the most frequently cited type of issue observed varied considerably across governorates (see Table 6).<sup>59</sup> The most frequently observed issue in Dohuk was damp walls (80%). In Erbil, the most frequently cited concern was broken windows (54%), and in Sulaymaniyah, rodents (65%). Although this assessment did not quantify the severity of issues observed, the high instances of rodents in Sulaymaniyah is particularly concerning given potential related health risks.

Table 6: Frequency of type of shelter concerns observed, of households with at least one issue, by governorate

Governorate	Damp walls	Broken windows	Rodents	Leaking roof
<i>Dohuk</i>	80%	30%	35%	44%
<i>Erbil</i>	30%	54%	15%	30%
<i>Sulaymaniyah</i>	29%	15%	65%	19%
<i>KR-I</i>	42%	39%	32%	31%

<sup>57</sup> Governorate level variations were significant for the proportion of households by number of issues observed using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' districts.

<sup>58</sup> Multiple options could be selected.

<sup>59</sup> Governorate level variations were significant for the frequency of type of issue observed using Pearson's Chi squared test. However, multiple comparison tables showed that governorate level variations were not significant for the following types: 'poor insulation', 'privacy', and 'hygienic conditions', and have therefore not been reported on.

## Shelter Assistance

Across the KR-I, 6% of households reported receiving shelter assistance in the 6 months prior to interview. However, there was a significant variation between Sulaymaniyah, where no households reported receiving shelter assistance, compared to the other two governorates, where 7% of households reported receiving assistance.<sup>60</sup> This type of assistance mainly refers to support for shelter maintenance, and did not clarify any specific assistance dedicated to support the payment of rent.

Over two thirds (68%) of those that received assistance reported receiving cash based assistance, whilst 30% received in-kind, and 2% 'other'.<sup>61</sup> Over half (54%) received the assistance from the United Nations (UN), a quarter from local community members (26%), and a further 18% from international NGOs.<sup>62</sup>

<sup>60</sup> Governorate level variations were significant for the proportion of households that received shelter assistance using Pearson's Chi-squared test. However, multiple comparison tables found that there was only significant variation between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Comparisons are therefore reported between Sulaymaniyah and the combined 'other' governorates.

<sup>61</sup> The 6% of households that reported receiving assistance constituted 70 households. Given the small sample, findings have a confidence level of 90% and a 10% margin of error. Multiple options could be selected.

<sup>62</sup> Governorate level variations level were not statistically significant using Pearson's Chi-squared tests and multiple comparison tables for either indicator.

## WASH

### Latrine and Shower Facilities

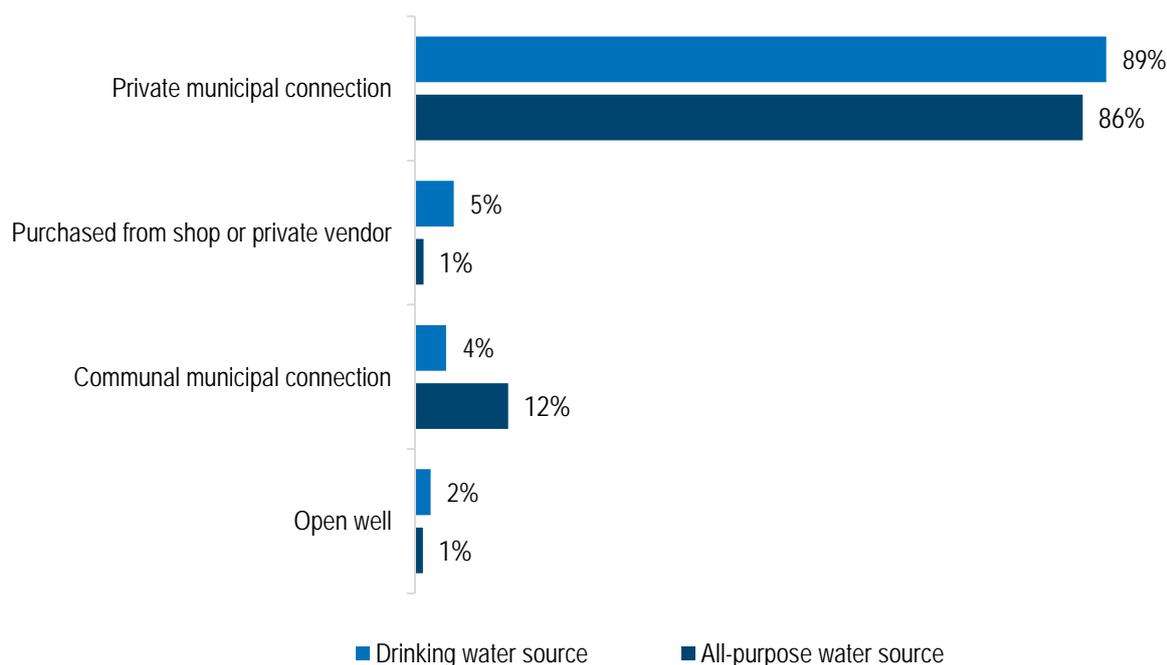
Almost all households had access to functional latrines (only 3 respondents reported that their household did not). 99% of households reported having access to functional showers. Households reported an average of two latrines and shower facilities in their shelters. The number of facilities when compared to household size translates to one facility per every two household members.<sup>63</sup> Differences according to household size or governorate were minimal.

### Water Supply

Primary water source differed slightly according to purpose. The majority of households (86%) reported that their primary source of all-purpose water was a private connection to the municipal network, followed by a communal municipal connection (12%).<sup>64</sup> A slightly higher proportion of households relied on a private municipal connection as their primary source of drinking water (89%), followed by purchasing from a shop or private vendor (6%). A third of the number of households that relied on a communal municipal connection as an all-purpose water source, used it as a primary water source: 12% compared to 4% (see Figure 11).

A further 2% relied upon open wells as a primary drinking water source, highlighting potential health concerns. However, this did vary between Erbil and the other two governorates. In Erbil, less than 1% of households relied on open wells as their primary source of drinking water, compared to 4% in Dohuk and Sulaymaniyah.<sup>65</sup>

Figure 11: Proportion of households by primary source of all-purpose water and primary source of drinking water



<sup>63</sup> Governorate level variations were statistically significant using Pearson's Chi-squared tests and multiple comparison tables, but not notable.

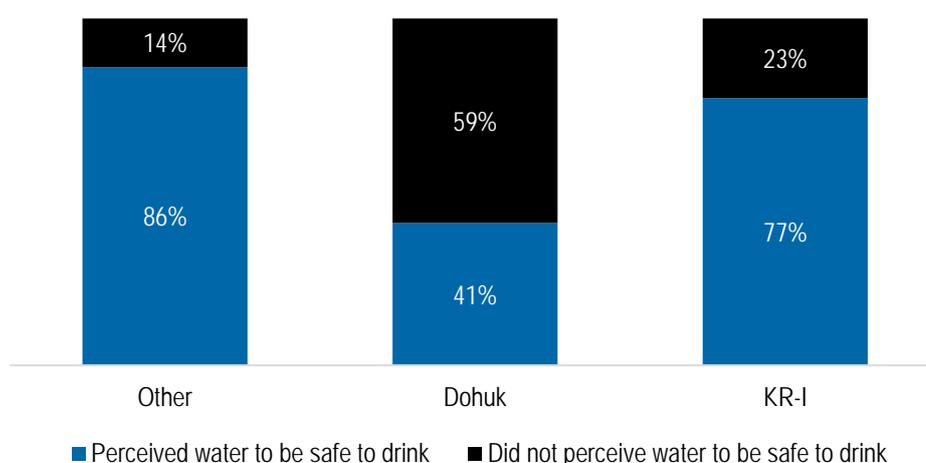
<sup>64</sup> "Internal private network" refers to a water entry point inside the shelter connected to a private water source (such as a water tank on top of the shelter). "Communal network" refers to a water entry point inside the shelter that is connected to a communal water source (such as a water tank for an entire neighbourhood). Governorate level variations were not statistically significant using Pearson's Chi-squared tests and multiple comparison tables.

<sup>65</sup> Governorate level variations were significant for the proportion of households that relied on an open well as their primary source of drinking water using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates.

Over three quarters of households (77%) perceived the water they accessed to be safe to drink. This indicates a 17 percentage point increase compared to the findings in MSNA II, conducted in 2015, where 60% of the households stated perceiving the water to be safe to drink.<sup>66</sup> **At the governorate level, a higher proportion of households in Dohuk did not perceive the water to be safe to drink: 59% in Dohuk, compared to 14% in the other two governorates (see Figure 12).**<sup>67</sup> **Perceived safety of drinking water varied slightly by primary source. All households that relied on a communal municipal connection perceived the water to be safe for drinking, compared to 76% of households relying on all other types of primary sources.**

Furthermore, 77% of households that relied primarily on a private municipal connection perceived their water to be safe for drinking, compared to 52% of households that purchase from a shop of private vendor.<sup>68</sup> This suggests that **households generally perceive public drinking water service provision to be reliable, with the exception of households in Dohuk, where over half perceived their drinking water to be unsafe to drink.**

Figure 12: Proportion of households that perceived water to be safe to drink, by governorate



**Of the households that perceived their water not to be safe to drink (23%), over half did not use any water treatments (52%).** However, this varied considerably with almost three quarters of these households in Erbil not using any treatments (72%), compared to 40% in the other two governorates.<sup>69</sup>

Correspondingly, a smaller proportion of households in Erbil used different water treatment types compared to the other governorates.<sup>70</sup> Households in Dohuk using treatments most commonly relied upon filtration (73%), whilst households in Sulaymaniyah most frequently boiled water (48%).<sup>71</sup> **This suggests that Syrian refugee households in Erbil either have access to higher quality drinking water than households in Dohuk or Sulaymaniyah, or have fewer resources to afford water treatment methods.**

<sup>66</sup> [REACH Iraq, MSNA II: Multi-Sector Needs Assessment of Syrian Refugees Residing in Host Communities, April 2015.](#)

<sup>67</sup> Governorate level variations were significant for the proportion of households that perceived water to be safe to drink, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Dohuk and Sulaymaniyah, and Dohuk and Erbil, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' governorates.

<sup>68</sup> Variations in perceived safety of drinking water were significant according to primary drinking water source using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variations were between households relying on communal municipal connections compared to all others, and between households relying on a private municipal connection and those that purchased their drinking water from a shop or private vendor. Findings have been reported in accordance with these significance results.

<sup>69</sup> Governorate level variations were significant for the proportion of households that did not use water treatments using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates.

<sup>70</sup> Multiple options could be selected.

<sup>71</sup> Governorate level variations were significant for the proportion of households that did not perceive water to be safe to drink and used water treatments by type of water treatment used, using Pearson's Chi-squared test. However, multiple comparison tables found that the variations were not significant between all governorates for all types. Where variations between governorates were not significant, they have been reported as the combined governorate figure.

Table 7: Proportion of households that did not perceive drinking water to be safe to drink and used water treatment by type used, by governorate

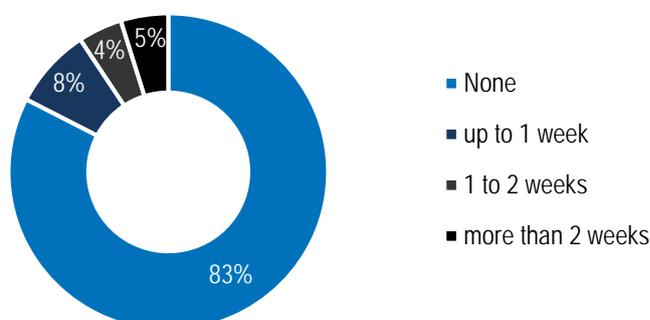
Governorate	Filtration	Boiling	Other
<i>Dohuk</i>	70%	18%	14%
<i>Erbil</i>	43%	18%	14%
<i>Sulaymaniyah</i>	43%	48%	33%
<i>KR-I</i>	60%	23%	17%

### Drinking water shortages

The majority of households (83%) did not experience any days without access to drinking water in the 30 days prior to interview. Across the KR-I, 8% of households reported experiencing shortages of up to one week, and 9% of households for one week or more (see Figure 14). This may be related to the storage capacity of the household based on the volume of the water tank, where households with a larger volume are better able to cope with any shortages of water in the communal supply in the short term.

However, there were considerable governorate level variations in the proportion of households that experienced no drinking water shortages.<sup>72</sup> Fewer households in Dohuk experienced any days without drinking water: 2%, compared to almost a quarter in the other two governorates (22%). In Erbil and Sulaymaniyah, 12% of households experienced water shortages for one week or more (see Figure 13).

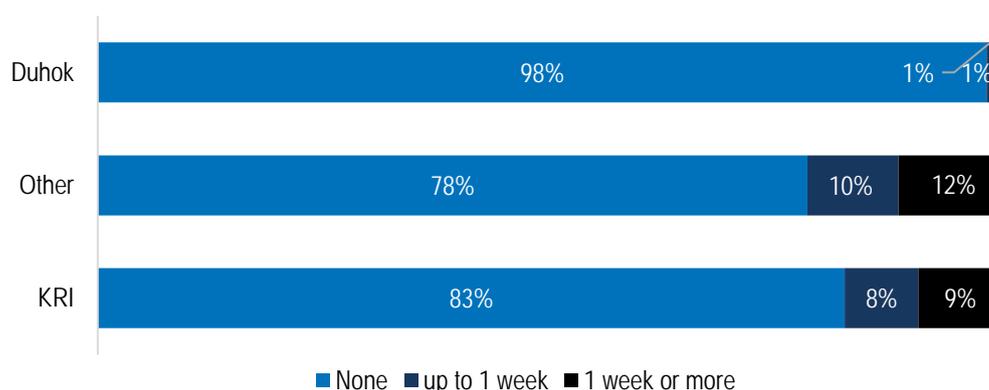
Figure 13: Proportion of households by length of water shortage in the 30 days prior to interview



Governorate level findings suggest that access to drinking water is higher in Dohuk compared to the other governorates (see Figure 14). Ninety-eight percent (98%) of the respondents in Dohuk state they had access to drinking water at any day, in the 30 days prior to the interview, compared to 78% in the other governorates. However, as previously reported findings indicate, access to drinking water does not ensure that households have access to drinking water that they perceive to be safe to drink.

<sup>72</sup> Governorate level variations were significant for the proportion of households by number of days spent without water in the 30 days prior to interview, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Dohuk and Sulaymaniyah, and Dohuk and Erbil, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' governorates.

Figure 14: Proportion of households by amount of time without access to drinking water in the 30 days prior to interview, by governorate



Over half of households that experienced drinking water shortages reduced their consumption (55%) as a means of coping with the lack of access, in the 30 days prior to interview. The second most frequently used coping strategy was borrowing water from family or friends (42%), followed by borrowing money to buy water (18%).<sup>73</sup>

In relation to domestic hot water supply, 91% of households in KR-I reported having access. Similar to findings on access to drinking water, there is a slightly higher proportion of households in Duhok that have access to a domestic hot water supply, than households in other governorates: 96% compared to 90% in Erbil and Sulaymaniyah.<sup>74</sup>

<sup>73</sup> Multiple options could be selected. Due to the small sample of households that reported experiencing water shortages, governorate level variations were not significant using Pearson's Chi-squared tests. Furthermore, there was no statistically significant relationship found between type of coping strategy used and number of days without access to water, using the same statistical testing method. Given the sample size (208 households) these findings are representative with a 90% level of confidence and 10% margin of error.

<sup>74</sup> Governorate level variations were significant for the proportion of households with access to a domestic hot water supply, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Duhok and Sulaymaniyah, and Duhok and Erbil, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Duhok and the combined 'other' governorates.

## Health

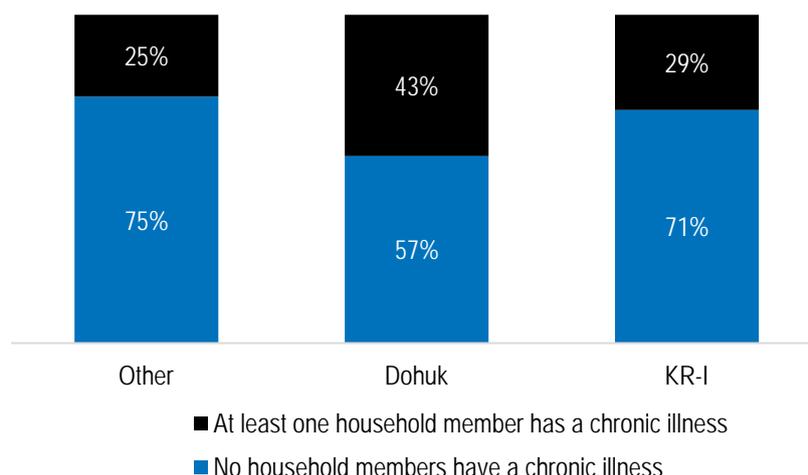
### Chronic Illness

Across the KR-I, over one quarter of households had at least one member suffering from a chronic illness at the time of interview (29%).<sup>75</sup> However, this varied significantly between Dohuk and the other two governorates: 43% of households in Dohuk had at least one member with a chronic illness, compared to 25% in the other governorates.<sup>76</sup>

Moreover, a higher proportion of female headed households had at least one member with a chronic illness (62%), compared to male headed households (27%).<sup>77</sup> The impact of managing chronic illness within the household may further compound vulnerabilities often experienced by such households. These findings suggest that there are greater health related vulnerabilities among Syrian refugee households in Dohuk, and in female headed households.

There are several ways in which chronic illness can increase the vulnerability of a household, such as the financial burden of medications and treatments, the need for frequent doctors visits, as well as reduced income if the individual with the illness is of working-age but unable to seek employment as a result of their condition. However, this does not take into account demand for emergency health services, or children's and women's health needs amongst households in other governorates or that are male headed.

Figure 15: Proportion of households where at least one member was suffering from a chronic illness at the time of interview, by governorate



The additional economic vulnerability of households with a member suffering from a chronic illness is highlighted by the higher average household expenditure, and lower net income, compared to households that do not have a member with a chronic illness. Although average income did not differ across the two groups, average expenditure for households with a member with a chronic illness was 640,000 IQD (540 USD), compared to households that did not: 560,000 IQD (475 USD).<sup>78</sup> Average net income was negative across both groups, but considerably worse for the former (-100,000 IQD or -85 USD), compared to the latter (-20,000 IQD or -20 USD).<sup>79</sup>

<sup>75</sup> Chronic illness refers to a health condition or disease that is persistent and lasts for more than three months. Examples include: asthma, diabetes, heart disease, and high blood pressure.

<sup>76</sup> Governorate level variations were significant for the proportion of households where at least one member has a chronic illness, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' governorates.

<sup>77</sup> Governorate level variations were significant using Pearson's Chi-squared test.

<sup>78</sup> Difference in average total household income was not significant between the two groups using ANOVA statistical testing. However, the differences were significant for average total household expenditure, using the same testing. Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017.

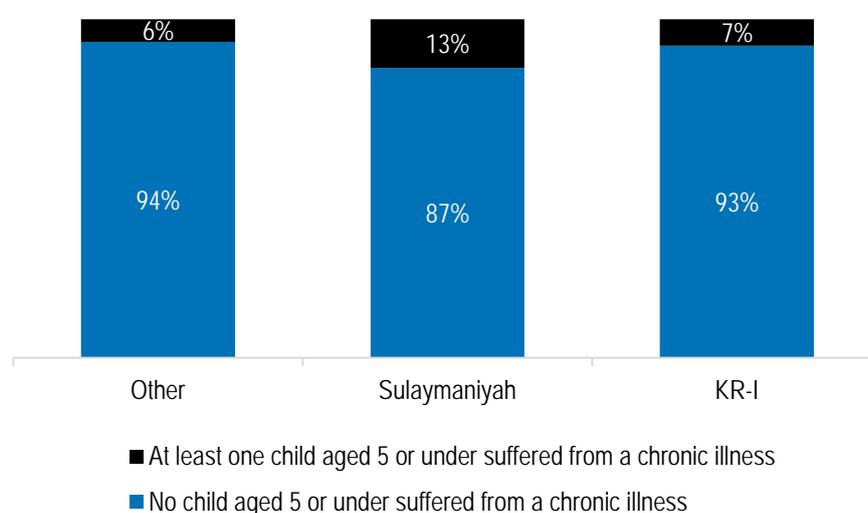
<sup>79</sup> Average net income is calculated by subtracting average total expenditure from average total income.

Of the 29% of all households that have a member with a chronic illness, the vast majority reportedly took medication and were receiving treatment regularly (93%).<sup>80</sup> A further 6% reportedly did not regularly take medication, and 2% of respondents did not know. Of the 20 households that did not take regular medication or receive treatment, 11 reported that they could not afford it, 8 that they did not need it, and 2 reported having no access to medications or treatments.<sup>81</sup>

Analysis of the age group affected and type of illness may help to further understand the extent and nature of chronic illness affecting Syrian refugee households. Moreover, understanding of prevalence of chronic illness amongst young children is particularly important to inform health programming to support those most vulnerable.<sup>82</sup>

Across the KR-I, 59% of households had a child aged five years or younger. Of these households, 7% had at least one member in that age group that was suffering from a chronic illness at the time of interview.<sup>83</sup> This varied at the governorate level, from 13% in Sulaymaniyah, to 6% of these households in Dohuk and Erbil, (see Figure 16).<sup>84</sup>

Figure 16: Proportion of households with at least one child aged five years or younger, where at least one member aged five years or younger was suffering from a chronic illness at the time of interview, by governorate



The 7% of households where at least one child aged five or under suffered from a chronic illness at the time of interview reported the type of illness, although findings are indicative only. The most prevalently reported single type of chronic illness was heart disease (40%), followed by high blood pressure (31%), asthma (14%), diabetes (14%), and anaemia (7%).<sup>85</sup> However, 45% of households with a child aged five or under suffering from a chronic illness reported the type as 'other', which consisted of a range of conditions and diseases, such as epilepsy, cancer, and cerebral palsy.

<sup>80</sup> Governorate level variations were not statistically significant using Pearson's Chi-squared tests and multiple comparison tables. Only 20 households that had a member with a chronic illness reported that they did not take medication or receive treatment regularly. Given the small sample size, reported reasons for not taking medication or receiving treatment are indicative.

<sup>81</sup> Multiple options could be selected.

<sup>82</sup> All households that reported at least one member suffering from a chronic illness, and that had a member aged five or under, were asked how many household members in that age group had a chronic illness, by type. This was then summed to calculate the proportion of households with a child aged five years or younger, where a member in that age group was suffering from a chronic illness. The same questioning and calculations were repeated for households with a member aged over 5 (all households). Households could have at least one member in each age group with a chronic illness. Therefore the combined proportion of households with a member aged five and under suffering from a chronic illness and households with a member aged over five suffering from a chronic illness, may exceed the overall proportion of households with at least one member suffering from a chronic illness.

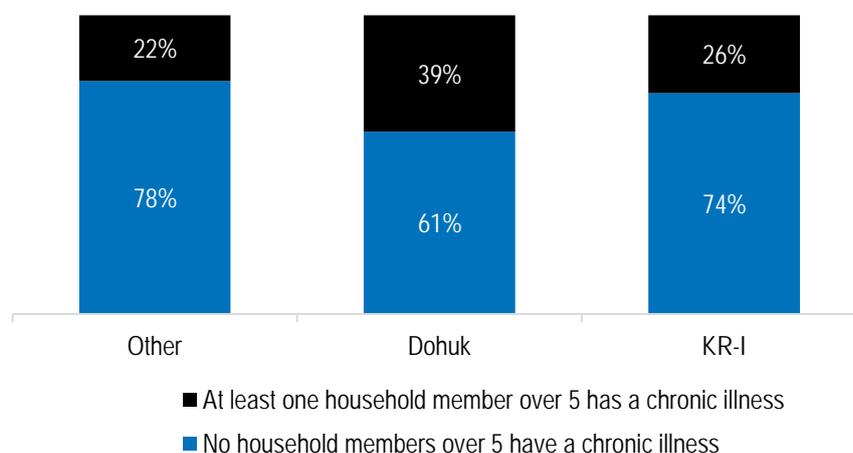
<sup>83</sup> The sample of households with a child aged 5 or under is 701, for those where at least one member in this age group suffers from a chronic illness, the sample size is 50.

<sup>84</sup> Governorate level variations were significant using ANOVA statistical testing and Tukey's HSD multiple comparison tables. However Tukey's HSD multiple comparison tables found that the only significant variation was between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Findings are therefore reported between Sulaymaniyah and the combined 'other' governorates.

<sup>85</sup> Given the small sample size, the breakdown of households with a child aged five or under that suffered from a chronic illness by type of illness is indicative only. Individuals may have been represented in several 'illness type' categories and findings may therefore exceed 100%.

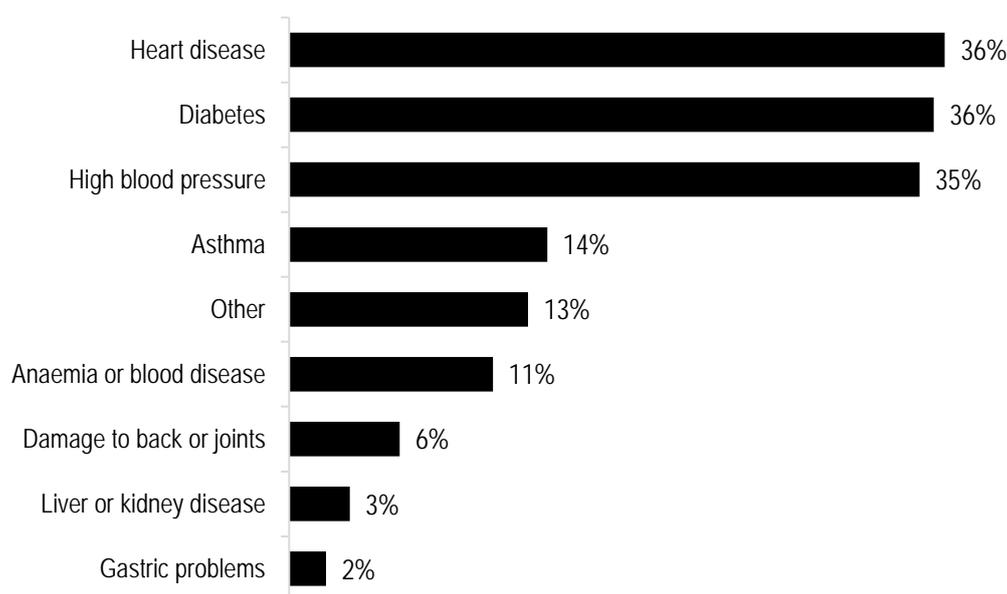
Questions about type and prevalence of chronic illness were repeated for households, concerning all members aged over 5 years.<sup>86</sup> Across the KR-I, 26% of households had at least one member over the age of five who suffered from a chronic illness at the time of interview.<sup>87</sup> Again, this varied at the governorate level, from 39% in Dohuk, to 22% of these households in Erbil and Sulaymaniyah.<sup>88</sup>

Figure 17: Proportion of households where at least one member over the age of five was suffering from a chronic illness at the time of interview, by governorate



Of the 26% of households where at least one member over the age of five was suffering from a chronic illness, the most frequently identified types of chronic illness were heart disease (36%), diabetes (36%), and high blood pressure (35%), (see Figure 18).<sup>89</sup> The 13% that identified 'other' contained households reporting a range of conditions and diseases, such as mental illness, epilepsy, cancer, and cerebral palsy.

Figure 18: Frequency of type of chronic illness suffered from, of households where at least one member over the age of five suffered from a chronic illness at the time of interview



<sup>86</sup> This includes all households.

<sup>87</sup> The sample of households with a member over the age of five that was suffering from a chronic illness at the time of interview is 305. Any further disaggregation of findings by governorate or illness type are representative with at least a 90% level of confidence and 10% margin of error.

<sup>88</sup> Governorate level variations were significant using ANOVA statistical testing and Tukey's HSD multiple comparison tables. However Tukey's HSD multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Findings are therefore reported between Dohuk and the combined 'other' governorates.

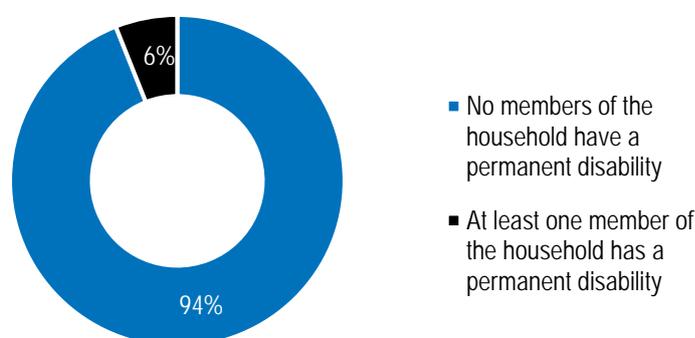
<sup>89</sup> Due to the smaller sample size (305), findings could not be reliably disaggregated at governorate level, and are therefore reported at KR-I level only. Multiple options could be selected and findings may therefore exceed 100%.

In summary, across all households in the KR-I, 29% had at least one member suffering from a chronic illness at the time of interview, the vast majority of whom reportedly took regular medication and received treatment. For a quarter of households (25%), there was at least one member over the age of five suffering from a chronic illness, and for 7%, at least one member aged five or under. However, in 1% of households there was at least one member in each age group suffering from a chronic illness, and may be especially vulnerable due to a greater number of dependent individuals with a chronic condition, and potentially higher healthcare costs.

## Disabilities<sup>90</sup>

Across the KR-I, 6% of Syrian refugee households had at least one member with a permanent disability.<sup>91</sup> Of the households with at least one member with a permanent disability, the frequency of households with members with a disability across demographic groups varied notably. The group with the highest frequency of at least one member with a permanent disability was males aged 18 to 59 years (39%), followed by males under the age of 18 (34%), with the third highest frequency amongst females aged 18 to 59 (16%), (see Figure 20).<sup>92</sup>

Figure 19: Proportion of households with at least one member with a permanent disability at the time of interview



Across the age groups, there was a higher frequency of households with males with a permanent disability than females, with the exception of households with at least one member with a disability aged 60 years or over. Of households where at least one member had a permanent disability, 1% had a member that was male and aged 60 years or over with a disability, whereas 10% had a member that was female in this age group.

Households with members with a permanent disability are likely to be especially vulnerable, due to a higher number of dependent household members in the home, and additional costs of medical treatments and care. Furthermore, persons with disabilities may experience a higher rate of health issues, due to poverty or social exclusion, as well as potential vulnerability to secondary conditions, such as pressure sores or urinary tract infections.

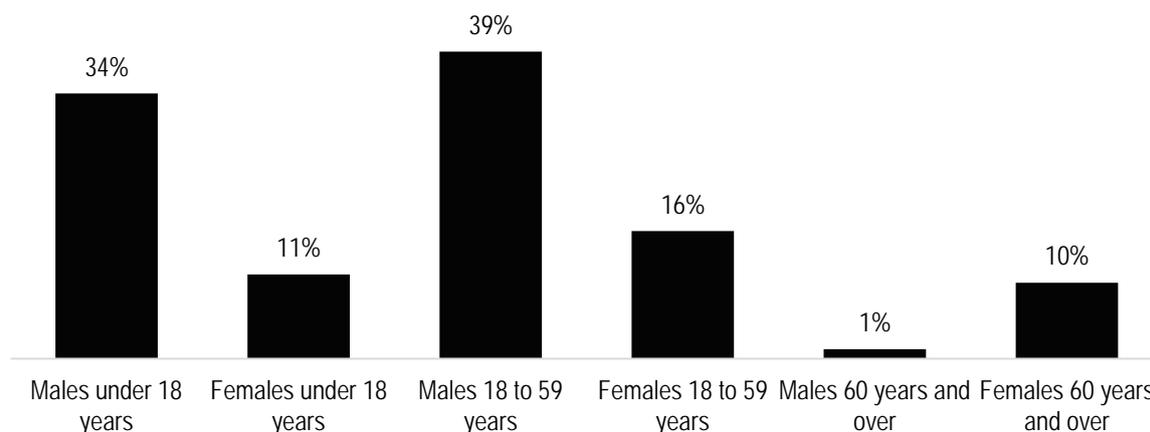
Moreover, the higher prevalence of disabilities amongst males below the age of 60 years may highlight an additional economic vulnerability for households with at least one member with a permanent disability. Males aged 18 to 59, and in certain cases, males under the age of 18, are the most likely to be working. Permanent disability of any type would likely impede the ability of the individual to seek and maintain employment, and therefore household income may be reduced.

<sup>90</sup> Disability is defined by the World Health Organization (WHO) as "an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations." WHO website, accessed 31.11.2017. In this report, permanent disabilities include: physical, mental, auditory, speech, and visual impairments.

<sup>91</sup> Governorate level variations for total proportion of households that have at least one member with a permanent disability were not statistically significant using Pearson's Chi-squared tests and multiple comparison tables. The sample of households with at least one member with a permanent disability at the time of interview is 77. Any further disaggregation of findings by governorate or illness type are representative with at least a 90% level of confidence and 10% margin of error.

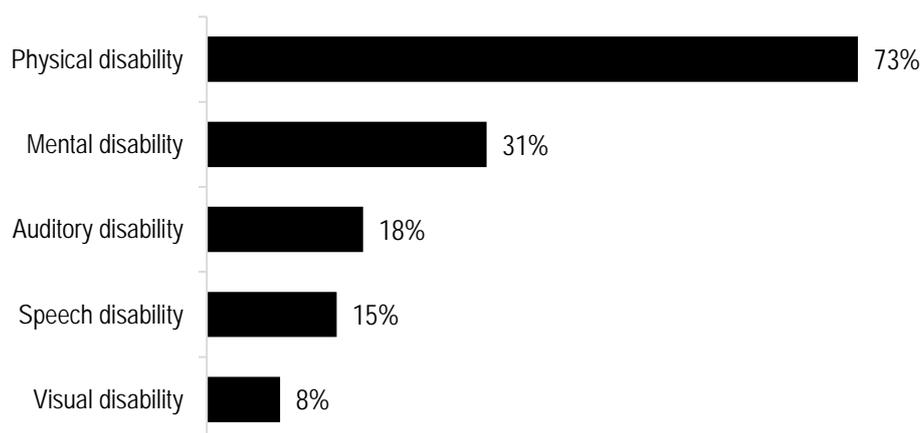
<sup>92</sup> As households may have more than one member with a permanent disability, and the members may be in different demographic groups, the sum of frequencies across groups may exceed 100%. Given the small sample size, findings could not be reliably disaggregated to governorate level.

Figure 20: Frequency of households with at least one member with a permanent disability, by demographics of age group and sex



The frequency of households with members with a disability also varied by disability type. The highest frequency was recorded for physical disabilities (73%), followed by mental disabilities (31%), and thirdly, auditory disabilities (18%).<sup>93</sup>

Figure 21: Frequency of households with at least one member with a permanent disability, by type of disability



However, unlike households where at least one member was suffering from a chronic illness, average net income was greater for households where at least one member had a permanent disability, compared to those that did not. Average total household expenditure was higher for households where a member had a permanent disability: 655,000 IQD (540 USD), compared to 580,000 IQD (490 USD).

However, average total household income was higher: 660,000 IQD (555 USD), compared to 530,000 IQD (450 USD), (see Table 8).<sup>94</sup> Consequently, households where a member has a disability had an average net income of 6,000 IQD (5 USD), compared to -45,000 IQD (-40 USD). This indicates that despite the potential vulnerabilities faced by households where a member has a disability, they are less economically vulnerable, and not actively increasing debt through monthly household expenditure.<sup>95</sup>

<sup>93</sup> As households may have more than one member with a permanent disability, and the members may have more than one disability type, the sum of frequencies across groups may exceed 100%. Given the small sample size, findings could not be reliably disaggregated to governorate level.

<sup>94</sup> Difference in average total household income and expenditure was significant between the two groups using ANOVA statistical testing. Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017.

<sup>95</sup> Average net income is calculated by subtracting average total expenditure from average total income.

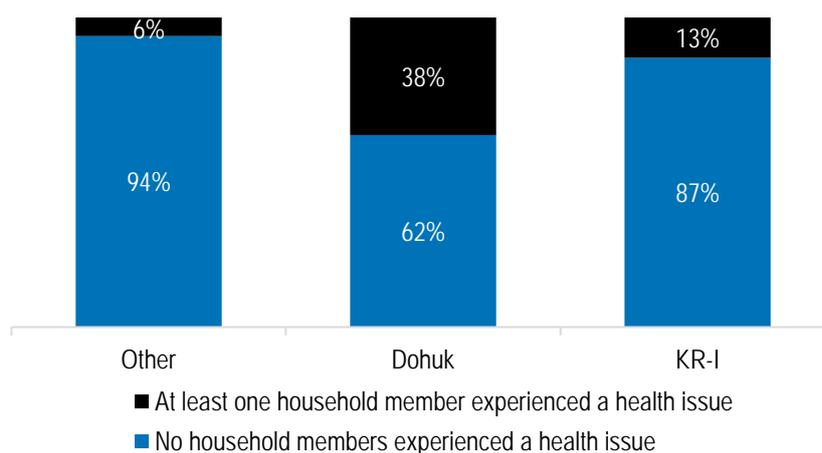
Table 8: Average total household income, expenditure, and net income, by whether the household has at least one member with a disability

	Average total household income		Average total household expenditure		Average net income	
	IQD	USD	IQD	USD	IQD	USD
<i>At least one member of the household has a permanent disability</i>	660,000	550	655,000	550	6,000	5
<i>No members of the household have a permanent disability</i>	530,000	450	580,000	490	-45,000	-40

### Health Issues<sup>96</sup>

Across the KR-I, 13% of households reported that at least one household member suffered from a health issue in the two weeks prior to interview. However, this proportion was considerably higher in Dohuk (38%), compared to the other governorates (6%).<sup>97</sup>

Figure 22: Proportion of households in Dohuk compared to the other governorates where at least one member suffered from a health issue in the two weeks prior to interview



As with chronic illness, it is important to understand the prevalence of health issues experienced by Syrian refugee households, and particularly by households with young children.<sup>98</sup> Across the KR-I, 59% of households had a child aged five years or younger. Of these households, 11% had at least one member in that age group that had experienced a health issue in the two weeks prior to interview.<sup>99</sup> Reflecting the general population, a higher proportion of households in Dohuk with children aged five years or younger had a member in that age group that had experienced a health issue (26%) compared to other governorates (5%), (see Figure 23).<sup>100</sup>

<sup>96</sup> Health issues were defined as the following: diarrhoea, minor physical injury, serious physical injury, respiratory issues, skin infection, skin disease, extreme stress reaction, and 'other'.

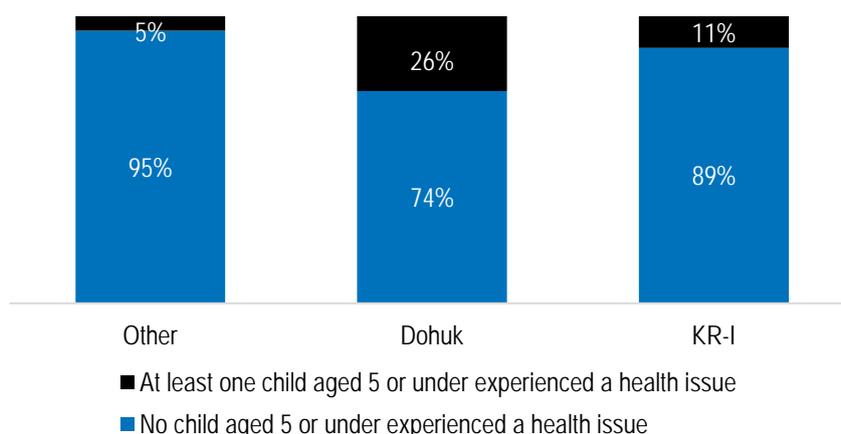
<sup>97</sup> Governorate level variations were significant for the proportion of households where at least one member suffered from a health issue, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' governorates.

<sup>98</sup> Questions and analysis regarding health issues followed the same format as for chronic illness.

<sup>99</sup> The sample of households with a child aged 5 or under is 701, for those where at least one member in this age group experienced a health issue, the sample size is 75. Findings are therefore representative with a 90% level of confidence and 10% margin of error.

<sup>100</sup> Governorate level variations were significant using Pearson's chi-squared statistical testing. However multiple comparison tables found that the only significant variation was between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Findings are therefore reported between Sulaymaniyah and the combined 'other' governorates.

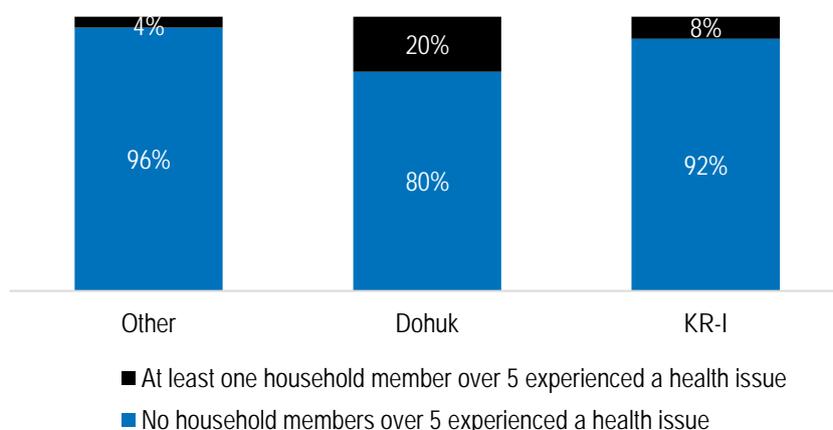
Figure 23: Proportion of households with at least one child aged five years or younger, where at least one member aged five years or younger experienced a health issue in the two weeks prior to interview, by governorate



Of the 11% of households where at least one child aged five or under experienced a health issue, the most frequently reported type of illness was diarrhoea (56%), followed by respiratory tract infection (20%), skin disease (14%), extreme stress reaction (14%), minor or serious physical injury (9%), and 'other' (5%).<sup>101</sup>

Questions about type and prevalence of health issues were repeated for households, concerning all members aged over 5 years. Across the KR-I, 8% of households had at least one member over the age of five who experienced a health issue in the two weeks prior to interview.<sup>102</sup> Again, this varied at the governorate level, from 20% in Dohuk, to 4% of these households in Erbil and Sulaymaniyah.<sup>103</sup>

Figure 24: Proportion of households where at least one member over the age of five experienced a health issue in the two weeks prior to interview, by governorate



Of the 8% of households where at least one member aged five or above experienced a health issue, the most frequently reported type of illness was extreme stress reaction (52%), followed by respiratory tract infection (15%), skin disease (13%), serious physical injury (12%), minor physical injury (11%), diarrhoea (9%), and 'other' (6%).<sup>104</sup> The prevalence of extreme stress reactions indicates a potential need for mental health programming, as well as physical health.

<sup>101</sup> Given the small sample size, any further breakdown of households with a child aged five or under that experienced a health issue is indicative only. Individuals may have been represented in several 'issue type' categories and findings may therefore exceed 100%.

<sup>102</sup> The sample of households with a member over the age of five that was suffering from a chronic illness at the time of interview is 96. Any further disaggregation of findings by governorate or illness type are representative with at least a 90% level of confidence and 10% margin of error.

<sup>103</sup> Governorate level variations were significant using Pearson's chi-squared statistical testing. However multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Findings are therefore reported between Dohuk and the combined 'other' governorates.

<sup>104</sup> Given the small sample size, any further breakdown of households with a child aged five or under that experienced a health issue is indicative only. Individuals may have been represented in several 'issue type' categories and findings may therefore exceed 100%.

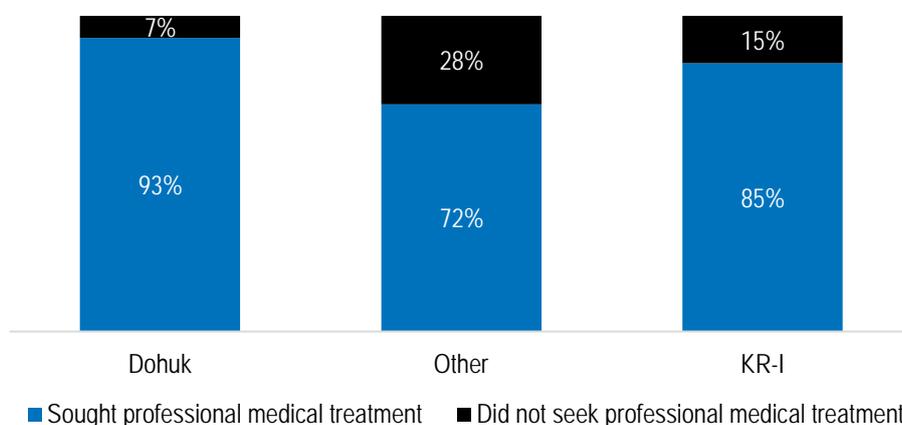
Taken together, the relatively higher proportion of households in Dohuk reporting at least one member with a chronic illness and reporting at least one member experiencing a health issue in the preceding two weeks reflects greater health needs amongst Syrian refugees living in Dohuk compared to elsewhere in the KR-I. Moreover, households with a member with a chronic illness or disability had lower average household net income in the 30 days prior to interview.

The average net income of households with at least one member that experienced a health issue was more than double that of households that did not: -155,000 IQD (-130 USD), compared to -60,000 (-50 USD).<sup>105</sup> This may indicate a higher level of economic vulnerability, and potentially debt, as a result of healthcare needs and costs, in Dohuk in particular.

### Access to Treatment

Of households reporting at least one member suffering from a health issue in the preceding two weeks, the majority reported that they had sought professional medical treatment (85%).<sup>106</sup> However, this was notably higher in Dohuk than in the other two governorates: 93% compared to 72% in Erbil and Sulaymaniyah.<sup>107</sup>

Figure 25: Proportion of households that had a household member with health issues in the two weeks prior to interview that sought professional medical treatment when members were sick, by governorate



Of the households that did seek professional medical treatment, the majority visited public health facilities (85%).<sup>108</sup> All households in Erbil where a member had a health issue in the two weeks prior to interview, and that sought professional medical treatment, visited a public health facility. By contrast, 79% of this population in the other two governorates did so.<sup>109</sup> Of the 21 households where a member suffered from a health issue and sought professional treatment but not from a public health facility, all attended a private hospital or clinic.

<sup>105</sup> Difference in average total household income and expenditure was significant between the two groups using ANOVA statistical testing. Average net income is calculated by subtracting average total expenditure from average total income. Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017.

<sup>106</sup> The sample size for the number of households that had a member with a health issue in three weeks prior to interview is 163. These findings are therefore representative with a 90% level of confidence and 10% margin of error. The sample size for households where a member was sick in the two weeks prior to interview and sought professional medical treatment is 137. These findings are also representative with a 90% level of confidence and 10% margin of error. Any further disaggregation of this sample by governorate should be considered as indicative only.

<sup>107</sup> Governorate level variations were significant for the proportion of households where a member suffered a health issue in the two weeks prior to interview and sought professional medical treatment, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' governorates.

<sup>108</sup> The sample size for households where a member was sick in the two weeks prior to interview and sought professional medical treatment from a public facility is 117. Findings are therefore representative with a 90% level of confidence and 10% margin of error. Any further disaggregation of this sample by governorate should be considered as indicative only.

<sup>109</sup> Governorate level variations were significant for the proportion of households where a member suffered a health issue in the two weeks prior to interview and sought professional medical treatment at a public facility, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates. Due to the small sample size, these findings are indicative only.

## Access to public health facilities

Of the households that had a member experiencing a health issue in the two weeks prior to interview and accessed professional medical treatment from a public health facility, over half encountered an issue when receiving treatment (57%).<sup>110</sup> Of those that encountered a difficulty, the most frequently cited issue was cost (61%),<sup>111</sup> followed by relevant services being unavailable (55%), and distance to hospital (19%).<sup>112</sup>

A higher proportion of households in Erbil encountered issues than in the other governorates: 99% compared to 42%.<sup>113</sup> This may suggest that although a greater proportion of households in Erbil are reportedly accessing public health facilities when a household member has health issues, they face more difficulties when doing so.

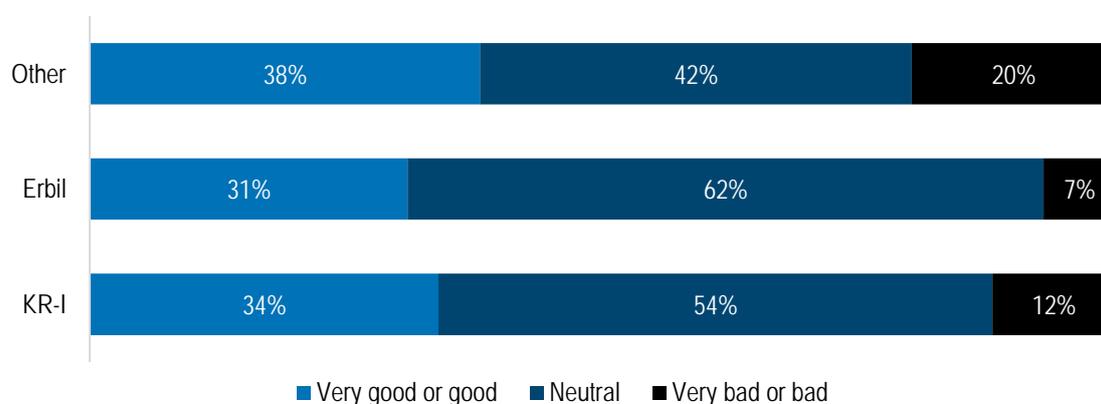
Concerning potential barriers to access, the average distance to the nearest hospital was 2 km at the KR-I level, although greater in Dohuk (3 km) compared to the other governorates (2 km).<sup>114</sup> Over three quarters of households reportedly knew that Syrian refugees have free access to public health services (79%). However, this was considerably lower in Dohuk (35%) compared to Erbil (93%) or Sulaymaniyah (81%).<sup>115</sup>

Whilst need for public health services appears to be higher in Dohuk than in other governorates, these findings suggest that there may be greater perceived barriers, and less awareness of healthcare entitlements, for households in the governorate than elsewhere in the KR-I.

## Quality of public health services

Approximately one-third of households perceived health services in the KR-I to be of either 'very good' or 'good' quality (34%). Over half perceived access to public services neutrally (54%). The final 12% perceived access to be 'bad' or 'very bad', (see Figure 26). However, the proportion of households that viewed services to be either 'bad' or 'very bad' did vary by governorate: 7% in Erbil, compared to 20% in the other two governorates.<sup>116</sup>

Figure 26: Proportion of households by perceived quality of access to public health services in the KR-I



<sup>110</sup> The sample size for households where a member was sick in the two weeks prior to interview, sought professional medical treatment from a public facility and encountered an issue doing so is 68.

<sup>111</sup> Although health services at public health facilities are free of charge, this may reflect perceived cost due to a lack of awareness of service entitlements, or additional costs associated with semi-private services, medication, or specific treatments.

<sup>112</sup> Governorate level variations were not significant using Pearson's Chi-squared test and multiple comparison tables. Given the small sample size, these findings are representative with a 90% level of confidence and 10% margin of error. Any further disaggregation of this sample by governorate should be considered as indicative only.

<sup>113</sup> Governorate level variations were significant for the proportion of households where a member suffered a health issue in the two weeks prior to interview and sought professional medical treatment, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates. Due to the small sample size, these findings are indicative only.

<sup>114</sup> Governorate level variations were significant for the average distance to the nearest hospital for households, using ANOVA significance testing. However, multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' governorates.

<sup>115</sup> Governorate level variations were not significant using Pearson's Chi-squared test and multiple comparison tables.

<sup>116</sup> Governorate level variations were significant for the proportion of households by perceived quality of health services in the KR-I, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates.

## Maternal Health

95% of households contained at least one woman of reproductive age (12 to 59 years). Of these households, 35% had at least one woman who was pregnant and/or lactating at the time of interview.<sup>117</sup> Of the households where at least one woman of reproductive age was pregnant or lactating, 48% had at least one woman who was pregnant, and 56% at least one woman who was lactating, at the time of interview.<sup>118</sup>

**Of the households with pregnant women, over half visited private ante-natal clinics (52%), whilst the other 48% attended public clinics.** However, the proportion of women who were visiting public clinics was lower in Erbil (39%) compared to the other two governorates (66%).<sup>119</sup> This may reflect the higher proportion of households in Erbil that reportedly encountered difficulties accessing public health facilities when a member of the household had a health issue, although these findings were indicative. An alternative reason could be that respondents were not aware of availability of free ante-natal public health facilities. However, further research is needed to produce findings that could confirm this. Where women were attending private ante-natal clinics, the vast majority did so because the treatment was better quality (96%).<sup>120</sup>

## Vaccinations

**Amongst the total population of children aged five and under, 73% had reportedly been vaccinated against polio, 73% against measles, and 70% for diphtheria, tetanus, and pertussis (DTP).**<sup>121</sup> The proportion of children aged five and under who had not been vaccinated may be in part infants who are not yet old enough for some of the vaccinations (e.g children younger than 9 months are not yet eligible for the measles vaccine). However, there may also be children who are eligible for vaccination who have not yet been immunised.

**In over half of all households however, no members (of any age) had received any vaccinations in the KR-I (55%). 42% of households reported that at least one member had received a vaccine in the KR-I, and a further 3% did not know.** However, the proportion of households where at least one member had been vaccinated in the KR-I was considerably lower in Sulaymaniyah compared to the other two governorates: 27% compared to 45%.<sup>122</sup>

<sup>117</sup> Governorate level variations were not significant using Pearson's Chi-squared test.

<sup>118</sup> Governorate level variations were not significant for proportion of households that have at least one pregnant woman, or for households that had at least one woman lactating at the time of interview, using Pearson's Chi-squared test. As households may have more than one woman that was pregnant or lactating, combined findings may exceed 100%.

<sup>119</sup> Governorate level variations were significant for the proportion of households with women who were pregnant and attending public ante-natal clinics, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates.

<sup>120</sup> Governorate level variations were not significant using Pearson's Chi-squared test and multiple comparison tables.

<sup>121</sup> Governorate level variations were significant using ANOVA statistical testing of average proportion of children aged five and under who had received any vaccination, but were not considerable.

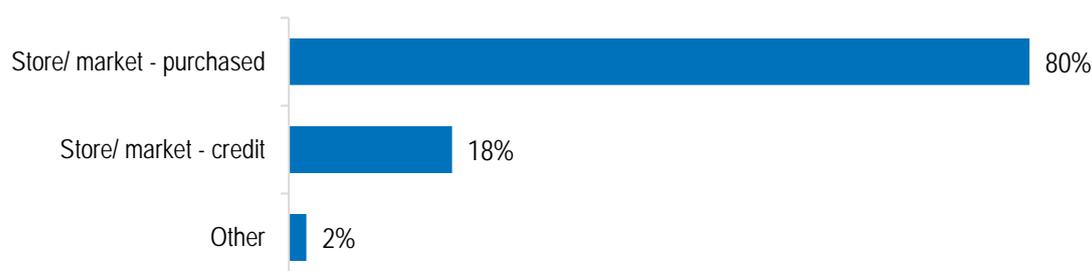
<sup>122</sup> Governorate level variations were significant for the proportion of households where at least one member had received vaccinations in the KR-I, using Pearson's Chi-squared test. However, multiple comparison tables found that the only significant variation was between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Comparisons are therefore reported between Sulaymaniyah and the combined 'other' governorates.

## Food Security

### Access to Food

The majority of households (80%) reported purchasing from a store or market as the primary means of obtaining food in the 30 days prior to interview. Almost all other households purchased from a store or market on credit (18%). However, there were large variations between Dohuk and the other governorates.

Figure 27: Proportion of households by primary source of food in the 30 days prior to interview



The highest proportion of households purchasing food on credit was recorded in Dohuk (34%), which may indicate a higher level of economic vulnerability in the governorate compared to others (13%).<sup>123</sup> This is further supported by the lower average income of households that relied on credit as their primary food source, compared to households that purchased: 375,000 IQD (320 USD) compared to 580,000 IQD (490 USD), indicating greater economic vulnerability.<sup>124</sup>

Table 9: Proportion of households by primary food source, by governorate<sup>125</sup>

Governorate	Store/ market - purchased	Store/ market - credit	Other
<i>Dohuk</i>	65%	34%	1%
<i>Other</i>	85%	13%	2%
<i>KR-I</i>	80%	18%	2%

Despite 18% of households relying on credit as their primary source of food, almost all assessed households had an 'Acceptable' Food Consumption Score (FCS; 99%); 1% of households had a 'Borderline' FCS, and only 2 households scored 'Poor'.<sup>126</sup> At the governorate level, almost all households in Erbil had an 'Acceptable' score (100%). This was slightly lower in the other governorates (96%), although differences were minimal (see Figure 28).<sup>127</sup>

<sup>123</sup> Governorate level variations were significant for the proportion of households where purchasing food on credit was the primary source of food, using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was found between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' districts.

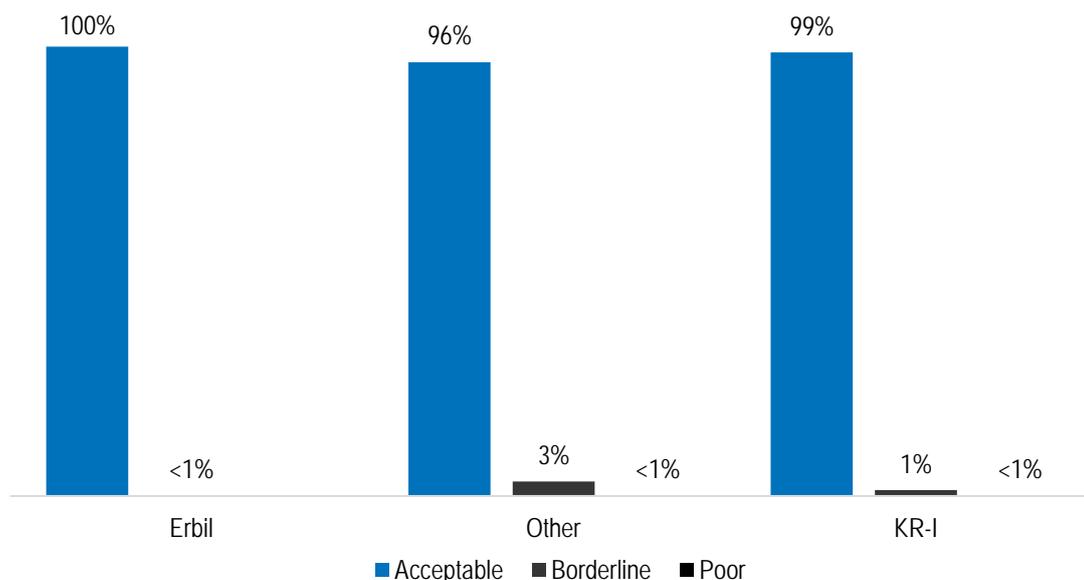
<sup>124</sup> Difference in average household income by primary source of food were significant using ANOVA significance testing. However, Tukey's HSD multiple comparison tables showed the only significant difference to be between households that relied on purchasing from a store, and households that relied on credit. Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter, accessed 31.11.2017.

<sup>125</sup> 'Other' includes: gifts from family and friends, WFP assistance, non-WFP assistance, and exchange or borrowing.

<sup>126</sup> The food consumption score was calculated using WFP's Consolidated Approach to Reporting Indicators of Food Security (CARI), and measures households' current status of food consumption based on the number of days per week a household is able to eat items from nine standard food groups weighted for their nutritional value.

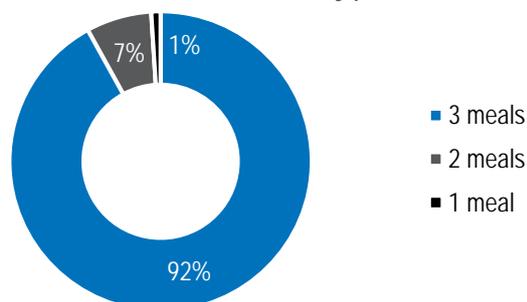
<sup>127</sup> Governorate level variations were significant for the proportion of households by Food Consumption Score (FCS), using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was found between Erbil and Sulaymaniyah, and Erbil and Dohuk, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' districts.

Figure 28: Proportion of households by Food Consumption Score, by governorate



Further to almost all households having an 'Acceptable' FCS, the vast majority of households had eaten three meals in the day prior to interview (92%) and no households reported having no meals.<sup>128</sup> Of the remaining 8%: 7% consumed two meals and 1% consumed one meal. However, the proportion of households that ate three meals in the day prior to interview was higher in Erbil than in the other two governorates: 96% and 86% respectively.<sup>129</sup>

Figure 29: Proportion of households by number of meals eaten in the day prior to interview



When disaggregated by household size, the highest proportion of households that ate three meals in the day prior to interview had between five and seven members (97%), compared to all other family sizes (90%).<sup>130</sup> Furthermore, the average household size for households that ate three meals was five individuals, compared to four for households that ate two meals.<sup>131</sup> This may be explained by larger households having more members that are able to work and consequently secure stable access to food.

<sup>128</sup> An additional one household in Sulaymaniyah reported consuming four meals in the day prior to interview.

<sup>129</sup> Governorate level variations were not significant for the proportion of households that ate one meal in the day prior to interview, using Pearson's Chi squared test, due to the small sample size (seven total: three in Dohuk and four in Sulaymaniyah) and so have been combined with households that ate two meals. Governorate level variations were significant for the proportion of households that ate one to two or three or more meals in the day prior to interview, using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was found between Erbil and Sulaymaniyah, and Erbil and Dohuk, but not between Dohuk and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' districts.

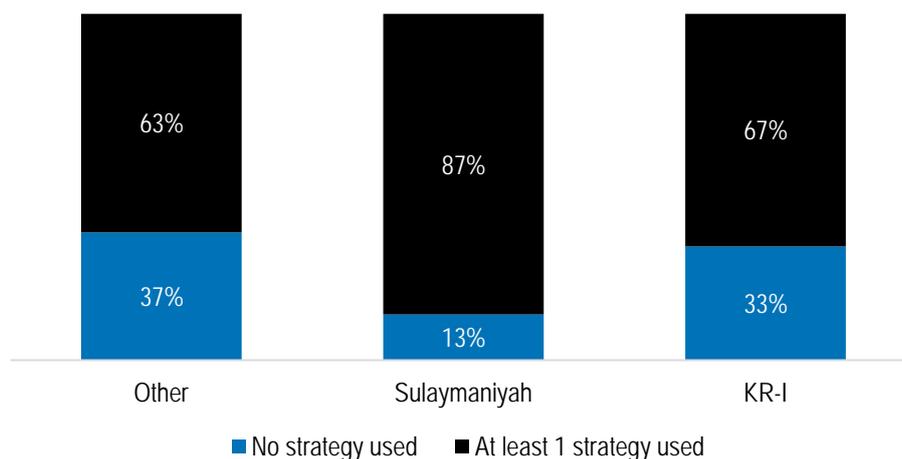
<sup>130</sup> Household size variations were significant for the proportion of households by number of meals eaten in the day prior to interview, using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was between households with 5 to 7 members and all other household sizes, but not between the other household sizes. Comparisons are therefore reported between households with 5 to 7 members and the combined 'other' household sizes.

<sup>131</sup> Difference in average household size by number of meals eaten in the household were significant using ANOVA significance testing. However, Tukey's HSD multiple comparison tables showed the only significant difference to be between households that ate two meals and households that ate three.

## Consumption-based coping strategies

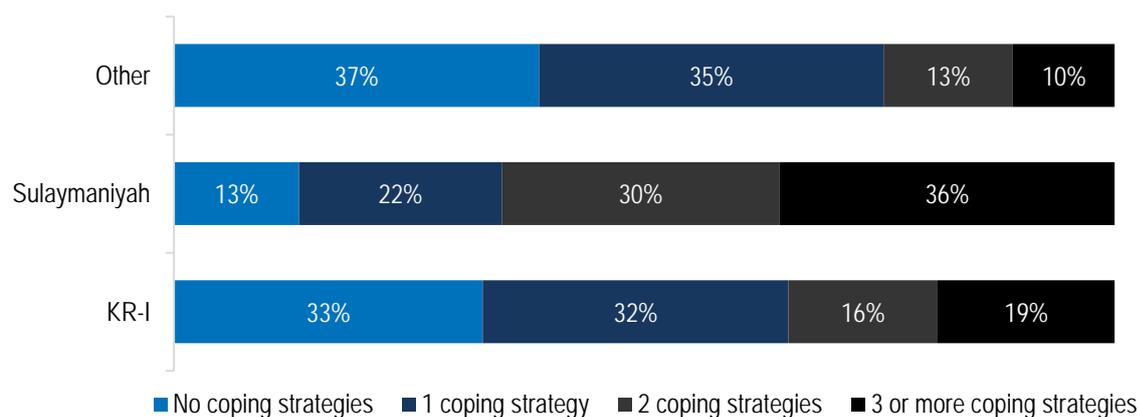
Households were also assessed by their use of consumption-based coping strategies, in order to understand household access to food. At the KR-I level, 67% of households reported using at least one coping strategy in the seven days prior to interview. However, this did vary considerably between Sulaymaniyah (87%) and the other two governorates (63%).<sup>132</sup>

Figure 30: Proportion of households that used at least one consumption-based coping strategy in the seven days prior to interview, by governorate



As well as having the highest proportion of households using at least one coping strategy, Sulaymaniyah had the highest proportion of households using three or more: 36% compared to 10% in the other governorates. This further suggests more limited access to food in the governorate.

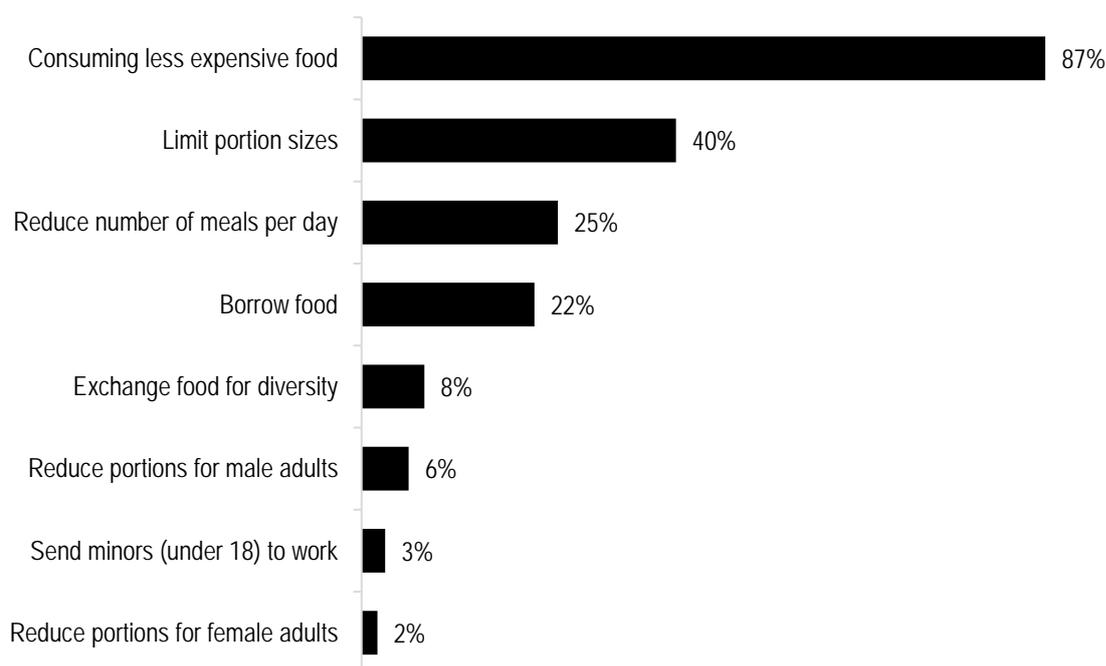
Figure 31: Proportion of households by number of different types of coping strategies employed in the 7 days prior to interview, by governorate



The impact of households using coping strategies on overall food security, however, is dependent on the type and severity of the strategy used. Of households across the KR-I employing strategies, the most prevalently used was the household consuming less expensive foods (87%), followed by limiting portion sizes (40%), and reducing the number of meals consumed per day (25%), (see Figure 32).

<sup>132</sup> Governorate level variations were significant for the proportion of households employing no coping strategies, using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Comparisons are therefore shown between Sulaymaniyah and the combined 'other' districts.

Figure 32: Proportion of households that used consumption-based coping strategies at least one day in the 7 days prior to interview, by type of coping strategy<sup>133</sup>



Consumption-based coping strategies can be further grouped in categories to help identify particular household behaviours. The below table outline the strategy categories and corresponding strategy types.

Table 10: Coping strategy categories and types<sup>134</sup>

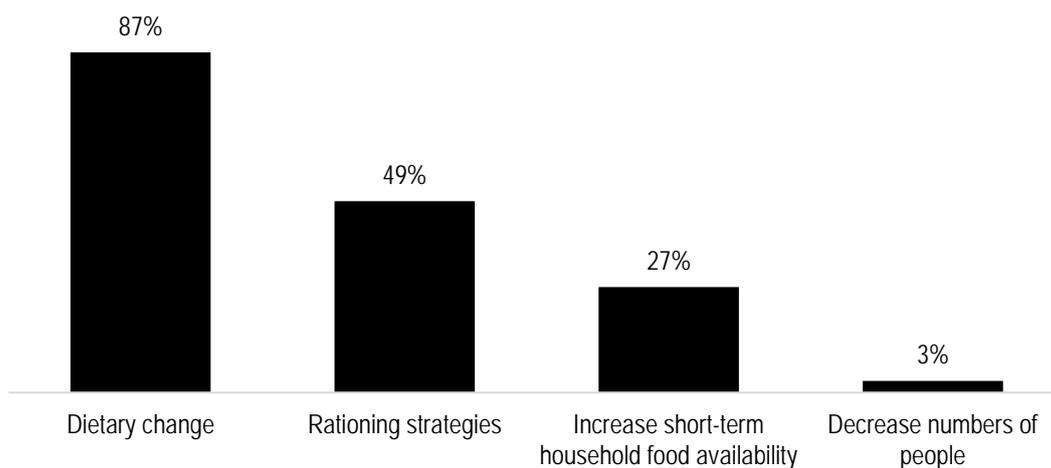
Coping Strategy Category	Coping Strategy
1. <i>Dietary change</i>	Rely on less preferred and less expensive foods
2. <i>Increase short-term household food availability</i>	Borrow food from a friend or relative
	Exchange food for diversity
3. <i>Decrease numbers of people</i>	Send minors (under 18) to work
4. <i>Rationing strategies</i>	Limit portion size at mealtimes
	Reduce portions for male adults
	Reduce portions for female adults
	Reduce number of meals per day

At the KR-I level, households most frequently reported using consumption-based coping strategies focused on dietary change (87%), almost half rationed their food (49%), over a quarter attempted to increase short-term household food availability (27%), and a small minority attempted to decrease the number of people to feed (3%), (see Figure 33).

<sup>133</sup> Households were asked to report how many days in the seven days prior to interview they employed each strategy, and could identify multiple different strategies. Findings related to consumption-based coping strategies may therefore exceed 100%, unless stated otherwise.

<sup>134</sup> Adapted from WFP's Coping Strategies Index, Field Methods Manual, January 2008.

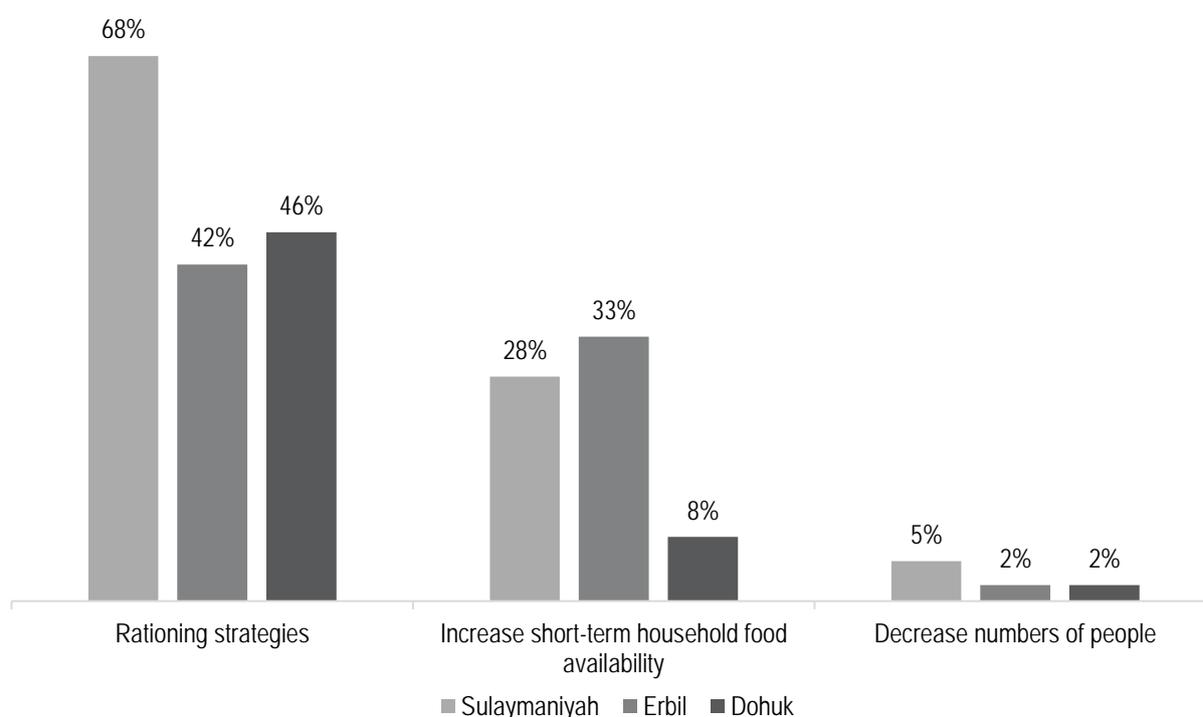
Figure 33: Proportion of households that used consumption-based coping strategies, by category of strategy used



There were, however, some notable differences at the governorate level.<sup>135</sup> A third of households in Erbil and over a quarter of households in Sulaymaniyah reported increasing short-term household food availability, compared to 8% in Dohuk. Although in certain contexts this may include more extreme methods such as consuming wild foods or food stocks, here, these strategies indicate moderate, but unsustainable patterns of borrowing.

A larger proportion of households employed rationing strategies, most notably in Sulaymaniyah (68%), compared to Erbil (42%) or Dohuk (40%). This points to an acute lack of access to food in Sulaymaniyah, where two-thirds of households actively reduced intake in response to limited resources during the assessment recall period.

Figure 34: Proportion of households that used consumption-based coping strategies, by category of strategy used and governorate



<sup>135</sup> Governorate level variations were significant for the proportion by coping strategy category, using Pearson's Chi squared test, except for dietary change strategy types.

Furthermore, these rationing strategies are likely to be employed as a more extreme option, once other coping methods have been exhausted. This is somewhat supported by the greater proportion of households employing three or more strategies using rationing (96%), compared to households employing only one strategy (6%).<sup>136</sup> **However, in order to better understand the severity of these behaviours, frequency of use, as well as prevalence, is important.**

On average, households reported reducing the number of meals consumed per day one time per week, **although 10% of households used this strategy at least three times per week. Consumption-based strategies such as this are typically not sustainable in the long term, as reducing intake multiple times per week cannot continue indefinitely.** As a result, further difficulties in accessing food could lead to the adoption of more severe coping strategies or impact food consumption levels over time.

Overall, however, consumption of less expensive food was used an average of three out of seven days, across the KR-I. This was the most frequently used strategy, both in terms of number of households using it, and the number of days it was used, with a quarter of households using this strategy almost every day (see Table 11). **Taken together with the food expenditure share (42% at KR-I level), these findings reflect a high level of economic vulnerability amongst Syrian refugee households.** Moreover, food security amongst these households would likely deteriorate in the event of an economic shock, given the limited means to cope with increased expenditure.

Table 11: Proportion of households by number of days each coping strategy was used, and average number of days used

Coping strategy	Average # days strategy used	% households by number of days strategy used			
		Not used	1-2 days	3-4 days	5-7 days
<i>Rely on less expensive food</i>	3	41%	15%	19%	25%
<i>Limit portion sizes</i>	1	73%	15%	9%	3%
<i>Reduce number of meals per day</i>	1	83%	6%	7%	3%
<i>Borrow food</i>	<1	86%	8%	4%	2%
<i>Exchange food for diversity</i>	<1	95%	4%	1%	0%
<i>Send minors (under 18) to work</i>	<1	98%	1%	1%	<1%
<i>Reduce portions for male adults</i>	<1	96%	3%	<1%	1%
<i>Reduce portions for female adults</i>	<1	99%	1%	0%	1%

## Food Expenditure

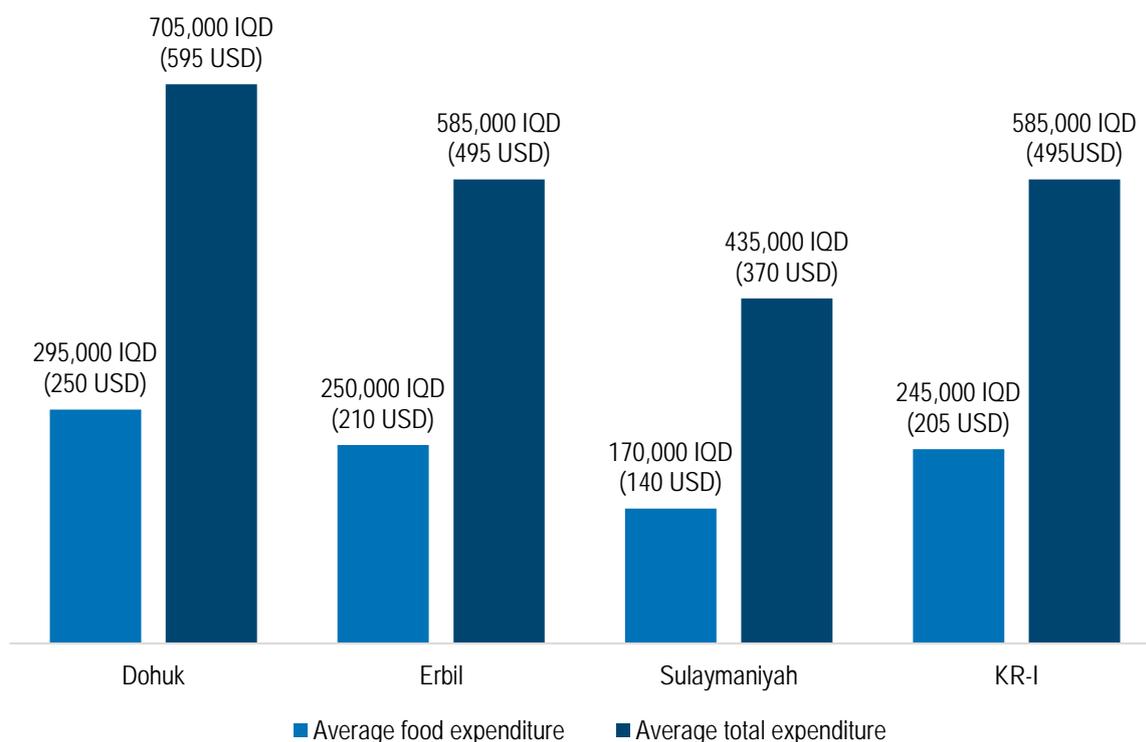
Average household food expenditure in the 30 days prior to interview was reportedly nearly 250,000 IQD, or over 200 USD, across the KR-I.<sup>137</sup> However, considerable variations were found across all governorates. The lowest average expenditure was reported in Sulaymaniyah (170,000 IQD), and the highest in Dohuk (295,000 IQD), (see Figure 35).<sup>138</sup> The lower expenditure in Sulaymaniyah may be a reflection of the higher use of rationing strategies by households in the governorate, compared to others.

<sup>136</sup> Variation across households by number of coping strategy types were significant using Pearson's Chi squared test, but minimal for all categories except for rationing strategies.

<sup>137</sup> Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017.

<sup>138</sup> Governorate level variations were significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

Figure 35: Average household food expenditure and total expenditure in IQD (rounded to the nearest 5,000), by governorate



Average food expenditure increased amongst larger households, as would be expected, ranging from 115,000 IQD in single person households, to 375,000 IQD in households with eight or more people.<sup>139</sup> However, the variation in average household food expenditure by household size does not adequately account for the scale of difference in average food expenditure across the governorates.

Table 12: Average household food expenditure in IQD (rounded to the nearest 5,000), by household size

Number of household members	Average household food expenditure (IQD)
1 member	115,000
2 members	195,000
3-4 members	195,000
5-7 members	280,000
>8 members	375,000

The share of monthly household expenditure that is spent on food can be a more useful indicator of household priorities as well as vulnerabilities. This indicator is premised on the notion that as households allocate a greater portion over their overall budget to food, relative to other consumable items or services, the more economically vulnerable they are.<sup>140</sup> For all households, the average food expenditure as a share of total household

<sup>139</sup> Household size level variations were significant for average household food expenditure using ANOVA statistical testing. However, Tukey's HSD multiple comparison tables showed that variation in average expenditure was not significant between families with 2 members and families with 3 to 4 members. Findings for these groups were therefore combined.

<sup>140</sup> WFP, VAM guidance paper: Consolidated Approach for Reporting Indicators of Food Security (CARI).

expenditure was 42% (see Figure 35 for amount in IQD).<sup>141</sup> This did not vary notably according to either governorate or household size.

The vast majority of households have an acceptable food consumption score (99%), are eating three meals per day (92%), and are purchasing from stores and markets as the primary source of food (80%). The most notable concern, however, was the considerable reliance on consumption-based coping strategies employed in the 30 days prior to interview. **This suggests that whilst households may be maintaining food consumption, they are struggling to do so, indicating that economic vulnerability is a concern amongst Syrian refugee households in host communities in KR-I.**<sup>142</sup> Given that household food expenditure as a proportion of total expenditure was consistent across governorates, the lower average expenditure in Sulaymaniyah may indicate potentially greater economic vulnerability in the governorate compared to others.

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<sup>141</sup> Governorate level and household size variations were significant using ANOVA and Tukey's HSD multiple comparison statistical testing, but were minimal.

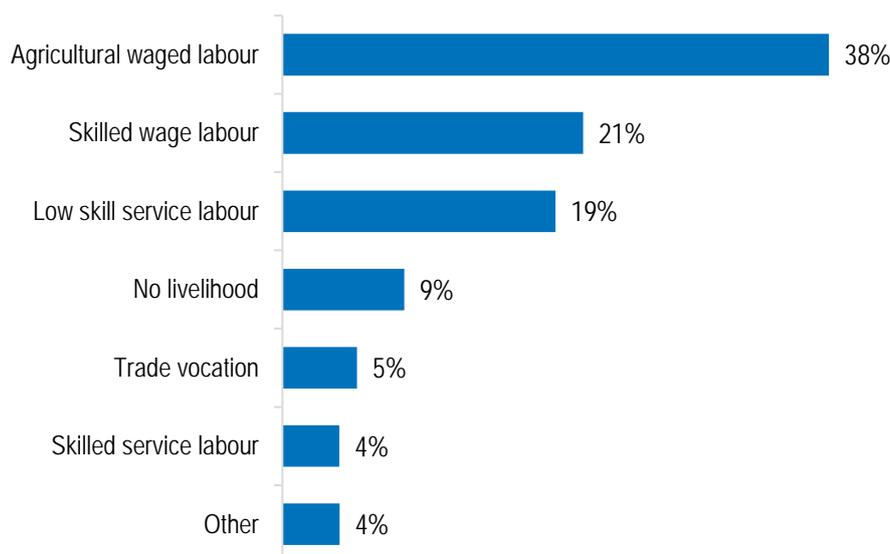
<sup>142</sup> A more detailed analysis regarding reported household income and expenditure can be found in the subsequent Livelihoods section of the report.

## Livelihoods

### Household Income Source

Household income and expenditure are important indicators for economic vulnerability. **9% of households had no source of income in the 30 days prior to interview.**<sup>143</sup> The vast majority of households, however, did have a livelihoods source (91%). The largest proportion of households identified agricultural wage labour as their primary source of livelihood (38%), followed by skilled wage labour (21%), and low skilled service (19%).

Figure 36: Proportion of households by primary source of livelihood



At the governorate level, there were notable differences in the proportion of households whose primary source of livelihoods was low skilled service employment or skilled wage labour. In Sulaymaniyah, a lower proportion of households were in low skilled service (8% compared to 21% in other governorates), but a higher proportion in skilled wage labour (37% compared to 18%), (see Table 14).<sup>144</sup> Of the 91% of households earning an income in the 30 days prior to interview, over half received a daily salary (57%), followed by monthly salary (40%), and then payment based on need (3%).<sup>145</sup>

Table 13: Proportion of households whose primary source of livelihoods was low skilled service employment or skilled wage labour, by governorate

Governorate	Low skilled service labour	Skilled wage labour
<i>Sulaymaniyah</i>	8%	37%
<i>Other</i>	21%	18%
<i>KR-I</i>	19%	21%

<sup>143</sup> Governorate level variations were significant for primary source of income, using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed governorate comparisons for households with no income to not be significant, and have thus not been reported here.

<sup>144</sup> Governorate level variations were significant for primary source of income using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed governorate comparisons to only be significant for these two primary sources of income, and only between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Comparisons are therefore shown between Sulaymaniyah and the combined 'other' districts.

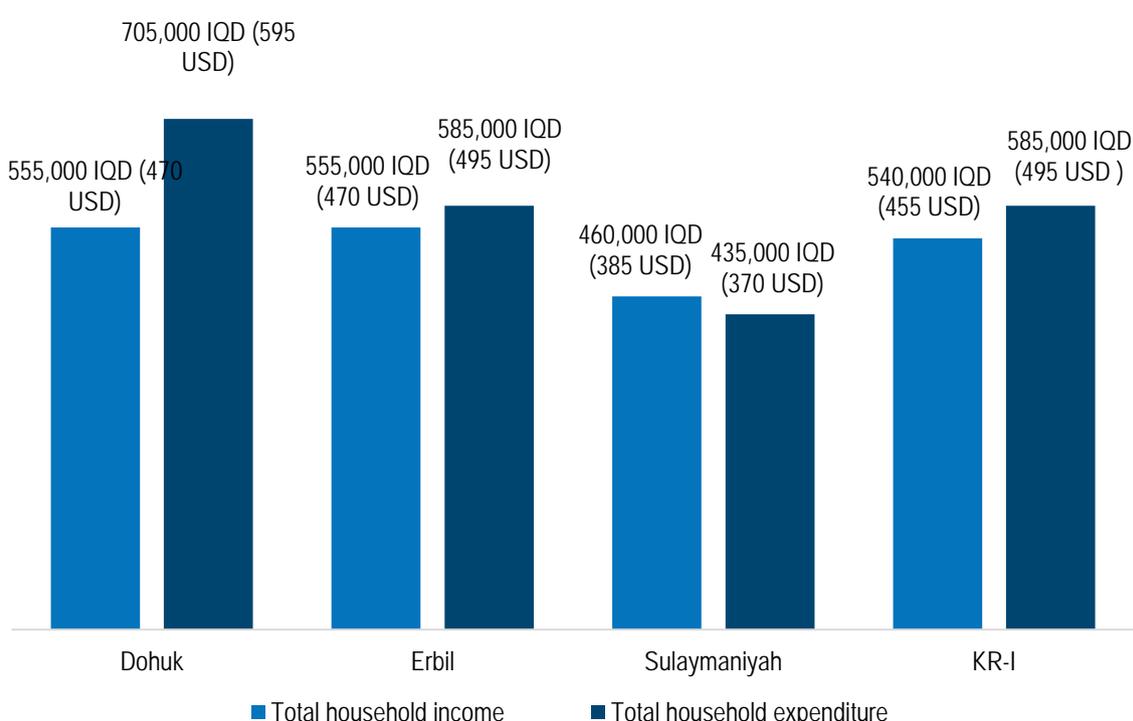
<sup>145</sup> Governorate level variations were significant for salary arrangement for primary income source using Pearson's Chi-squared statistical testing. However, differences were minimal and have therefore not been reported here.

## Household Income and Expenditure<sup>146</sup>

At the KR-I level, average gross household income in the 30 days prior to interview was reportedly 540,000 IQD (455 USD).<sup>147</sup> However, the average was considerably lower in Sulaymaniyah compared to the other two governorates: 460,000 IQD compared to 555,000 IQD in Erbil and Dohuk.<sup>148</sup>

Understanding gross household income in relation to total household expenditure can further explain potential economic vulnerability amongst refugee households. Across the KR-I, total household expenditure in the 30 days prior to interview was 585,000 IQD (495 USD), (see Figure 37).<sup>149</sup> However, as with gross income, total expenditure varied considerably by governorate, ranging from 705,000 IQD (595 USD) in Dohuk, to 435,000 IQD (370 USD) in Sulaymaniyah.<sup>150</sup> With the exception of Sulaymaniyah, where total expenditure was slightly lower than gross income, average total household expenditure was higher than average gross income.

Figure 37: Average gross household income and total expenditure in the 30 days prior to interview in IQD (rounded to the nearest 5,000), by governorate



Average net household income for the 30 days prior to interview gives some indication as to the level of indebtedness that Syrian refugee households in host communities face.<sup>151</sup> As the below table shows, households in Dohuk and Erbil had a negative net income: -150,000 IQD (-125 USD) and -25,000 IQD (-20 USD), respectively (see Table 14). This highlights that on average, households in the two governorates may be accruing debt each month, with households in Dohuk considerably more so than those in Erbil. In Sulaymaniyah, the average net income was 20,000 IQD (20 USD), indicating that households in the governorate were at least not adding to any total debt they may have in the month prior to interview.

<sup>146</sup> Household income encompasses all sources, including humanitarian assistance, but excludes savings.

<sup>147</sup> This includes all households, including the 9% not earning any income. Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017.

<sup>148</sup> Governorate level variations were significant for average total income, using ANOVA statistical testing. However, Tukey's HSD multiple comparison tables found that the only significant variation was between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Comparisons are therefore reported between Sulaymaniyah and the combined 'other' governorates.

<sup>149</sup> Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017.

<sup>150</sup> Governorate level variations were significant for average total expenditure, using ANOVA statistical testing and Tukey's HSD multiple comparison tables.

<sup>151</sup> Average net income was calculated by subtracting average total expenditure from average gross income.

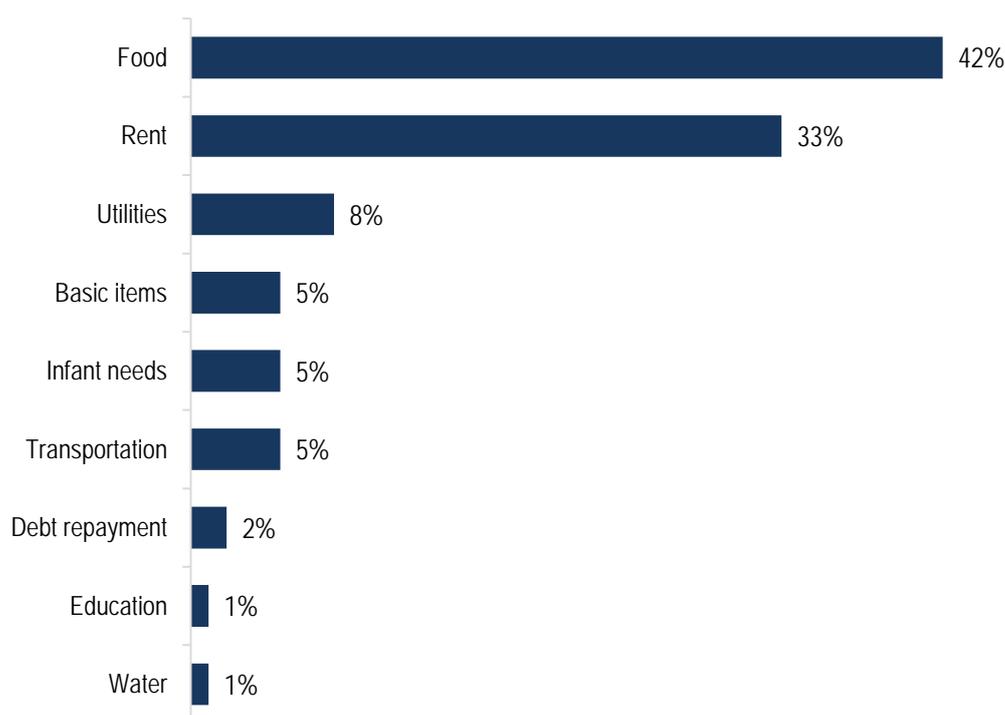
Table 14: Average net income of households (in IQD rounded to the nearest 5,000, and USD rounded to the nearest 5), by governorate

Governorate	Average net income (IQD)	Average net income (USD)
Dohuk	-150,000	-125
Erbil	-25,000	-20
Sulaymaniyah	20,000	20
KR-I	-45,000	-35

The highest proportion of total household expenditure the 30 days prior to interview was spent on food (42%), followed by rent (33%), and then utilities (8%), which constitute essential household needs. Therefore, more than three quarters of average household expenditure goes towards essential household needs (83%).

Although debt repayment constituted only 2% of total household expenditure, this does not necessarily reflect level of indebtedness, which will be further explored in the following section.

Figure 38: Average household expenditure on basic needs in the 30 days prior to interview, by type



Although these proportions remained fairly consistent at the governorate level, there were some notable differences.<sup>152</sup> Households in Erbil had the highest proportion of expenditure on essential needs (85%), followed by Sulaymaniyah (83%), with the lowest proportion of total expenditure amongst households in Dohuk (77%), (see Figure 38). The largest variations were found between expenditure on rent, with the highest in Sulaymaniyah (37%), followed by Erbil (34%), and lowest in Dohuk (28%).

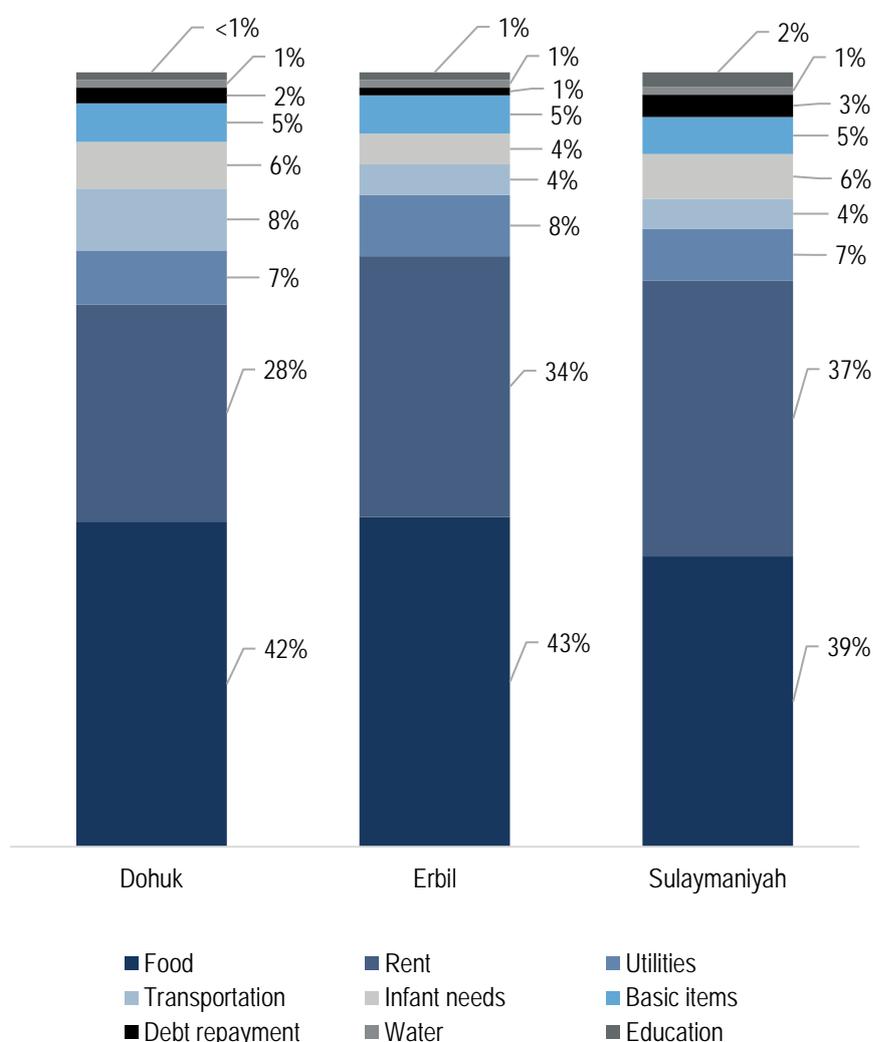
<sup>152</sup> Governorate level variations were significant using Pearson's Chi-squared significance tests and multiple comparison tables.

Furthermore, although average food expenditure as a proportion of total household expenditure did not vary considerably by governorate (43% to 39%), households in Sulaymaniyah spent considerably less on food, on average, than households in Erbil, and even less when compared to Dohuk.<sup>153</sup> **The lower average household food expenditure in the Sulaymaniyah suggests that economic vulnerability is negatively affecting food security of households in the governorate.**

Although the proportion of expenditure on essential needs was lowest amongst households in Dohuk, they also spent the highest amount on transportation: 8% compared to 4% in each of the other governorates. This may indicate more households in Dohuk living outside of urban centres, and therefore needing to travel into cities, than households in Erbil or Sulaymaniyah. Furthermore, public bus systems are more extensive in Erbil or Sulaymaniyah, meaning Syrian refugees in Dohuk are more reliant on private transportation.

Notably, expenditure on debt repayment was low, and did not vary considerably across the governorates, from 1% in Erbil to 3% in Sulaymaniyah. Given the negative average net income of households in Dohuk and Erbil, this is particularly concerning, as expenditures are leading households to continue to accrue debt, without necessarily being able to pay this back. Furthermore, the negative net income most likely hinders households from being able to save money, should they intend to save money to pay off debt in larger installments.

Figure 39: Average household expenditure on basic needs in the 30 days prior to interview, by type and governorate



<sup>153</sup> Average household food expenditure in the 30 days prior to interview was 245,000 IQD (205 USD). In Dohuk: 295,000 IQD (250 USD), in Erbil: 250,000 IQD (210 USD), in Sulaymaniyah: 170,000 IQD (145 USD).

At the governorate level, proportion of expenditure on essential needs did not necessarily reflect the total amount spent, however. The highest average amount spent on essential needs in the 30 days prior to interview was recorded in Dohuk (540,000 IQD or 460 USD), followed by Erbil (495,000 IQD or 420 USD), with the lowest total expenditure amongst households in Sulaymaniyah (365,000 IQD or 305 USD).

Table 15: Expenditure on essential needs as a proportion of total household expenditure and average total amount spent in IQD (rounded to the nearest 5,000), by governorate

Governorate	% Expenditure on essential needs, of total expenditure	Total amount spent on essential needs (IQD)	Total amount spent on essential needs (USD)
<i>Dohuk</i>	77%	540,000	460
<i>Erbil</i>	85%	495,000	420
<i>Sulaymaniyah</i>	83%	365,000	305
<i>KR-I</i>	83%	485,000	410

These findings indicate that although households in Dohuk spent the lowest proportion of their total expenditure on essential needs, the cost of these needs was highest in the governorate compared to Erbil or Sulaymaniyah. This helps to explain the higher total expenditure in the governorate, compared to Erbil or Sulaymaniyah (see Figure 39). However, income does not account for savings or loans. The higher expenditure may be supported by loans, in which case, this may reflect greater short term household resources to use on other needs, as a result of indebtedness. This is supported by the greater negative net income amongst households in Dohuk (see Table 15).

## Household Debt and Coping Strategies

### Household Debt

Proportion of household expenditure towards debt repayment does not necessarily reflect the proportion of households in debt, or level of debt. **Average household debt across the KR-I amounted to around 1,050,000 IQD, or 890 USD.**<sup>154</sup> This constitutes 195% of average household income (540,000 IQD or 455 USD), not accounting for savings.

Across the KR-I, over two thirds of households reported being in debt (68%). This was highest in Dohuk, where 79% of households reported to be in debt, and 65% in the other two governorates (see Figure 40).<sup>155</sup> Furthermore, despite the high proportion of households in debt, only 10% of households reported debt repayment as one of their household expenditures, across the KR-I.<sup>156</sup>

Combined with the high negative net income in Dohuk, and generally high cost of living in the governorate, these findings indicate a considerable and long term household reliance on debt, in Dohuk in particular. This may be explained, in part, by the higher proportion of households in the governorate who moved to the Kurdistan region in 2012: 43% compared to 21% in Erbil and 13% in Sulaymaniyah. Consequently, many of the

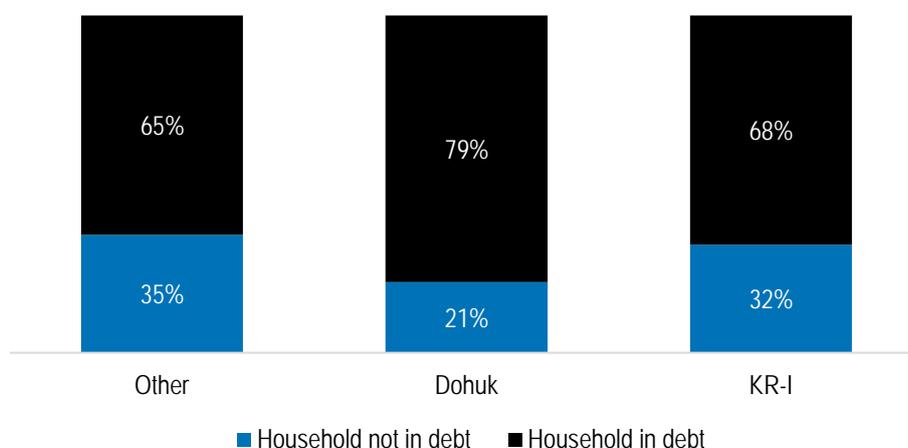
<sup>154</sup> This includes all households, including those not in debt. Conversion from IQD to USD is based on the following conversion rate: 1 USD = 1,183.50 IQD, using XE currency converter. Accessed 31.11.2017. Governorate level variations were not significant using Pearson's Chi-squared statistical testing.

<sup>155</sup> Governorate level variations were significant for the proportion of households in debt, using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore shown between Dohuk and the combined 'other' districts.

<sup>156</sup> Governorate level variations were significant using Pearson's Chi squared test.

households in Dohuk have been displaced for a longer period of time, meaning they are likely to have spent savings or exhausted other financial coping strategies, leading to a greater reliance on debt.

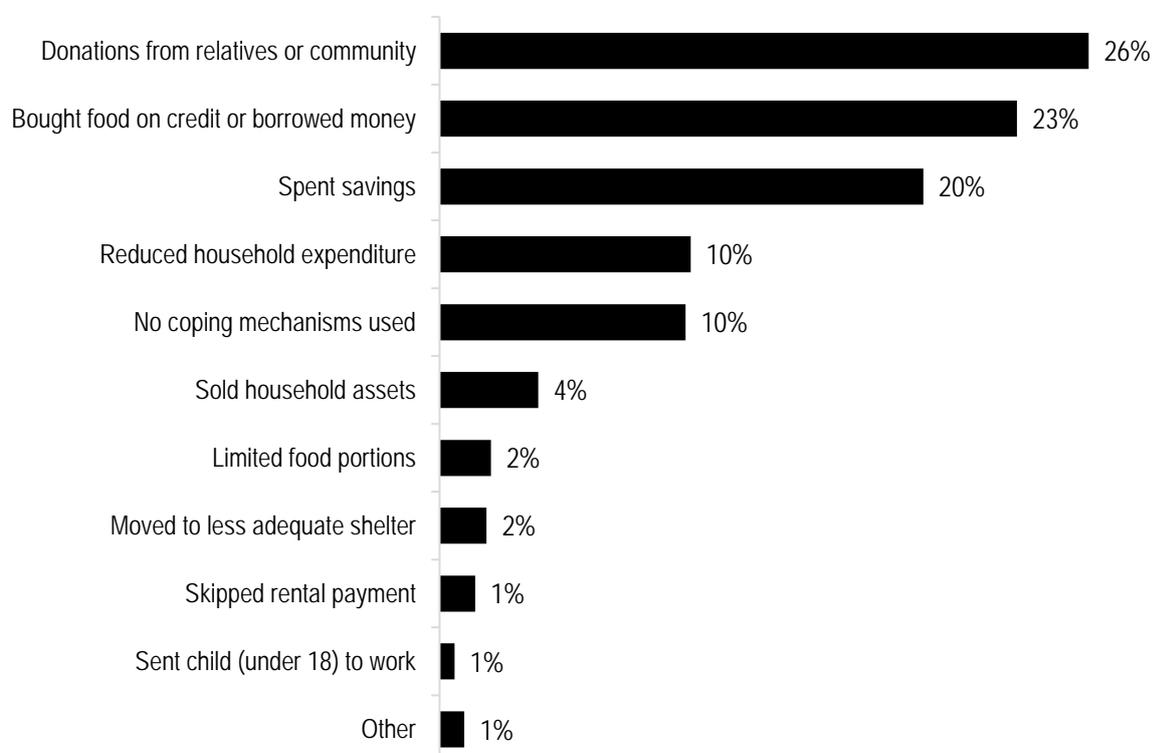
Figure 40: Proportion of all households reported as currently in debt, by governorate



### Livelihood Coping Strategies

Across the KR-I, 90% of households used at least one coping strategy to provide basic needs for the households in the 30 days prior to interview (10% did not use any).<sup>157</sup> A further 26% identified donations from relatives, community, or religious organizations, as their primary coping strategy, followed by 23% who primary relied on buying food on credit or borrowing money, and 20% who spent savings. However, the proportion of households that identified strategies as the primary one used did vary by governorate.

Figure 41: Proportion of households by primary coping strategy used to supplement income in the 30 days prior to interview



<sup>157</sup> Governorate level findings were not significant using Pearson's Chi squared test.

Households in Dohuk more frequently relied on debt as a coping strategy than households in other governorates: 32% compared to 21%. However, this was still the primary coping strategy for a fifth of households in Erbil and Sulaymaniyah.<sup>158</sup>

Conversely, the proportion of households who relied upon donations as a primary coping strategy was considerably lower in Dohuk than in the other two governorates, where approximately a third of households were primarily supported by the donations of relatives, their community, or religious organization.

A fifth of households in Dohuk and Sulaymaniyah reduced essential non-food or basic need expenditures as their primary coping mechanism, whereas only 6% of households in Erbil reported doing so. This may be because households in Erbil are less able to do so than those in other governorates, as they may already be reducing other expenditures to afford essential needs, as indicated by the greater proportion of overall household expenditure goes towards shelter, accommodation, and food than in other governorates.

Table 16: Proportion of households by top 5 primary coping strategies employed in the 30 days prior to interview, by governorate

Governorate	Donations	Borrow money/ credit	Spend savings	Reduce expenditure	Sell assets
<i>Dohuk</i>	12%	32%	14%	18%	4%
<i>Erbil</i>	30%	21%	26%	5%	4%
<i>Sulaymaniyah</i>	30%	21%	5%	18%	4%
<i>KR-I</i>	26%	23%	20%	10%	4%

Whilst primary strategy can indicate the nature and severity of the type of strategy most commonly used by households, the number of different strategies used gives additional context to the frequency and prevalence of coping strategy use. Across the KR-I, a quarter of households used one strategy (24%), a further 28% used two strategies, and 38% used three or more. However, fewer households in Erbil implemented three or more strategies than those in other governorates: 32% compared to 49%.<sup>159</sup>

A small proportion of households were able to further supplement their income through livelihoods assistance (5%), however the vast majority were not (95%).<sup>160</sup> Of those that did receive assistance, almost three quarters received cash-based assistance for small businesses (72%).<sup>161</sup>

## Employment

Three quarters of households had an adult male member aged 18 to 59 that was working in the seven days prior to interview (74%). Employment for working-age males was highest in Sulaymaniyah (82%), followed by Erbil (74%), and lowest in Dohuk, although still considerable (68%). For all age groups and governorates, a considerably smaller proportion of households had females working in the seven days prior to interview than males, with the highest proportion reported in Erbil for women aged 18 to 59 (6%).

<sup>158</sup> Governorate level variations were significant for the proportion of households by primary coping strategy (including those that used none), using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variations were for some coping strategy types, and only between certain governorates, as reported in the text.

<sup>159</sup> Governorate level variations were significant for the proportion of households using three or more strategies. However, multiple comparison tables showed differences to be significant between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Therefore, findings are shown for Erbil and the combined 'other' governorates.

<sup>160</sup> Governorate level variations were not significant using Pearson's Chi-squared statistical testing.

<sup>161</sup> Given the small sample size (58 households), governorate level variations could not be found to be significant using Pearson's Chi-squared statistical testing.



However, almost a fifth of households had a male minor, aged 12 to 17 years, working in the same time period (18%).<sup>162</sup> These figures varied notably across governorates, with the highest rate of employment for males in these age groups recorded in Sulaymaniyah, where a quarter of household reported that boys aged 12 to 17 had been working (24%). This was followed by Erbil (17%), and then Dohuk (15%).

Notably, the average net income of households differed considerably between households where a minor was working and households where they were not. Across all households, the average net income was -45,000 IQD (-35 USD). However, for households where a child was not working, this was considerably higher: -175,000 IQD (-150 USD). In contrast, this was much lower for households where a minor was working: -5,000 IQD (-5 USD). This is most likely due to the additional income, and a subsequent lower complex dependency ratio, where a child working is no longer considered a household dependent.

This highlights a particularly concerning trend of child labour, that was not reported on by households as coping strategy to provide for basic needs within the household. This may suggest that this is a more regular behaviour among households, as indicated by the high proportion of boys that were not anticipated to attend formal school in September 2017 to June 2018, due to needing to work.

Table 17: Proportion of household members that worked in the seven days prior to interview, by age group, sex, and governorate

Governorate	12-17 years		18-59 years		60+ years	
	Male	Female	Male	Female	Male	Female
<i>Dohuk</i>	15%	0%	68%	4%	11%	<1%
<i>Erbil</i>	17%	3%	74%	6%	1%	<1%
<i>Sulaymaniyah</i>	24%	3%	82%	5%	15%	<1%
<i>KR-I</i>	18%	2%	74%	5%	6%	<1%

Overall, households in Dohuk had the lowest proportion of household members working, for all age and sex groups, with the exception of males and females aged 60 or over. This gives further understanding to the higher reliance of households in the governorate on debt, and may be in part explained by the higher proportion of household members suffering from a chronic illness at the time of interview, as reported in the health section.

Across the KR-I, 65% reportedly experienced difficulties accessing employment. The primary reason was increased competition (75%), followed by inadequate jobs being available (8%), and refusal to hire refugees (7%).<sup>163</sup> Although households in Dohuk had the lowest proportion of household members working, they also had the lowest proportion of households that experienced difficulties accessing employment in their area, compared to other governorates: 52% compared to 68% in Erbil and Sulaymaniyah.<sup>164</sup> This highlights a need for further research into the reasons why fewer households in Dohuk have members in gainful employment, towards addressing generally high levels of indebtedness, and consequent economic vulnerability.

<sup>162</sup> Governorate level variations were significant for the proportion of population working in the seven days prior to interview, for all age and sex groups, using Pearson's Chi-squared statistical testing, with the exception of women aged 60 or over.

<sup>163</sup> Governorate level variations were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed the majority of variations to not be significant, and those that were, were not considerable. Findings are therefore reported at KR-I level only.

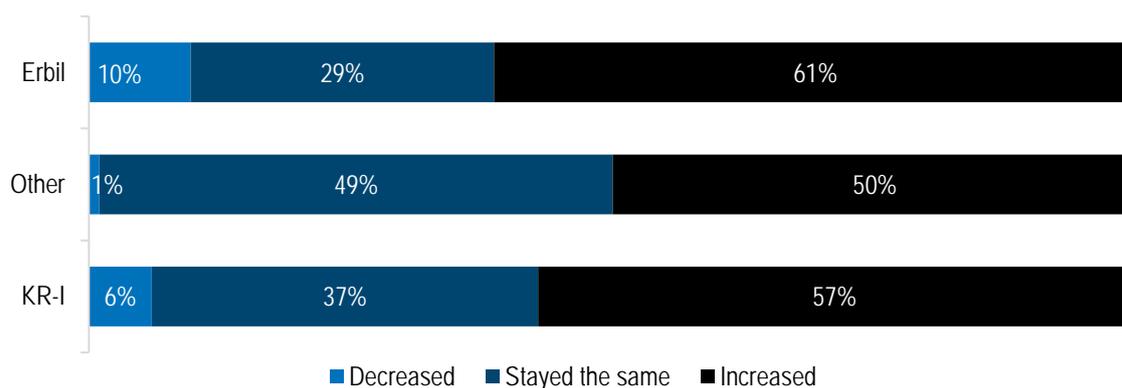
<sup>164</sup> Governorate level variations were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables found that the only significant variation was between Dohuk and Sulaymaniyah, and Dohuk and Erbil, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' governorates.

## Basic Needs

### Cost and Affordability

Across the KR-I, over half of all households reported that the cost of basic household needs had increased in the three months prior to interview (57%), 37% reported that it had stayed the same, and 6% that costs had decreased. However, this did vary between governorates.<sup>165</sup> A smaller proportion of households in Erbil reported that costs had either decreased or stayed the same (39%), compared to the other two governorates (50%). Overall, this suggests that the **general cost of living may be higher in Erbil**.

Figure 42: Proportion of households by perceived change to cost of basic household needs in the 3 months prior to interview, by governorate



Over three quarters of Syrian refugee households in KR-I host communities reported being able to afford basic needs, such as food, water, shelter, and medical care, since arriving to their current location (77%). **The 23% of households that had been unable to afford basic needs are likely to be more economically vulnerable.**

Moreover, the average household income in the last 30 days was considerably lower in households that had been unable to afford basic needs: 445,000 IQD (375 USD), compared to 570,000 IQD (480 USD).<sup>166</sup> There was minimal variation in average household size, or year of arrival, and no difference in dependency ratio, across the two groups.

However, **the proportion of households that have, at some point since arriving, been unable to afford basic needs varied considerably across the three governorates.** In Dohuk, 7% of households reported that they had been unable to afford basic needs at some point since arrival, compared to almost a quarter in Erbil (23%) and nearly half in Sulaymaniyah (44%), (see Figure 43).<sup>167</sup>

Although households in Sulaymaniyah had a positive net income (20,000 IQD or 20 USD), compared to negative net income in Dohuk and Erbil, they reported the lowest gross household income overall.<sup>168</sup> **Against this backdrop, governorate level trends in household ability to afford basic needs, suggests a particular economic vulnerability rooted in lower income amongst households in Sulaymaniyah.**

**Of those households that have been unable to afford basic needs, the most frequently unaffordable needs were:** shelter (64%), followed by healthcare (59%), food (45%), and water (23%). The frequency with which each need was identified was considerably higher in Sulaymaniyah than in the two other governorates.<sup>169</sup>

<sup>165</sup> Governorate level variations were significant for the change in cost of basic needs, using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was found between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Comparisons are therefore shown between Erbil and the combined 'other' districts.

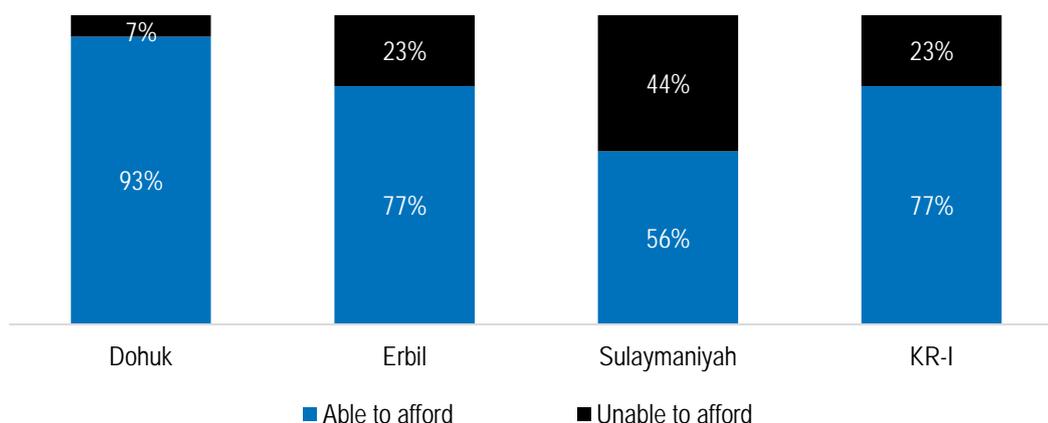
<sup>166</sup> Governorate level variations were significant using a two-sided t-test.

<sup>167</sup> Governorate level variations were significant using Pearson's Chi-squared statistical testing and multiple comparison tables.

<sup>168</sup> Average gross household income in Sulaymaniyah was 460,000 IQD (385 USD), compared to 555,000 IQD (470 USD) in Dohuk and Erbil.

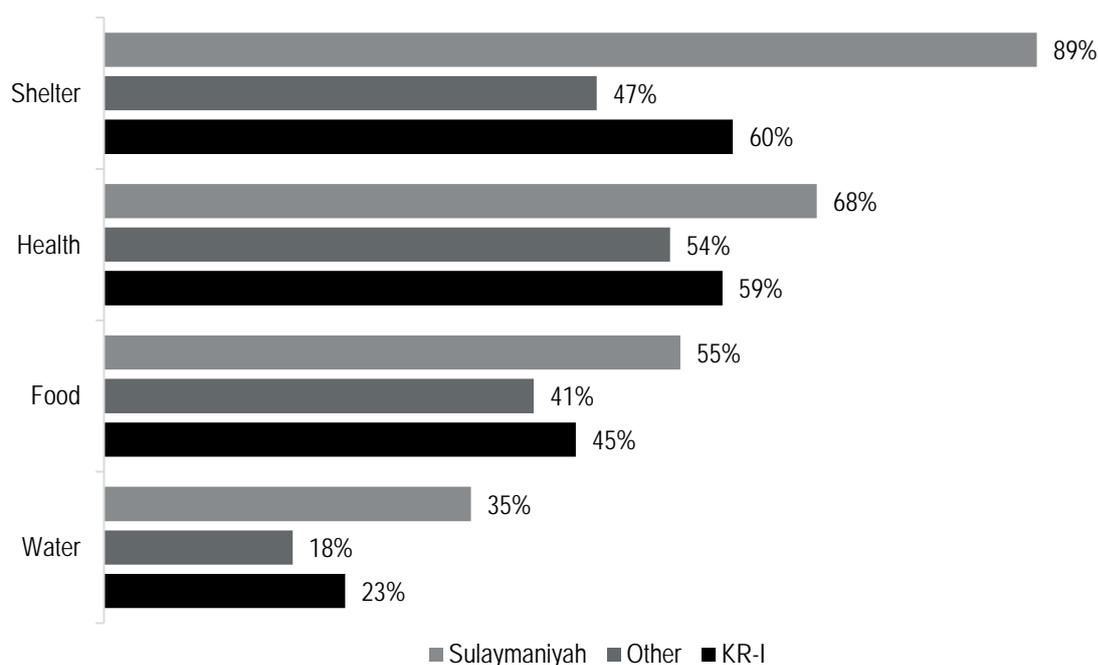
<sup>169</sup> Governorate level variations were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed most governorate comparisons to not be significant, and have thus not been reported here. Multiple options could be selected and findings may therefore exceed 100%

Figure 43: Proportion of households unable to afford basic needs at some point since arriving in their current location, by governorate



Governorate level variations were most notable for shelter, where 89% of households in Sulaymaniyah that were unable to afford basic needs identified shelter as a need, compared to 47% of the households in Dohuk or Erbil. Furthermore, a considerably higher proportion of households in Sulaymaniyah identified three or more needs that they were unable to afford (51%), than households in Dohuk or Erbil (11%).<sup>170</sup>

Figure 44: Frequency of needs identified by households that had been unable to afford basic needs, by type of need and governorate



These findings provide additional context to the greater reliance on consumption and livelihoods-based coping strategies in the governorate, both in terms of frequency of use and severity of strategies used, outlined in previous sections on food security and livelihoods. Combined, these findings suggest that households in Sulaymaniyah have a lower household income and greater level of economic insecurity, resulting in a higher proportion of households struggling to provide for basic needs, including food.

<sup>170</sup> Governorate level variations were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed the only significant difference to be for households that had one, or three or more needs they were unable to afford, between Sulaymaniyah and Dohuk, and Dohuk and Sulaymaniyah, but not Dohuk and Erbil. Comparisons are therefore shown between Sulaymaniyah and the combined 'other' districts.

## Priority Needs

Households were asked to report their top three priority needs. The most frequently reported need was cash assistance for housing (71%), followed by access to employment (55%), and more food (31%).<sup>171</sup> However, the frequency with which households identified priority needs varied considerably between governorates.

Cash assistance for housing was the most frequently selected priority need in all governorates, although half of households in Sulaymaniyah selected this (49%), compared to three quarters in the other governorates (76%).<sup>172</sup> Combined with the higher expenditure on rent reported by households in Dohuk and Erbil, compared to Sulaymaniyah, this may indicate a particular need for affordable housing in Dohuk and Erbil.

Almost half of all households in Dohuk and Sulaymaniyah noted a greater quantity of food as a priority need (46%), with a quarter of all households indicating a need for better quality food (24%). This compounds findings of potentially greater food insecurity in Sulaymaniyah, such as more prevalent reliance on consumption-based coping strategies, as a consequence of lower total households income.

Households in Erbil more frequently reported need for employment opportunities than households in Dohuk or Sulaymaniyah: 68%, compared to 46% in Dohuk and 21% in Sulaymaniyah. This suggests that households in Erbil in particular are struggling to secure adequate income to provide for basic household needs.

Table 18: Frequency of top 5 reported priority household needs, by governorate

Governorate	Cash assistance for housing	Access to employment/ jobs	Greater quantity of food	Medical assistance	Better quality food
Dohuk	76%	46%	46%	44%	24%
Erbil	76%	68%	22%	27%	24%
Sulaymaniyah	49%	21%	46%	13%	24%
KR-I	71%	55%	31%	28%	24%

## Assistance

In terms of support received to meet household basic needs, 11% of households reportedly received assistance of some kind in the 30 days prior to interview. However, this varied considerably between Sulaymaniyah and Dohuk and Erbil.<sup>173</sup> In Dohuk and Erbil, 4% and 5% of households respectively reported having received assistance. However, almost half reported receiving assistance in Sulaymaniyah (42%).

Amongst these households, the most frequently cited type of assistance was in-kind shelter and NFI assistance (70%), followed by cash assistance (22%), and in-kind food assistance (11%).<sup>174</sup> The frequency of households that reported receiving different types of assistance varied notably between Sulaymaniyah and the other governorates for in-kind shelter and winterization and cash-based assistance. In Sulaymaniyah, 85% of households that reportedly received assistance received in-kind shelter or winterization, compared to 40% in Erbil and Dohuk. Conversely, 11% of households in Sulaymaniyah received cash-based assistance, compared to 46% in the other two governorates.

<sup>171</sup> Households were asked to report up to three needs each, therefore findings may exceed 100%.

<sup>172</sup> Governorate level variations in frequency of priority needs selected were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed not all governorate level variations were significant for all need types. Where this was the case, governorate level findings have been reported as the combined finding.

<sup>173</sup> Governorate level variations for households that received assistance were significant using Pearson's Chi-squared statistical testing.

<sup>174</sup> Governorate level variations were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed not all governorate level variations were significant for shelter and winterization and cash assistance, and only between Sulaymaniyah and Dohuk, and between Sulaymaniyah and Erbil, but not Dohuk and Erbil. Comparisons are therefore shown between Sulaymaniyah and the combined 'other' districts.

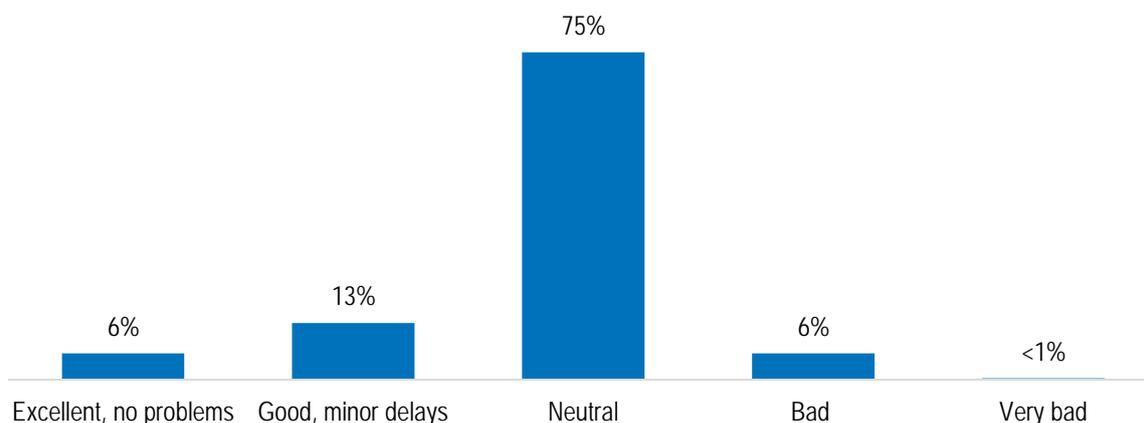


## Access to Public Services and Information

### Access to Public Services

The vast majority of households perceived access to public services in their area, such as education, shelter, health, to be neutral (75%), with 19% of households perceiving access to be either good or excellent. Six percent (6%) of households found access to services to be bad, and less than 1% very bad.<sup>175</sup>

Figure 45: Proportion of households by perceived access to public services in the local area



Of the households that reported access to be 'bad' or 'very bad', almost two thirds reported that this was due to insufficient funds to access them (61%), followed by poor service (51%). The third most reported reason, perceived preference of service providers for host community members, was cited considerably less frequently: 8%.<sup>176</sup>

### Access to Information

#### Information sources

Households most frequently reported friends and family to be their main current source of information (79%), followed by the internet and social media (73%), and television (60%), (see Table 19). However, these figures varied considerably at the governorate level.<sup>177</sup>

The frequency with which households in Erbil reported friends and family, as well as internet and social media, as their current main sources of information were 93% and 84% respectively. This was much higher than in the other two governorates, indicating a greater use of informal sources and networks of information in Erbil.

Households in Sulaymaniyah and Dohuk also frequently selected friends and family and the internet and social media (53% and 54% respectively). These were the most frequently identified sources by households in Sulaymaniyah, although closely followed by community leaders (47%). A fifth of households also identified government officials as a main source of information (20%). This may reflect the higher proportion of households in the governorate reporting regular personal access to their local community leader: 63% in Sulaymaniyah, compared to 52% in Erbil, and 37% in Dohuk

<sup>175</sup> Governorate level variations were significant using Pearson's Chi-squared tests. However, multiple comparison tables found only differences between Dohuk and Erbil to be significant for households reporting access to be 'bad', and Sulaymaniyah and Erbil for households reporting access to be 'very bad'. Given the small scale of these differences, findings have only been reported at the KR-I level.

<sup>176</sup> Respondents could select multiple response options. Given the small sample size (69 respondents), statistical significance tests could not be reliably run at the governorate level, and are representative with a 90% level of confidence and 10% margin of error.

<sup>177</sup> Governorate level variations in frequency of current main information source selected were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed not all governorate level variations were significant for all need types. Where this was the case, governorate level findings have been reported as the combined finding. Multiple options could be selected and therefore findings may exceed 100%.

In contrast to households in Erbil and Sulaymaniyah, the most frequently identified main source of information for households in Dohuk was television, at 88%. Furthermore, these households much less frequently reported accessing official sources, such as community leaders and government officials as a main source of information: less than 1% for each.

Table 19: Frequency of the top five main sources of information selected by households, by governorate

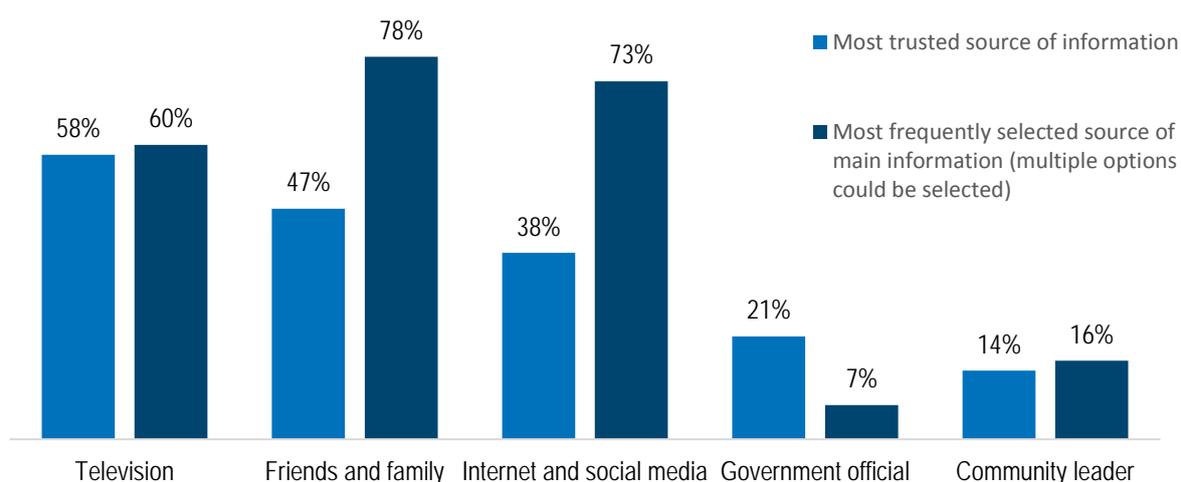
Governorate	Friends and family	Internet and social media	Television	Community leaders	Government officials
Dohuk	53%	54%	88%	<1%	<1%
Erbil	93%	84%	56%	13%	6%
Sulaymaniyah	53%	54%	39%	47%	20%
KR-I	78%	73%	60%	16%	7%

The top five most frequently trusted sources of information were the same as the top five most frequently selected main sources.<sup>178</sup> The most frequently trusted sources of information reflected those most frequently used with regards to television, with 58% of households reporting television as one of their most trusted source, and 60% selecting it as one of their main sources. Similarly, 14% of households identified community leaders as one of their most trusted sources, reflecting 16% of households who selected them as one of their main sources.

However, despite the frequency with which households identified friends and family and the internet and social media as main sources of information (78% and 72%), a smaller frequency of households identified them as their most trusted source: 47% and 38% respectively.

Conversely, although government officials were selected as a main source of information by only 7% of households across the KR-I, this was identified as the most trusted source of information by 21% of households.

Figure 46: Frequency of top five main sources of information, and frequency of most trusted sources of information



<sup>178</sup> Households could report up to three sources they identified as their most trusted source of information. Findings may therefore exceed 100%.

Findings for most frequently selected trusted sources varied considerably by governorate, however.<sup>179</sup> Households in both Dohuk and Erbil most frequently selected television as one of their most trusted sources: 64% and 65%. However, households in Erbil more frequently selected friends and family and the internet and social media as most trusted sources, compared to households in Dohuk: 54% and 45%, compared to 36% and 15% respectively. This echoes governorate level trends in frequency of main sources of information selected.

Only 1% of households in Dohuk reported government officials as their most trusted source, compared to 26% in the other governorates. This suggests that households in Dohuk may not be relying on these official sources of information because they do not trust them, rather than because of other issues, such as access.<sup>180</sup> These findings were similar for community leaders, also.

Furthermore, a similar frequency of households in Sulaymaniyah who cited community leaders as one of their main sources indicated this as one of their most trusted source: 47% and 45% respectively. This implies that community leaders are used as a main source of information in Sulaymaniyah, both because of access, and trust.

Table 20: Frequency of the top five most trusted sources of information selected by households, by governorate

Governorate	Television	Friends and family	Internet and social media	Government officials	Community leaders
<i>Dohuk</i>	64%	36%	15%	1%	1%
<i>Erbil</i>	65%	54%	45%	26%	10%
<i>Sulaymaniyah</i>	29%	36%	40%	27%	45%
<i>KR-I</i>	58%	47%	38%	21%	14%

### Types of informational need

Job vacancies was the most frequently selected topic of most important informational need for households across the KR-I: 65%. This frequency was consistent across the governorates, further indicating the importance of accessing income and livelihood opportunities, or lack thereof, to Syrian refugee households in KR-I host communities (see Table 21).<sup>181</sup>

<sup>179</sup> Governorate level variations were significant for all types of source, using Pearson's Chi-squared statistical testing, with the exception of 'friends and family'. Multiple comparison tables showed variations to only be significant for this source between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Dohuk and Sulaymaniyah. Findings for this source are therefore presented for Erbil and the combined 'other' governorates.

<sup>180</sup> Governorate level variations in frequency of most trusted information source selected were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed not all governorate level variations were significant for all need types. Where this was the case, governorate level findings have been reported as the combined finding, or at the KR-I level.

<sup>181</sup> Governorate level variations in frequency of most important information topic needs were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed not all governorate level variations were significant for all need types. Where this was the case, governorate level findings have been reported as the combined finding, or only at KR-I level. Multiple options could be selected and therefore findings may exceed 100%.

Table 21: Frequency of the top five most important topics of information selected by households, by governorate

Governorate	Job vacancies	Aid distributions	UNHCR registration	Refugee rights	Available services
<i>Dohuk</i>	65%	58%	21%	39%	15%
<i>Erbil</i>	65%	69%	40%	21%	15%
<i>Sulaymaniyah</i>	65%	45%	21%	39%	15%
<i>KR-I</i>	65%	63%	33%	28%	15%

The second most frequently selected topic was aid distributions, with 63% of households across the KR-I selecting this as an important informational need. However, this did vary across governorates, and was the most frequently selected topic by households in Erbil (69%). Over half of households in Dohuk selected this (58%), whilst less than half selected this in Sulaymaniyah (45%). This may be a reflection of the higher proportion of households in Sulaymaniyah reportedly receiving assistance in the 30 days prior to interview: 42% compared to 5% in Erbil and 4% in Dohuk. A further 15% of households reported that information about available services was one of the most important topics they wanted to know about.

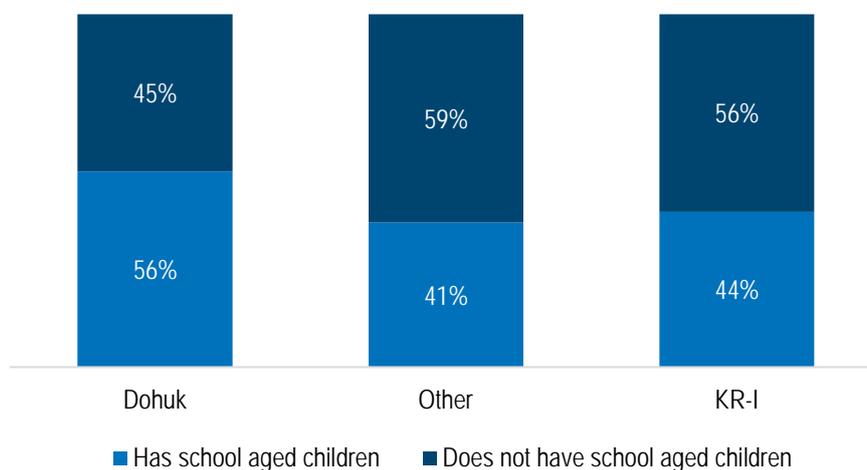
A third of households also reported needing more information on UNHCR registration (33%), and over a quarter on refugee rights (28%). Although 40% of households in Erbil selected UNHCR registration as one of the most important topics of informational need, the vast majority of households were reportedly registered with UNHCR (96% in all governorates). However, a lower proportion of households in Erbil reportedly had possession of a KR-I residency card (62% compared to 92% in Dohuk and 74% in Sulaymaniyah), or knew where to obtain civil documentation (57% compared to 77% in Dohuk and 86% in Sulaymaniyah). This may highlight potential protection concerns relating to registration and documentation, and legal assistance, particularly in Erbil.



## Education

Almost half of households (44%) across the KR-I contained at least one school-aged child (6 to 17 years). However, the proportion of households with school-aged children was significantly higher in Dohuk (56%), compared to the other two governorates (41%).<sup>182</sup> This may indicate a particular need for education based programming in the governorate.

Figure 47 : Proportion of households with school-aged children (aged 6-17 years), by governorate



All households with children in this age category were then asked about the formal school attendance of each school-aged child in the household in the past school year, intentions to attend in the upcoming school year, and reasons for non-attendance or dropping out.<sup>183</sup> Collectively, these findings serve to inform where and what kind of education-based programming is most needed by Syrian refugees living in KR-I host communities.

### Past attendance

Overall, 64% of children aged 6 to 17 years of age were reportedly attending formal school at least four days a week in the previous school year (September 2016 to June 2017). However, there were variations according to governorate of residence, sex, and age group.<sup>184</sup>

The highest attendance was recorded in Dohuk, with over two thirds of children aged 6 to 17 reported by their households to have attended formal school in the past year (69%), (see Figure 48). This was followed by Sulaymaniyah (65%), with the lowest overall past attendance recorded in Erbil (62%).

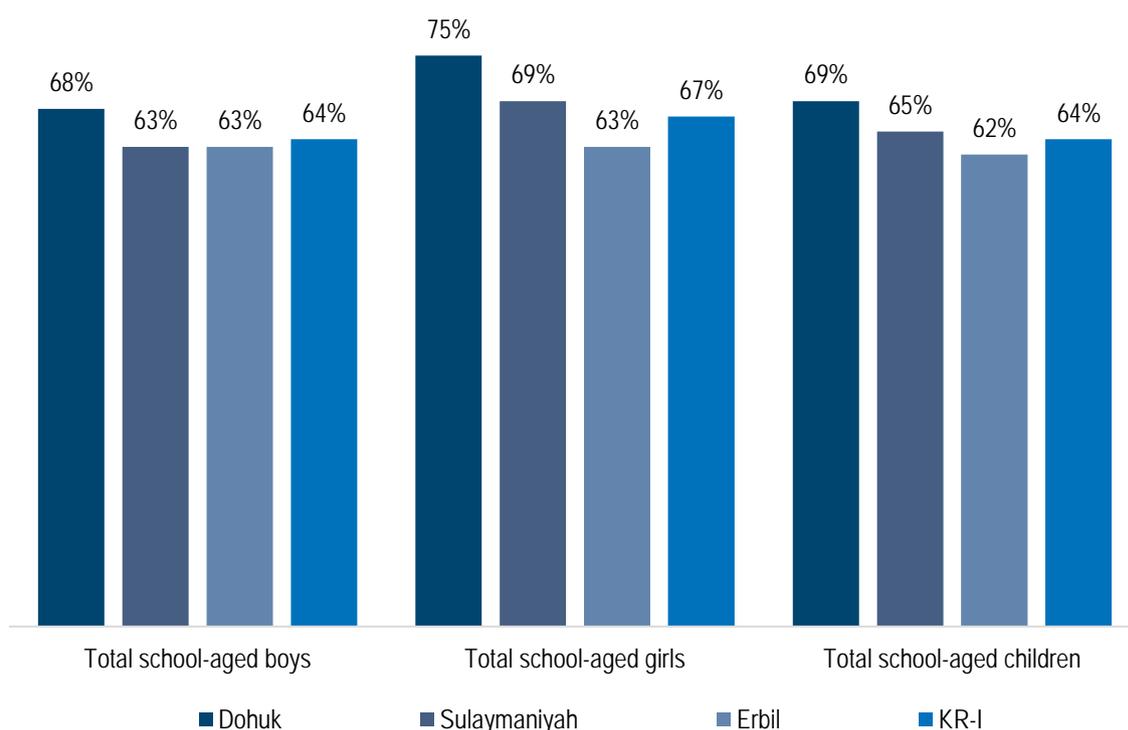
Overall attendance was higher for school-aged girls than boys across the KR-I, with 67% of girls reported to have attended, compared to 64% of boys. This trend was consistent across the governorates, with the exception of Erbil where overall attendance was equivalent (63% for both boys and girls). Differences were most notable in Dohuk, where 75% of school-aged girls attended formal school, compared to 68% of boys. However, overall trends in attendance based on sex were not consistent when further disaggregated by age group at the KR-I level.

<sup>182</sup> Governorate level variations were significant for the proportion of households with school-aged children, using Pearson's Chi squared test. However, multiple comparison tables found that the only significant variation was found between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Dohuk and the combined 'other' districts.

<sup>183</sup> Data collection occurred in August and early September 2017, and therefore between two school years. The 'previous' year refers to September 2016 – June 2017, and the upcoming year to September 2017 – June 2018.

<sup>184</sup> Governorate level variations were significant for the average proportion of school-aged children that attended formal school the previous year, by sex, using ANOVA statistical testing. However, Tukey's HSD multiple comparison tables found that variations for school-aged boys were only significant between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Figures for the two districts are reported as the combined average.

Figure 48: Proportion of school-aged children attending formal school in the previous year, by sex and governorate



At the KR-I level, attendance of boys and girls was approximately equivalent for children aged 6 to 11 years (67% and 68% respectively). The higher overall attendance of girls may be explained by the variation in attendance for 12 to 14-year olds, where 83% of girls were reported to have attended, compared to 68% of boys.<sup>185</sup>

Conversely, attendance of girls was lower than boys for adolescents aged 15 to 17 years: 49% compared to 53%. These figures indicate that whilst attendance may be equivalent across the sexes for younger children, boys are attending in much lower numbers from the age of 12 to 14, whereas female non-attendance becomes a concerning factor in adolescence.

Table 22: Proportion of school-aged children who reportedly attended formal school in the previous year, by age group, sex, and governorate

Governorate	6-11 years		12-14 years		15-17 years		Overall
	Boys	Girls	Boys	Girls	Boys	Girls	
<i>Dohuk</i>	73%	77%	80%	84%	45%	57%	69%
<i>Erbil</i>	61%	64%	63%	84%	61%	43%	62%
<i>Sulaymaniyah</i>	78%	70%	63%	76%	34%	61%	65%
<i>KR-I</i>	67%	68%	68%	83%	53%	49%	64%

<sup>185</sup> Governorate level variations were significant for the average proportion of school-aged children that attended formal school the previous year, by sex and age group, using ANOVA statistical testing. However, Tukey's HSD multiple comparison tables found that variations for boys aged 12 to 14 years were only significant between Dohuk and Erbil, and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Figures for the two districts are reported as the combined average. Similarly, variations for girls aged 12 to 14 years were only significant between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Figures for the two districts are reported as the combined average.

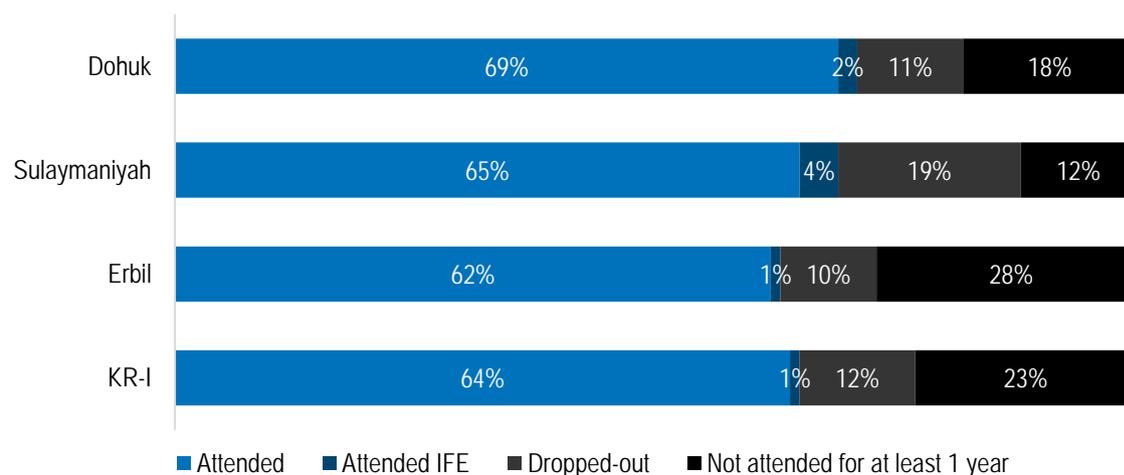
Where children had not been attending formal school, informal education (IFE) programmes are provided by education focused humanitarian actors. **KR-I wide, IFE attendance was low, with 1% of school-aged children reportedly attending at least four days a week in the previous school year.** Results were similar at governorate level. The highest attendance was recorded in Sulaymaniyah, where 4% of school-aged children reportedly attended IFE, followed by 2% in Dohuk, and less than 1% in Erbil.<sup>186</sup>

Across age groups and sex, there were minimal variations in IFE attendance rates, which generally remained low. **This may indicate a limited awareness of available IFE programming. Alternatively, households with school-aged children may be aware of informal education opportunities for children, but the children are not attending for the same reason that they have not been attending formal school.**

**At the KR-I level, 12% of school-aged children dropped-out of formal school in the previous school year, and 23% had not attended formal school for at least one year.**<sup>187</sup> The drop-out rate was highest in Sulaymaniyah (19%) and lowest in Erbil (10%).<sup>188</sup> Conversely, the proportion of school-aged children who had not attended for at least one year was highest in Erbil (28%) and lowest in Sulaymaniyah (12%).

Through combining these indicators, we can see across governorates that school-aged children in Dohuk have the highest formal school attendance. However, when IFE is also accounted for, attendance is roughly equivalent in Dohuk and Sulaymaniyah (see Figure 49). However, in order to better target education reintegration programming, understanding the demographics of drop-out rates and non-attendance, by age group and sex, may be particularly useful.

Figure 49: Proportion of school-aged children by school attendance, by governorate



For children aged 6 to 11 years, 32% of boys and 31% of girls had not been attending either formal school or IFE (see Figure 50). **The 23% of boys and 26% of girls in this age group that had not attended for at least a year may be due to 6-year olds not being eligible to attend formal school until the following year, depending on date of birth.** This may also be explained by a delay in starting school as a result of displacement in recent years.

**The 9% of boys and 5% of girls in the age group that dropped out are concerning and may indicate either further displacement of the household and consequent disruption of attendance to school, or potential worsening of economic vulnerabilities leading parents to withdraw their children from school.**

<sup>186</sup> Governorate level and age-group and sex variations were significant using ANOVA and Tukey's HSD multiple comparison statistical testing. However, multiple comparison tables showed variations by age-group and sex at the governorate level were not significant between most groups. Findings for IFE attendance are therefore only reported by governorate, or by age group and sex.

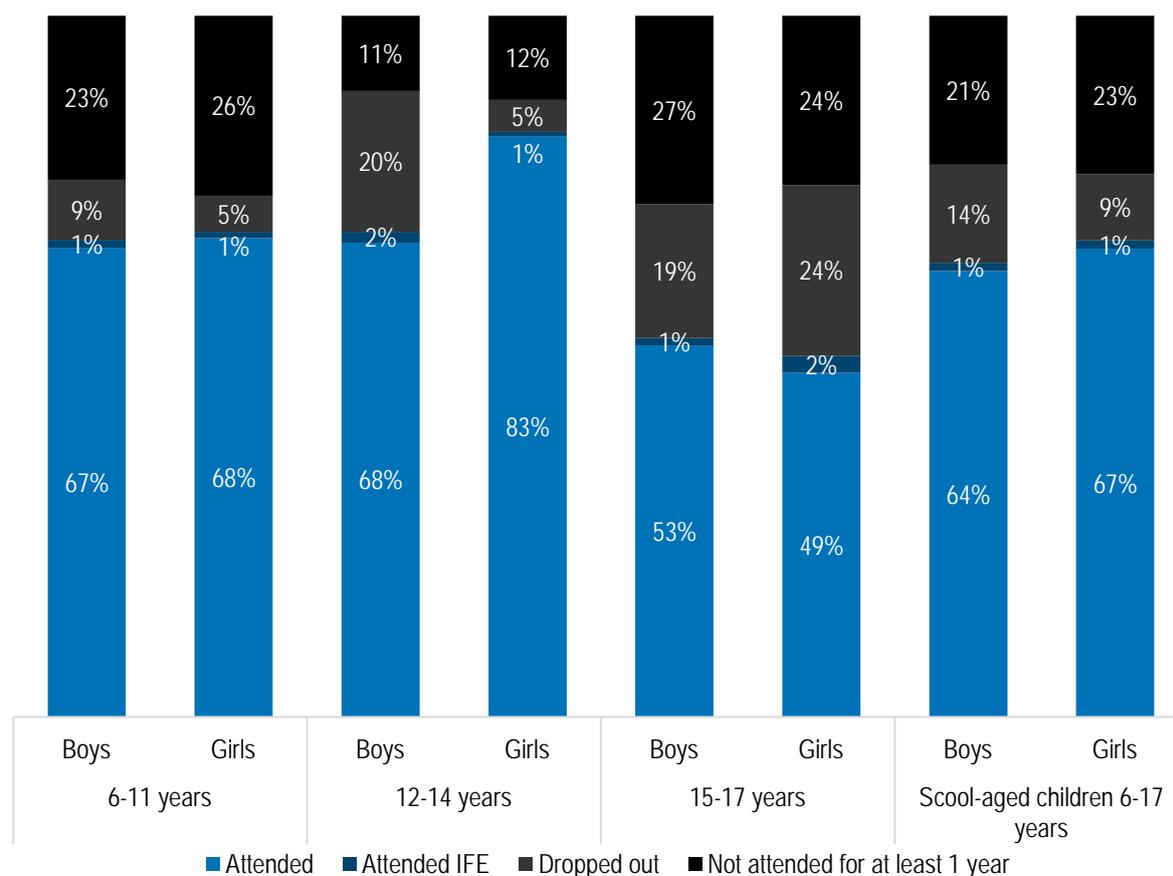
<sup>187</sup> Based on a sum of 64% attended and 12% dropped out (76%).

<sup>188</sup> Governorate level variations were significant using ANOVA and Tukey's HSD multiple comparison statistical testing. Variations by age-group, sex, and age-group and sex at the governorate level were all significant using the same statistical testing.

Overall, the age group with the highest drop-out rate in the previous year was adolescents aged 15 to 17 years: 19% of boys and 24% of girls in this age group reportedly left formal school in the previous school year (see Figure 50). Moreover, 27% of boys and 24% of girls aged 15 to 17 years had not attended school for at least one year and may be in need of support to reintegrate into the education system.

Trends in drop-out rates across age groups varied notably between boys and girls, indicating where intervention to prevent children from dropping out would be most effective. The drop-out rate remained stable at 5% for girls between the ages of 6 to 11 and 12 to 14, and then increased considerably, to 24%, amongst female adolescents. However, the most notable increase in drop-outs for boys occurred between the ages of 6 to 11, and 12 to 14, where the rate doubled from 9% to 20%, after which it remained constant (19% for adolescent boys). However, these demographic trends did vary by governorate.<sup>189</sup>

Figure 50: Proportion of school-aged children by school attendance, by age-group and sex



Despite there being a comparatively high combined formal and informal schooling attendance, some of the highest drop-out rates by sex and age groups were reported in Sulaymaniyah. This was most notable for boys aged 15 to 17 in the governorate, 40% of whom were reported to have dropped out of formal school in the previous school year (see Table 23). These findings run contrary to trends observed at the KR-I level, where the drop-out rate remained consistent for boys between the ages of 12 to 14 and 15 to 17, and the rate was higher for female than male adolescents.

<sup>189</sup> Further disaggregation of drop-out rates by governorate, as well as age group and sex means that the population of interest may be too small to be representative. Consequently, all findings should be considered indicative only.

Table 23: Proportion of school-aged children who reportedly dropped-out of formal school in the previous year, by age group, sex, and governorate

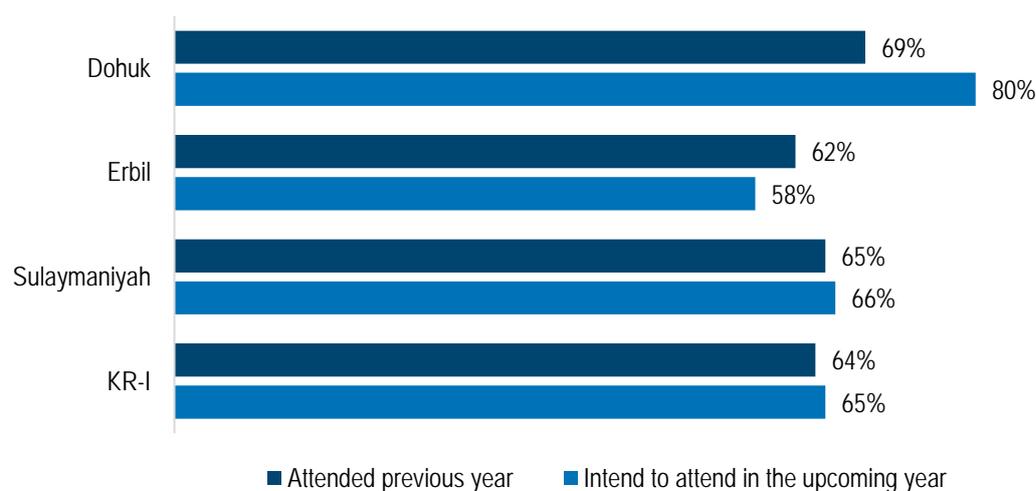
Governorate	6-11 years		12-14 years		15-17 years		Overall
	Boys	Girls	Boys	Girls	Girls	Female	
Dohuk	7%	9%	8%	8%	28%	12%	11%
Erbil	8%	1%	25%	2%	10%	30%	10%
Sulaymaniyah	12%	14%	22%	11%	40%	26%	19%
KR-I	9%	5%	20%	5%	19%	24%	12%

In both Dohuk and Sulaymaniyah, the drop-out rate increased considerably for boys from the ages of 12 to 14, and 15 to 17, and was higher than for females. In contrast, the proportion of male adolescents that had dropped out in Erbil (10%) was notably lower than boys aged 12 to 14 in the same governorate (25%), (see Table 23). Moreover, the proportion of male adolescents that had dropped out in the governorate was a third of female adolescents: 10% compared to 30%. Consequently, **any education based programming aimed at preventing children from dropping out, or supporting reintegration, may need to adapt demographic targeting depending on the governorate of implementation.**

### Future Attendance

The proportion of school-aged children across the KR-I that attended in the previous year is roughly equivalent to the proportion of children that were expected to attend in the upcoming school year (September 2017 to June 2018): 65% intending compared with 64% who reportedly did attend. However, **this does vary by governorate.** In line with trends at the KR-I level, intended attendance was higher than reported previous attendance in Dohuk, by 11%, and in Erbil, by 1%. Converseley, the proportion of children intended to attend was lower in Erbil than for reported previous attendance: 58% intending to compared with 62% who reportedly did attend.<sup>190</sup>

Figure 51: Proportion of school-aged children that intend to attend formal school in the upcoming school year compared to school-aged children that attended the previous year, by governorate



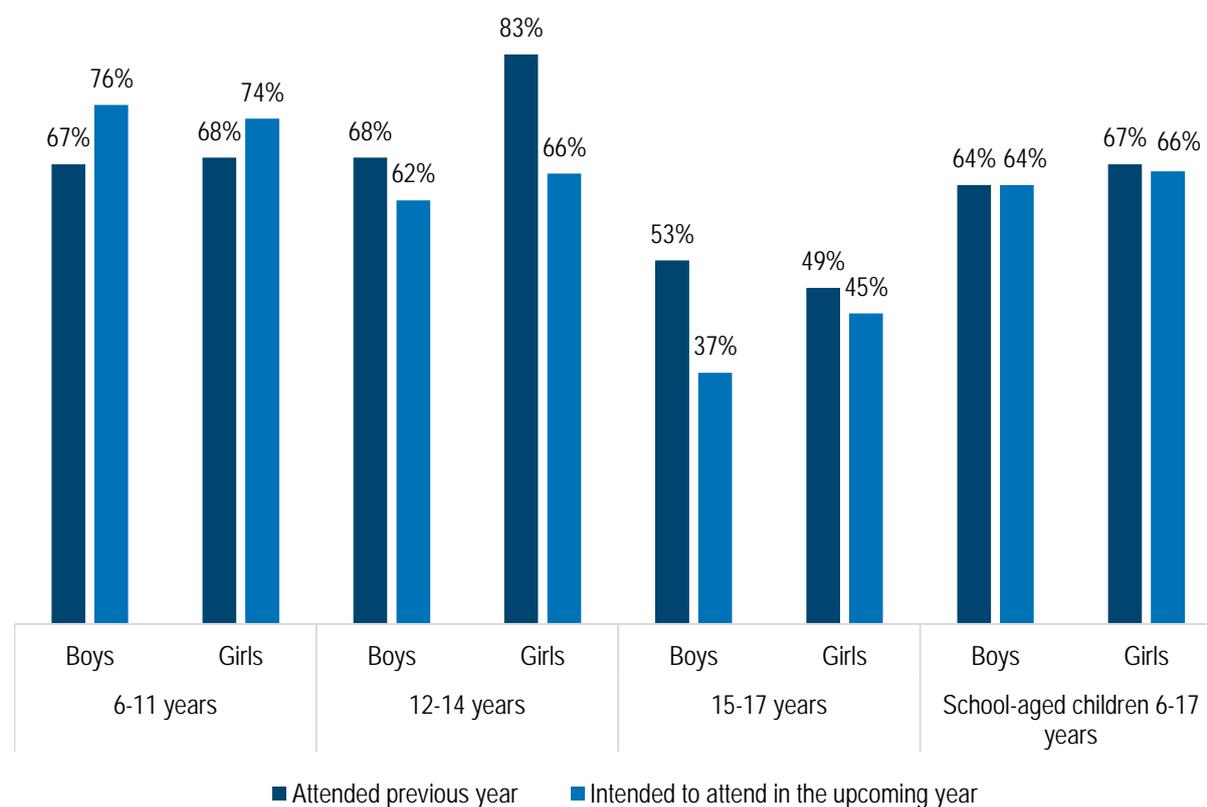
<sup>190</sup> Governorate level variations were significant using ANOVA and Tukey's HSD multiple comparison statistical testing. Variations by age-group, sex, and age-group and sex at the governorate level were all significant using the same statistical testing.

Overall trends in reported previous attendance compared to expected future attendance were consistent when disaggregated by sex. Across all age groups, intended and previous attendance was the same for boys (64%) and differed by only 1% for girls: from 67% to 66%. However, variations were more notable when disaggregated by age group as well as sex.

For both boys and girls aged 6 to 11 years, there is a notable increase in predicted attendance in the upcoming school year compared to those that were reported to have attended in the past year; a 9% increase for boys and a 6% increase for girls in this age group. This may represent the younger members of the demographic group that have not yet started school due to date of birth but will be eligible to do so for the school year starting September 2017.

Predicted attendance decreased, compared to previous attendance, for all other age-groups and amongst both boys and girls. For boys, the decrease was most considerable amongst adolescent males, aged 15 to 17 years, from 53% to 37%. The most notable decrease was for girls aged 12 to 14 years, from 83% to 66%. This may be indicative of trends in previous attendance, where drop-out rates increased for girls and boys around adolescence, suggesting that as they get older, they are less likely to stay in school.

Figure 52: Proportion of school-aged children that will attend formal school in the upcoming school year compared to school-aged children that attended the previous year, by age-group and sex



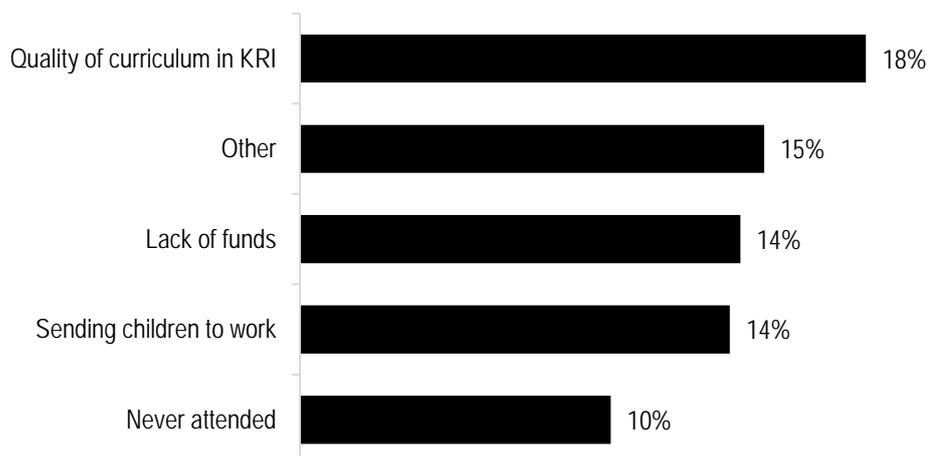
In order to inform educational engagement programming, it is pertinent to understand the factors affecting children's school attendance and reasons for expected non-attendance. Consequently, families with children that did not intend to attend formal school at least four days a week in the upcoming school-year were asked to cite the reasons why.<sup>191</sup>

<sup>191</sup> Households where at least one individual in an age-group and sex demographic will not be attending were asked to report the reasons why. Responses were then aggregated up to the KR-I level and total school-aged child that will not be attending, population level.

## Reasons for Non-Attendance

Of households where at least one child was not anticipated to attend formal school, the most frequently cited reason for expected non-attendance was the quality of the curriculum (18%).<sup>192</sup> This was followed by lack of funds (14%) and the child needing to work (14%). The 15% represented by 'other' (15%), included illness or disability, bullying or harassment, and 'don't know'.

Figure 53: Five most frequently cited reasons for why school-aged children are not intended to attend formal education at least four days a week in the upcoming school year



When analysed by age and sex, however, there were some notable differences in the frequency of reasons cited.<sup>193</sup> The only population group for whom the quality of the curriculum in the KR-I was the most frequently cited reason for non-attendance, was adolescent girls (60%), (see Table 24). This population constituted a considerable proportion of school-aged children not expected to attend, and may explain why it was the most frequently cited reason overall. However, for all age groups, quality of curriculum was more frequently cited by households with girls not expected to attend than households with boys.

Similar reasoning may explain the high frequency of households citing 'lack of funds' as a reason for expected non-attendance. Lack of funds was selected by households with children from all population groups not expected to attend. However, over half of households with girls aged 12 to 14 cited this (56%). This was further supported by key informant interviews (KIIs) concerning education.<sup>194</sup> The majority reported having to purchase uniforms, stationery, school bags, and books, but that they were unable to afford this due to unemployment or low income employment and household debt.

Distance to school was also cited as a particular concern for households with girls (17% aged 6-11 years, 17% aged 12-14 years, and 12% aged 15 to 17 years). This reason was much less frequently cited by boys (5% aged 6-11 years, 4% aged 12-14 years, and 2% aged 15-17 years). This could point to a concern about gender-based verbal or physical harassment that is inhibiting girls specifically from attending school.

Conversely, sending children to work was the most frequently cited reason for expected non-attendance for boys aged 12 to 14 years and 15 to 17 years (36% each), but for only 1% of girls in any age group. This suggests that male children and adolescents are not expected to be attending school in order to provide an income to support their household, thereby reflecting the economic vulnerability of these households.

<sup>192</sup> Reasons that the individual will not attend were asked for each age-group and sex demographic. Given the small sample size (105 households) this could not be reliably disaggregated to governorate level using ANOVA and Tukey's HSD multiple comparison statistical testing. The KR-I level responses for each demographic group are shown together in Table 24. Findings are representative at the KR-I level with a 90% level of confidence and 10% margin of error. Multiple options could be selected and therefore total figures may exceed 100%.

<sup>193</sup> Further disaggregation of households with children not expected to attend by age group and sex means that the population of interest is too small to be representative. Consequently, all findings in Table 24 should be considered indicative only.

<sup>194</sup> Follow-up calls with households where children were not anticipated to attend the next school year were made to better understand the type of costs affecting non-attendance. A total of 30 interviews were conducted. Of ten households with children interviewed in each governorate, eight in Dohuk, nine in Erbil, and seven in Sulaymaniyah reported anticipated non-attendance in the next school year.

Table 24: Frequency of reasons cited for why school-aged children will not attend formal education at least 4 days a week in the upcoming school year, by age-group and sex<sup>195</sup>

	6-11 years		12-14 years		15-17 years		Total
	Male	Female	Male	Female	Male	Female	
<i>Quality of curriculum in KRI</i>	2%	20%	10%	13%	8%	60%	18%
<i>Lack of funds</i>	13%	10%	10%	56%	6%	14%	14%
<i>Other</i>	18%	13%	28%	0%	29%	7%	15%
<i>Sending children to work</i>	2%	1%	36%	1%	36%	1%	14%
<i>Never attended</i>	39%	28%	2%	1%	3%	2%	10%
<i>Distance to school</i>	5%	17%	4%	17%	2%	12%	8%
<i>School still closed</i>	22%	9%	2%	0%	1%	1%	4%
<i>Language differences</i>	4%	9%	8%	3%	5%	3%	5%
<i>Double shifted school</i>	9%	13%	5%	0%	5%	0%	5%
<i>Not eligible</i>	7%	2%	4%	7%	4%	3%	4%
<i>Overcrowding</i>	0%	6%	0%	13%	0%	3%	3%
<i>No gender segregation</i>	4%	4%	0%	0%	0%	9%	2%
<i>Child marriage</i>	0%	4%	5%	0%	5%	0%	3%
<i>Corporal punishment</i>	0%	8%	1%	0%	0%	0%	2%
<i>No residency permit</i>	0%	0%	5%	0%	5%	0%	2%

Although 10% of households with school-aged children that are not intended to attend cited never having attended as a reason, this was skewed by age group: **39% of boys and 28% of girls aged 6 to 11 were expected not to attend because they had not done so before. This indicates a population group that would be easily integrated into education, given their young age, and are therefore in need of further targeting by educational programming.**

The low proportion of older children that are not intended to attend because they have not done so before, indicates that these children, especially the adolescents, could also be reintegrated into an education system, should the other reasons cited and barriers to access indicated be addressed.

<sup>195</sup> Of households reporting school-aged children that will not be attending formal school in the upcoming school year.

## Protection

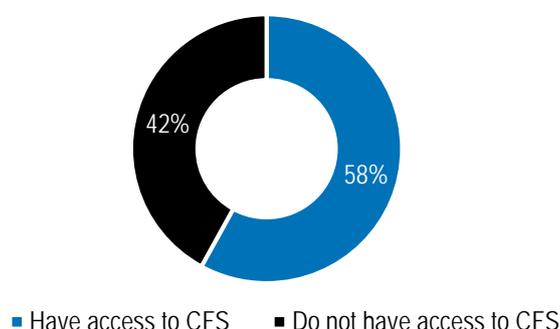
Households were assessed across a number of protection-related indicators to highlight any safety or security concerns and needs in their host communities. These have been broken down into child protection related issues, general community safety, and registration and documentation needs.

### Child Protection

At the KR-I level, 76% of households contained at least one child under the age of 18. Of these households, a small minority were caring for separated or unaccompanied children (3%).<sup>196</sup>

Overall, 58% of households had at least one child aged 3 to 17. Of these, 47% of households had at least one boy aged 3 to 17 years of age, and 41% of households had at least one girl in this age group.<sup>197</sup> Less than half of all households with children aged 3 to 17 reported that they did not have access to safe, child-friendly spaces (CFS) outside of the home (42%). This was slightly higher for households with girls (45%) than boys (42%).<sup>198</sup>

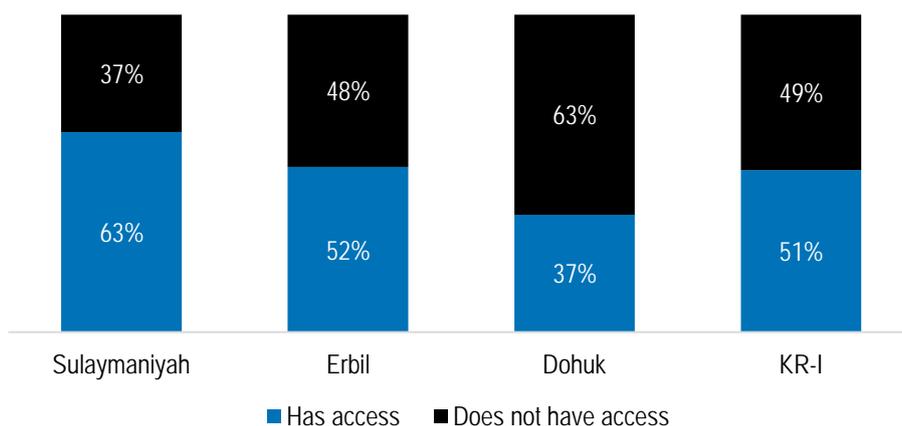
Figure 54: Proportion of households with children aged 3 to 17 years that do not have access to safe, child-friendly spaces outside the home



### Community

Approximately half of all households reportedly had regular and personal access to their local community leader (51%). However, this ranged considerably across governorates, from 63% in Sulaymaniyah, to 52% in Erbil, and 37% in Dohuk.<sup>199</sup>

Figure 55: Proportion of households with regular personal access to their local community leader, by governorate



<sup>196</sup> Governorate level variations were significant using Pearson's Chi-squared tests and multiple comparison tables, although differences were minimal. The 3% represents 25 households. Of these 25 households, 24 were caring for unaccompanied minors, and 1 household was caring for a separated minor.

<sup>197</sup> Households may be represented in both groups.

<sup>198</sup> Governorate level variations were not significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

<sup>199</sup> Governorate level variations were significant using Pearson's Chi-squared significance testing.

The vast majority of households lived in communities where female members felt physically safe when leaving the home (92%), and male members felt physically safe (94%). This was slightly lower for households with women in Sulaymaniyah (87%) compared to the other two governorates (93%).<sup>200</sup> Overall, this indicates that Syrian refugees feel safe in their host communities.

## Registration and Civil Documents

As well as general safety and security and access to child-friendly spaces for minors, missing registration and civil documentation poses a considerable protection concern, as the possession of appropriate documents is fundamental to accessing government, UN, and NGO services. Formal registration as a refugee with UNHCR ensures further legal protection and access to services for Syrians in Iraq.

The vast majority of households (96%) were reportedly registered with UNHCR.<sup>201</sup> However, a lower proportion of households were reportedly in possession of KR-I residency cards (70%). Unlike UNHCR registration, this varied considerably across governorates, with 91% holding a residency KR-I residency card in Dohuk, compared to 62% in Erbil and 74% in Sulaymaniyah.<sup>202</sup>

National registration procedures require proof of certain civil documentation by the household, such as birth or marriage certificates. In cases where documentation is missing as a result of displacement, the proportion of households that know how and where to obtain replacements, and the proportion of households that have experienced difficulties obtaining civil documents, is an important indicator of protection based needs in communities.

Roughly two-thirds of households were aware of where to obtain birth and/or marriage certificates (66%). However, Erbil had both the lowest proportion of households that held KR-I residency cards (38%), and the highest proportion of households that did not know where to obtain civil documentation (33%).<sup>203</sup> This comparative analysis suggests that documentation needs are greatest in Erbil.

Table 25: Proportion of households holding KR-I residency, and knowing where to access missing documentation, by governorate

Governorate	Possess KR-I residency	Know where to obtain civil documentation
<i>Dohuk</i>	91%	77%
<i>Erbil</i>	62%	57%
<i>Sulaymaniyah</i>	74%	86%
<i>KR-I</i>	70%	66%

However, despite governorate level variations in possession of or knowledge about documentation, there was no difference in the proportion of households that experienced difficulties obtaining civil documentation. Of all households, 9% reported having experienced difficulties obtaining birth and/or marriage certificates.<sup>204</sup>

<sup>200</sup> Governorate level and age-group and sex variations were significant using Pearson's Chi-squared tests. However, multiple comparison tables found that the only significant variation was between Sulaymaniyah and Dohuk, and Sulaymaniyah and Erbil, but not between Dohuk and Erbil. Comparisons are therefore reported between Sulaymaniyah and the combined 'other' districts. Governorate level variations were not significant for households with male members, using Pearson's Chi-squared significance testing.

<sup>201</sup> Governorate level variations were significant using ANOVA and Tukey's HSD multiple comparison statistical testing, although differences were minimal, with the only significant difference between Dohuk and Erbil.

<sup>202</sup> Governorate level variations were significant using ANOVA and Tukey's HSD multiple comparison statistical testing.

<sup>203</sup> Governorate level variations were significant using Pearson's Chi-squared statistical testing and multiple comparison tables.

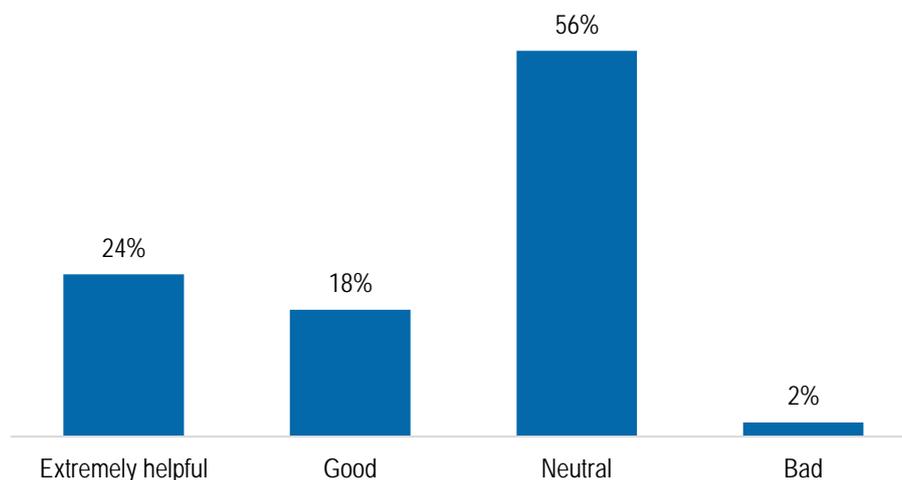
<sup>204</sup> Governorate level variations were not significant using Pearson's Chi-squared statistical testing.

## Social Cohesion

### Community Support and Hospitality

Over half of households viewed community support upon arrival in neutral terms (56%). Moreover, 42% of households perceived the degree of support they had received from their local communities when they arrived to be 'good' or 'extremely helpful'.<sup>205</sup> Only 2% perceived support to have been 'bad'.

Figure 56: Proportion of households by perception of degree of support from local community upon arrival



There were, however, some variations at the governorate level in the proportion of households that perceived support to be 'good' or 'neutral'.<sup>206</sup> The proportion of households reporting 'good' was lowest in Erbil (12%), followed by Dohuk (21%), with the highest 'good' perception in Sulaymaniyah (39%). Overall, however, roughly a quarter of households in each governorate perceived levels of hospitality to be either 'neutral' or 'good': 74% in Erbil, 73% in Dohuk, and 79% in Sulaymaniyah.

A minority of households perceived levels of hospitality in their communities to have increased in the three months prior to interview (12%). A further three quarters of households perceived levels of hospitality to have stayed the same (75%). This suggests that for the vast majority (87%), social cohesion and local community support has at least remained stable in recent months.

For the remaining households, 6% perceived levels of hospitality to have decreased a little, and for 7%, to have decreased a lot.<sup>207</sup> The total proportion of households that perceived a decrease in hospitality did vary by governorate, however: 5% in Dohuk, compared to 15% in the other two governorates.<sup>208</sup> This implies that hospitality has remained slightly more stable in Dohuk, than in Erbil or Sulaymaniyah.

However, most Syrian refugee households in host communities have been in the KR-I for at least three years, meaning that levels of hospitality may have declined over time. Therefore, levels of hospitality may have remained stable for the majority of households, but may be low.

<sup>205</sup> Governorate level variations for perceived degree of local community support were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tests found variations to only be significant for the proportion of households that reported 'good' or 'neutral'.

<sup>206</sup> Governorate level variations were significant for the proportion of households that perceived levels of hospitality upon arrival to be 'good' or 'neutral', using Pearson's Chi-squared statistical testing. Proportion of households that perceived levels of hospitality to be either 'extremely helpful' or 'bad' were not significant.

<sup>207</sup> Governorate level variations for perceived change in degree of local community support were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tests found variations to only be significant for the proportion of households that reported a large decrease or a small decrease. Differences were minimal and have therefore not been reported.

<sup>208</sup> Governorate level variations in perceived change in levels of hospitality were only significant for the combined 'decreased a little' and 'decreased a lot', using Pearson's Chi-squared statistical testing. However, multiple comparison tables showed the only significant difference to be between Dohuk and Erbil and Dohuk and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Findings are therefore presented for Dohuk and the combined 'other' districts.

With regards to petty crime in the local community, the vast majority of households perceived rates to have either stayed the same (67%), or decreased (32%) in the three months prior to interview.<sup>209</sup>

### Civil and Legal Disputes

Less than 1% of households had reportedly been involved in a civil or legal dispute in the three months prior to interview. This constituted four households, two in Dohuk and two in Sulaymaniyah.<sup>210</sup> However, given the sensitivity of this, it is likely that involvement in civil or legal disputes may have been under-reported. **Further research into civil or legal concerns may be needed to more fully understand issues of social cohesion or protection that are faced by Syrian refugee households residing in host communities in KR-I.**

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<sup>209</sup> Governorate level variations for perceived change to petty crime rates were significant using Pearson's Chi-squared statistical testing. However, multiple comparison tests found that the only significant variation was between Erbil and Dohuk, and Erbil and Sulaymaniyah, but not between Erbil and Sulaymaniyah. Comparisons are therefore reported between Erbil and the combined 'other' governorates.

<sup>210</sup> Given the small sample size (4 households), governorate level variations could not be found to be significant using Pearson's Chi-squared statistical testing.

## Conclusion

There are currently 146,000 UNHCR registered Syrian refugees residing in host communities in the Kurdistan Region of Iraq, 87% of whom have been living in the KR-I for at least three years.<sup>211</sup> Prolonged displacement, compounded by domestic crises, has strained household resources and exacerbated economic vulnerability amongst refugee households, which in turn impacts access to basic necessities and multi-sectoral needs.

In order to provide a comprehensive, evidence-based understanding of needs across key humanitarian sectors, IMPACT conducted a third multi-sectoral need assessment (MSNA), in partnership with UNHCR, between 21 August and 9 September 2017. Through a cross-sectoral analysis, certain trends in household vulnerability emerged at governorate level, as well as more universal challenges faced by the Syrian refugee population living in host communities throughout the KR-I, that highlight key areas for targeted intervention.

Overall, findings indicated a level of stability amongst Syrian refugee households in host communities across the KR-I, with the majority not intending to move within the near future, and only a small percentage decidedly intending to do so. This suggests that the emerging trends of vulnerability discussed in this report will likely remain constant, both in terms of scale and geographic location. In this regard, the findings of MSNA III provide a reliable tool to guide and develop humanitarian programming in the 2018-2019 period, as well as inform the 2018-2019 Refugee Response and Resilience Plan.

### KR-I-wide

**Although the vulnerabilities that characterised households in different governorates varied, the challenges faced by Syrian refugees living in host communities across the KR-I are all linked to economic insecurity.** As displacement is further protracted, **households across the region have been exhausting their resources and coping strategies, and accruing debt.** This limits the ability of households to reduce non-essential costs, leaving them reliant on more severe income related coping strategies and vulnerable to economic shocks.

This highlights a **continuing need to promote economic security amongst the Syrian refugee population through cash-based assistance and assistance in accessing employment.** This also indicates a need for **improved communication about refugee rights and entitlements, or potentially protection assistance relating to registration and documentation that require further research.** To assess efficacy and impact, these forms of assistance will require continued monitoring.

**Regarding WASH and shelter concerns, for a minority of households, water supply was unreliable, with 9% experiencing shortages for one week or more. In addition, over half of all households were observed to have at least one shelter issue.** However, regarding WASH facilities and general utilities, the majority of households were well provided for, and the vast majority of households lived in communities where members felt physically safe leaving the home. Furthermore, they perceived the degree of support they received from their local communities, both host and refugee, positively. This further suggests that **households feel both secure and settled in their current locales.** However, **there are concerns about suitability of shelter for habitation, highlighting the need for further shelter focused assistance, either in the form of cash, to move accommodation, or in-kind materials to fix damage.**

Almost all households perceived access to public services such as education, health, and other services in their area to be neutral or better. However, of the households that reported access to be bad, almost two thirds reported that this was due to insufficient funds. **The impact of economic security on access to public services was mirrored in findings relating to education.** The need for targeted re-integration into formal education was most acute for boys aged 12 to 17, and adolescent girls aged 15 to 17, across the KR-I. The drop-out rates or predicted non-attendance in the forthcoming school year for this population was clearly linked to household income. Consequently, **addressing overall household economic vulnerability, and providing economic incentives or school supplies may address lower attendance rates amongst school-aged children.**

<sup>211</sup> 3% arrived in the region in 2011, 24% in 2012, 40% in 2013, and a further 20% in 2014.

However, certain trends did emerge highlighting the impact of economic insecurity on other sectoral needs that were particularly acute in certain governorates over others.

### Dohuk

Households in Dohuk were found to have comparatively greater vulnerabilities with respect to shelter tenancy. Whilst the vast majority of households in all governorates were residing in rented independent housing, only 10% of renting households in Dohuk had written contracts – compared to 48% of households at the KR-I level. Furthermore, the average length of these contracts was considerably shorter (3 months in Dohuk compared to ten in Erbil and Sulaymaniyah). These findings potentially reflect a need for legal counseling and support services, to assist refugee households in Dohuk with securing more stable housing options.

Economic insecurity in Dohuk is further compounded by the higher morbidity rate in the governorate. Dohuk had the highest proportion of households with a member suffering from a chronic illness and that experienced a health issue in the two weeks prior to interview, compared to the other governorates: 43% and 38% compared to 25% and 5% respectively. Both the need for public health services, and barriers to accessing them emerged as particularly acute in Dohuk, therefore. The link between economic insecurity in the governorate and health needs is highlighted by the greater negative net household income among households with members that had a chronic illness or experienced a health issue, compared to those that did not. Findings therefore suggest that there is greatest need for access to healthcare services, medication, and treatment, and assistance in accessing them, among Syrian refugee households in Dohuk.

### Erbil

Households in Erbil also faced particular vulnerabilities related to protection. Registration with UNHCR and possession of KR-I residency are key in accessing and receiving public services. However, Erbil had both the lowest proportion of households with KR-I residency (62%), and the highest proportion that did not know where to obtain civil documentation (33%), which are essential for national registration procedures. Consequently, a considerable number of Syrian refugees in the governorate could be in need of legal counseling or guidance in applying for documentation. Given the sensitivity of these issues, however, indicators related to possession of legal documentation may have been over-reported, and further research would be necessary to assess the extent of need.

The impact of limited access to public services as a result of residency may explain challenges in accessing health services. More than double the proportion of households in Erbil experienced difficulties in accessing public health services than in other governorates: 99% compared to 42%. This demonstrates the importance of registration and documentation to household vulnerability, and highlights an area for further humanitarian intervention.

### Sulaymaniyah

The most acute needs of households in Sulaymaniyah emerged concerning access to food, which was closely linked to economic vulnerability. Although the proportion of household expenditure on food was roughly consistent across governorates, Sulaymaniyah had the lowest reported average expenditure. Furthermore, households in Sulaymaniyah had a greater reliance on consumption-based coping strategies in terms of both prevalence and frequency, particularly strategies involving rationing. There was also a larger proportion of households who have been unable to afford basic needs since arriving in the KR-I.

Almost half of all households in Sulaymaniyah noted greater quantity of food as a priority need. Combined, these findings suggest that households in Sulaymaniyah face a level of economic insecurity that has resulted in a higher proportion of households struggling to provide for basic needs, including food. Cash and food-based assistance is therefore of particular need in the governorate.