



# WASH ASSESSMENT OF SYRIAN REFUGEE HOUSEHOLDS IN AKKAR GOVERNORATE

**LEBANON**

**ASSESSMENT REPORT  
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## SUMMARY

As the Syrian Crisis enters its fourth year, numerous water, sanitation, and hygiene (WASH) needs remain to be filled among Syrian refugees living in Lebanon, who now number more than 1.1 million<sup>1</sup>. Needs may be greatest in regions such as Akkar Governorate in northern Lebanon, which now hosts more than 110,000 Syrian refugees registered with UNHCR<sup>2</sup>, a figure somewhere between one quarter to one third of the Governorate's population (according to Lebanese population estimates).

Historically underdeveloped, Akkar has seen its already fragile infrastructure placed under additional strain by the significant population increase. At the request of the WASH Working Group in Akkar, and supported by UNHCR, REACH conducted an assessment of water, sanitation, and hygiene in Syrian refugee households in Akkar.

Based on a methodology and tool developed between 2013 and 2014 by the National WASH Working Group, the assessment was designed to fill a number of critical information gaps about current needs and knowledge, attitudes and practices at a household level. In addition to filling information gaps at the Akkar level, lessons learnt from data collection in Akkar will be fed into the development of an updated WASH assessment methodology intended to be rolled out nationally in the first quarter of 2015.

Refugees in Akkar live in a variety of shelter contexts and conditions, in which very different water, hygiene and sanitation needs can be observed. While some refugees, particularly those living in houses and apartments, may face conditions similar to those of Lebanese host communities, others may be much more vulnerable and face a range of communicable diseases as a result of poor hygiene and sanitation.

This assessment finds that specific needs, such as access to water, latrines, and waste management, differ greatly by shelter type. However, the overall scope of assessed knowledge, attitudes and practices may present limitations that would be receptive to broader improvements.

### Water

Water sourced from wells is the most common source of drinking water for refugees living in all shelter types in Akkar, followed by trucked water, bottled water, and spring water. Variations were evident amongst shelter types; with refugees living in houses and apartments more likely to purchase bottled water and those living in Informal Settlements (IS), who were found to be more likely to rely on water from wells.

Problems in obtaining safe drinking water differed slightly by shelter type; the needs of refugees living in substandard buildings, such as garages, unfinished buildings, and one-room structures, appear to be most acute. A majority of households reported difficulties obtaining water. The barriers to obtaining water include challenges finding clean water, expense, incidence of waterborne illness and difficulties with water collection. Results indicated a need to encourage water treatment and safe water container maintenance amongst refugee households in all settings.

With few exceptions, households reported using similar water sources for drinking as well as other purposes, including cooking, hand washing, bathing, laundry, and cleaning. At the same time, less than half of households surveyed reported paying for water and those that did paid approximately 22.50 USD per month on average. In most cases, households have adequate water storage systems. Water tanks with a capacity of 1000 litres, followed by ones with 500 litres of capacity were the most common, followed by jerry cans. A large majority of households reported covers for their containers, safe water storage practices, storing water in their shelters (94%) and in clean and covered containers (83%). Refugees living in IS were less likely to report safe storage practices.

<sup>1</sup>UNHCR (2014) "Registration Trends for Syrian Refugees in Lebanon." <http://data.unhcr.org/syrianrefugees/country.php?id=122>

<sup>2</sup> Ibid.

Despite reporting adequate storage practices, 85% of refugees reported doing nothing to make their water safe for consumption; only small numbers reported boiling water (7%), filtering it (3%), or using chlorine and iodine (2%). Larger numbers of household members reported that they clean their containers (38%) more often than they treat their water (15%). However, cleaning methods that involved only water were more common (45%) than those using soap and water (42%) and chlorine (16%).

## Sanitation

Latrines were generally available in most shelter types, with the exception of a portion of IS (approximately 10%), a figure that mirrors previous assessments conducted by REACH in Akkar.<sup>3</sup> Pit latrines, most of which have concrete slabs, were the most prevalent latrine types in all shelter types and in IS (79%), and least prevalent in houses and apartments (48%). Across all shelter types, a majority of refugees reported being dissatisfied with their latrines in most cases because they needed maintenance, but in approximately a fifth of cases, because they lacked privacy. The need for greater privacy was greatest for households relying on pit latrines and in IS. Observations confirmed these statements and found that overall, in addition to improving privacy, latrines need better lighting, locks, and equipment to facilitate access for persons with special needs.

The assessment found that refugees most in need of adequate bathing facilities were those living in substandard buildings. There is a need to improve site conditions around IS through better wastewater and solid waste management to help mitigate the effects of stagnant water and solid waste which are breeding grounds for vectors of infectious diseases.

## Hygiene and Health

Overall, hand washing appeared to be widespread, with 95% of household members reporting that they wash their hands at some point during the day; however, there appear to be critical gaps regarding frequency and situations. For example, more may need to be done to encourage hand washing before eating, after defecation, and before food preparation. Furthermore, more may need to be done to stress the links between hand washing and its positive effects on both individual and family health.

Health problems related to a lack of clean water, proper sanitation, and hygiene were common. Diarrhoea was the most common health concern cited by refugee household members (69%), followed by respiratory infections (61%), and then hunger and health complications linked to a lack of food (45%).

This assessment found that awareness of the links between hygiene and disease was high, with 97% of refugee household members acknowledging a link between the two. Household members blamed unsafe drinking water (85%), followed by contaminated food (51%) and poor hygiene practices (28%) for the prevalence of diarrhoea in their communities. As such the challenge facing humanitarian actors may now be to facilitate better hygiene practices, particularly ones related to the consumption of clean water. Practices related to accessing drinking water—both consuming water that is clean (46%) and treating water when it is not (25%) – were the hardest behaviours for household members to change; with expense being the main limiting factor. Therefore the need to facilitate access to clean drinking water may take precedence over other WASH needs.

Finally, because this assessment relied on a representative sample of refugee households, findings can be used to derive estimates of current caseloads for WASH interventions. Several examples of this are provided in the conclusion, which also discusses priority needs by shelter type, gaps that need to be filled with regards to encouraging positive attitudes and practices, and long-term needs for refugees and host communities alike.

<sup>3</sup> REACH, Multi Sector Community Level Assessment of Informal Settlements – Akkar Governorate. REACH Geneva 2014 <http://data.unhcr.org/syrianrefugees/download.php?id=7513>

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Cover photo credits: Informal Settlement in Akkar, North Lebanon. REACH, September 2014

### About REACH

REACH is a joint initiative of two international non-governmental organizations - ACTED and IMPACT Initiatives - and the UN Operational Satellite Applications Programme (UNOSAT). REACH's mission is to strengthen evidence-based decision making by aid actors through efficient data collection, management and analysis before, during and after an emergency. By doing so, REACH contributes to ensuring that communities affected by emergencies receive the support they need. All REACH activities are conducted in support to, and within the framework of, inter-agency aid coordination mechanisms. For more information please visit our website: [www.reach-initiative.org](http://www.reach-initiative.org). You can contact us directly at: [geneva@reach-initiative.org](mailto:geneva@reach-initiative.org) and follow us on Twitter @REACH\_info.



## ABBREVIATIONS AND ACRONYMS

<b>GoL</b>	Government of Lebanon
<b>IS</b>	Informal Settlement
<b>LBP</b>	Lebanese Pound
<b>MSNA</b>	Multi-Sector Needs Assessment
<b>ODK</b>	Open Data Kit
<b>SSU</b>	Small Shelter Unit
<b>USD</b>	United States Dollar
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>VASyR</b>	Vulnerability Assessment of Syrian Refugees

## GEOGRAPHIC CLASSIFICATIONS

<b>Operational Area</b>	<p>Refers to UNHCR regional operational areas in Lebanon. There are five UNHCR sub-office regions in Lebanon: Akkar, Bekaa, Mount Lebanon/Beirut, Tripoli T5 and South.</p> <p>The operational area of Akkar coincides with the governorate of Akkar, and the operational area of Bekaa is comprised of the districts of Baalbek, El Hermel, Rachaya, West Bekaa and Zahle.</p> <p>However, the operational area of Mount Lebanon/Beirut includes the governorates of Beirut and Mount Lebanon. Tripoli T5 operational area refers to the districts of Tripoli, Batroun, Bcharre, El Minieh-Dennieh, Koura and Zgharta. The South operational area includes the governorates of South and El Nabatieh.</p>
<b>Governorate/ Mohafazat</b>	Largest administrative division below the national level. Lebanon has eight governorates: Bekaa, Baalbek / Hermel, Beirut, El Nabatieh, Mount Lebanon, North, Akkar and South.
<b>District/Caza</b>	Second largest administrative division below the national level. Each governorate is divided into districts or cazas. Lebanon has 26 districts.
<b>Cadastre/ Cadastral zone</b>	Geographic classification which are below the level of district/caza. Cadastral is not an administrative division and is used solely by humanitarian and development practitioners in Lebanon. Cadastrals may encompass one or more contiguous villages/neighbourhoods. Smallest administrative division in Lebanon. Municipalities serve villages and urban areas.
<b>Municipality</b>	There are 985 municipalities in Lebanon.

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## INTRODUCTION

The fourth year of the Syrian crisis, bringing with it a population of refugees which now exceeds 1.1 million<sup>4</sup>, has placed serious strain on public service infrastructure and provision throughout Lebanon. One of the sectors most affected is water, sanitation, and hygiene (WASH) where numerous gaps must be filled to provide to meet the basic needs of refugees and host communities alike. The scope of the problem may be most evident in Akkar Governorate, one of Lebanon's poorest regions. Throughout the Governorate, 108,681 refugees (26,652 households) were registered with the United Nations High Commissioner for Refugees (UNHCR) as of November 13, 2014,<sup>5</sup> a figure comprising from one quarter to one third of the total governorate population.<sup>6</sup>

The lack of formal camps in Lebanon, and the resulting dispersal of refugees throughout a range of different shelter types, has created a situation where humanitarian actors must invest considerable resources to assess needs and deliver appropriately tailored responses.<sup>7</sup> While WASH needs in informal settlements (IS) are often particularly acute and they have been prioritised in the response, this emphasis has come at the risk of neglecting the needs of refugees living in other types of substandard structures, such as unfinished buildings.<sup>8</sup>

While coordinated assessments have provided to date a baseline of information about WASH needs in IS at a community level, far less information is available about needs at a household level, particularly across different shelter types. The 2014 Multi Sector Needs Assessment (MSNA) highlighted several information gaps about Akkar as a whole and a number of specific issues relevant to the WASH sector. Specifically, this assessment aims to address several information gaps which were raised in the MSNA, including providing a baseline of information about the following:<sup>9</sup>

- Unique challenges for groups based on housing accommodations
- Access to and quality of sanitation facilities available to Syrian refugees
- Data on access to hand-washing and bathing facilities and their quality
- Access to, and the quality of, solid waste collection facilities.
- Vector control challenges

At the same time, it is important to understand the relationship between needs and refugees' knowledge, attitudes and practices. As noted in Regional Response Plan 6, while refugees may have a good knowledge of principles of hygiene, their implementation may be uneven in many settings.<sup>10</sup> Amongst numerous limitations possible, it is likely that refugees may lack the resources needed in order to adopt better hygiene habits. As a result, gaining a better understanding of the relationship between different types of obstacles, needs and resources as well as knowledge, attitudes and practices, provides a basis for developing more effective interventions.

While assessments conducted by REACH and other humanitarian actors have begun to outline needs in IS, much remains to be done to understand the WASH context at a household level across different shelter types. The needs of refugees living in substandard buildings, many of which were often never intended to be shelters and lack functioning water connections and latrines, may be particularly acute. While partners have conducted extensive assessments to support project implementation in their areas of intervention, data collected is generally not comparable across geographic regions and shelter types. With this in mind, there is a need to establish a consistent baseline to help better plan targeted interventions.

<sup>4</sup>UNHCR Data. "Registration Trends for Syrian Refugees in Lebanon." <http://data.unhcr.org/syrianrefugees/download.php?id=7656>

<sup>5</sup>UNHCR Data. "Registration Trends for Syrian Refugees in Lebanon." <http://data.unhcr.org/syrianrefugees/download.php?id=7656>

<sup>6</sup> REACH, (Geneva, July 2014) Lebanese Communities Hosting Syrian Refugees-Akkar Governorate. <http://data.unhcr.org/syrianrefugees/download.php?id=6563>

<sup>7</sup> Syria Regional Response Plan 6, Lebanon (2013) <http://www.data.unhcr.org/syria-rrp6/country.php?id=122> 84.

<sup>8</sup> Multi Sector Needs Assessment, WASH Chapter (Beirut: 2013) <https://data.unhcr.org/syrianrefugees/download.php?id=5394> p. 11.

<sup>9</sup> Ibid. pp 42-46.

<sup>10</sup> Syria Regional Response Plan 6, Op. Cit., p. 84

Beyond substandard buildings and informal settlements, where needs are often urgent, it is important to understand the needs of refugees living in other types of housing. With regard to refugees living in houses and apartments, it may worth considering how, and if, needs differ from those of host community populations. As noted in the MSNA, long-term development approaches, including work with municipalities on sewage and wastewater treatment should be prioritised.<sup>11</sup>

The need for a development approach and projects to support host communities may be particularly appropriate in Akkar, as the Governorate represents a context in which water, sanitation, and hygiene were previously underdeveloped or where historically there was already a paucity of provision to Lebanese populations before the crisis. In an assessment REACH conducted on host community needs in the spring of 2014 in Akkar, findings showed that host communities have considerable WASH needs that both predate and also stem from the crisis. Water provision and wastewater treatment were the two services with the lowest levels of household-level access before the crisis and had remained villages' top needs and priorities over three years later.<sup>12</sup> Results also showed that solid waste management had relatively high levels of coverage before the crisis, but was subsequently considered to be the WASH issue that was the most affected by the growth in population.<sup>13</sup>

As a result, WASH interventions aimed at addressing the needs of refugee populations may need to simultaneously confront limited or deteriorating infrastructure and low levels of service provision in host communities. Refugees living in houses and apartments may have access to WASH facilities and services that are of a low standard, but in many cases they may not differ greatly from those available to their Lebanese neighbours. In these cases, longer-term developmental approaches that address the needs of both vulnerable groups may be most appropriate.

## METHODOLOGY

The purpose of this assessment was to establish a set of baseline data on WASH needs as well as knowledge, attitudes, and practices amongst Syrian refugees living in Akkar Governorate. The initial design of the survey tool, including core indicators, was based on a household-level form created by the National WASH Working Group in Lebanon. In an effort to harmonise data collection among WASH partners intervening in Lebanon's North, additional indicators from an August 2014 Oxfam assessment of Knowledge, Attitudes, and Practices (KAPs) in the Tripoli+T5 Region were added to the form. After being presented to, and validated by, the WASH Working Group in Akkar, the tool was translated into Arabic and a team of REACH information officers were trained in administering the questions.

Household sampling followed a two-stage methodology similar to the one used in the VASyR. In the first stage, 35 geographic clusters were selected based on UNHCR's Harmonised List of Villages and Locations and Lebanon (In Akkar, clusters corresponded with villages). Villages were stratified on the basis of the number of registered Syrian refugees according to UNHCR proGres data; with locations containing high numbers of Syrian refugees more likely to be selected but those with lower numbers still represented. Using proGres data, REACH generated a sample of 10 registered refugee households in each cluster to be selected for interview.

<sup>11</sup> Multi Sector Needs Assessment, WASH Chapter, Op. cit., p. 6.

<sup>12</sup> Lebanese Communities Hosting Syrian Refugees, Op. cit.

<sup>13</sup> Ibid.



Map 1: Clusters selected for assessment



In the event that households selected for interviews were no longer living in the cluster in which they registered, replacement households from the list generated from proGres were selected. Similarly, if there were not enough households in each cluster for a complete sample, a nearby replacement cluster was selected. If households consented to interviews but were later unavailable at the time interviews were scheduled, information officers attempted to select a nearby household while in the field. In total, 350 households were interviewed, a number corresponding with 95% confidence level and a 5% margin of error.

Data collection took place over the course of 14 days at the end of November 2014. Surveys were conducted through the Akkar IM unit, by REACH Information Officers, who have been specialising in conducting humanitarian needs assessments in Akkar since January 2014. Prior to the start of primary data collection, these Information Officers received a specific training from the international Assessment Officer, with technical inputs from the Akkar WASH working group. The majority of the data analysed and presented in this report was based on answers given by refugee households in response to the questions asked. The survey also included four observation questions (see questions E29-31 in annex 1), for which enumerators were asked to record the presence of certain items, such as soap, and certain hygiene facilities, such as hand washing and shower facilities.

## CHALLENGES AND LIMITATIONS

The use of random sampling based on UNHCR data sought to provide a representative sample of refugee households in Akkar, although certain limitations are nonetheless associated with the approach. Because the main method of contacting households was by phone, sampling may have been biased towards individuals who owned a phone or had

the means to afford one. In keeping with the geographic sampling approach, households with whom information officers were able to make contact but had later moved outside of the village where they were initially registered with UNHCR were not interviewed. These households may have relocated for a number of reasons and as a result, may be more or less vulnerable than their counterparts who have remained in the same villages.

As noted in the Demographics section below, 92% of households interviewed had been registered with UNHCR for one year or more. Thus while information collected may be representative of registered households in Akkar, it is not representative of refugee households in general. The fact that this assessment sampled from refugees who have been in Lebanon for longer periods of time runs the risk of understating needs as it may include disproportionate numbers of households who may have received aid or been able to make improvements to their shelters. This may have influenced results; as noted in the 2013 VASyR, where families awaiting registration were generally found to have greater hygiene needs than those who had been registered for over six months.<sup>14</sup>

The findings presented in this assessment report are representative of the WASH needs of registered Syrian refugees living in Akkar in general. Indicative statistics of direct and indirect indicators provide a general characterization of WASH conditions in different shelter types and contexts; however, a larger sample size would be necessary for more rigorous comparisons.

While it was possible to confirm responses regarding needs through site observations, it was not possible to do so with questions related to knowledge, attitudes, and practices.

A desire to provide socially acceptable answers or reluctance to answer questions about personal matters may have also caused some refugee respondents to provide incomplete or less than accurate answers. While household respondents were instructed that their answers would not be tied to the provision of aid, some may have felt compelled to provide motivated answers. Finally, responses about water quality and sanitation were based on perceptions and site testing would be necessary to confirm responses about water quality.

## FINDINGS

This section of the report presents the main findings from the household-level WASH assessment, conducted by REACH in Akkar governorate.

The first section outlines a framework for the rest of the report, providing an overview of the demographics of refugee household members, as well as information collected about refugee shelter types. With WASH conditions often varying with shelter, and interventions seeking to address needs in both areas simultaneously, there was a need to develop a simplified typology that addressed the needs of both. Subsequent sections outline needs as well as knowledge, attitudes and practices related to water, sanitation, and hygiene and health.

The water section presents a summary of water supply quantity and quality, accessibility of drinking water, as well as storage and treatment systems. This is followed by a section on sanitation, presenting access to and usage of WASH facilities, waste management and vector control. The final section examines hygiene and health concerns, and discusses the crucial importance of understanding the link between the two. At the end of this section, there is a brief discussion of potential communication channels for public health campaigns.

<sup>14</sup> World Food Program, Vulnerability Assessment of Syrian Refugees. (Beirut, 2013). <http://data.unhcr.org/syrianrefugees/download.php?id=3853>

## DEMOGRAPHICS AND SHELTER INFORMATION

### Household Demographics

As explained in the methodology section above, 350 households were sampled in 35 clusters or villages throughout Akkar. Male and female respondents represented households in nearly equal proportion: 51% male and 49% female. Nearly all respondents were heads of household or their spouses; 62% were heads of household and 34% were spouses of the head of household. Only 4% were other family members who happened to be home at the time. Approximately 13% of heads of refugee households were female. On average, Syrian refugee households were comprised of 6.23 members and had 3.23 children on average.

Approximately 75% refugee households in Akkar Governorate were literate, and 25% were not. The proportion of women who were illiterate was higher than men, with 30% of female members being unable to read and write, versus 21% of males. One quarter of refugee household members had never attended school, while 41% had completed primary school, 21% had completed intermediate education, and 7% had completed secondary education. Only 3% of household members reported completing university studies and 2% reported some form of technical education.

With few exceptions, Syrian refugee households in Akkar had been registered for one year or more, with most having been registered for more than two years (48%), followed by one to two years (44%). Only 8% of households had been registered for a year or less.

Across refugee households, 40% reported members with specific needs. In 25% of households overall, there was at least one household member who had an acute or chronic disease; 13% had members who were disabled, and 6% indicated household members who were currently pregnant.

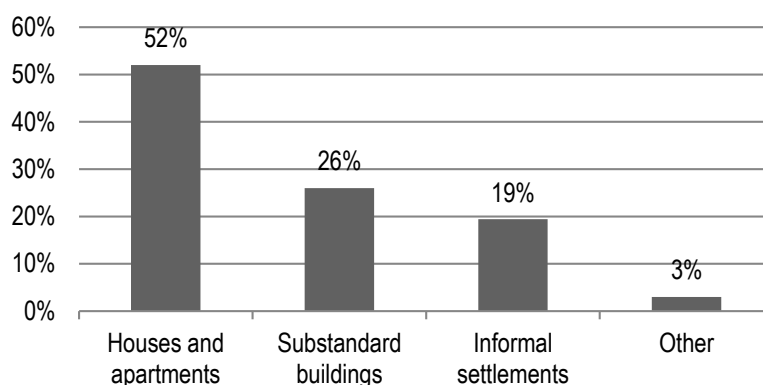
### Shelter Typology

With formal camps largely unavailable throughout Lebanon and Akkar, displaced Syrians have sought refuge within Lebanese host communities. Their diversity of accommodation contexts has made shelter and WASH interventions more difficult to coordinate and poses challenges for achieving economies of scale.

The shelter typology used in the assessment tool was based on that used in other assessments, including the 2014 VASyR. To facilitate comparative analysis and align more closely with the implementation of WASH interventions in Akkar, the typology was simplified in the analysis presented in this report.

- **Informal settlements:** Tents in informal settlements and handmade structures in informal settlements were both classified as dwellings in informal settlements and comprised 19% of shelters.
- **Substandard buildings:** Garages and shops, warehouses, one room structures, unfinished buildings, and other privately owned, unfinished, or otherwise substandard shelter units not originally intended to serve as dwellings are generally treated and assessed similarly by humanitarian partners in Akkar. Through rehabilitation efforts, partners may work to bring them up to minimum shelter standards for 1-5 households, or small shelter units (SSUs). In this assessment, when analysing the findings of data collected in the field, households living in substandard buildings, whether improved or not, were considered to be living in similar shelter types. Together, they comprised 26% of dwellings.
- **Houses and apartments:** Slightly more than half (52%) of refugee households lived in purpose-built houses and apartments similar to the ones inhabited by members of surrounding host communities.
- **Other shelter types:** Refugees living at their worksites, in collective shelters, in collective centres or other shelter types comprised just 3% of households and were too few and too diverse to be analysed separately. It is worth noting that while many collective shelters are located in substandard buildings, they house more than five households or families and are generally treated differently by humanitarian actors conducting shelter and WASH interventions.

Figure 1: Shelter type



## WATER

Lebanon's water sector has lagged behind other areas of national economic development since the end of the Civil War in terms of availability and quality.<sup>15</sup> According to an assessment by the World Bank, 79% of the country's population had access to potable water before the Syrian refugee crisis.<sup>16</sup> At the time, Akkar ranked last throughout the country in terms of access to public water supplies, with only 54% of households connected to networks, versus a national average of 86%.<sup>17</sup> In areas that may otherwise have readily available water sources, outdated infrastructure and lack of treatment may prevent access.<sup>18</sup> Health concerns about quality and safety of drinking water predate the crisis, with local drinking water supplies contaminated with sewage known to contribute to high levels of typhoid.<sup>19</sup>

In the context of the current crisis, low levels of access to clean water may pose numerous challenges to refugees and has exacerbated issues already faced by host communities. National assessments, such as the 2013 and 2014 VASyR, and regional studies conducted by REACH in Akkar have begun to understand the scope of the problem and current needs. For example, the 2014 VASyR found that nationally, 33% of refugees lack access to drinking water.<sup>20</sup>

However, more remains to be done to understand factors like water quality, treatment of water, storage systems, and the prevalence of water-borne diseases.<sup>21</sup>

### Water Supply Quantity and Quality

This assessment founds levels of access to drinking water sources to be highly varied. There were notable differences among water sources amongst refugees living in different housing types. Overall, 46% of registered Syrian refugee households reported relying on drinking water obtained from dug wells. The proportion of households relying on well water was highest in IS (79%) and significantly lower in apartments and houses (41%).

<sup>15</sup> World Bank, Lebanon, Economic and Social Impact Assessment of the Syrian Conflict. (Beirut 2013) , p.110.

<sup>16</sup> Ibid., 109.

<sup>17</sup> Association Mada, Forgotten Akkar: Socioeconomic Reality of the Akkar Region. (Beirut 2008)

[http://www.policylebanon.org/Modules/Ressources/Ressources/UploadFile/4261\\_02,03,YYMADA\\_Forgotten\\_Akkar\\_SocioEconomicReality\\_Jan08.pdf](http://www.policylebanon.org/Modules/Ressources/Ressources/UploadFile/4261_02,03,YYMADA_Forgotten_Akkar_SocioEconomicReality_Jan08.pdf) p.6.

<sup>18</sup> World Bank, Op. Cit., 165

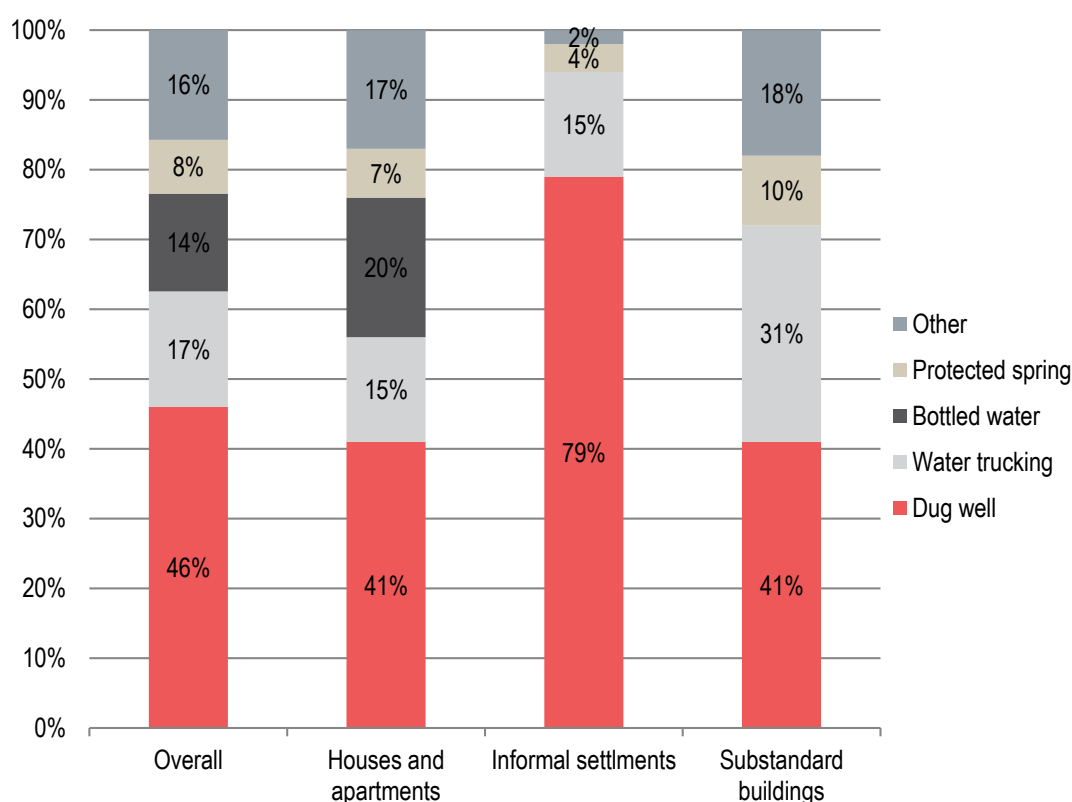
<sup>19</sup> Ibid., 9.

<sup>20</sup> World Food Program, Vulnerability Assessment of Syrian Refugees – Preliminary Results. (Beirut, 2014).

<http://data.unhcr.org/syrianrefugees/download.php?id=6276>

<sup>21</sup> Multi Sector Needs Assessment, WASH Chapter, Op. cit., p. 5

Figure 2: Water sources by shelter type



While bottled water was reported as a key source of drinking water in 14% of households, its consumption was limited largely to refugees living in houses or apartments (20%) and its use was not reported by refugees living in IS or substandard buildings. Bottled water usage was markedly lower than the rate found in the 2014 VASyR for Lebanon as a whole, which found that 34% of households relied on bottled water as their primary source of drinking water.<sup>22</sup>

Results regarding drinking water sources in households in IS are similar to findings from other assessments. In the community-level assessment of IS conducted by REACH in the summer and autumn of 2014, it was shown that across Akkar, 64% of settlements accessed water from wells, which were generally located onsite, dug by landlords, and included in rental costs. (In the aforementioned assessment approximately 88% of key informants reportedly did not pay for water.)<sup>23</sup> In addition, refugee households generally reported using the same sources of water for drinking and household use and in 93% of cases, did not treat their water at the household level prior to consumption.<sup>24</sup>

Trucked water was the third most common source of drinking water (reported in 17% of households overall), but its use varied widely by shelter type. Trucked water was reported in 15% of households living in IS and in apartments / houses each, respectively, but it was reported by 34% of households living in substandard buildings. Refugees in all shelter types reported relying on protected and unprotected springs as drinking water sources. Other sources, notably municipal ones — both piped systems and standpipes — were only reported by refugees living in houses/apartments and

<sup>22</sup> VASyR, 2014, Op. cit

<sup>23</sup> REACH, Multi Sector Community Level Assessment of Informal Settlements – Akkar Governorate. REACH Geneva 2014 <http://data.unhcr.org/syrianrefugees/download.php?id=7513>

<sup>24</sup> Multi Sector Community Level Assessment of Informal Settlements – Akkar Governorate. REACH Geneva November 2014 <http://reliefweb.int/report/lebanon/akkar-governorate-lebanon-multi-sector-community-level-assessment-informal>



substandard buildings. Use of piped municipal water was also lower in this assessment in comparison with the nationwide results reported in the VASyR (data collected May – June 2014).<sup>25</sup>

Households reported slight variations between sources of water used for drinking and for cooking. For cooking, Syrian refugee households were slightly more likely to use well water, trucked water, water from tankers, or piped water and less likely to use bottled water, and water from springs. Similar patterns were observed in responses regarding water used for hand washing, bathing, household cleaning, laundry, and flushing toilets. Although households were asked about the water source used for each of these activities separately, the answers provided were consistent across all four. Overall, refugee households were more likely to use well water, trucked water, piped water and less likely to use bottled water, spring water, and unprotected spring water.

Table 1: Water sources by household use

	Drinking	Cooking	Hand washing, Bathing, Washing, Toilets	Cleaning Dishes and House
<b>Dug well</b>	46%	49%	53%	53%
<b>Water trucking</b>	17%	21%	25%	24%
<b>Bottled water</b>	14%	7%	0%	1%
<b>Protected spring</b>	8%	6%	3%	3%
<b>Piped water</b>	6%	8%	10%	10%
<b>Municipal standpipe</b>	3%	3%	3%	3%
<b>Tap stand</b>	2%	2%	2%	2%
<b>Unprotected spring</b>	2%	1%	1%	1%
<b>Water tanker</b>	1%	2%	2%	2%
<b>Other</b>	1%	0%	0%	0%

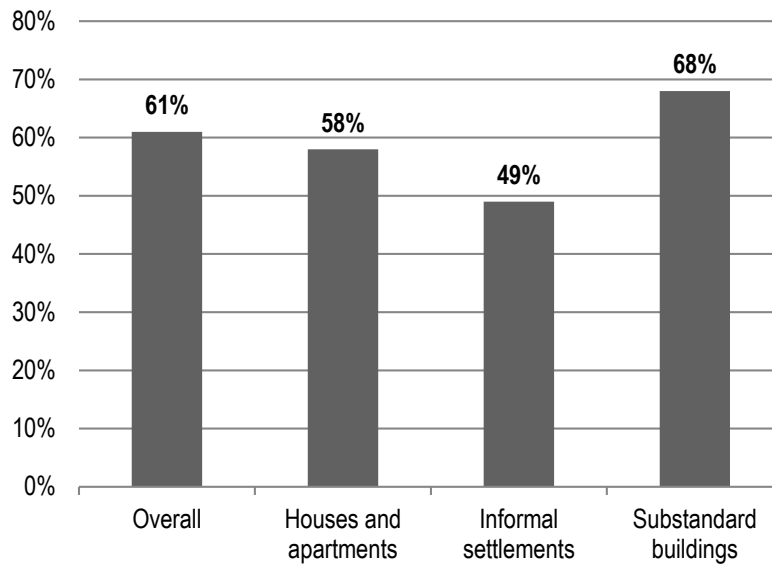
### Access to Drinking Water

Nearly three quarters of households (73%) reported traveling less than 100 metres to access their primary sources of water and 80% reported traveling less than 100 metres to access secondary sources. Only 12% of households reported traveling half a kilometre or more. Refugee households based in substandard buildings reported traveling further than refugees living in other shelter types. While 66% reported traveling less than 100 metres, 17% reported travelling 100-500 metres and 18% reported traveling half a kilometre or more to access their primary sources of water. Households obtaining their primary source of water from water trucking were disproportionately likely to travel over 100 metres further than those households accessing other sources of water (45%). Across all shelter types, male household members were more likely to travel distances over 100 metres or over 500 metres (31%) than females (17%).

At the same time, 61% of households faced difficulties obtaining drinking water. Notably, less than half of the refugee households living in IS (49%) reported difficulties in accessing drinking water, while significantly higher proportions of refugees living in houses and apartments (58%) and substandard buildings (68%) reported difficulties.

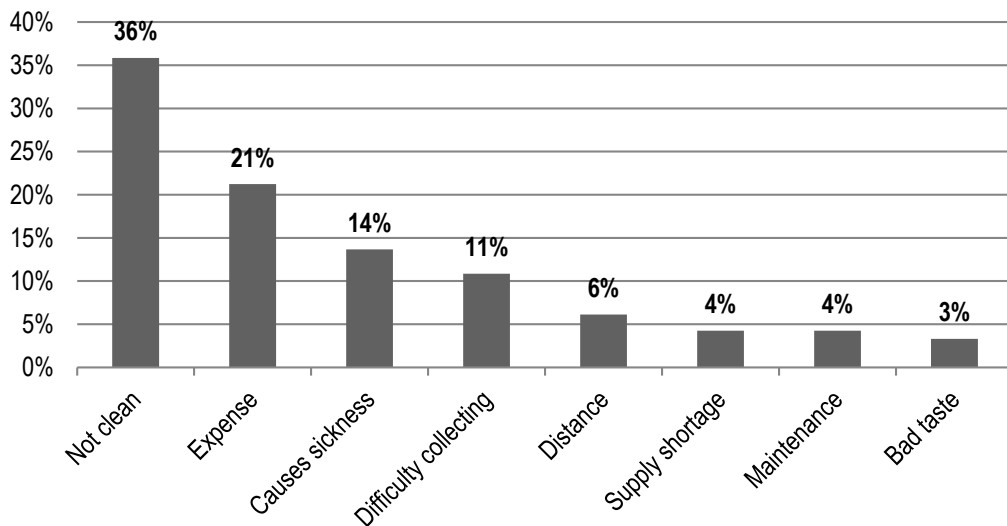
<sup>25</sup> VASyR, 2014, Op. cit.

Figure 3: Difficulties in obtaining water by shelter type



Those reporting difficulties most frequently reported that water was not clean (36%). Similarly, 14% of households indicating difficulties reported that the drinking water available to them made them sick. Expense was reported by 21% of Syrian refugee households as the main difficulty in obtaining drinking water, while difficulty accessing water was reported as the main challenge by 11% of households and distance by 6%.

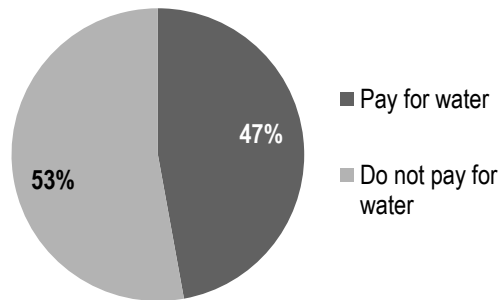
Figure 4: Main reported problems related to drinking water



Less than half of households reported paying for drinking water (47%), and those which did report fees paid of 33,700 LBP (approximately 22.50 USD on average) per month. The proportion of households paying for water was lowest in IS, where only 32% of households reported being charged. At the same time, a slight majority of refugees living in houses or apartments reported paying (29,300 LBP or 19.50 USD per month, approximately, on average).

Refugee households obtaining drinking water from dug wells were less likely to pay for water and if charged, reported paying less per month. Only 30% of those who accessed water from wells paid for drinking water, versus 47% overall.

Figure 5: Households reporting they pay for water

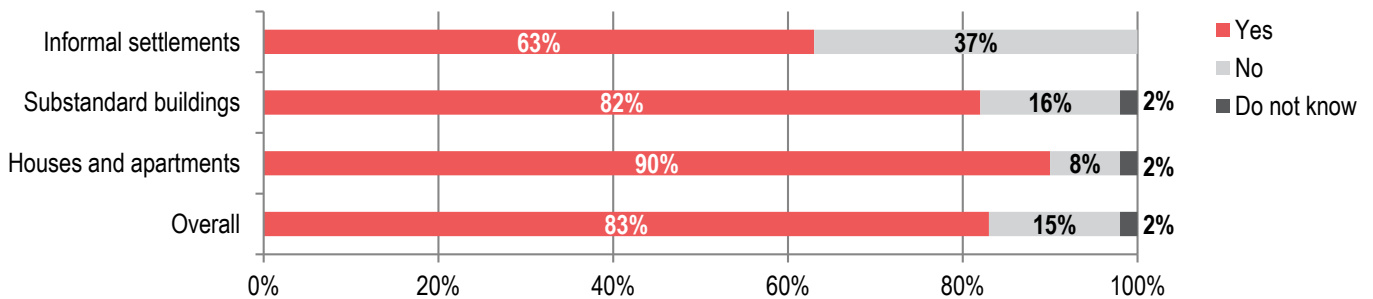


### Water Storage and Treatment

Water tanks and jerry cans were the predominant water storage containers across all housing types. Households with tanks had a storage capacity of approximately 890 litres on average, with 80% of households reporting tanks that hold 1000 litres and 19% with 500-litre tanks. From the 89% of households that reported owning water tanks, it was indicated that the tanks were kept covered. Jerry cans were the next most common water storage method, reported by 28% of households. On average, jerry cans had 26 litres of capacity, with 20-litre containers being the most common size. There was indication that 88% of households using jerry cans used covered jerry cans. Approximately 18% of households reported using both water tanks and jerry cans. The use of buckets and bottles was relatively uncommon and was reported by 3% and 2% of households each, respectively.

Keeping treated water away from sources of recontamination is important for preventing disease. Approximately 94% of refugee households stored water in their shelters, with 83% indicating that they believed water was stored in a safe manner (clean and covered). Again, there were significant variations between shelter types, with only 63% of IS indicating that their water storage arrangements were safe, while 90% of households based in houses and apartments reported safe water storage.

Figure 6: Households where safe water storage was reported



Ensuring that water containers are kept clean is another important step in keeping water free from contamination and preventing disease. Notably, a higher rate of households (38%) reported cleaning their water containers than treating

their water supply (15%). The most common methods of cleaning containers were those that involved water only (45% of those reporting some form of cleaning), followed by soap and water (42%) and chlorine (16%).

Very few Syrian refugees treat their water at the household level with traditional methods and instead may apply their own methods they believe will make their water safe.<sup>26</sup> In this assessment, refugee households were asked about if and how they make their water safe. Overall, only 15% of households reported doing something to make their water safe, while 85% of households did not. Even if households relying on bottled water are excluded, the rate of treatment was not significantly higher – only 18% of those not using bottled water applied some treatment method.

Households could describe different treatment methods they used, including techniques that may be effective or ineffective. Boiling was cited as the most common method, utilised by 7% of refugee households, followed by filtration in 3% of households. Approximately 3% simply reported keeping water in a clean, closed container as a means of treatment. The remaining methods – using chlorine/iodine and exposing to sunlight – were reported by only six and four households each, respectively. Difficulties households faced in treating water may differ with the volume of water they need to treat and the storage container used; however, only small differences were reported in how refugees with varying storage systems treat their water. While 81% of refugees with jerry cans reported treating their water, 86% with water tanks reported that they used no treatment methods.

## SANITATION

The presence of organized wastewater management systems in Lebanon – sewage networks, septic tank services, and treatment facilities – may be highly uneven across different villages. According to the World Bank, throughout Lebanon “most municipalities and villages are not served neither by a sewerage system nor wastewater treatment facilities.”<sup>27</sup> Deficient wastewater treatment services and infrastructure have led to a system of incomplete and improvised systems, particularly in poorer and rural areas.<sup>28</sup>

Prior to the crisis, Akkar ranked second to last among regions of Lebanon in terms of residential connections to public sewage networks with only 25% of houses connected to a public sewage system, compared with a national average of 60%. Approximately 64% of villages in Akkar (versus a national average of 37%) relied on pits and septic tanks, many of which leak.<sup>29</sup> In other cases, villages may have sewage canals that empty into rivers, dilapidated networks, networks that are incomplete, or treatment facilities that are no longer functioning.<sup>30</sup> Failure to manage tanks properly can affect water quality of local wells and septic tank overflows may lead to outbreaks of mosquitoes and other vectors of disease.<sup>31</sup>

At the same time, many host communities in Akkar had relatively high levels of access to solid waste management before the crisis. These services have been among the most affected public services in the context of the current crisis, problems stemming from inadequate solid waste management have had a far-reaching impact, including on groundwater, soil, and marine pollution.<sup>32</sup> In villages where no organized systems exist, trash, including industrial or agricultural waste, may be burned or dumped into valleys or rivers.<sup>33</sup>

### Sanitation Facilities

In the context of the current crisis, disposal of wastewater may pose a challenge to refugees living in all shelter types, including those living in houses and apartments; however, needs in IS may be most acute. In particular, the MSNA noted a need for improved access to gender-segregated toilets, latrines and bathing facilities, particularly in IS and unfinished

<sup>26</sup> Multi Sector Needs Assessment, Phase One Report (Beirut, 2014) <http://reliefweb.int/sites/reliefweb.int/files/resources/13June2014-FINALMSNAPHASE1REPORT.pdf>

<sup>27</sup> World Bank, Op. cit., p.117.

<sup>28</sup> Ibid.

<sup>29</sup> Adel Nord, Diagnostic Report (Beirut, 2014) [http://www.cdr-adelnord.org/5/8/5/7/0/9/DIAGNOSTIC\\_REPORT\\_20140423\\_FINAL-low2.pdf](http://www.cdr-adelnord.org/5/8/5/7/0/9/DIAGNOSTIC_REPORT_20140423_FINAL-low2.pdf) p. 17.

<sup>30</sup> Adel Nord, Op. cit., pp. 17-18.

<sup>31</sup> World Bank, Op. cit., p.165.

<sup>32</sup> Ibid., 121

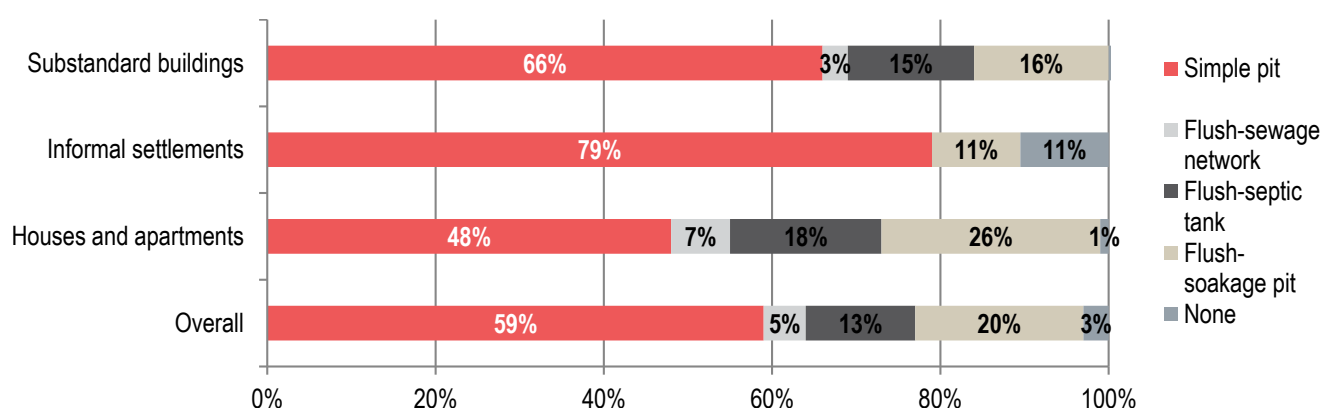
<sup>33</sup> Association Mada, Op. cit. p. 6.

buildings.<sup>34</sup> In Akkar in particular, it highlighted a need for better latrine desludging.<sup>35</sup> Finally, across all settings, it noted that refugees with special needs need better access to adapted facilities.<sup>36</sup>

### Latrine Availability and Use

Simple pit latrines (shared and private) were the predominant latrine type in all shelter settings. They were also the most frequent type found in IS and least frequent in houses and apartments. Houses and apartments appeared significantly more likely than substandard buildings to report the availability of improved latrine types, including flush latrines that connect to sewage networks, septic tanks and soakage pits. Notably, however, nearly half of houses and apartments reported relying on simple pit latrines. Perhaps not unexpectedly, no households living in IS reported latrines that connected to sewage networks or septic tanks.

Figure 7: Latrine availability by shelter type



Data gathered in this assessment regarding latrine availability in IS mirrored that collected in previous assessments. In its assessment of informal settlements in Akkar, REACH found that 59% of IS failed to meet standards for availability (one latrine per 20 individuals, according to the Sphere Standards) and the remainder falling either closely or very far behind. It found that 10% of IS and 8% of refugees living in IS had no latrines at all, including two settlements with over 350 individuals. In these cases, lack of access generally owes to landlords' refusal to have them constructed. To meet basic standards for latrine availability in IS throughout the Governorate, REACH found another 601 toilets would need to be installed and extensive work would need to be done to address privacy, environmental impact and hygiene.<sup>37</sup>

Across all shelter types, latrines are most commonly shared by 6-10 people. Although the proportion of households with latrines whose members share toilets/latrines above the recommended standard of 20 individuals or fewer per latrine was approximately 4%, nonetheless there are still households or shelters that report the existence of shared toilet facilities for up to 150 people.

For both children under and over 5 the most common facility used for defecation is latrines in the home, followed by communal latrines in the surrounding area. The most common ages for refugee children to begin using latrines are at age 2 (58%) or age 3 (38%). Nonetheless, it is reported that children's stool are most usually disposed of in the garbage (57%), followed by in latrines (23%).

Among households with their own latrines, 59% reported being unhappy with their current facilities. In over two thirds of cases (68%), it was because the latrines needed maintenance; in approximately 18%, it was because they lacked privacy. Smaller proportions of households cited a lack of cleanliness (5%), light (3%), gender segregation, water, and distance (2% each, respectively) as reasons for being dissatisfied with their latrines. Refugees living in houses and apartments appeared to have greater satisfaction with their latrines than those living in other shelter types. While only

<sup>34</sup> MSNA, 32

<sup>35</sup> MSNA, 32

<sup>36</sup> MSNA, 32

<sup>37</sup> Multi Sector Community Level Assessment of Informal Settlements – Akkar Governorate. Op cit. p. 31



25% of refugees living in houses and apartment reported being unhappy with their latrines, 37% of refugees living in substandard housing and 38% in IS reported dissatisfaction.

Observations corroborated earlier findings from the survey, and showed that the vast majority (80%) of toilet/latrine facilities are inside dwellings, and therefore not situated at a great distance. A further 15% of households had latrines located directly behind their shelter, and in 4% of households which said they had latrines, information officers noted that they were at least 30 metres away.

Privacy, followed by a lack of lighting and no locks were refugee household members' top three complaints about latrine and bathing facilities. Disproportionate numbers of those who said they felt uncomfortable in toilets and bathing facilities lived in IS (38%) and substandard buildings (35%). Information officers observed that 25% of toilet facilities in households did not offer adequate privacy. Levels of privacy differed by latrine and shelter type. While 13% of flush toilets with septic tanks had inadequate levels of privacy, 31% of pit latrines had inadequate privacy.

Table 2: Privacy by latrine type

Toilet type	Percentage (per toilet type responses) with inadequate privacy
Flush toilet with septic tank	13%
Flush toilet with sewage tank	18%
Flush toilet with soak pit	19%
Pit latrine	31%

Similarly, information officers noted that latrines in substandard buildings appeared to have inadequate levels of privacy.

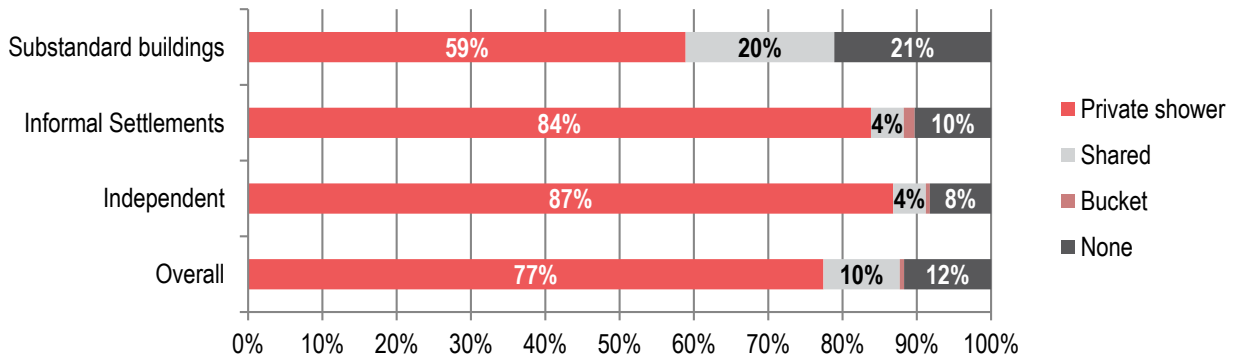
Table 3: Privacy by shelter type

Shelter Type	Percentage with inadequate privacy
IS	29%
Sub-standard	64%
Apartments & Houses	10%

### Bathing and other WASH Facilities

Bathing facilities are available to a large majority (88%) of dwellings, with most refugee households (77%) reporting private facilities and 10% indicating that they share. As with other WASH facilities, there were notable differences in availability between shelter types. Households from substandard buildings were the least likely to report showers or bathing facilities – 21% reported none at all – and only 59% reported access to private facilities. By contrast, 84% of households living in IS reported private bathing facilities, with only 10% reporting no facilities at all and 4% reporting shared arrangements – ratios similar to ones reported by refugees living in houses and apartments.

Figure 8: Bathing facilities by shelter type



Private showers and bathing facilities are nearly as available in IS as in houses and apartments, perhaps in part because the lack of IS proximity to collective shelters with better facilities are not readily available. It should be noted, however, that many shelters in IS that have bathing areas have only rudimentary facilities located in cooking areas.<sup>38</sup> Similarly, assessments conducted in other shelter types and regions in Lebanon found that bathing facilities were often used for other purposes or inaccessible to persons with special needs. Equally, there was a lack privacy or gender segregation found in shared facilities.<sup>39</sup>

Accordingly, this assessment found that only 1% of households had gender-segregated bathing facilities. Overall, 17% of households indicated that they had problems accessing bathing and toilet facilities and in 52% of cases, it was because the facilities lacked bars or other adaptations for people with special needs. Similarly, 35% of all households reported feeling uncomfortable using their bathing facilities and toilets.

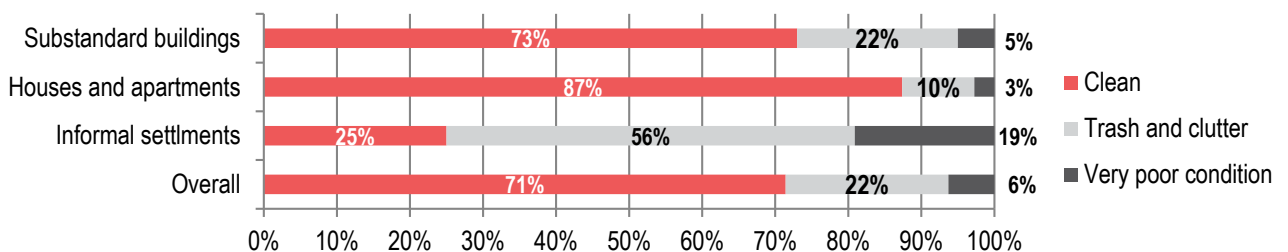
### Wastewater and Solid Waste Management

Access to wastewater and solid waste management services was seen to vary significantly by shelter type. Overall, IS exhibit the worst conditions in regard to the presence of stagnant water and solid waste materials in the vicinity of shelters.

#### Wastewater and Stagnant Water Management

During the course of this assessment information officers observed the conditions surrounding refugee dwellings. While 71% of shelters overall had surroundings that were clean, only 25% of households in IS had clean surroundings. Instead, more than half were sounded by clutter and rubbish and 19% were in very poor condition, including the notable presence of flies, solid waste, and faecal matter.

Figure 9: Shelter conditions by type



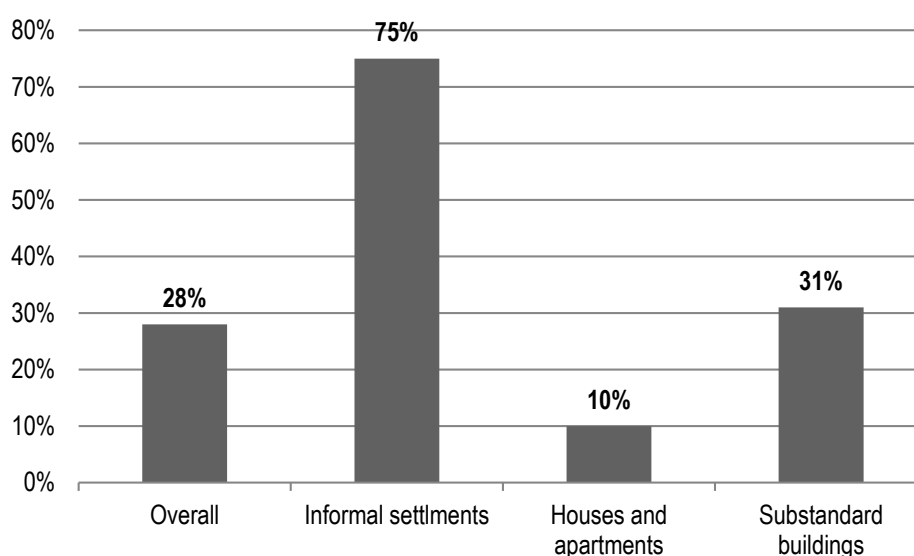
<sup>38</sup> Multi Sector Community Level Assessment of Informal Settlements – Akkar Governorate, Op cit. p. 31

<sup>39</sup> WASH, MSNA

Overall, the most commonly reported disposal method for household wastewater was via the public sewage network (reported by 37%). However, 30% of households also highlighted that among multiple options for wastewater disposal, it is common to throw wastewater near shelters. Draining water into open channels (15%) was also among the popular methods of disposal, and a small number of households also use soak pits (4%) and rivers (3%) to dispose of wastewater.

Households in IS were much more likely to have stagnant water in their vicinity. While only 10% of dwellings in houses and apartment had nearby stagnant water, 75% of households in IS and 33% in substandard buildings had water close to their shelters.

Figure 10: Presence of stagnant water by shelter type



### Solid Waste Management

Households have access to a variety of means for disposing of waste and while municipal collection and waste bins are largely available to refugees living in houses and apartments and substandard buildings, households in informal settlements rely on practices that are unsanitary and environmentally hazardous. Among households in IS, the most common means of disposal were burning, (35%) and leaving garbage near roads (31%). By contrast, households living in substandard structures and houses or apartments appeared far less likely to resort to unsanitary or environmentally hazardous methods. Only 4% of refugee households in substandard structures and houses and apartments reported burning their garbage was a viable disposal option. Similarly, 4% of households based in houses and apartments and 9% of those living in substandard structures reported that leaving their rubbish by the road was a common means of disposal. In addition, a significant proportion of Syrian households in IS reported open disposal, including leaving rubbish in rivers and in fields, both of which were almost unheard of in other accommodation contexts.

### Vector Control

Inadequate solid and wastewater management leads to the spread of disease vectors, which were an issue identified for many households. Indeed, 59% of households reported that they experienced issues with flies and mosquitoes in and around their shelters. Furthermore, 30% of households reported that there was stagnant water around WASH facilities in their homes and communities. While vectors are an issue for many households, a majority (61%) do nothing to attempt to control them. From the responses which indicate that some form of vector control is used, the key method is indoor spraying (26%), followed by rodent poison (12%) and traps (2%). Similarly, 65% of households with no pest issues also do nothing to counteract the potential spread of infectious diseases.

## HYGIENE AND HEALTH

The final part of the assessment attempted to understand knowledge, attitudes and practices of refugee households regarding hygiene and health concerns. The negative effects of certain hygiene behaviours as well as the lack of ability to change them are manifested in reports of infectious diseases, many of which are preventable.

### Hygiene Practices

#### Food Storage

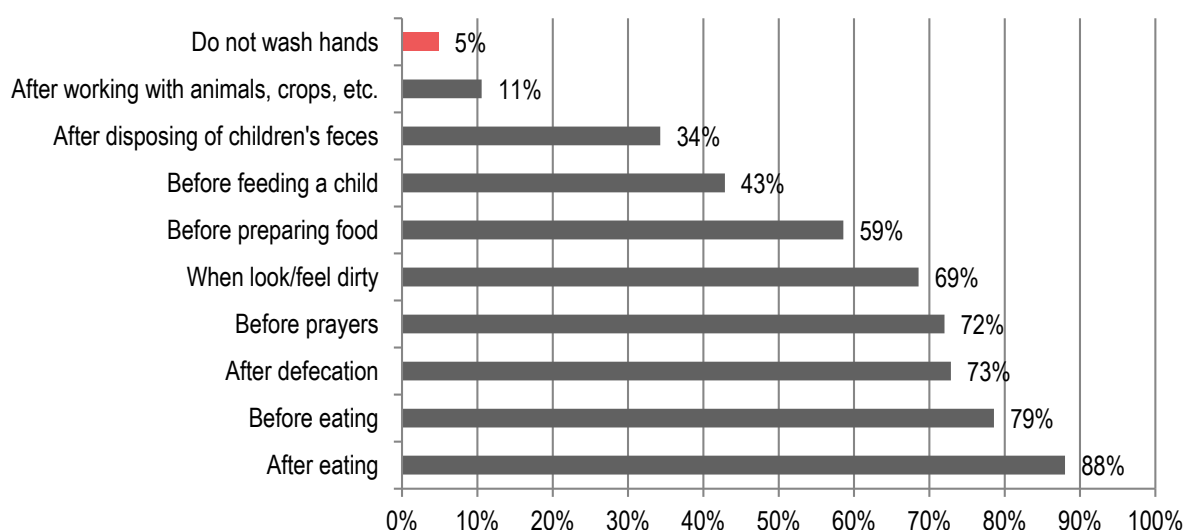
Washing fruits and vegetables before consumption appears nearly universal, with only two households reporting that they did not wash their produce. The vast majority (93%) washed fruits and vegetable with water, while 11% reported sometimes using salt as well. Methods that involved using detergent and water and other materials to clean produce were reported in only one household each, respectively.

Refrigerators (60%) and covered containers (37%) were the primary means for storing cooked food. A small proportion of households used other closed containers (4%), uncovered containers (1%) and bags to keep their produce. Only six households reported using both refrigerators and closed containers to store food. While there were not separate questions in the survey about refrigerator access and ownership, differences in responses between various shelter types likely reflect their availability. For example, while 75% of refugees in houses and apartments reported using a refrigerator to store cooked food, only 45% of those living in substandard buildings and 33% of refugees in IS reported similar practices.

#### Hand Washing

This assessment found that 95% Syrian households reported regularly washing their hands. They do so at certain key points during the day according to their activities, meal times being the main cited reason. Interestingly, more household members reported washing their hands after eating (88%) than before (79%). Besides meal times, a majority of refugees also reported washing their hands after defecation (73%) and before prayers (72%), when hands look or feel dirty (69%) and before preparing food (59%). Refugee households reported that they infrequently washed their hands before feeding children (43%), after disposing of children's faeces (34%), and after working with animals and crops (11%).

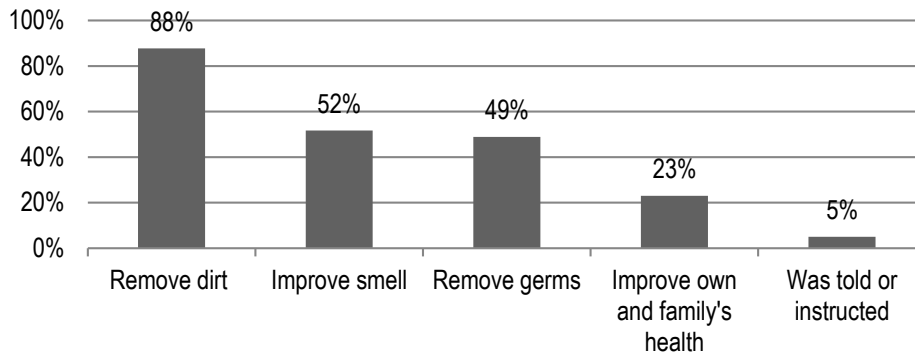
Figure 11: Reported hand washing practices



When asked about practices with their children, adult members of refugee households cite washing children's hands are after being around animals (46%), before eating (33%) and after using the latrine (29%). Only 1% of households reported not washing their children's hands.

The most common motive reported by refugee household members to wash their hands was in order to remove visible dirt and stains (88%). A desire to make hands smell better (52%) and to remove germs (49%) were also important factors in determining whether or not people in the surveyed households washed their hands. Interestingly, only 23% of household members responded that they washed their hands in order to improve their own and their families' health.

Figure 12: Reasons for washing hands



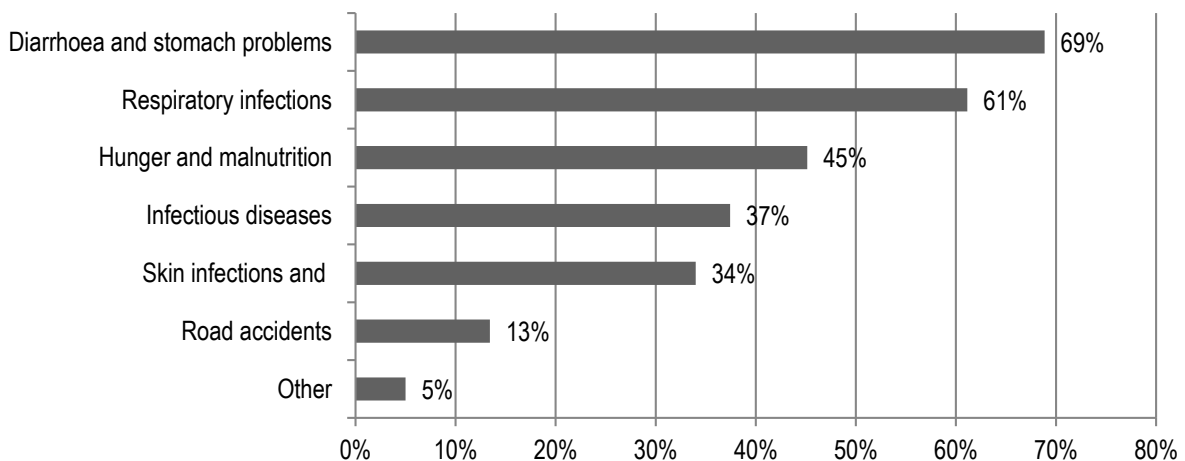
Based on their observations, information officers noted hand washing facilities in 81% of household visits. Of these, 83% relied on taps as their main source of water for hand washing, and the other 17% used water poured from buckets or bottles.

The most common method of hand washing was to use both water and soap (87%), with 13% of household members reporting using only water to clean their hands. Hand washing usually takes place using facilities in the home (71%), followed by at a water tap (23%), and then near a latrine (6%). The most common method of hand washing was to use both water and soap (87%), with 13% of household members reporting using only water to clean their hands.

### Primary Health Concerns

When asked about health issues that concerned their communities, 69% of Syrian refugee households named diarrhoea and stomach problems, followed by respiratory infections (61%) as main sources of worry. Hunger and health issues linked to a lack of food were the next most frequently listed concern, reported by 45% of households. Notably, 50% of females listed hunger and malnutrition as a concern, versus 37% of men. Infectious diseases and skin diseases were named by 37% and 34% of households respectively as further health matters that were a concern to the community.

Figure 13: Prevalence of health concerns





Diarrhoea was reported to be a significant problem across refugee households in Akkar Governorate. In the two weeks prior to the assessment, 18% of refugee households had at least one member experiencing diarrhoea. Rates were higher amongst children; of households with at least one child under five (233), 40% reported at least one child who had experienced diarrhoea within the two-week period prior to assessment. When disaggregating by shelter type, it becomes apparent that the children who live in sub-standard buildings and IS have suffered the highest incidences of diarrhoea in the last two weeks.

**Table 4: Incidence of diarrhoea among children under five by shelter type**

Shelter type	Percentage
Houses and apartments	35%
IS	44%
Substandard buildings	46%

The most common reaction in cases where a child was affected by diarrhoea was to take the child to a doctor (75%). Approximately 34% of refugee household members mentioned administering fluids and 26% mentioned administering oral rehydration solutions. Notably, 42% mentioned giving the sick child food, and 5% mentioned breastfeeding as potential courses of action.

Additionally, 17% of refugee households reported at least one member who had experienced a skin disease, such as scabies, in the past two months. Rates appeared higher in IS (24%) and substandard buildings than houses and apartments (13%).

### Awareness of the Links between Hygiene and Health

Members of refugee households in Akkar almost universally saw a link between hygiene practices and disease (97%), and 90% of them reported that they see contaminated drinking water as a factor that can contribute to diarrhoea. The vast majority of refugee households believed that unsafe drinking water was a main cause of diarrhoea in their communities (85%), with contaminated food (51%) and poor hygiene practices (28%) also considered as significant contributing factors to diarrhoea. Regardless of the origins of households' water sources, unsafe water sources still remain the most commonly named contributing factor to diarrhoea.

Therefore, when asked about the best way to prevent diarrhoea, refugee households overwhelmingly believed that consumption of clean water (78%) was the best way to protect themselves; 13% of households responded that washing hands was the best means, followed by 7% who cited latrine usage.

However, while refugee households may have a good knowledge of principles of hygiene and their causality with improved health conditions, their practices do not especially reflect this. As an example, **Figure 14** above showed that the primary motives for refugee household members to wash their hands do not appear to be directly related to health factors.

### Changing Hygiene Behaviour

Although they reported understanding the importance of good hygiene practices, refugees explained that changing their current behaviours would be hard to do.

Over two thirds of households indicated that behaviours related to accessing and consuming clean water were most difficult to change. Overall, 46% of households highlighted that the consumption of clean drinking water as the hardest hygiene behaviour to change, with 25% also stating that treating drinking water before consuming it was a challenge. By comparison, only 10% of households cited behaviours related to latrine usage as being hard for them to change, and only 1% named hand washing.

From households that cited problems with adjusting certain hygiene behaviours, the cost associated with changing these behaviours was shown to be the main reason (61%) that prevented change. Similarly, not having the means to facilitate changing damaging hygiene behaviours (34%) was also key barrier to refugee households upholding unhealthy practices.

Overall, when further questioned about the specific hygiene practices, 'expense' was cited across the board as the main reason for refugee households in Akkar being unable to change habits which might potentially be damaging to their health.

Table 5: Impediments to changing hygiene behaviour

Hygiene habit	1 <sup>st</sup> main impediment	2 <sup>nd</sup> main impediment
Removing objects where water collects to prevent mosquitos breeding	Expense (18%)	Lack of physical resources (6%)
Keeping leftover food in covered containers to stop flies spreading germs	Expense (22%)	Not seen as important (3%)
Always use a toilet for defecation and urination to prevent spreading disease	Expense (12%)	Not seen as important (1%)
Washing hands with soap and clean water before preparing or eating food	Expense (13%)	Not seen as important (3%)
Disposing of solid waste so that rats, dogs and other vermin cannot feed from it	Expense (12%)	Not seen as important (5%)
Drinking only treated or boiled water	Expense (63%)	Not seen as important (3%)

### Communication Channels for Hygiene Promotion

With a view to promoting improved sanitation and hygiene in the media, we also examined potential communication channels for public health campaigns.

Data reveal that 86% of Syrian refugee households have televisions in their homes, many of which have the television on all day (34%), and are least likely to watch in the mornings (16%). Lebanese television channels (36%) are watched slightly more frequently than Syrian (33%) and other Arabic channels (31%).

Gleaning hygiene information from the television is cited as a key source of health and hygiene information (35%). As another prominent response, 20% reported that they would get such information from communicating with other people. Therefore, such means might be used in regard to promoting positive behaviours.

## CONCLUSION

This assessment sought to provide baseline information about WASH needs in Akkar Governorate in order to inform humanitarian coordination, and to fill gaps in current knowledge about access to facilities and resources as well as knowledge, attitudes, and practices. One of Lebanon's poorest regions, Akkar has seen tremendous pressures placed on host communities as a result of the Syrian refugee crisis and the resulting rapid population growth. With refugees living amongst host communities and in a variety of accommodation contexts, humanitarian actors face the daunting task of prioritising interventions and trying to achieve economies of scale in a region with a historically underdeveloped, or already fragile, infrastructure.

Because this assessment was based on a representative sample and assuming that the figures cited earlier in the report based on UNHCR registration data provide a conservative estimate of the refugee population in Akkar –108,681 refugees (26,652 households) – it is also possible to derive estimates of WASH needs throughout the Governorate.

Access to WASH facilities and shelter type are closely intertwined and shelter type may correspond closely with levels of vulnerability. For refugees living in substandard buildings and informal settlements, often the most vulnerable substrata of the refugee population, the rudimentary infrastructure and resources available to those in apartments and houses may be largely unavailable.

### Water

As data from this assessment has shown, difficulties obtaining drinking water are widespread; however, specific challenges may be more common in some settings than others. For households living in substandard buildings and where difficulties obtaining drinking water appear most common, there may be a need to facilitate access to adequate water supplies. In total, there may be 16,258 households that face difficulties accessing water, including 4,712 of who live in substandard buildings. By contrast, refugees living in IS have ready access to water but may consume sources that are of a low quality and stored unsafely, and there may still be as many as 2,480 that face challenges such as collecting enough water or having to consume water that is not clean.

### Sanitation

There is a need to improve latrine access and quality in a substantial majority of refugee households. For refugees living in IS, problems regarding basic access – having a latrine that is available to use or is not used by large numbers of people – is still an issue in many locations. As of this summer another 601 toilets would need to be installed to meet basic standards of latrine availability.<sup>40</sup> Latrine maintenance appears to be needed in all settings, but the need for repairs in substandard buildings and locations with pit latrines may be most urgent. Privacy is an issue in many settings, but it is most acute in ones where households rely on pit toilets or live in substandard buildings. An estimated 4,875 households relying on pit latrines need greater privacy and 4,434 latrines in substandard buildings also face issues related to privacy. Similarly, many refugees living in substandard buildings may be in greatest need of access to bathing facilities, while those living in IS likely need improvements made to the facilities they already use.

Sanitation interventions may be particularly urgent in many IS and of less importance in other settings. Many settlements exhibit conditions that lead to disease vectors and as a result of being cut off from services and infrastructure, few IS have the means to address problems related to wastewater and solid waste. For example, as many as 7,729 households may need help in managing solid waste, but nearly half of these (3,797) may be in IS. Similarly, 7,463 households many need help with drainage and stagnant water, but the majority (3,797) may be in IS.

<sup>40</sup> Multi Sector Community Level Assessment of Informal Settlements – Akkar Governorate. Op cit. p. 31

## Hygiene and health

Refugees' main health concerns are often directly linked to water, sanitation, and hygiene. For example, diarrhoea (ranked as households' overall primary concern), other conditions such as hunger and lack of food related health problems, and high rates of skin diseases, may be directly or indirectly linked to hygiene conditions.

While there appears to be a nearly universal awareness of the connections between hygiene and disease and of the need to follow positive hygiene behaviour, this awareness is not always reflected in refugees' practices. For example, while there is a high level of awareness about the importance of drinking clean water, very few households take measures to ensure that the water they are drinking is safe. Similarly, while hand washing is widely practiced, it is often not done at the most appropriate times and its connections with health and hygiene may be perceived as tenuous.

Thus, poor hygiene practices may be the product of a lack of access to (financial) resources in some cases, and a lack of knowledge in others. Therefore, the pertinent gaps remain to be filled either through interventions that promote access to WASH facilities, or through hygiene promotion. For example, given that the vast majority of refugees already wash their hands, a more targeted intervention that promotes greater frequency -- before handling food and after defecation, in particular -- as well as washing's positive impact on household health may be emphasized. Distinguishing between the appropriateness of different types of interventions is thus fundamental to designing effective interventions.

In a general manner and with regard to promoting positive behaviours, humanitarian actors should find ways to shore existing bases of knowledge and facilitate practices that would be more widespread if households had the appropriate means. Indeed, the adoption of more health-enhancing practices is limited by the resources households have available.

Finally, it is worth highlighting that as the crisis enters its fourth year, humanitarian actors should be mindful of the long-term WASH needs of host communities. Many of the needs highlighted in this report are ones that would address emergency situations and would allow refugee populations to address urgent necessities; however, as the crisis continues, there is ever greater need to address strains on infrastructure in host communities and strengthen local service delivery.

## Next Steps

While data collected through this WASH assessment contributes to filling information gaps at the Akkar operational level, there remain significant information gaps both in other operational areas and at the national strategic level. As a result in these gaps in information, evidence based planning is problematic. With this in mind, REACH will continue to work closely with the national WASH working group to update their assessment strategy in line with lessons learnt from data collection in Akkar Governorate. Recognising the significant differences in the WASH situation across the various shelter contexts, REACH recommends that the national roll out of a WASH assessment should be based around a sample which provides representative data both at the geographic level (humanitarian coordination operational level) and by shelter type.

ANNEXES

Annex 1 : Household Questionnaire

<b>REACH</b>		An initiative of IMPACT Initiatives ACTED and UNOSAT		<b>WASH Household Assessment Tool</b>			
Date: [DD/MM/YY]		Database ID:					
Completed by:		Team ID:		Reviewed		<input type="text"/>	
<b>A GENERAL INFORMATION</b>							
A1	Location	Respondent age		Respondent gender	Male	Female	
	Respondent relation to the household head	Head of HH	Wife / Husband	Daughter /Son			
	Mother/Father	Mother/Father in law					
A2	Household members under 5 years	Males	Females	Household members 5 - 16 years	Males	Females	
	Household members over 16 years	Males	Females	Gender of household head	Males	Females	
A3	Type of dwelling	Independent house/apartment		One room structure	Factory/warehouse		
	Unfinished building	Collective shelter (unmanaged)		Tent in IS			
	Collective center (6 families or more - managed)		Handmade shelter in informal settlement		Homeless no shelter		
	Formal tented settlement		Specify other				
A4	Arrival date at current location	Population group		Syrian refugees	Palestinian refugees from Syria		
	Lebanese returnees	Palestinian refugees from Lebanon		Others			
A5	Literacy	Can read and write		Can't read or write	No Response		
	Highest education completed	Never went to school		Primary school	Intermediate school		
	Secondary school		Technical College		University degree or higher		
A6	Is there a person(s) with special needs in the household who need additional support (e.g. person(s) with disabilities etc.)						
	Yes	No	If yes, which special needs are present in the household?		Physical disabilities	Elderly	
A7	Are you registered?	Yes	No	If yes, how long have you been registered?		Less than one month	1-2 months
	3-6 months	7-12 months	1-2 years	2 or more years	Are there other household members who are registered?		
	Yes	No	If yes, how many?				
A8	How is the condition around the site?		Clean and hygenic	Very poor condition (flies, solid waste)			
	Clutter and rubbish around the shelter		Is there any stagnant water around the shelter?		Yes	No	
<b>B. INFORMATION ON WATER</b>							
B1	Source of water for drinking ?		Dug well	Protected spring	Protected spring	Unprotect. spring	
	Borehole at house/settlement	Piped water from the municipality		River, creek, lake	Bottled water		
	Water tanker	Tapstand	Water trucking	Municip. standpipe	Specify other		
	Source of water for cooking ?		Dug well	Protected spring	Protected spring	Unprotect. spring	
	Borehole at house/settlement	Piped water from the municipality		River, creek, lake	Bottled water		
	Water tanker	Tapstand	Water trucking	Municip. standpipe	Specify other		
	Source of water for hand washing ?		Dug well	Protected spring	Protected spring	Unprotect. spring	
	Borehole at house/settlement	Piped water from the municipality		River, creek, lake	Bottled water		
	Water tanker	Tapstand	Water trucking	Municip. standpipe	Specify other		
	Source of water for bathing?		Dug well	Protected spring	Protected spring	Unprotect. spring	
	Borehole at house/settlement	Piped water from the municipality		River, creek, lake	Bottled water		
	Water tanker	Tapstand	Water trucking	Municip. standpipe	Specify other		
	Source of water for clothes washing ?		Dug well	Protected spring	Protected spring	Unprotect. spring	
	Borehole at house/settlement	Piped water from the municipality		River, creek, lake	Bottled water		
	Water tanker	Tapstand	Water trucking	Municip. standpipe	Specify other		
	Source of water for toilet flushing ?		Dug well	Protected spring	Protected spring	Unprotect. spring	
	Borehole at house/settlement	Piped water from the municipality		River, creek, lake	Bottled water		
	Water tanker	Tapstand	Water trucking	Municip. standpipe	Specify other		
	Source of water for cleaning ?		Dug well	Protected spring	Protected spring	Unprotect. spring	
	Borehole at house/settlement	Piped water from the municipality		River, creek, lake	Bottled water		
	Water tanker	Tapstand	Water trucking	Municip. standpipe	Specify other		
	The distance to get drinking water source	Under 100m	100m - 500m	Over 500m			
	The distance to get drinking water source	Under 100m	100m - 500m	Over 500m			
B2	Access and storage						
	Does the yield of the source change depending on the season?		Yes	No			
	Describe change in summer			Describe change in winter			

	Is water brought from the source and stored inside the house?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>							
	Is it stored in a safe place? (Clean and covered)	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>							
	Who is responsible for collecting and storing this water?	Father	<input type="checkbox"/>	Mother	<input type="checkbox"/>	Son	<input type="checkbox"/>	Daughter	<input type="checkbox"/>			
	Grand mother	<input type="checkbox"/>	Grand father	<input type="checkbox"/>	Grand children	<input type="checkbox"/>	Other	<input type="checkbox"/>				
	Do you face any difficulties with access to drinking water?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	If yes, what are they?						
	If yes, what are they?											
	Water is not clean	<input type="checkbox"/>	Tastes bad	<input type="checkbox"/>	Water makes us sick	<input type="checkbox"/>	Supply shortage	<input type="checkbox"/>	Water is expensive	<input type="checkbox"/>		
	Difficult to collect	<input type="checkbox"/>	Distance	<input type="checkbox"/>	Safety concerns	<input type="checkbox"/>	Needs maintenance	<input type="checkbox"/>	Other	<input type="checkbox"/>		
	What type of water storage container is available to the household?											
	Water tank	<input type="checkbox"/>	Jerry can	<input type="checkbox"/>	Bucket	<input type="checkbox"/>	Bottles	<input type="checkbox"/>	Other	<input type="checkbox"/>		
	<b>B3 Capacity</b>											
	Water tank											
How many tanks are available?	<input type="checkbox"/>	What is the Capacity (litres)?	10 L	<input type="checkbox"/>	20 L	<input type="checkbox"/>	50 L	<input type="checkbox"/>	500 L	<input type="checkbox"/>	1000 L	<input type="checkbox"/>
Does the water tank have a cover ?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>								
Jerry can												
How many tanks are available?	<input type="checkbox"/>	What is the Capacity (litres)?	10 L	<input type="checkbox"/>	20 L	<input type="checkbox"/>	50 L	<input type="checkbox"/>	500 L	<input type="checkbox"/>	1000 L	<input type="checkbox"/>
Does the water tank have a cover ?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>								
Bucket												
How many tanks are available?	<input type="checkbox"/>	What is the Capacity (litres)?	10 L	<input type="checkbox"/>	20 L	<input type="checkbox"/>	50 L	<input type="checkbox"/>	500 L	<input type="checkbox"/>	1000 L	<input type="checkbox"/>
Does the water tank have a cover ?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>								
Bottles												
How many tanks are available?	<input type="checkbox"/>	What is the Capacity (litres)?	10 L	<input type="checkbox"/>	20 L	<input type="checkbox"/>	50 L	<input type="checkbox"/>	500 L	<input type="checkbox"/>	1000 L	<input type="checkbox"/>
Does the water tank have a cover ?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>								
Other												
How many tanks are available?	<input type="checkbox"/>	What is the Capacity (litres)?	10 L	<input type="checkbox"/>	20 L	<input type="checkbox"/>	50 L	<input type="checkbox"/>	500 L	<input type="checkbox"/>	1000 L	<input type="checkbox"/>
Does the water tank have a cover ?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>								
<b>B4 Supply group</b>												
Are there any problems with your current drinking water supply?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>								
Do you separate drinking water from non-drinking water?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>								
What do you do to make your water safe?	Boil it	<input type="checkbox"/>	Use chlorine or iodine	<input type="checkbox"/>	Use a filter	<input type="checkbox"/>	Expose to sunlight	<input type="checkbox"/>				
Keep it in a clean closed container	<input type="checkbox"/>	Nothing	<input type="checkbox"/>	Other	<input type="checkbox"/>							
What do you clean your drinking water container with?	Soap and water	<input type="checkbox"/>	Water only	<input type="checkbox"/>	Ash and water	<input type="checkbox"/>						
Sand and water	<input type="checkbox"/>	Chlorine	<input type="checkbox"/>	Don't clean	<input type="checkbox"/>	Don't know	<input type="checkbox"/>	Other	<input type="checkbox"/>			
How often do you clean your water container?	Every day	<input type="checkbox"/>	Twice weekly	<input type="checkbox"/>	Once weekly	<input type="checkbox"/>	Twice per month	<input type="checkbox"/>				
Once per month	<input type="checkbox"/>	Less than once per month	<input type="checkbox"/>	Never	<input type="checkbox"/>	No answer	<input type="checkbox"/>	No container	<input type="checkbox"/>	Other	<input type="checkbox"/>	
<b>B5 Financing water supplies</b>												
How much do you pay for drinking water per month?					USD		Lebanese Pound					
How much do you pay for ALL water per month?					USD		Lebanese Pound					



C. Information on Sanitation												
C1	Does your dwelling have a latrine?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Is your latrine connected to a septic tank?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>		
C3	Do you pay for desludging?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>							
C4	Where do women defecate?	Latrine in house	<input type="checkbox"/>	Communal latrine	<input type="checkbox"/>	Near the house	<input type="checkbox"/>	Other	<input type="checkbox"/>			
C5	Where do men defecate?	Latrine in house	<input type="checkbox"/>	Communal latrine	<input type="checkbox"/>	Near the house	<input type="checkbox"/>	Other	<input type="checkbox"/>			
C6	Where do children over 5 defecate?	Latrine in house	<input type="checkbox"/>	Communal latrine	<input type="checkbox"/>	Near the house	<input type="checkbox"/>	Other	<input type="checkbox"/>			
C7	Where do ones under 5 defecate?	Latrine in house	<input type="checkbox"/>	Communal latrine	<input type="checkbox"/>	Near the house	<input type="checkbox"/>	Other	<input type="checkbox"/>			
C8	How many people use the latrine?	<input type="checkbox"/>		Is the latrine gender segregated?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>				
C9	Are you happy with your latrine?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	If no,why?	Not clean	<input type="checkbox"/>	No light	<input type="checkbox"/>	Need maintenance	<input type="checkbox"/>
	Far away	<input type="checkbox"/>	No privacy	<input type="checkbox"/>	Not gender segregated	<input type="checkbox"/>	No water to wash hands	<input type="checkbox"/>	Other	<input type="checkbox"/>		
	If you don't have a latrine why not?	Too expensive	<input type="checkbox"/>	Don't know how to build	<input type="checkbox"/>	No tools	<input type="checkbox"/>	Don't want one	<input type="checkbox"/>			
	No permission	<input type="checkbox"/>	Other	<input type="checkbox"/>								
C10	At what age do children in your family / community start to use the latrines?	<input type="checkbox"/>										
C11	What happens to the stools of young children?	Latrine	<input type="checkbox"/>	Burying	<input type="checkbox"/>	Fields	<input type="checkbox"/>	With the garbage	<input type="checkbox"/>			
	Open air disposal	<input type="checkbox"/>	Thrown behind the house	<input type="checkbox"/>	No answer	<input type="checkbox"/>	Other	<input type="checkbox"/>				
C12	Is there a bathing /shower facility?	Private	<input type="checkbox"/>	communal / shared	<input type="checkbox"/>	No	<input type="checkbox"/>					
C13	What kind of bathing facilities are available?	Private shower	<input type="checkbox"/>	Shared (less than 15 use)	<input type="checkbox"/>							
	Shared shower (15 or more use)	<input type="checkbox"/>	Natural river/stream	<input type="checkbox"/>	Private shower	<input type="checkbox"/>	Shared shower (less than 15 use)	<input type="checkbox"/>				
	Shared shower (15 or more use)	<input type="checkbox"/>	Natural river/stream	<input type="checkbox"/>	Bucket	<input type="checkbox"/>						
C14	Is the bathing / shower facility segregated?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>							
C15	Are there any problems with access to toilets and showers for people with reduced mobility (for example, disabled, elderly)?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	If yes, why?	Lack of adaptation in the toilet seat or no toilet seat	<input type="checkbox"/>	distance to the toilet	<input type="checkbox"/>		
	No bars or rails for people to hold on	<input type="checkbox"/>	Don't know	<input type="checkbox"/>	Other	<input type="checkbox"/>						
C16	Do you feel comfortable using your toilets and showers?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	If no,why?	Because of distance	<input type="checkbox"/>	Because of lack of privacy	<input type="checkbox"/>	Because there is no lock	<input type="checkbox"/>
	Because of inadequate lighting	<input type="checkbox"/>	Because men have access to it	<input type="checkbox"/>	Other	<input type="checkbox"/>						
C17	Is there a latrine available?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	If yes ,what is the type?						
	Simple pit latrine	<input type="checkbox"/>	Pour flush with soakage pit	<input type="checkbox"/>	Pour flush with septic tank	<input type="checkbox"/>	Pour flush to sewage	<input type="checkbox"/>				
	What is the condition?	Good	<input type="checkbox"/>	Needs repair	<input type="checkbox"/>	Out of order	<input type="checkbox"/>	Where is the latrine?				
	Inside	<input type="checkbox"/>	In the yard	<input type="checkbox"/>	Behind the dwelling	<input type="checkbox"/>	More than 30 metres from the dwelling	<input type="checkbox"/>	Other	<input type="checkbox"/>		
	Does the latrine have a concrete slab?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	If no, what does it have?						
	Is the latrine clean?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Does the latrine smell?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>		
	Is the latrine full?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Half full	<input type="checkbox"/>	Is there privacy?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
	Is there visible waste?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	If yes,what is the visible waste ?						
	Human faeces visible	<input type="checkbox"/>	Animal faeces visible within private yard	<input type="checkbox"/>	Open sewage/stagnant water	<input type="checkbox"/>						
	Other	<input type="checkbox"/>	Is the condition of bathing / shower facilities sanitary?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>					
	Are bathing / toilet units equipped with doors, locks, and lighting?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>							
D. Household waste												
D1	Where do you put your garbage?	Refuse pit	<input type="checkbox"/>	Bush	<input type="checkbox"/>	Burning	<input type="checkbox"/>	Burying	<input type="checkbox"/>	Near to the road	<input type="checkbox"/>	
		Near to bush/fields	<input type="checkbox"/>	Natural drain	<input type="checkbox"/>	waste bin	<input type="checkbox"/>	Other	<input type="checkbox"/>			
D2	How often do you dispose of solid waste?	Daily	<input type="checkbox"/>	Weekly	<input type="checkbox"/>	Twice per week	<input type="checkbox"/>	Don't know	<input type="checkbox"/>	Other	<input type="checkbox"/>	
D3	Is waste disposal a problem?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	If yes,why?	No one collects it	<input type="checkbox"/>	No containers	<input type="checkbox"/>	Burn waste	<input type="checkbox"/>
	Cannot afford disposal	<input type="checkbox"/>	Dump in open area	<input type="checkbox"/>	Don't know	<input type="checkbox"/>	Other	<input type="checkbox"/>				

E. Information on hygiene awareness									
E1	What infectious diseases have your family suffered from in the last 3 months?								
	Diarrhoea	Leishmaniasis	Respiratory infection	TB	Nothing	Other			
E2	What is the hardest hygiene behaviour for you to change?								
	Use of latrines	Hand washing at key times	Disposal of children's stools	Other	Use of clean drinking water	Treating drinking water			
E3	Why is hard to change the behavior?								
	Do not know how	Do not have means	Too expensive	Takes too long	Not a serious problem	Forget to do it	Other		
E4	In your family/community, what do you consider to be the main causes of diarrhoea and upset stomach?								
	Contaminated food	Unsafe drinking water	Poor hygiene practices	Open defecation	Other				
E5	Can you list the factors that may cause you diarrhea ? (prompt them if you are not able to get an answer, multiple answers, possible)								
	Drinking unsafe water	Eating contaminated food	Poor hand washing	Open defecation	Anxiety	I don't know	Other		
E6	Do you think there is a link between hygiene behavior and diseases?								
	Yes	No							
E7	What is the best way to prevent diarrhoea?								
	Washing hands	Use latrines	Use of safe drinking water	Other					
E8	What do you do when your child (under 5) gets diarrhoea?								
	Give ORS	More fluids	More food based fluids	More breastfeeding	Refer to doctor	Other			
E9	What are the main preventive measures of waterborne and food borne diseases?								
	Hand washing	Water treatment	Cooking food properly	Washing latrines	Don't Know				
E10	On a normal day, when do you wash your hands?								
	I don't regularly wash my hands	When hands look dirty	Before preparing food	After defecation	Before eating	After eating	Before child feeding	After disposing of children's feces	Before prayers
	No answer	Specify other							
E11	What do you use to wash your hands?								
	Water and soap	Water only	Don't know	Other					
E12	Where do you mainly wash your hands?								
	House	Water tap	Near latrine	Other					
E13	When do your children wash their hands?								
	After daily tasks/work/school	Before cooking	After using latrines	After touching animals/fieldwork	Before eating	Don't wash hands	Don't have kids	Specify other	
E14	How do you wash your vegetables and fruits ?								
	No washing	Water	Water and detergent	Water and salt	Specify other				
E15	How do you store cooked food?								
	Uncovered container or pot	Covered container or pot	Bag	Fridge	In covered container or pot	Specify other			
E16	If a child under 5 gets a skin rash, what do you do?								
	Keep away from others	Avoid contact	Take to doctor	Nothing	Specify other				
E17	What do you do with your household waste water?								
	Drained away into soak pit	Sewage network	River or stream	Drained into open channel	Throw it near shelter	No answer	Specify other		
E18	What are the main reasons you wash your hands?								
	Removes visible dirt	Hands smell better	Other taught me	Best to remove germs from hands	Told me to use soap	Improve my health	Specify other		
E19	Do you receive hygiene kits and baby kits (for babies under 2 years) on a monthly basis?								
	Yes	No							
	For people in your family/community, what do you think are the impediments to people carrying out the following hygiene and health related tasks?								
E20	Removing objects where water collects to prevent mosquito / sand fly breeding								
	Don't have physical resources	DK it was an issue	Do not know how	Too expensive	Not important enough to them	Takes too long	Forget to do it	Not applicable	
E21	Keeping leftover food in covered containers to stop flies spreading germs								
	Don't have physical resources	DK it was an issue	Do not know how	Too expensive	Not important enough to them	Takes too long	Forget to do it	Not applicable	
E22	Always use a toilet for defecation and urination to prevent spreading disease								
	Don't have physical resources	DK it was an issue	Do not know how	Too expensive	Not important enough to them	Takes too long	Forget to do it	Not applicable	
E23	Washing hands with soap and clean water before preparing or eating food								
	Don't have physical resources	DK it was an issue	Do not know how	Too expensive	Not important enough to them	Takes too long	Forget to do it	Not applicable	

E24	Disposing of solid waste so that rats, dogs and other vermin cannot feed from it							
	Don't have physical resources		DK it was an issue		Do not know how		Too expensive	
	Not important enough to them		Takes too long		Forget to do it		Not applicable	
E25	Drinking only treated or boiled water							
	Don't have physical resources		DK it was an issue		Do not know how		Too expensive	
	Not important enough to them		Takes too long		Forget to do it		Not applicable	
E26	Have you ever received any health related information on water and sanitation?							
				Yes		No		
E27	From where? Media (TV/radio/newspaper)							
			Health clinic / hospital		Poster or billboard		School	
			Place of worship		Family or friends		Other	
	Observations to be completed by the enumerator							
E28	Is there a hand washing facility in the dwelling / camp?							
		Yes		No				
E29	What type is the hand washing facility?							
	Pour water from a pot/bucket		Bucket and cup		Tap and basin		Bowl	Specify other
E30	Is there soap in the area where people would normally wash hands and has it been used?							
				Yes		No		
E31	Is there a shower facility?							
	Yes		No					
<b>F. WASH</b>								
F1	What is your community's source of water for household use (other than drinking)? (can select multiple)							
	Road accidents		Diarrhoea / stomach upset		Respiratory infection			
	Hunger and malnutrition		Infectious disease		Skin infections, insect bites, itches			
	Eye and ear infection		Other (specify)					
F2	Have any children under 5 years had diarrhoea in the past two weeks?							
				Yes		No		
F3	Has any household member had diarrhoea in the past two weeks?							
				Yes		No		
F4	Has anyone had a skin disease in the last 2 months?							
				Yes		No		If yes, how many?
<b>G. Vector Control</b>								
G1	What do you use for vector control in your household / settlement / community / village?							
	Don't know		Nothing		Rodent Poison		Traps	Indoor residual spraying
								Other
G2	Is there stagnant water around WASH facilities?							
		Yes		No		Don't know		No response
G3	Are mosquitoes / flies an issue in or around your shelter?							
		Yes		No		Don't know		No response
<b>H. Knowledge, attitude, and practise</b>								
H1	Do you have a TV at home?							
		Yes		No		Don't know		No response
H2	At what time during the day do adults in the household usually watch TV?							
	Morning		Afternoon		Evening		All day	
H3	If you have a TV, which channels do you watch?							
			Lebanese channels		Syrian channels		Other Arabic channels	
	If Lebanese channels which ones?							
H4	Do you have a radio at home?							
		Yes		No		Don't know		No response
H5	If yes, which stations do you listen to?							
			Lebanese channels		Syrian channels		Other Arabic channels	
	If Lebanese channels which ones?							
H6	Where do you get your health/hygiene information from?							
	From people around / word of mouth		Agencies providing services		Registration centers		SMS	Radio
	Relig. gathering places		Community centres		Other (specify)			TV
<b>G NOTES / COMMENTS</b>								