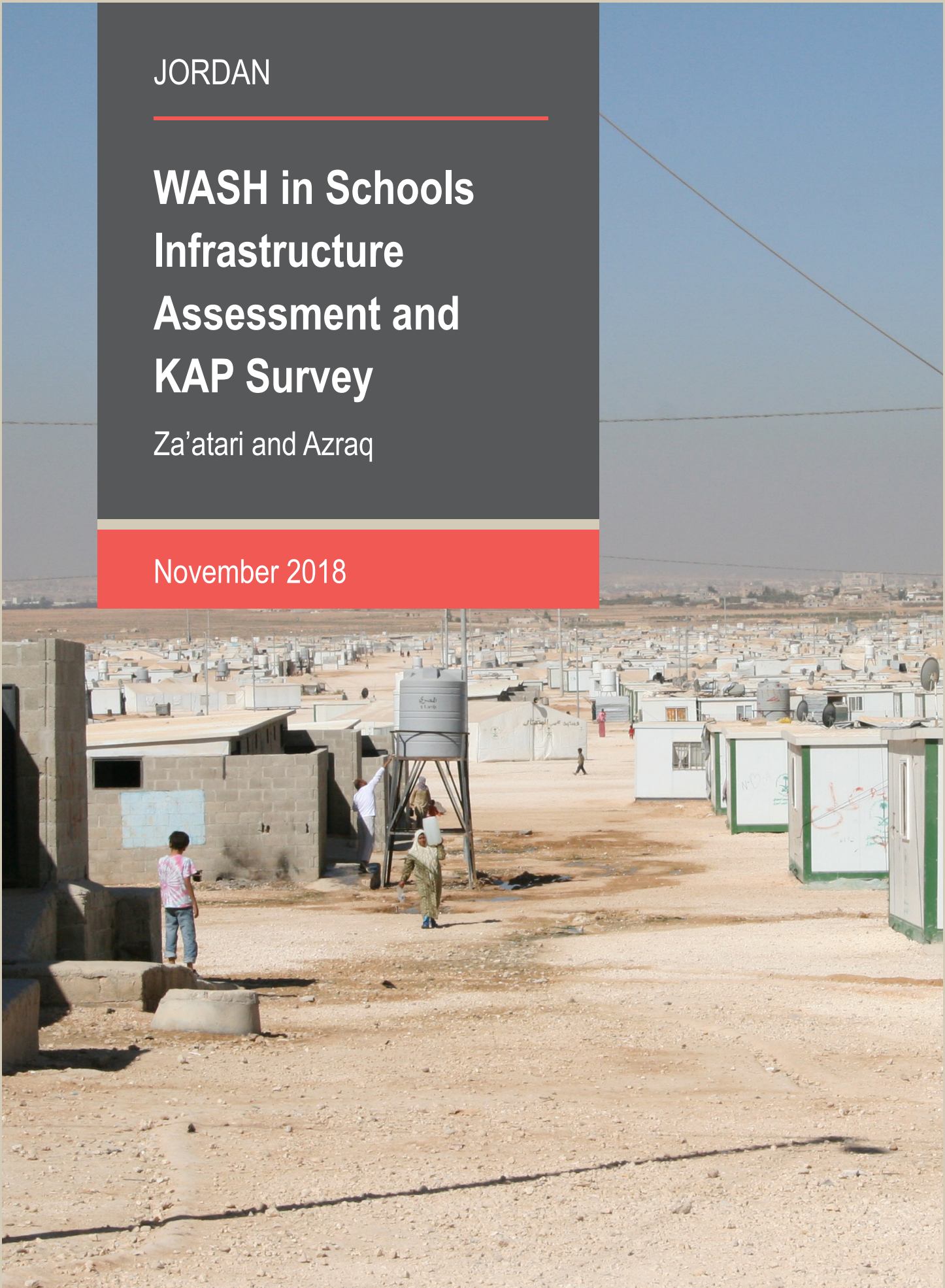
JORDAN

WASH in Schools Infrastructure Assessment and KAP Survey

Za'atari and Azraq

November 2018



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About REACH

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SUMMARY

A total of 671,428 Syrians have registered as refugees in Jordan since 2011, 125,642 (18.7%) of which are registered in camps.[1] In both Azraq and Za'atari camps, school aged children make up nearly a third of the population, and enrolment rates for formal schools are near 75%.[2] [3] The United Nations Children's Fund (UNICEF) is the lead agency for the water, sanitation and hygiene (WASH) sector in Jordan and coordinates all related activities in both Azraq and Za'atari refugee camps. Though WASH infrastructure and practices have been thoroughly studied and mapped in both camps, comparatively little has been documented covering WASH infrastructure and practices in the camp schools. To address this knowledge gap, UNICEF consulted REACH to conduct an assessment on WASH infrastructure in schools, and on the sanitation and hygiene knowledge, attitudes and practices (KAP) of school aged children.

For each camp, the assessment included two phases, the first of which was a census level WASH infrastructure assessment in schools combined with 22 Key Informant Interviews (KIIs) with heads of schools, 8 KIIs with WASH actors, and 34 Focus Group Discussions (FGDs) with educational staff. All KIIs and FGDs were purposively sampled. The infrastructure assessment evaluated facilities for students enrolled in all kindergarten (KG), formal, and certified non-formal education (NFE) schools in Azraq and Za'atari camps. The second phase included a randomly sampled student sanitation and hygiene KAP survey of school aged children (referred to as students). The student survey was representative of the camp's student population with a 95% confidence level and a 5% margin of error. In total 797 students were interviewed as part of the KAP survey; 406 in Azraq and 391 in Za'atari. Data was collected for this assessment in May, June and September 2018.

Overall, the infrastructure assessment and KIIs with both WASH actors and heads of school, revealed that schools in both Azraq and Za'tari are generally able to maintain the required standards for cleanliness in WASH centres. Though the toilets and handwashing facilities were generally well kept and functioning, a significant number of toilets were not accessible. Additionally, the WASH centres were not all provided with sufficient materials for students to appropriately manage their personal hygiene. While water was provided to flush toilets, a large number of WASH centres did not have any soap available for students to wash their hands. Students in Za'atari generally reported worse hygiene behaviours outside of school than those in Azraq, which may be the result of inadequate education relating to health and hygiene behaviours compounded by limited household conversations related to health and hygiene. The key findings for both camps are outlined below.

Key Findings:

Azraq Camp – 8 school complexes, comprised of 14 schools were assessed.

- **Toilets:**

  Overall, between 66.7% and 70.5% of toilets met all accessibility, functionality, privacy and cleanliness standards outlined in the National WASH Standards for schools.[4] All of the 52 WASH centres in Azraq camp were open and could be assessed. Within these WASH centres, there were **312 toilet stalls, 302 of which were accessible and assessed**. All of the assessed toilets were either pour flush or flushing toilets. Based on direct observations by REACH enumerators, the accessible toilets (302) performed well against the cleanliness standards, with only one toilet failing to meet the standards. General cleanliness was confirmed through KIIs with heads of school who reported that toilets in one shift schools were cleaned once daily, and those in two shift schools were cleaned twice daily. While the toilets were overwhelmingly clean and functional**, only 72.8% had locks and therefore met the privacy standards**. During the KAP survey, **the majority (92.4%) of students reported using school toilets.** When girls 13 and older were asked if they and their

[1] United Nations High Commissioner for Refugees (UNHCR), Inter-agency information sharing portal, last updated 24 September 2018, accessed 9 October 2018.
[2] UNHCR, Azraq Refugee Camp Fact Sheet, January 2018
[3] UNHCR, Zaatari Refugee Camp factsheet, January 2017
[4] Because the toilets were not uniquely identified during the assessment and were instead reported through totals for each WASH centre, it is possible, for example, that a toilet that was broken was either the same or different as one that was dirty. Thus, there is a range of possibility for the toilets that met all standards, with the lower limit assuming each toilet that did not meet the standards only had one issue, and the upper limit assuming maximum overlap between the issues observed.

friends felt comfortable using school toilets during their menstrual cycles, the proportion decreased to only 71.9%.

- **Handwashing facilities:**

All WASH centres had outdoor handwashing facilities (52/52), and 65.4% had indoor handwashing facilities (34/52). While only 20.6% of indoor handwashing facilities were made of concrete or galvanized iron and thus met all of the standards, 100% of indoor handwashing facilities met the standards relating to the function of handwashing facilities and therefore the potential use by students. Of the outdoor handwashing facilities, only 4.0% were considered to be in close proximity to the toilets. All facilities were well-designed for all age groups and were found to meet the cleanliness standards on the day of the survey. Overall, 98.0% of outdoor handwashing facilities met National WASH Standards for cleanliness and functionality. KIIs with heads of school also reported that handwashing facilities were cleaned once daily for single shift schools and twice daily for double shift schools. **Though handwashing facilities were often located far from the toilets, the majority (97.5%) of students still reported using them**.

- **Soap and water:**

Only one indoor and one outdoor sink did not have water on the day of the assessment. During FGDs, educational staff reported water provision for hygiene activities to be sufficient. **During KIIs**, **heads of school and WASH actors also reported soap provision to be sufficient, however on the day of the assessment, soap was observed in only 58.1% of indoor sink taps, and 67.3% of outdoor sink basins** (each WASH centre had one basin). Of the WASH centres with indoor facilities, 38.3% of the handwashing facilities did not have soap at any of the sink taps, and 32.7% of outdoor handwashing facilities did not have soap at any of the sink taps.

- **Drinking water:**

During FGDs, the vast majority of educational staff reported that the provision of drinking water was sufficient in the schools. In the KAP survey, **the majority of students reported that they either drank water at school from taps (74.1% of students)**, or that they brought water from home (42.9% of students).[5]

- **Waste:**

During KIIs, heads of school reported that solid waste was disposed of safely, and black and grey water tanks were not seen to have any leaks or blockages during the infrastructure assessment. Though waste was reported to be disposed of properly, disposal bins were not available in 36.5% of WASH centres at the time of the assessment.

- **Menstrual hygiene management (MHM):**

In the five schools offering classes for female students after G5, only two heads of school reported that in the schools they manage MHM was part of the regular health and hygiene curriculum for females.

- **Students with disabilities:**

The vast majority (92.3%) of the WASH centres, and thus all school complexes, offered one stall for people with disabilities, however only five of the eight school complexes offered outdoor handwashing facilities accessible to students with disabilities. During FGDs, the majority of educational staff reported that school WASH facilities are not suitable for disabled children. FGD participants explained that improvements could be made to facilitate the use of WASH facilities by disabled children including easier access (for example, a ramp) to the facilities and separate, larger facilities for students with disabilities.

- **Student health and hygiene knowledge and behaviour:**

The majority of students (94.1%) reported that their school provided health and hygiene activities and education. Of the students reporting that they received health and hygiene education at school, 97.9% of students reported that their teacher provided this education, with verbal instructions being the most common form of teaching (85.3%). In general, students reported good practices and had an accurate understanding of handwashing practices (cleaning materials, and critical times to wash hands), bathing, teeth cleaning, and the

[5] Multiple responses possible.

importance of disposing of human faeces properly. The majority of students understood the importance of boiling water, and how to prevent diahhroea. In addition to knowledge of best practices, 70.4% of students reported brushing their teeth every day, and a similar proportion of students reported washing their hair daily and bathing every one or two days.

Za'atari Camp – 13 School complexes, comprised of 28 schools were assessed.

- **Toilets:**

In the 28 camp schools, there were 70 WASH centres, of which 65 were open and could be assessed. Similarly, in the 70 WASH centres, there were 398 toilets, 351 (88.2%) of which were unlocked from the outside and could be assessed. The assessed toilets were either pour flush (86.9%), or flushing toilets (13.1%). While the majority of the toilets (99.1%) were functional and not broken, only 77.8% had functional internal locks. The majority of toilets did not have any standing water around them (95.2%), or urine or faeces on the floor and walls (97.4%), however only 86.6% did not smell or have flies. **Overall, between 51.8% and 69.0% of toilets met all accessibility, functionality, privacy and cleanliness standards.**[6] During KIIs, all heads of school reported that facilities were cleaned once or twice daily depending on the school shifts, but only half of the heads of school reported that walls and floors were cleaned with water and bleached daily. KIIs with WASH actors confirmed what was reported during KIIs with heads of schools, reporting that while toilets were cleaned at least once a day, walls and floors were only cleaned once a week. **Almost a quarter (23.5%) of the students reported that they did not use school toilets, with female students being more likely to avoid using them than male students (28.5% of female students compared to 18.6% of male students).**[7] The most commonly cited reason students gave for not using school toilets was that they were dirty (40.3% of students who never used them). Additionally, 48.0% of girls 13 and older reported that they were not comfortable using school toilets during their menstrual cycles.

- **Handwashing facilities:**

In the 65 assessed WASH centres, 56.9% (37/65) had indoor handwashing facilities, and 87.7% (57/65) had one outdoor handwashing basin. The 37 indoor facilities consisted of 152 sink taps and the outdoor facilities consisted of 167 taps. **While only 20.4% of the handwashing basins were made of concrete and galvanized iron, between 94% and 98% of indoor handwashing facilities met the other National WASH Standards.** The majority (91.2%) of the outdoor facilities were located in close proximity to the toilets and were appropriately designed for all age groups**. Overall, between 68.4% and 89.5% of outdoor handwashing facilities met National WASH Standards relating to function and cleanliness.** Only 1.5% of students reported that they did not use the handwashing basins at school.

- **Soap and water:**

Though the majority of students reported using the handwashing facilities at school, on the day of the survey only 19.7% of indoor handwashing sink taps and 17.5% of outdoor handwashing group taps were provided with soap. Nearly all heads of schools interviewed (12/14) reported that a lack of soap discouraged students from using the facilities and the vast majority of educational staff reported that the number of hygiene related products was not sufficient for the schools during FGDs. All of the WASH facilities with indoor handwashing facilities and 89.5% of the outdoor handwashing facilties had running water on the day of the assessment. During FGDs with educational staff, the majority reported that they believed water for hygiene practices was sufficient.

- **Drinking water:**

While the majority of educational staff reported drinking water provision to be sufficient, **the majority of students (85.9%) reported bringing drinking water from home to school.**

[6] Because the toilets were not uniquely identified during the assessment and were instead reported through totals for each WASH centre, it is possible, for example, that a toilet that was broken was either the same or different as one that was dirty. Thus, there is a range of possibility for the toilets that met all standards, with the lower limit assuming each toilet that did not meet the standards only had one issue, and the upper limit assuming maximum overlap between the issues observed.

[7] Chi squared significance test run in SPSS.

- **Menstrual hygiene management:**

Only two heads of school reported that their school provided essential menstrual hygiene materials for girls during school hours, however four included education relating to MHM as part of the regular health and hygiene curriculum for females. According to KIIs with heads of schools, the two school complexes that did not incorporate MHM into curriculum did not provide any educational material or booklets about MHM either.

- **Waste:**

All heads of school reported that waste bins are emptied twice daily for double shift schools and once daily for single shift schools, and that waste is disposed of either through community collection services or safe spots on school premises**. On the day of the assessment 46.2% of WASH centres did not have a waste bin, and the majority (61.2%) of WASH centres for female students did not have waste bins lined with a plastic bag appropriate for menstrual hygiene management (MHM).** For black and grey wastewater management, none of the assessed tanks had any visible sign of connection overflow, connection leakage, or connection blockage.[8]

- **Students with disabilities:**

While 65.6% of the WASH centres had stalls for people with disabilities, only 12 of 13 school complexes had stalls for disabled people. Additionally, 45.6% of the outdoor handwashing facilities were accessible to students with disabilities, though only 12 of 13 school complexes had accessible handwashing facilities for students with disabilities.

- **Student health and hygiene knowledge and behaviour:**

Only 64.7% of students reported receiving health and hygiene education through their schools. Of those, the majority of students reported that educational staff provided the health and hygiene education (96.0%), primarily through verbal instructions (97.6%). In addition, 52.7% of students who reported to receive health and hygiene education at school reported discussing hygiene behaviours learned at school with their parents or family. All students were asked questions related to their health and hygiene knowledge and practices outside of school. **The majority of students (60.6%) did not know why it is important to boil water, and nearly a quarter of students (23.5%) did not know why human faeces should be disposed of in a proper way as opposed to being left in natural areas.** While 93.4% of students reported that washing one's hands with water and soap is important to keep them clean, only 39.6% reported that it reduces the chance of getting other diseases and infections and 16.4% that it reduces the risks of getting diarrhoea. Though students did not know all the reasons handwashing is important, the vast majority reported accurate knowledge of critical times to wash hands, which matched their reported practices. **Nearly one third of students (34.0%) reported only bathing once every three days or less. Over a quarter (25.3%) of students reported that they never brushed their teeth**, and when disaggregated by grade level, students in kindergarted to grade 5 were significantly more likely to report never brushing their teeth than students in grades 6-12.

Differences were found between Azraq and Za'atari not only in WASH facilities and education, but also in student's reported practices and knowledge. In Azraq, 94.1% of students reported that their school provided some kind of health and hygiene activities or education compared to just 64.7% of students from Za'atari. This difference in education is both propagated and exacerbated by an additional difference in how often students discuss these behaviours at home with parents or family. In Za'atari, of the students reporting hygiene education at school, only 52.7% of students reported discussing these health and hygiene behaviours with their parents compared to 88.2% of students in Azraq. Significant differences, possibly resulting from this educational gap, are apparent through the answers students gave to a set of questions relating to health and hygiene knowledge and behaviours. When asked why it is important to boil water, 7.4% of students in Azraq reported that they did not know compared to 60.6% of those in Za'atari. Similarly, when asked why faeces should be disposed of properly 4.4% of students in Azraq did not know compared to 23.5% in Za'atari. In addition, a higher proportion of students in Za'atari reported that they do not brush their teeth, bathe, or change their underwear regularly than in Azraq. In Za'atari, the importance of dental hygiene should be a main focus for future programming, especially for younger children, as 32% reported that they never brush their teeth.

[8] Black water is any waste coming from toilets or urinals. Grey water is wastewater that does not contain fecal matter, which can be used for toilet flushing and gardening (if applicable).

This assessment also sought to understand MHM activities and the suitability of WASH facilities for disabled children. **While the schools may meet the minimum requirements for disabled students, discussions with educational staff reveal that there are still challenges in students accessing facilities** as there are no ramps to facilitate better access.[9] Additionally, while educational staff reported learning about MHM and feeling comfortable discussing it, the staff from the majority of schools in both camps also reported that there was not a specific curriculum to cover this topic. Increasing education and materials available could especially benefit students in Za'atari where 48% of girls of menstruating age reported they did not feel comfortable using school toilets during their menstrual cycles.

There was also a significant difference in the supply of hygiene materials between the camps as observed during the infrastructure assessment. Soap provision was lacking in schools in both camps, however Za'atari had significantly worse provision. Additionally, 85.9% of students in Za'atari reported bringing water from home compared to 42.9% in Azraq, who were more likely to get water from school faucets (74.1%) than students in Za'atari (30.2%). The difference in hygiene material provision could also be a factor in the proportion of students who reported using school toilets. Nearly a quarter (23.5%) of students in Za'atari reported that they did not use school toilets, compared to 7.6% in Azraq. The discrepancy in education and practice between hygiene practices in Za'atari and Azraq illustrates the possibility and necessity for improvement in hygiene knowledge, practices, material provision and education in both camps.

[9] See Annex 4 for requirements.

CONTENTS

List of Acronyms

FDG	Focus Group Discussion
G1	Grade 1
KAP	Knowledge, Attitudes and Practices
KII	Key Informant Interview
KG	Kindergarten
MHM	Menstrual Hygiene Management
MoE	Ministry of Education
NFE	Non-Formal Education
ODK	Open Data Kit
SOP	Standard Operating Procedure
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNOPS	United Nations Office for Project Services
WASH	Water Sanitation and Hygiene
WinS	WASH in Schools

List of Figures, Tables and Maps

INTRODUCTION

Since 2011, a total of 671,428 Syrians have registered as refugees in Jordan[10] with 78,994 currently registered in Za'atari camp[11] (Mafraq governorate) and 53,782 in Azraq camp[12] (Zarqa governorate). In both Za'atari and Azraq camps, school-aged children (5 to 17 years old) constitute the largest demographic group. As of January 2018, school-aged children made up 37% of the total population in Azraq camp[13], 75% of whom were reportedly attending formal schools as of March 2017.[14] Similarly, in Za'atari, school-aged children constituted 33% of the population, and 75% were reportedly attending formal schools as of February 2018.[15]

UNICEF is the lead agency for the water, sanitation and hygiene (WASH) sector in Jordan, coordinating all related activities - including hygiene promotion activities and non-food items distributions - within both camps since their openings. As the lead agency, UNICEF is also responsible for WASH infrastructure and activities within Azraq and Za'atari camps. It is widely documented that WASH in Schools (WinS) positively impacts students' health and attendance by reducing the prevalence of hygiene-related preventable diseases.[16] Although a large amount of data exists on the WASH infrastructure of both Za'atari and Azraq camps since 2013; data relevant to the WASH situation within the schools of both camps remains limited. REACH last conducted an assessment in March 2017, WASH Infrastructure and Services Assessment in Za'atari Camp, however it focused on household access to WASH infrastructure and services rather than schools.[17] For this reason, REACH, in partnership with UNICEF, conducted an assessment on WASH infrastructures in schools, as well as a knowledge, attitudes and practices (KAP) survey to understand sanitation and hygiene behaviours prevalent among the enrolled school-aged children in both camps.

The assessment was divided into two phases, which included an infrastructure assessment on WASH in Schools (WinS) in Phase 1, and a KAP survey in Phase 2. Phase 1 aimed to a) evaluate all WASH infrastructures for children and school staff attending kindergarten (KG), formal schools and certified non-formal education (NFE) facilities against the national standards for WASH in schools in Jordan and standard operating procedures (SOPs) related to WASH applicable in both camps; b) to identify key gaps regarding hygiene, maintenance of and access to WASH infrastructures in previously mentioned facilities; and c) to contextualise the WinS assessment and KAP survey findings on hygiene practices and barriers to accessing facilities. To supplement the infrastructure assessment in Phase 1, Phase 2 aimed to assess the WASH KAP of enrolled school-aged children. Over the course of the assessment, special attention was devoted to WASH infrastructures' accessibility to disabled children and girls of menstruating age.

The report first details the methodology used for the assessment and then outlines the key findings for each camp with findings from Phase 1 and Phase 2 presented together, to provide a comprehensive picture of school WASH facilities and how students interact with them. The key findings for the report are organised into the following sections:

1) Azraq Camp
2) Za'atari Camp
3) Discussion of differences between camps

[10] UNHCR, Inter-agency information sharing portal, last updated 24 September 2018, accessed 9 October 2018.
[11] UNHCR, Za'atari Refugee Camp Fact Sheet, February 2018
[12] UNHCR, Azraq Refugee Camp Fact Sheet, January 2018
[13] UNHCR, Azraq Refugee Camp Fact Sheet, January 2018
[14] REACH, Comprehensive Child Focused Assessment in Azraq camp, March 2017
[15] UNHCR, Za'atari Refugee Camp Fact Sheet, February 2018
[16] UNICEF, National Standards for WASH in Schools in Jordan, December 2016
[17] REACH, WASH Infrastructure & Services Assessment in Za'atari Camp

METHODOLOGY

This assessment used a mixed methods approach in order to gain a deeper and broader understanding of WASH infrastructure and practice in schools. Data collection occurred in two phases, the first period for Phase 1 occurred between 21 May and 14 June 2018. Phase 2 of data collection occurred between 4 September and 13 September 2018. The following section details the methodology used for Phase 1 and 2 of the assessment.

The WASH infrastructure assessment and the KAP survey with students were both conducted by a team of enumerators using KoBo while the KIIs and FGDs were conducted by enumerators and debriefed by a REACH Assessment Officer and Senior Field Officer.

Phase 1

WASH Infrastructure Assessment

A census assessment was conducted through direct observation of all WASH infrastructure for students and school staff in all KG, formal schools, and certified NFE facilities in both Azraq and Za'atari camps, with the school as the sample unit. As a census-level assessment, the sample was the entire population of interest.

During the assessment, each toilet and hygiene facility in every KG, formal school and NFE facility in Za'atari and Azraq camps was assessed. The school facilities for each camp are detailed in Table 1. Each school complex can consist of multiple schools facilities which offer different grade levels. Though there are multiple schools in each complex, the WASH facilities are shared among the schools, thus the National WASH Standards for schools which are referenced throughout the report can be applied to the complex level, rather than the school level. A WASH centre is the collection of all infrastructures involved in WASH activities including toilets, handwashing basins, and grey and black water tanks.

Table 1. School facilities assessed

LOCATION	# OF SCHOOL COMPLEXES	# OF SCHOOLS	# OF SCHOOL SHIFTS[18]	GRADES OFFERED
Azraq camp	8	14	2 complexes of one shift, 6 complexes of two shift schools	5 school complexes out of 8 offered KG, all school complexes offered classes between G1 and G11; 2 school complexes offered the G12 class and 7 offered catch-up classes (programmes for students that have been out of schools for one or two years).
Za'atari camp	13	28	All two shift complexes	8 offered KG, 7 offered G1-G4, 2 offered only through G3, 3 offered through G12, and 2 offered catch up classes.

Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs)

An additional qualitative component, which included KIIs and FGDs, was conducted to contextualise findings from the infrastructure assessment and to gain a more comprehensive understanding of WASH infrastructure maintenance and school programming in relation to health and hygiene. FGDs were conducted with purposively sampled educational staff to gain insight into the health and hygiene education offered in the schools, as well as to gather information on students' WASH practices during school hours. A short KII (mostly closed-ended question route) with one head of school from each complex was conducted to gather information on non-visible parts of WinS. Additionally, KIIs were conducted with purposively sampled aid workers involved in WASH activities in the camps, including the United Nations Office for Project Services (UNOPS) staff. This qualitative component

[18] Schools which operate in two shifts provide one shift for girls in the morning and one for boys in the afternoon.

contextualised the findings and provided more information on maintenance and school programming. The location and number of FGDs, and KIIs for Phase 2 can be seen in Table 3.

Table 2. Number and location of FGDs and KIIs

LOCATION	# FGDS WITH EDUCATIONAL STAFF (TEACHERS, TEACHING ASSISTANTS)		# OF KIIS WITH HEADS OF SCHOOL	# OF KIIS WITH ACTORS INVOLVED IN WASH ACTIVITIES
	MALES	FEMALES		
Za'atari camp	12	12	14[19]	4
Azraq camp	5	5	8	4

Phase 2

Water, hygiene, and sanitation KAP survey:

A structured questionnaire was conducted with a random sample of school-aged children enrolled in school (6 to 17 years old) attending KG, formal schools, and certified NFE in Za'atari and Azraq refugee camps at the time of the assessment. Data collection was conducted through home visits and in the presence of each student's parents, so as to address concerns related to interviewing school aged children within school premises. REACH staff visited the household where each randomly selected child enrolled in school lived outside of their school hours to conduct the questionnaires. Households were randomly selected using a beehive GIS technique weighted by population density in each district. Enumerators then approached the randomly selected households to see if there were any children who fit the criteria available to be interviewed. If there were multiple children who fit the criteria, their gender and age were entered into KoBo which then randomly selected one of the children to be surveyed. For both camps, the target sample size was calculated to reach a 95% confidence level and a 5% margin of error. In Azraq where there were 10,285 enrolled school-aged children, the target was 370, and in Za'atari where there were 22,000 enrolled school aged children, the target was 378.[20,21] Additionally, a 20% buffer was added in the case that there were no children in the household that fit the criteria, or that they refused to participate in the survey. In Azraq, the actual number of enrolled school aged children surveyed was 406, and in Za'atari 391 were surveyed. The sample size was exceeded to include a buffer in the case that data cleaning revealed that some entries needed to be deleted.

Data collection and analysis

A team of enumerators were trained to use KoBo, an application for android devices, to conduct the infrastructure assessment and the KAP survey. A REACH Senior Field Officer performed daily spot checks, and followed up with any problems. Immediate data retrieval from the KoBo platform allowed a REACH Assessment Officer to immediately detect any problems in data collection. Data was managed following REACH's internal data management Standard Operating Procedure and stored on an internal server. Data was then analysed using Excel and SPSS to perform relevant statistical tests. SPSS was used to conduct significance tests between male and female students, and between findings for the two camps. Findings from the infrastructure survey and KAP student survey were also triangulated using the responses from the KIIs with WASH actors and head of schools, and FGDs with educational staff. Additionally, because the WASH centre served as the unique identifier, toilets and handwashing facilities were not uniquely identified during the assessment and were instead reported through totals for each WASH centre. As a result, it is possible, for example, that a toilet that was broken was either the same or different as one that was dirty. Thus, there is a range of possibilities for the total toilets that met all standards, with the lower limit assuming each toilet that did not meet the standards only had one issue, and the upper limit assuming maximum overlap between the issues observed. The same methods were used to determine the handwashing facilities meeting National WASH Standards.

[19] In Za'atari, two heads of schools were contacted from the same complex (though different schools), as the target KII number was 14, which allowed for two heads of school to be contacted from one complex.
[20] REACH, Comprehensive Child Focused Assessment in Azraq camp, March 2017
[21] UNHCR, Zaatari Refugee Camp factsheet, January 2017

Challenges and limitations

Overall, a few challenges were encountered during data collection for both phases. Phase 1 of data collection occurred during Ramadan, so many school and WASH staff members were on leave. Originally, the target number of KIIs with WASH sector actors was six in Za'atari and Azraq, however only four were available for each camp. In Za'atari, many of the randomly selected houses did not have children available to be surveyed, so the buffer points were used to reach the target sample number. For the census assessment of WASH facilities, the unique identifier was at the WASH centre level meaning that while all toilets were assessed, they were not uniquely identified for data analysis.

Additionally, findings from FGDs and KIIs should be considered indicative only. For the KAP survey, data collection was only stratified at the camp level, so findings that relate to a subset of the population (subset of children enrolled in school) may have a lower confidence interval and wider margin of error. Findings are based on self-reported answers from school age children enrolled in school, so for this reason, there is a risk of potential bias, particularly concerning sensitive topics. In some findings below, percentages do not add up to 100% because respondents were able to choose multiple answers.

FINDINGS

The findings are presented by camp, and detail first findings from Phase 1, which included the WASH infrastructure assessment, and secondly Phase 2 findings, covering the KAP survey of children in schools. For Phase 2, a total of 797 students were surveyed, 406 in Azraq and 391 in Za'atari. The age of students surveyed can be seen in Table 4 for Azraq and Za'atari camps. In Azraq 51.7% of surveyed students were female and 48.3% were male, and in Za'atari 49.1% of students were female and 50.9% were male.

Table 3. Age of surveyed students

		Camp					
		Azraq		Za'atari		Total	
		Count	%	Count	%	Count	%
Student Age	**6**	12	3.0%	24	6.1%	36	4.5%
	7	37	9.1%	43	11.0%	80	10.0%
	8	55	13.5%	26	6.6%	81	10.2%
	9	52	12.8%	29	7.4%	81	10.2%
	10	55	13.5%	51	13.0%	106	13.3%
	11	59	14.5%	54	13.8%	113	14.2%
	12	56	13.8%	55	14.1%	111	13.9%
	13	27	6.7%	25	6.4%	52	6.5%
	14	20	4.9%	28	7.2%	48	6.0%
	15	19	4.7%	25	6.4%	44	5.5%
	16	11	2.7%	18	4.6%	29	3.6%
	17	3	0.7%	13	3.3%	16	2.0%
	Total	**406**	**100.0%**	**391**	**100.0%**	**797**	**100.0%**

Azraq Camp

WASH infrastructure

Data collected during the assessment indicated that within the 14 schools (8 school complexes) in Azraq camp there were **52 WASH centres**. All were opened and were therefore assessed. Out of 52 WASH centres, 13 (25%) were for male students only, 5 (10%) were for female students only, 21 (40%) were for male and female students (only male or female at a time, depending on the school shift), 1 (2%) provided toilet stalls for teachers in addition to stalls for male and female students, and 12 (23%) centres were only used by teachers. The number of WASH centres accessible to male and female students and teachers is shown in Table 4.

Table 4. % of WASH centre facilities available for use by male and female students and teachers in Azraq

Male students	67%
Female Students	52%
Teachers	25%

Toilet facilities

According to National WASH Standards, schools must provide improved, gender-separated and usable sanitation facilities for all children. In order to be considered usable, toilets and latrines needed to be accessible to students (unlocked doors, or an available key at all times), functional (the toilet is not broken, the toilet hole is not blocked,

and water is available for flush/pour flush toilets), and private (there are closable doors that lock from the inside and no large gaps in the structure). [22,23]

Of the 312 toilet stalls in the 52 WASH facilities in Azraq camp, **302 (96.8%) were accessible** to REACH enumerators (and therefore students) and thus assessed during data collection. **All assessed toilets qualified as improved facilities as the majority (85.4%) of toilets were pour flush toilets while the remaining 14.6% were flushing toilets.** None of the assessed school toilets were broken or blocked with any visible material and 291 toilets were provided with water to be flushed on the day of the assessment. Therefore, of the toilets that were accessible, **96.4% of the toilets were functional**.[24] While the vast majority of toilets were functional and accessible, far fewer met privacy standards. While none of the toilets had gaps in the structures large enough to see through from the outside, only **72.8% (220 out of 302 assessed toilets) had an internal lock functioning** and therefore could be locked from the inside. The standards for cleanliness require that facilities are free of urine or faeces (on seat/floor/walls), and that the facilities do not smell, have flies, or have standing water. **None of the assessed toilet stalls had standing water, bad smells, or flies and nearly all the toilets stalls (301/302) were also free of urine and faeces on the toilet seats, floor, and walls. Overall, between 66.7% and 70.5% of all toilets met all accessibility, functionality, privacy and cleanliness standards and were thus considered usable in accordance with National WASH Standards.[25]**

WASH operation and maintenance (O&M) standards[26] were also assessed through KIIs with the heads of schools. WASH O&M Standards require that toilets, urinals, walls, floors, and handwashing facilities are cleaned with water and bleached once daily for single shift schools and twice daily for double shift schools. All heads of school reported that at the WASH centre level, all toilets and urinals in their schools were cleaned with water and bleached once a day for single-shift schools, and twice a day for double-shift schools. In addition, all heads of school reported that the walls and floors of the schools' toilets are cleaned with water and bleached once a day for single-shift schools, and twice-daily for double shift schools. Heads of school also reported that handwashing facilities (individual and group handwashing) are cleaned with water and bleached once a day or twice-daily for double shift schools. All heads of schools reported that the roles and responsibilities, as well as frequency and other related management aspects were agreed in a written O&M plan and that their schools have defined and implemented O&M activities, including frequency and assigned responsible personnel, as required per National WASH Standards for schools.

According to the KAP survey, 92.4% of students reported that they use school toilets, however girls were more likely to avoid using school toilets (10.5% of girls) compared to boys (4.6% of boys). When asked why, students most commonly reported that the toilets were dirty (58.0%) or that they smelled bad (48.4%). Girls who were aged 13 years and over were asked if they or their friends felt comfortable using the toilets during their menstrual cycles. Of this group (32 female students 13 or older), 71.9% reported that they felt comfortable using the toilets while 28.1% reported that they did not feel comfortable. Those who did not feel comfortable (9 total students) reported that their behaviour was impacted during their menstrual cycles with three reporting that they did not go to school, three reporting that they did not use school toilets, two who tried to use school toilets as infrequently as possible, and two who reported not needing to use school toilets.[27]

Handwashing facilities

According to National WASH Standards for schools, handwashing facilities, defined as any device or infrastructure that enables students to wash their hands effectively using running water, should follow standards for construction materials, cleanliness, and function. Handwashing facilities should also be provided with soap and water, which is discussed in the next section. Additionally, faucets should be robust and well-fitted and basins should be made of

[22] National Standards WASH in Schools Jordan, UNICEF 2016. See Annex 1.
[23] Lockable doors may not be applicable in pre-primary schools.
[24] See Annex 3.
[25] Because the toilets were not uniquely identified during the assessment and were instead reported through totals for each WASH centre, it is possible, for example, that a toilet that was broken was either the same or different as one that was dirty. Thus, there is a range of possibility for the toilets that met all standards, with the lower limit assuming each toilet that did not meet the standards only had one issue, and the upper limit assuming maximum overlap between the issues observed.
[26] National Standards WASH in Schools Jordan, UNICEF 2016. See also Annex 5.
[27] Multiple responses possible.

concrete or galvanized iron to prevent vandalism and theft. Facilities should also be child-friendly, appropriate for different age groups and kept free of standing water and accumulated dirt.

WASH centres for schools in Azraq camp include outdoor, and sometimes indoor handwashing facilities, with **65.4% (34/52 WASH centres) providing indoor facilities, and 100% (52/52 WASH centres) providing outdoor handwashing facilities. The indoor facilities all consisted of four individual sink basins with taps for a total of 136 taps**. All of the handwashing facilities provided inside the WASH centres were found to be appropriately designed (in terms of height of basins and taps) for students of different age groups, composed of robust and well-fixed taps (as opposed to be loose or badly fitted), and were free of accumulation of water and of visible sign of dirt in/on WASH basins. Only 20.6% of the WASH centres with indoor handwashing facilities had basins made out of concrete or galvanised iron, while the majority had no formal base, leaving them more vulnerable to theft and vandalism. **While only 20.6% of handwashing facilities were made of concrete or galvanized iron and thus met all of the standards, 100% of indoor handwashing facilities met the standards relating to the function and cleanliness of handwashing facilities.**

All of the WASH centres had one group handwashing facility (i.e. multiple taps structure) available outside the centre (52 in total). All of the group handwashing facilities (sink with tap) located outside of the WASH centres were found to be appropriately designed (in terms of height of basins and taps) for students of different age groups, composed of robust and well-fixed taps (as opposed to loose or badly fitted) and free of visible sign of dirt in/on WASH basins. Accumulation of water in the sink was only found in one group handwashing facility (2.0%). **The vast majority (96.0%) of outdoor handwashing facilities were reportedly not located in close proximity to toilets in the school.[28] Students must have either an indoor or outdoor handwashing facility in close proximity to the toilets which means that only 65.4%-69.4% of the WASH centres met this standard.** The placement of handwashing facilities far from the toilets may negatively influence the frequency at which students wash their hands after using the bathroom. **Overall, 98.0% of outdoor handwashing facilities met National WASH Standards for cleanliness and functionality.**

All of the heads of schools offering Grade 1 and Grade 2 classes (6 school complexes out of 8) reported that group handwashing sessions for additional skills-based hygiene education were organized in their schools. Additionally, all of the heads of schools reported that their schools' washing facilities located outside of the WASH centre (individual and group washing) were cleaned with water and bleached once a day/twice-daily for double shift schools. They also reported that students often felt uncomfortable using the outside facilities in the hot season as there is no shade.

The vast majority (97.5%) of assessed students reported that they use the handwashing facilities provided in their schools. Those who did not use the handwashing facilities most commonly reported it was due to lack of water (60.0%), or no available soap (50.0%). None of the students who did not use handwashing facilities at school reported that it was due to the facilities being too high to reach, however when students were asked if they could easily reach the water taps at school, 9.4% reported that they could not. **This reveals that although the height of the taps does not keep students from washing their hands altogether, a number of the students still have difficulty reaching them.** Of the 9.4% of the students reporting that they could not easily reach the tap, 81.6% were in KG to Grade 5. During FGDs, educational staff from two schools reported that some facilities are not easily accessible due to high floors and high water points which discourages the youngest students from using the facilities.

Soap and water availability

According to National WASH Standards, schools must offer functioning washing facilities to children, including water and soap, at all times. During KIIs, heads of school reported that hygiene products, including soap, were refilled daily in single shift school WASH centres, and twice-daily for double-shift schools. WASH actor KIIs confirmed that there was a monitoring system in place for hygiene-related products. Checking and refilling soap and other supplies occurred every day in the schools in Villages 5 and 6 and supplies were generally procured every two or three months. Only one educational staff (corresponding to one school) reported a lack of hygiene

[28] Close proximity was defined in the questionnaire as "Up to maximum 10m away from the toilet and should be visible when standing at the entrance of the toilet". See also Annex 6.

products such as soap. However, on the day of the assessment **only 58.1% of indoor sink taps (79/136) were provided with soap with no soap available at any sink in 38.3% (13/34) of the WASH centres with indoor handwashing facilities. Additionally, only 67.3% (35/52) of the handwashing facilities located outdoors were provided with soap.** At the school level, only two school complexes had soap provided in every sink. In one school complex in Village 6, none of the WASH centres were provided with soap on the day of the assessment.

Only one indoor (1/34) and one outdoor (1/52) handwashing facility were not provided with running water on the day of the assessment. All of the WASH centres were provided with water through tanks located outside of the WASH centres. All tanks were made of plastic, and none of them were tilted at angles or showed any signs of leaking. All of the toilet stalls were provided with water for anal cleansing on the day of the assessment and 16% (49/302) of toilets were also provided with other supplies such as toilet paper. During FGDs with educational staff, the majority reported that the schools never run out of hygiene material, while the other three explained that shortages in material is due to high consumption by the students. The vast majority also reported that water provided for hygiene activities in the schools is sufficient.

Drinking water provision

According to the National WASH Standards, after long school holidays (more than 20 days) the entire piped water system of the school compound should be flushed and disinfected.[29] Six heads of school reported that this was the case in their school, while two were not aware of these standards. In accordance with the National WASH standards, seven heads of school reported that the following risks were annually assessed (responsibility of the Ministry of Health) in their schools: (1) microbiological quality of drinking water, (2) chemical quality of drinking water, and (3) acceptability of drinking water. One head of school reported that none of the risks were annually assessed in the schools within the complex.

National WASH Standards outline that drinking water from an improved source should be available to children during school hours, and that five litres of water per child or staff member per day is needed for drinking, hand hygiene, cleaning, and food preparation where appropriate. There is not a standard for the exact amount of drinking water to be provided to children, but the standards outline the option that if water cannot be made available, students should be encouraged to bring water from home. Three heads of school reported being aware of the amount of drinking water available per day per student with two of them reporting that three litres were provided, and the other reporting that one litre was provided. **During FGDs, the vast majority of educational staff reported that the provision of drinking water is sufficient in the school.** In the KAP survey, the majority of students reported that they either drank water at school from faucets (74.1% of students), or that they brought water from home (42.9% of students). To drink water, the majority of students either used their hands (71.2%) or used their own bottle (34.0%).

Solid waste management

According to National WASH Standards, waste should be disposed of safely (through community services, or collection in a safe spot on school premises), burning waste on school grounds is prohibited, and waste bins should be emptied daily or twice daily for single and double shift schools respectively. All of the heads of school reported that the WASH centres in their schools provided waste bins that are emptied daily or twice-daily for double-shift schools. They all stated that waste in their schools was disposed safely (either through available community waste collection services or through collection in a safe spot on the school premises such as burying and covering in the ground) and that waste was not burned on school grounds. Though all classrooms are required to have a waste bin, there are no standards set for WASH centres. On the day of the assessment, 63.5% of the WASH centres had a waste bin, and only 27.0% of WASH centres for female students had a disposal bucket or bin with a lid and lined with a plastic bag appropriate for MHM.

Waste water management

According to National WASH Standards for schools, schools must provide a clean environment for children. Black water disposal for 50 of the 52 WASH centres were visible and were thus assessed. Out of those, 52 were septic

[29] UNICEF, National Standards WASH in Schools Jordan, December 2016

tanks and 24 were steel tanks.[30] The REACH team assessed whether the WASH facilities presented visible sign of black water's connection overflow, septic tank connection leakage or blockage and no visible signs were found in the centres.

National WASH Standards for schools outline that as an option, grey water collection can be included to conserve freshwater sources. All of the WASH centres' handwashing facilities' disposal for grey water were visible and could be assessed. None of the disposal areas presented visible signs of connection overflow, septic tank leakage or blockage.[31] According to KIIs with WASH actors, desludging trucks reportedly came to the schools twice a week (on Sunday and Wednesday) and were responsible for removing sewage.

Students with disabilities

According to KIIs with heads of school, there were 20 students (10 male and 10 female) with disabilities that were officially attending classes in kindergarten (KG), formal schools and certified Non-Formal Education (NFE) facilities in Azraq camp. Of these students, 75.0% were either in kindergarten or primary school and 55.0% attended schools located in Village 2.

National WASH Standards for schools require that at every school (school complex in the case of the camps) there should be one handwashing facility and one toilet suitable for students with disabilities. **The vast majority (92.3%) of the WASH centres, and thus all school complexes, offered one stall for people with disabilities.** Additionally, all of the stalls for people with disabilities met the Ministry of Education (MoE's) architectural and engineering design guidelines for students with special needs (i.e. additional space, a wider door, hand rails for support attached either to the floor or side walls-including an access ramp if needed, and a door handle and seat within reach of wheelchair or crutches/stick users).[32] While the majority of WASH centres offered toilet stalls for users with disabilities, only 25% of the outdoor WASH centres (6.3% of the total handwashing basins) were available through an access ramp for students with disabilities. **Only five of the eight school complexes offered outdoor handwashing facilities accessible to students with disabilities.**

All school complexes in Azraq camp offer stalls for people with disabilities, however during FGDs, some educational staff reported their belief that the school WASH facilities were not suitable for children with disabilities. The majority of FGD participants explained that improvements could be made to facilitate the use of WASH facilities by children with disabilities including easier access, such as a including a ramp, to the facilities and separate larger facilities for students with special needs. During FGDs at two schools, participants reported the presence of educational resources available to address disabled children's WASH needs, and two other participants reported that the schools they were employed in did not have WASH facilities for children with disabilities.

Menstrual hygiene education

According to National WASH Standards for schools, education related to MHM should be part of the regular health and hygiene curriculum for both girls and boys. If education related to MHM is not part of the regular curriculum, educational materials related to MHM should be available for both boys and girls. Additionally, the school administration should provide essential emergency menstrual hygiene material for girls who require them during school hours.

In the five schools offering classes for female students after G5, only two heads of school reported that in the schools they manage MHM was part of the regular health and hygiene curriculum for females. In the schools where MHM was not part of the regular curriculum, educational material and communication (education and communication manuals, leaflets, booklets, picture charts or other that focus on menstrual hygiene management) were not made available for use by female students. Out of the five schools providing classes to female students Grade 5 and above, only one provided essential menstrual hygiene materials for girls who require them during school hours. However, according to educational staff during FGDs, the presence of educational

[30] Any waste coming from toilets or urinals.
[31] In order to conserve freshwater resources, grey water, which is wastewater that does not contain fecal matter, can be used for toilet flushing and gardening (if applicable). Grey water is often collected rainwater or water that was used for handwashing.
[32] UNICEF, National Standards WASH in Schools Jordan, December 2016. See Annex 4.

resources for female was reported by the majority of teachers who stated that schools provide a counsellor who gives awareness sessions about MHM and the psychological and physical changes female students can encounter. Thus, although it is not a part of the curriculum, there is still an educational avenue for male and female students to learn about MHM. MHM did not appear to have an impact on female attendance rates as reported by FGDs with educational staff working in girls' schools, and as reported by female students 13 and older during the KAP survey. As reported by WASH actors during FGDs, hygiene promotion activities were widely spread in the camp and several organisations deliver awareness sessions through home visits, activities in the camp once per month, as well as providing support distributing hygiene kits to families.

Reporting process in schools

During FGDs, educational staff reported the existence of a reporting process for complaints in the schools. Five FGD participants reported that there is a complaint box set up for students and/or educational staff to report issues at school. Despite not being set up for the purpose of reporting WASH related issues, FGDs participants affirmed that it is possible to use the box for WASH complaints. At the time of the interview, only one FGD participant reported a complaint by a student regarding drinking water. Other FGD participants indicated that teachers communicate directly with the focal point of the agency in charge of the WASH facilities. FGD participants also identified UNOPS as an interlocutor to bring forward issues concerning the use of the WASH facilities.

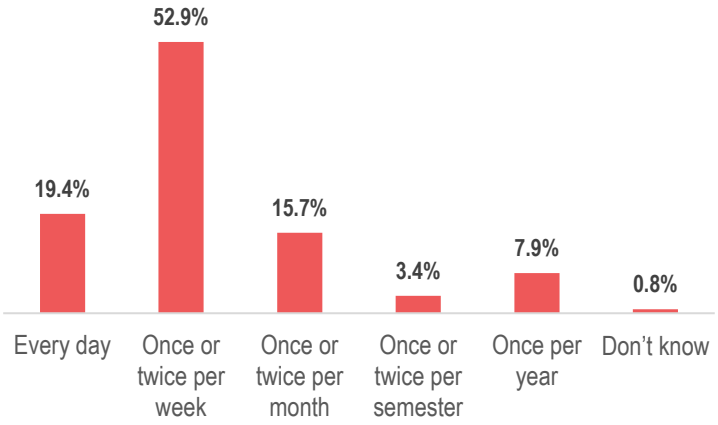
Health and hygiene activities and education

The majority of students reported receiving information about general cleanliness and personal hygiene from school (78.3%), or their family and friends (70.0%), while a smaller group reported receiving information through NGOs (13.1%). There were no significant differences between gender or grade level regarding where children received cleanliness and hygiene information. During FGDs, educational staff reported that basic training for staff about hygiene topics took place in the schools, but they were one time only and therefore not sufficient. Additionally, FGD participants reported that there is not a specific hygiene subject in the school curriculum, but some WASH related topics are covered by other subjects such as Arabic, science, and Islamic studies. FGD participants reported that students are not required to play an active role in cleaning WASH facilities as they are not allowed (by WASH actors), but that they are asked to participate in maintaining personal hygiene.[33]

Only 80.3% of students reported that they were asked to participate actively in maintaining hygiene in school (i.e. maintaining clean and tidy classrooms, collecting rubbish) but **the vast majority of students (94.1%) reported that their school provides health and hygiene activities and education**. The students who reported that their school provided health and hygiene education were subsequently asked questions about the type and frequency of the activities provided. **Of the students who reported the provision of health and hygiene activities at their school, 97.9% reported that their teacher provided these services, and 17.0% reported that aid organizations provide them**. **Activities and education were most commonly held during classes (45.0%), morning assembly (44.2%), and through school activities (42.9%),** with a small minority held during recess (3.1%), or at other times (0.3%). Students were asked how often such activities occur with the majority responding once or twice per week (52.9%), 19.4% that they occurred every day, and less than a third (27.0%) reporting that they occurred less than twice per month (see Figure 1).

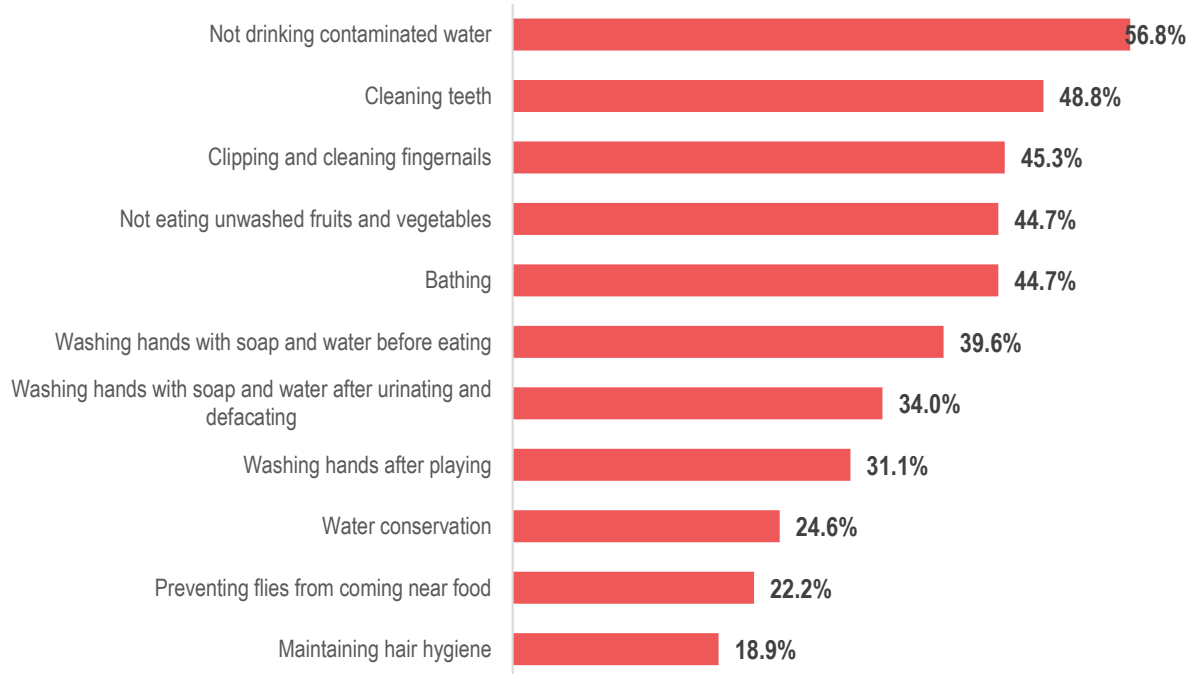
[33] During KIIs WASH actors also confirmed that students are not to take part in the cleaning (washing and bleaching) of WASH facilities.

Figure 1. % of students who reported receiving education covering hygiene topics at school reporting frequency of health and hygiene activities and education



Verbal instructions were the most reported method of educating students (85.3% of students), followed by wall posters (20.2%), games (14.4%), and books (12.8%). During FGDs, the majority of participants reported that the topics covered in school are easily applicable for students in their daily life, but that many do not apply practices outside of school due to parental negligence. During one FGD, participants noted that there was a distribution of hygiene bags which included material like toothpaste soap, sterilizers and tooth brushes. Some FGD participants reported not being aware of initiatives outside school because they were not aware of student's lives, while others reported that CARE, ACTED, Action Against Hunger, Mercy Corps, Norwegian Refugee Council, and the Madrasati initiative all provide awareness sessions. **The majority of students receiving health and hygiene activities at school also discussed these hygiene behaviours at home (88.2%),** with female students being more likely to discuss than male students (93.4% of female students reported discussing at home vs. 82.7% of male students). Students reported discussing a variety of health and hygiene topics with parents, the most common of which are shown in Figure 2.

Figure 2. % of students who reported receiving education covering hygiene topics at school reporting hygiene topics discussed at home



Student health and hygiene knowledge

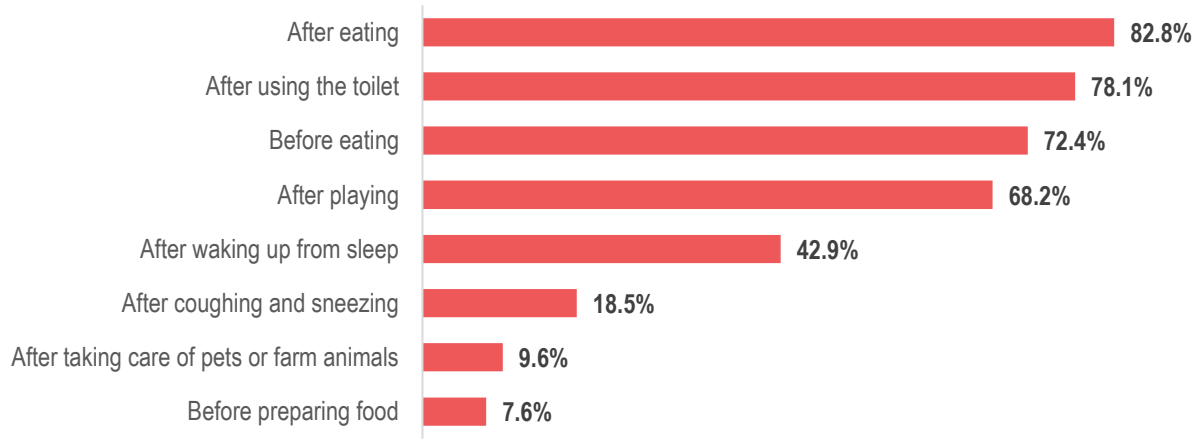
Students were asked a number of questions related to their health and hygiene knowledge, even if they reported that their school did not provide any health or hygiene activities and education.

Only 7.4% of students reported that they did not know why it is important to boil water, and 84.3% understood that it kills germs, 43.8% that it makes water safe to drink, 17.2% that it reduces the chances of getting diarrhoea, and 15.5% that it gives water a better taste. Of the students who gave an answer explaining why it is important to boil water, 92.8% reported that water needs to be boiled at least one minute to ensure that it is free of disease-causing organisms.

When asked why it is important to dispose of human faeces in a proper way, only 4.4% of students did not have any answer while 76.8% reported that doing so kills germs, 22.7% that it avoids contaminating water supplies and soils, and 70.8% for smell purposes. All surveyed students reported that water should be used for anal cleansing and 2.2% also reported that toilet paper should be used.

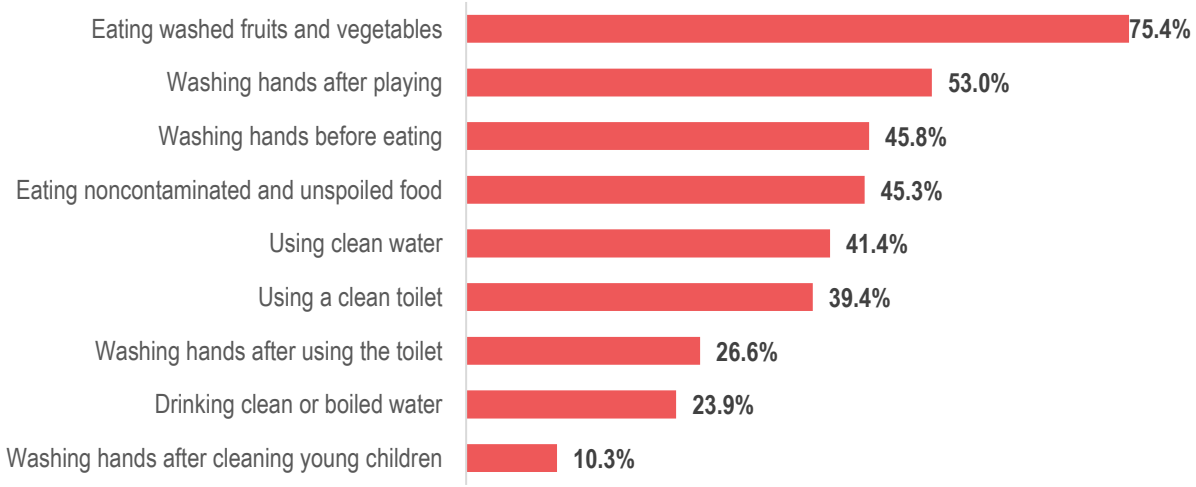
Most students understood that washing hands with soap and water keeps them clean (86.5% of students), however only 35.2% reported that washing hands using soap and water reduces the chances of getting diarrhoea, and 46.8% reported that it reduces the chances of getting other diseases and infections. When asked important times to wash hands, a majority of students reported before and after eating, as well as after playing and after using the toilet. These responses can be seen in Figure 3.

Figure 3. % of students reporting critical times to wash hands



When students were asked how they could protect themselves against diarrhoea and stomach aches, most of them associated risks of diarrhoea with fruits and vegetables, with 75.4% reporting that washing these foods protects against diarrhoea compared to only 26.6% that reported protection through washing hands after using the toilet. The different responses can be seen in Figure 4.

Figure 4. % of students reporting different ways to protect against stomach ache and diarrhoea



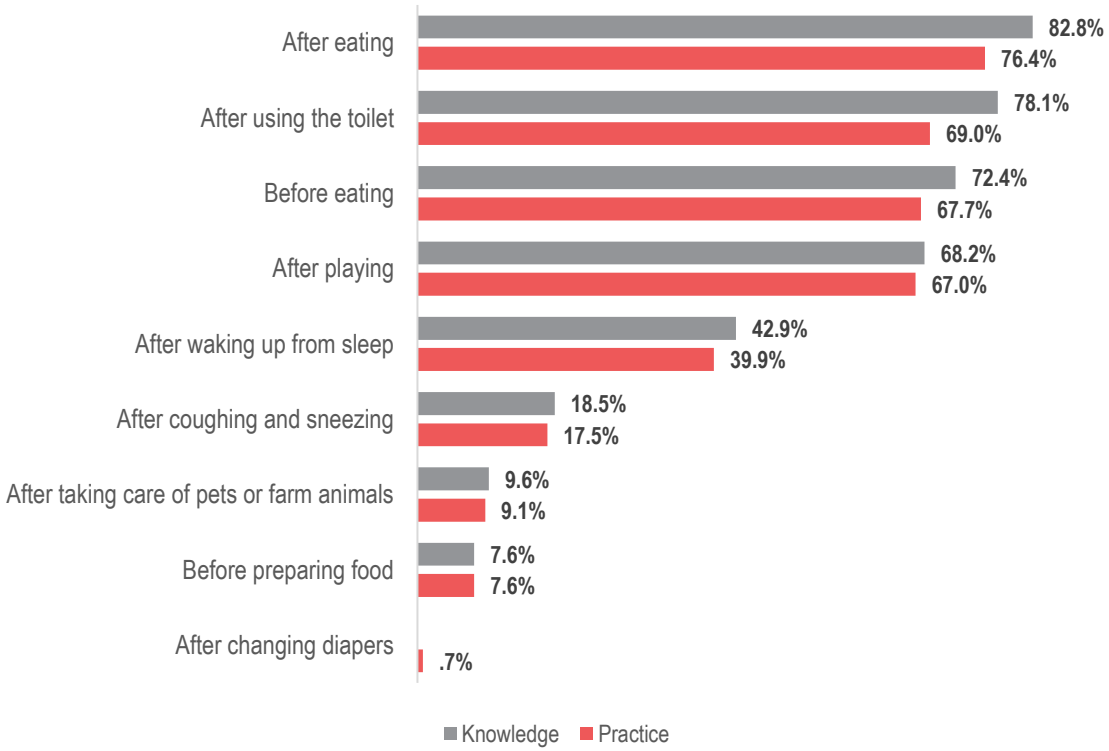
A majority of students reported that soap should be used for bathing (67.2%), while the remaining reported that shampoo should be used (32.0%), or that only water should be used (0.7%). When asked why it is important to be cleansed, 80.8% of students reported it is beneficial for smell purposes, 55.9% that it is not good to be dirty, 50.0% for health purposes, and 13.3% for status in family and community. [34]

Student health and hygiene practices

Students were asked a variety of questions about their hygiene habits outside of school. The majority of students reported that outside of school, they used soap to wash their hands (93.3%), however 5.2% reported using only water and 1.2% using shampoo. The student's knowledge of critical times to wash their hands slightly exceeds their reported general practice of handwashing outside of school.[35] This difference between knowledge and practice can be seen in Figure 5.

[34] Multiple responses possible.
[35] Students were asked "Outside of school, when do you wash your hands?"

Figure 5. % of students reporting critical times to wash hands vs practice



When asked how often they brushed their teeth, only 70.4% of students reported that they did so every day, while 13.3% brushed them most days, 11.8% some days, and 4.4% never did. Those who reported brushing their teeth at least some days were asked what they used, and when they brushed their teeth. The vast majority (99.2%) of these students reported using toothpaste and a brush, with 55.9% brushing them after waking up, 57.0% before going to bed, 27.8% after eating, and 4.4% at some other time. **For hair washing, 69.7% washed their hair every day, while 23.6% washed every two days and 5.9% every three days.** The majority reported washing their hair with shampoo (87.7%), while a minority used soap (9.9%) or water only (2.2%). Students reported bathing less frequently than washing their hair. **Only 31.5% of students reported taking a bath daily, while 44.1% bathed every two days and 19.5% bathed every three days**. Students also reported on their nail clipping habits, with the majority (89.4%) reporting to clip them at least once a week, while 10.1% reported every two weeks. Students understood the importance of covering their mouth while coughing, with no students reporting that they never covered their mouths and the majority at least covering their mouths when they are sick (71.4%), primarily using their hand (84.7%) or tissue (20.4%). Only 54.7% of students reported changing their underwear daily, while 37.2% reported doing so every two days, and the remaining 8.1% even less frequently.

Za'atari Camp

WASH infrastructure

In Za'atari Camp, 13 two shift school complexes were assessed which included 28 schools and 70 WASH centres. Of the 13 complexes, 8 complexes offered KG, all offered G1-G11, 2 offered G12, and 7 offered catch up classes. Of the 70 WASH centres in the complexes, 65 were open and thus accessible for the assessment. WASH centre provision for male and female students and teachers is shown in Table 5.

Table 5. % of WASH centre facilities available for use by male and female students and teachers in Za'atari

Male students	73%
Female Students	80%
Teachers	19%

Toilet facilities

According to National WASH Standards, schools must provide improved, gender-separated and usable sanitation facilities for all children. In order to be considered usable, toilets needed to be accessible to students (unlocked doors, or an available key at all times), functional (the toilet is not broken, the toilet hole is not blocked, and water is available for flush/pour flush toilets), and private (there are closable doors that lock from the inside and no large gaps in the structure). [36,37]

Of the 398 toilet stalls in the 65 WASH facilities, **351 toilets (88.2%) were accessible** to REACH enumerators (and therefore students) and thus assessed during data collection. **All assessed toilets qualified as improved facilities** with 86.9% pour flush toilets, and 13.1% flushing toilets. In addition, four WASH centres provided a total of 13 urinals. In total three of the assessed toilets (0.9%) were physically broken, and an additional two toilets (0.6%) were not functional as one toilet had a blocked hole, and another was overflowing with water. All of the pour flushed toilets had accessible water to flush on the day of the assessment, which means that **98.5% of the assessed toilets were also functional**. In regards to privacy, 99.4% of toilets did not have gaps large enough to see through from the outside, and 77.8% had doors with functional internal locks. The additional standards for cleanliness[38] require that facilities are free of urine and faeces (on seat, floors, or walls), and that the facilities do not smell, have flies, or have standing water. Of the assessed toilets, 86.6% did not smell or have flies, 95.2% have no standing water, and 97.4% were free of urine/faeces on the floor and walls. **Overall, between 51.8% and 69.0% of toilets met all accessibility, functionality, privacy and cleanliness standards and were thus considered usable in accordance with National WASH Standards.[39]**

KIIs with the heads of school were also conducted to assess compliance with WASH O&M standards.[40, 41] WASH O&M Standards require that toilets, urinals, walls, floors, and handwashing facilities are cleaned with water and bleached once daily for single shift schools and twice daily for double shift schools. All 14 heads of school confirmed that toilets and urinals were cleaned with water and bleached once daily for single shift schools and twice daily for double shift schools. Additionally, 13 heads of school reported that cleanliness and usability of the school WASH centres were monitored once daily for single shift schools and twice daily for double shift schools. Only half of the heads of school reported that walls and floors of the toilet blocks are cleaned with water and bleached daily. During KIIs, WASH actors reported that the **walls and floors are cleaned once a week, but the toilets and urinals are cleaned at least once a day**. Eleven heads of school reported that soap, bleach and other consumables were checked once or twice daily depending on the school shifts offered.

Almost a quarter of the students in the KAP survey reported that they did not use school toilets (23.5%) with female students being more likely to avoid using school toilets than male students (28.5% of female students compared to 18.6% of male students). The most common reasons students reported for not using the school toilets were that they were dirty (40.2%), not safe (28.3%), or other (27.1% - most commonly that they did not need to use the toilets). **Female students were significantly more likely to report that the toilets were unsafe than male students** (40.0% compared to 10.8%). During FGDs with educational staff, participants discussed the structure of the facilities, as well as the low number of toilets, and noted that children are frequently forced to queue to access the WASH centres and therefore avoid using them. Additionally, girls who were aged 13 and over were asked if they felt **comfortable using toilets during menstrual cycles, to which 48.0% reported that they were not** while 36.0% reported that they were comfortable, with a remaining 16.0% who preferred not to answer. During their menstrual cycles, female students uncomfortable with using the toilets reported that they simply did not use them (62.5%) or that they tried to use them as little as possible (33.3%), with a minority reporting that they did not go to school during these times (4.2%).

[36] National Standards WASH in Schools Jordan, UNICEF 2016. See Annex 1.
[37] Lockable doors may not be applicable in pre-primary schools.
[38] WASH in Schools in Jordan, UNICEF 2016. See Annex 1.
[39] Because the toilets were not uniquely identified during the assessment and were instead reported through totals for each WASH centre, it is possible, for example, that a toilet that was broken was either the same or different as one that was dirty. Thus, there is a range of possibility for the toilets that met all standards, with the lower limit assuming each toilet that did not meet the standards only had one issue, and the upper limit assuming maximum overlap between the issues observed.
[40] WASH in Camps, UNHCR
[41] National Standards WASH in Schools Jordan, UNICEF 2016. See also Annex 5.

Handwashing facilities

According to National WASH Standards for schools, handwashing facilities defined as any device or infrastructure that enables students to wash their hands effectively using running water, should follow standards for construction materials, cleanliness, and function. Handwashing facilities should also be provided with soap and water, which is discussed in the next section. Additionally, faucets should be robust and well-fitted and basins should be made of concrete or galvanized iron to prevent vandalism and theft. Facilities should also be child-friendly and appropriate for different age groups, and kept free of standing water and accumulated dirt.

Handwashing facilities can be either located internally or externally to the WASH centres. **Of the 65 assessed WASH centres, 56.9% (37/65) had indoor handwashing facilities, 94.6% of which were single sinks with tap, while the remaining 5.4% were group sinks with tap.** The 37 handwashing facilities included **152 sink taps (basins)** which were all determined to have been designed appropriately for different age groups. Only 20.4% of the handwashing basins were made solely of concrete, while the rest had no formal basin. None of the taps were found to be leaking and all of them were robust and well fitted rather than loose or poorly fitted. Additionally, 98.0% did not have any accumulation of water in the sink and 96.1% did not have visible dirt on the basins. None of the WASH centres with indoor handwashing facilities had stagnant water on the ground within a two-metre radius around the centre. **While only 20.4% of the handwashing basins were made of concrete and galvanized iron, between 94% and 98% of indoor handwashing facilities met the other National WASH Standards relating to function and cleanliness.**

In addition to indoor handwashing facilities, **87.7% (57/65) of the WASH centres had handwashing facilities located outdoors**. In total, the 57 outdoor facilities were composed of **167 taps**, with 91.2% located in close proximity to the toilets.[42] Additionally, 94.7% were found to be designed appropriately for different age groups, and 97.6% were robust and well fitted as opposed to loose or badly fitted. Only one facility had water accumulated in the sink, dirt on the WASH basin, and stagnant water on the ground, while 10.5% (6/57) were found to be leaking. **Overall, between 68.4% and 89.5% of outdoor handwashing facilities met National WASH Standards relating to function and cleanliness.**

Heads of school also reported that handwashing facilities (individual and group handwashing) are cleaned with water, and bleached once a day or twice-daily for double shift schools. All head of schools reported that the roles and responsibilities, as well as frequency and other related management aspects were agreed in a written O&M plan and that their schools have defined and implemented O&M activities, including frequency and assigned responsible personnel.

Though nearly a quarter of students reported not using school toilets, **only 1.5% of students reported that they did not use hand washing facilities at school (6 students)**. Of the students who reported that they did not use handwashing facilities, two cited crowdedness, one that the basin was too high to reach, one that the wash basins were not clean, and one who did not need to use them. All students were asked if they could easily reach the wash basins at school and the overwhelming majority (98.7%) reported that they could.

Soap and water availability

According to National WASH Standards, schools must offer functioning washing facilities to children, including water and soap, at all times. On the day of the assessment, only **19.7% (30/152) of indoor handwashing sink taps were provided with soap**, and **17.5% of the outdoor handwashing group taps were provided with soap**. In over half of the 33 WASH centres with indoor washing facilities, none of the sink taps had soap. During KIIs, when asked if students felt comfortable using WASH facilities, heads of school reported factors that both encouraged and discouraged students from using them. **Nearly all heads of school** (12/14) reported that a **lack of soap and WASH materials discouraged students from using the facilities**, even though the majority also reported that soap, bleach and other consumables are checked and refilled (where possible) twice daily for double shift schools and once daily for single shift schools. **This reveals that although soap provision may be checked daily, there may not be soap available to refill as needed. In addition, during FGDs the majority of**

[42] Close proximity was defined in the questionnaire as "Up to maximum 10m away from the toilet and should be visible when standing at the entrance of the toilet".

educational staff reported that the number of hygiene-related products provided was not sufficient for the schools. Some also mentioned the differences in provision for teachers than for students, with a greater shortage for students. **They believed this shortage was due to the lack of periodical distribution and monitoring as well and the high consumption of such products by students.** To address this, FGD participants suggested implementing a monitoring process to track who is in charge of distribution and the frequency at which the materials are delivered, as well as organizing awareness sessions among the children on how to use WASH products in a way that avoids waste.

During KIIs with WASH actors, it was reported that supplies are checked daily for teacher and student facilities, however products such as soap are not always available for refilling. Once a month, WASH actors are able to write a list to send to UNOPS detailing the supplies that are needed in the school and distribute things like cleaning products, plastic bags, products to clean glass, and tissues. **WASH actors reported that although there is a complaint box that can be used to report any issues, they have not received complaints regarding soap**. During FGDs with educational staff, a minority of participants were aware of the complaint box to report issues to WASH actors.

All of the WASH centres that had handwashing facilities indoors had running water on the day of the assessment (37/37), while only 89.5% (51/57) of the outdoor handwashing facilities had running water. Water was provided to all of the WASH centres through water tanks which were all located external to the facilities, 15.4% of which were made of metal, with the remaining 84.6% made of plastic. None of the water tanks were tilted at an angle, and only one water pipe showed signs of leaking. WASH actors also reported that the amount of water provided for WASH activities was not enough, especially during the summer months, and that they had complained directly to other responsible WASH actors about this issue. During FGDs with educational staff, a majority reported that they believed water for hygiene practices was sufficient.

Drinking water provision

According to the National WASH Standards, after long school holidays (more than 20 days) the entire piped water system of the school compound should be flushed and disinfected.[43] KIIs with heads of school complexes provided information on the drinking water standards and practices for each school complex. One head of school reported that this was not done for the schools in the complex, but the other 13 confirmed that the pipes are flushed and disinfected after such holidays. In accordance with National WASH Standards, eleven head of schools reported that drinking water was annually monitored for its microbial and chemical quality, as well as acceptability, while two reported not knowing, and one reported that water was not monitored.

National WASH Standards outline that drinking water from an improved source should be available to children during school hours, and that five litres of water per child or staff member per day is needed for drinking, hand hygiene, cleaning, and food preparation where appropriate. There is not a standard for the exact amount of drinking water to be provided to children, but the standards outline the option that if water cannot be made available, students should be encouraged to bring water from home. When asked how many litres of drinking water were available for each student per day, 10 heads of schools did not know, while two responded that students were provided with one litre, and another two that students were provided with 0.5 litres per day. According to the majority of educational staff during FGDs, drinking water provision was sufficient.

While the majority of educational staff perceived drinking water to be sufficient, the majority of students reported bringing water from home (85.9%), while a minority relied on water from school faucets (30.2%). In line with this, 82.4% of students reported that they drink water from their own bottle, while 18.9% used their hands, and 7.2% drank directly by mouth under the tap.[44]

Solid waste management

According to National WASH Standards, waste should be disposed of safely (through community services, or collection in a safe spot on school premises), burning waste on school grounds is prohibited, and waste bins should

[43] UNICEF, National Standards WASH in Schools Jordan, December 2016
[44] Multiple responses possible.

be emptied daily or twice daily for single and double shift schools respectively. During KIIs, the heads of school all reported that waste bins are emptied twice daily for double shift schools, and once daily for single shift schools. Additionally, they all reported that the schools dispose of waste either through community waste collection services, or safe spots on the school premises, that waste is not burned on school grounds, and five of the heads of school reported that the schools recycled waste. Though all classrooms are required to have a waste bin, there are no standards set for WASH centres. On the day of the assessment, 53.8% of WASH centres had a waste bin, and only 38.8% of WASH centres for female students had a waste bin lined with a plastic bag.

Waste water management

According to National WASH Standards for schools, schools must provide a clean environment for children. Black water disposal for 59 of the 65 WASH centres were visible and assessed. The toilets for each WASH centre were nearly all connected to PRC septic tanks, with only one connected to a steel tank. None of the assessed tanks had any visible sign of connection overflow, connection leakage, or connection blockage. During KIIs, WASH actors reported that inspection and repair of water tanks does not happen with a set frequency, but depends instead on the need.

National WASH Standards for schools outline that as an option, grey water collection can be included to conserve freshwater sources. Grey water disposal for the handwashing facilities was visible and assessed in 61/65 (93.8%) of the WASH centres. Only one facility disposed of grey water in a private pit, one in a steel tanks, while the rest (84.3%) used septic tanks (PRC). None of the tanks had any visible signs of connection overflow, leakage or blockage, and two facilities used some of the grey water for cleaning or watering plants. During KIIs, ten heads of school reported that drainage stormwater plans were part of the school construction planning and management.

Students with disabilities

According to heads of school during KIIs, across the schools in Za'atari, there were **28 students with disabilities** that officially attended classes in kindergarten (KG), formal schools and certified Non-Formal Education (NFE) facilities. There were 15 female students and 13 male students, and all were in Grade 6 or below.

National WASH Standards for schools require that at every school there should be one handwashing facility and one toilet suitable for students with disabilities. **Overall, 65.6% of the WASH centres had stalls for people with disabilities, and 12 of 13 school complexes had stalls for people with disabilities**. Of the 48 stalls for people with disabilities, **95.8% (46 stalls) complied** with the extra space requirement, the wide door requirement, and the door handle placement requirement. Stalls designed for those with disabilities are also required to have hand rails for support, however only 79.2% of stalls for people with disabilities met this requirement. **Additionally, while 45.6% of the outdoor handwashing facilities were accessible to students with disabilities, only 12 of 13 school complexes had accessible handwashing facilities for students with disabilities.**[45]

When asked if there were educational resources available to address disabled children's WASH needs, a majority of FGD participants reported that there were not. **Many FGD participants also reported that they did not believe the WASH facilities to be suitable for children with disabilities.** In order to facilitate their use by children with disabilities, participants suggested ensuring that the facilities were compatible with children's needs, and to include separated facilities.

Menstrual hygiene education

According to National WASH Standards for schools, education related to MHM should be part of the regular health and hygiene curriculum for both girls and boys. If education related to MHM is not part of the regular curriculum, educational materials related to MHM should be available for both boys and girls. Additionally, the school administration should provide essential emergency menstrual hygiene material for girls who require them during school hours.

[45] The same school complex that did not have toilet stalls for students with disabilities did not have handwashing accessible for students with disabilities.

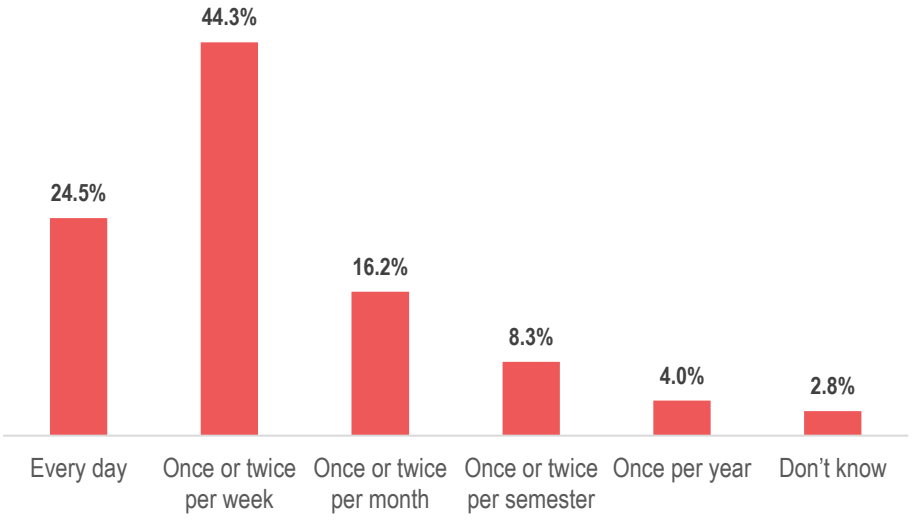
Six school complexes provided classes to female students in Grade 5 or above, and all heads of school reported having principals and school teachers with knowledge and awareness on MHM. **Only two heads of school reported that their school provided essential menstrual hygiene materials for girls during school hours, however four included education relating to MHM as part of the regular health and hygiene curriculum for females.** According to KIIs with heads of school, the two school complexes that did not incorporate MHM into curriculum did not provide any educational material or booklets about MHM material either. During FGDs with educational staff some participants reported that they were aware of educational programmes to raise awareness about MHM in the schools. Overall, staff felt comfortable discussing MHM topics and they did not believe it had an impact on female attendance rates. Only 61.2% of the WASH centres for females had bins with plastic bags for waste, and FGD participants discussed that increasing the provision of pads and waste bins in girls' facilities would be beneficial. KIIs with WASH actors revealed that across Za'atari awareness sessions relating to MHM used to be held on a monthly basis before 2018, but that (as of June 2018), there had only been one session in March on World Women Day in 2018.

Health and hygiene education and practices

The majority of students reported receiving **health and hygiene education and practice through family and friends (84.4%) or through school (69.6%),** while a minority reported learning through NGOs and other organizations (10.7%), or their community (4.1%). When asked if their school provided health and hygiene activities, only **64.7% reported that their schools provided these activities**. Disaggregated by gender, a higher proportion of female students reported receiving health and hygiene related education than male students (71.9% of female students vs. 57.8% of male students).

The students who reported that they received health and hygiene education at school were asked subsequent questions about the content and frequency of such activities. **The majority of students reported that educational staff or teacher assistants provided health and hygiene education services (96.0%),** while 30.8% reported that aid organizations provided services. **Health and hygiene activities reportedly occurred most frequently during classes (83.0% of students reporting this)**, during morning assembly (29.2%), and through school activities (7.1%), also shown in Figure 6.

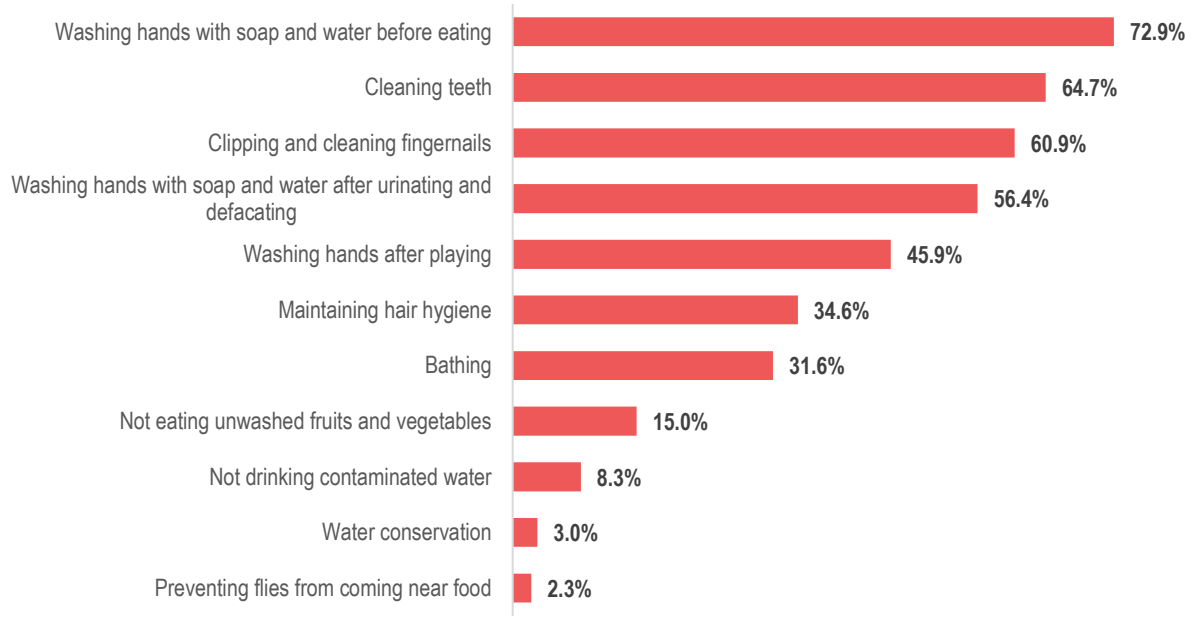
Figure 6. % of students who reported receiving education covering hygiene topics at school reporting frequency of health and hygiene activities and education



Verbal instructions constitute the vast majority of all methods or materials used to promote cleanliness and hygiene (97.6% of students reporting this method). During FGDs with educational staff, 14/24 participants reported that teachers were trained on how to teach sanitation and hygiene to students, however five explained that teachers receive short trainings that are mostly one-time events. Hygiene education is also conveyed through brochures and bulletins which were reported by 10.7% of students, and games reported by 5.5% of students. **Only 52.6% of students reporting discussing hygiene behaviours learned at school with parents or family, with**

57.3% of females reportedly discussing compared to 47.0% of male students. FGD participants perceived the hygiene practices that were taught to be easily applicable to daily life for the students, however, they explained that a lack of encouragement from the parents can greatly influence a student's behaviour. The frequency of health topics students reported discussing with parents and family are shown in Figure 7.

Figure 7. % of students who reported receiving education covering hygiene topics at school reporting hygiene topics discussed at home



Health and hygiene knowledge

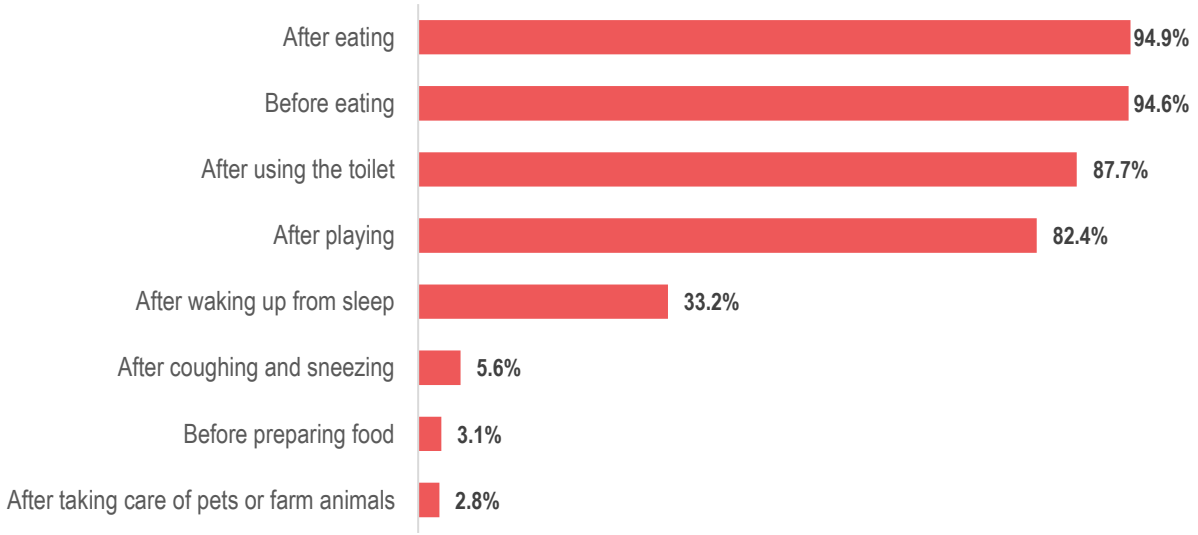
All students were asked questions regarding their health and hygiene knowledge, even if they reported that they did not receive any education or practice in school.

When asked why it is important to boil water, a majority of students reported that they did not know (60.6%), even those who reportedly receive health and hygiene education and practice at school (58.5% for those who have school health education compared with 64.5% of those who did not). The remaining students reported that boiling water is important to kill germs (34.0%) and to make water safe to drink (12.5%). The students who gave responses other than "I do not know" were then asked how long water should be boiled to ensure that it is free of disease-causing organisms and 92.8% reported that water should be boiled for at least one minute.

Nearly a quarter (23.5%) of students reported that they did not know why human faeces should be disposed of in a proper way as opposed to being left in natural areas. The remaining students reported that it is important to kill germs (67.0%), for smell purposes (42.5%), and to avoid contaminating water supplies and soils (7.2%). The vast majority of students reported that water should be used for anal cleansing (99.5%), with 0.5% reporting that toilet paper should be used.

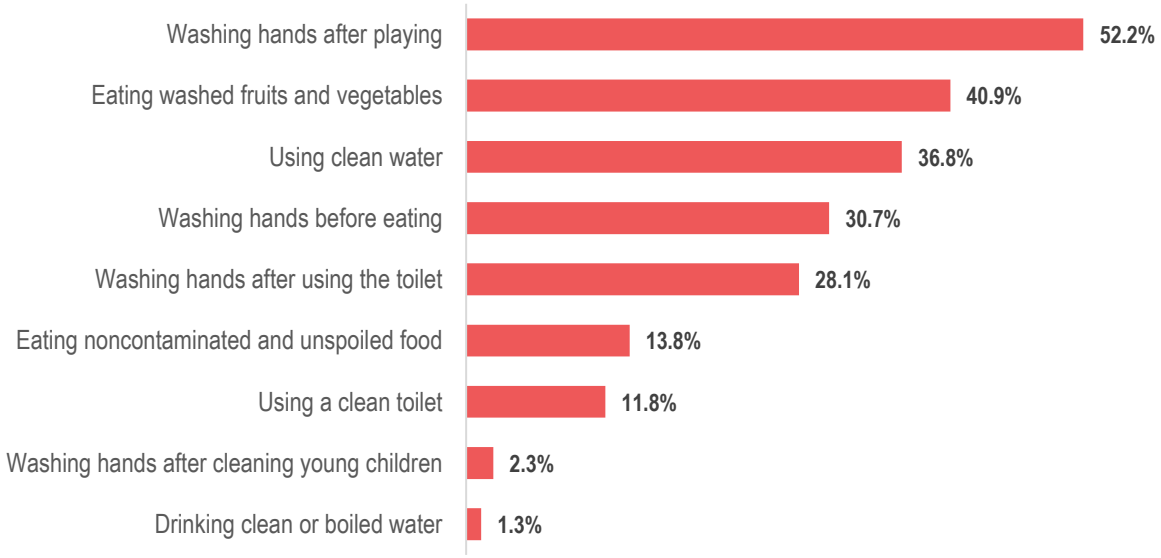
When asked why handwashing with water and soap is important, 93.4% of students reported that it keeps hands clean while 39.6% reported that it reduces the chances of getting other diseases and infections, and 16.4% that doing so reduces the chance of getting diarrhoea. Students also reported the times they believed it is important to wash hands. The majority reported that washing hands before and after eating were important (94.6% and 94.9% respectively), while a lower proportion of students reported that washing hands after using the toilet is critical (87.7%). These responses can be seen in Figure 8.

Figure 8. % of students reporting critical times to wash hands



A larger percentage of students reported that they could reduce the risks of getting diarrhoea and stomach ache by washing their hands after playing (52.2%), than by either washing their hands after using the toilet (28.1%), or drinking cleaned or boiled water (1.3%). The ways that students reported protecting themselves from stomach ache and diarrhoea are shown in Figure 9.

Figure 9. % of students reporting ways to protect against stomach ache and diarrhoea



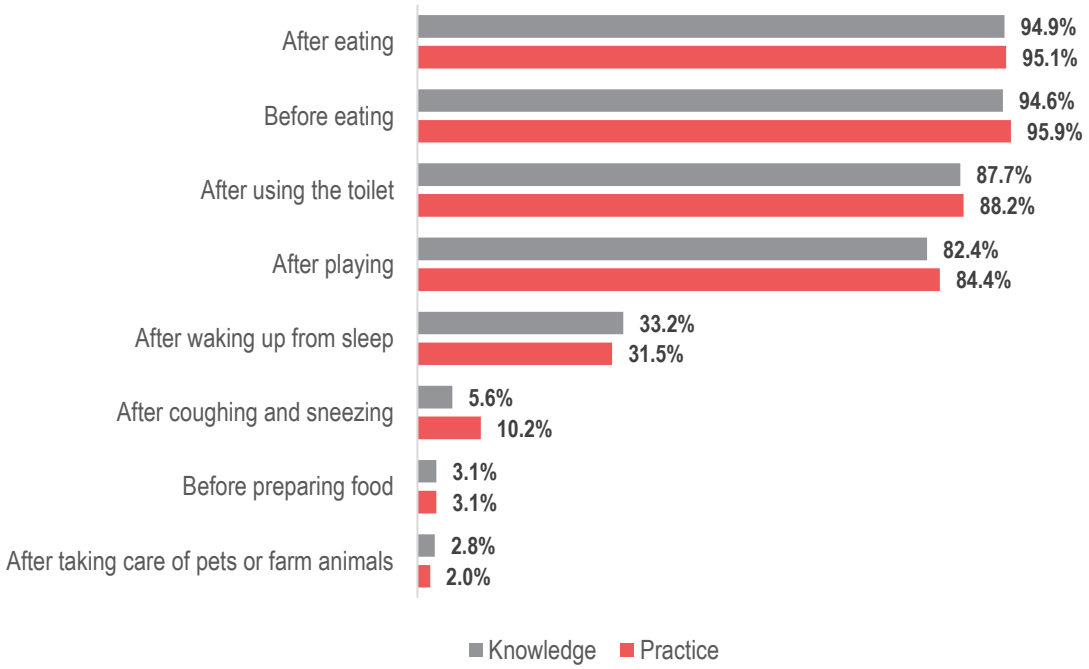
The majority of students reported that soap should be used for bathing (68.3%), with 31.5% reporting that shampoo should be used. When asked why it is important to be cleansed, 46.0% reported it is for health purposes, 47.6% of students reported it is for smell purposes, and 53.2% reported that it is not good to be unclean. Only 2.3% of students reported it is important for status within the family and community.

Health and hygiene practices

Students were asked questions related to hygiene practices outside of school which also involved the frequency and use of hygiene materials. The majority of students reported washing their hands before and after eating (95.9%, 95.1%), as well as after using the toilet (88.2%) and after playing (84.4%), and nearly all (99.7%) reported using soap to wash their hands. Figure 10 shows students' reported practices compared to their reported knowledge of

critical times to wash hands, with more students washing their hands than those who reported the critical times to wash hands.

Figure 10. % of students reporting critical times to wash hands vs handwashing practice



When students were asked how often they brush their teeth, **25.3% reported that they never brush their teeth.** When disaggregated by grade level, **younger students in KG to grade 5 were significantly more likely to report never brushing their teeth (32.2%),** when compared to older students in grades 6 to 12 (13.7%). All students who reported brushing their teeth used toothpaste to do so, and 47.3% brushed their teeth after waking up, 72.6% after eating, and 28.4% before going to bed. Students reported good hair washing practices with 56.5% washing their hair every day, 30.9% every two days, and 11.8% every three days. **Nearly one third of students reported only bathing once every three days (29.9%),** while 44.8% bathed every two days and 21.2% every day. The majority of students reported clipping their fingernails at least every week (94.9%), with the remainder reporting every two weeks or less. When asked how often they usually covered their mouth and nose when coughing, the majority reported that they always (59.3%) or often (11.8%) covered their mouths, while 13.0% only did so when sick. Only 34.0% of students reported that they changed their underwear daily while 44.5% only did so every two days and 21.5% every three days.

Differences between Azraq and Za'atari

The student KAP survey and infrastructure assessment revealed significant differences between Azraq and Zaatari camps. In Azraq, **94.1% of students reported that their school provided some kind of health and hygiene activities or education compared to just 64.7% of students from Za'atari**. This gap in health and hygiene education could be an influencing factor in the difference in health and hygiene knowledge and practices observed between students in the two camps.

Significant differences, possibly resulting from this educational gap, are apparent through the answers students gave to a set of questions relating to health and hygiene knowledge and behaviours. In general, **students' hygiene knowledge and practices were found to be lower in Za'atari than in Azraq.** When asked why it is important to boil water, 7.4% of students in Azraq reported that they did not know compared to 60.6% of those in Za'atari. Similarly, when asked why faeces should be disposed of properly 4.4% of students in Azraq did not know compared to 23.5% in Za'atari. Students in both camps were found to have similar handwashing knowledge and practices, however in Za'atari nearly a quarter of students (25.3%) reported that they never brushed their teeth compared to

only 4.4% of students in Azraq. This difference in student knowledge and behaviour could also be linked to a gap in how often students discussed hygiene related behaviours with their parents. In Za'atari, of the students reporting hygiene education at school, only 52.6% of students reported discussing these health and hygiene behaviours with their parents compared to 88.2% of students in Azraq.

There was also a significant difference in the supply of hygiene materials between the camps as observed during the infrastructure assessment. **Soap provision was lacking in most schools' washing facilities for both camps, however Za'atari had significantly worse provision**. In Azraq, on the day of the assessment, soap was available in 58.2% of the indoor handwashing sink taps (61.7% of WASH facilities with indoor handwashing facilities), and 67.3% of the outdoor handwashing basins compared to Za'atari where only 19.7% of indoor handwashing sink taps had soap (48.4% of WASH centres with indoor handwashing facilities), and 17.5% of the outdoor handwashing basins. 85.9% of students in Za'atari reported bringing water from home compared to 42.9% in Azraq who were more likely to get water from school faucets (74.1%) than students in Za'atari (30.2%). The difference in hygiene material provision could also be a factor in how often students reported using school facilities. Nearly (23.5%) a quarter of students in Za'atari reported that they did not use school toilets, compared to 7.6% in Azraq.

CONCLUSION

This assessment aimed to fill an important information gap surrounding WASH infrastructure within schools in both Za'atari and Azraq camps, as well as student health and hygiene KAP. With this information, WASH programming in schools can be more targeted and better informed. Using a mixed methods approach, data was collected to better understand WASH practices and maintenance in schools which revealed some key areas for improvement.

According to the infrastructure assessment and KIIs with both WASH actors and heads of school, schools in both Azraq and Za'tari were generally able to maintain the required standards for cleanliness in WASH centres. Though the toilets and handwashing facilities were generally well kept and functioning, a significant number of toilets were not accessible. More importantly, the WASH centres were not all provided with sufficient materials for students to appropriately manage their personal hygiene. While water was provided to pour flush toilets, a large number of WASH centres did not have any soap available for students to wash their hands. In Azraq, WASH actors were largely unaware of this issue, however in Za'atari, where the supply of soap was significantly worse, heads of school, educational staff and WASH actors were all aware, to some degree, of the lack of WASH supplies. The vast majority of students in Azraq still reported using both handwashing facilities and toilets (above 92%), however in Za'atari nearly a quarter of students reported that they did not use school toilets. Schools in both camps had a mix of indoor and outdoor handwashing facilities. In both camps, the handwashing facilities generally met cleanliness and functionality standards. However, in Azraq, the majority of the outdoor handwashing basins were not located close to the toilets, which may discourage students from using handwashing facilities every time they use the toilets. In Za'atari, the majority of the heads of school did not know how much drinking water was provided to students and during the KAP survey, the majority of students brought drinking water from home, rather than getting it from school taps.

Students reported on the education they received in school covering health and hygiene activities and were also asked a set of questions about their own personal health and hygiene practices and knowledge. A higher proportion of students in Azraq reported receiving health and hygiene education which may be a contributing factor in their comparatively greater knowledge about health-related topics, and their own hygiene practices. In both camps, the majority of students knew that it was important to wash one's hands to keep them clean, but they did not have an equal understanding of the importance of what handwashing or water boiling helps prevent. Additionally, a higher proportion of students in Azraq reported discussing hygiene and health related behaviours they learned at school with their parents than students in Za'atari. This could also be a contributing factor in the large percentage of students in Za'atari who reported that they do not brush their teeth, bathe, or change their underwear regularly. As teachers are only able to influence students' health and hygiene behaviours to a certain extent, it is important that parents or guardians also work to reinforce healthy practices. In Za'atari, appropriate dental hygiene practices were not followed, especially with younger children, as 32% reported that they never brush their teeth.

This assessment also sought to understand MHM activities and the suitability of WASH facilities for disabled children. While the majority of schools met the minimum requirements for disabled students, discussions with educational staff revealed that there were still challenges in enabling students with disabilities to access facilities, particularly as there were no ramps to facilitate access. Additionally, while staff reported learning about MHM and feeling comfortable discussing it, the majority of schools in both camps did not provide a specific curriculum to cover this topic. Benefits of increasing education and materials available could especially benefit students in Za'atari where 48% of girls of menstruating age reported they did not feel comfortable using school toilets.

This assessment gives an understanding of student's education and practices regarding health and hygiene facilities both in and out of school. While education covering health and hygiene topics can be improved, challenges with material provision both at home and at school impact student ability to practice appropriate hygiene behaviours. The discrepancy in education and practice between hygiene practices in Za'atari and Azraq illustrates the possibility and necessity for improvement in hygiene knowledge, practices, material provision and education in both camps.

ANNEXES

Annex 1: Schools core indicators

Schools core indicators

Core indicator	Definition	Normative definition
1. Proportion of schools with basic drinking water	Proportion of schools (including pre-primary, primary and secondary) with drinking water from an improved water source available at the school	Improved: The main drinking water source is of an "*improved*" type. An "improved" drinking water source is one that, by the nature of its construction, adequately protects the source from outside contamination, particularly faecal matter (JMP definition). "Improved" water sources in a school setting include: piped, protected well/spring (including boreholes/tubewells, protected dug wells and protected springs), rainwater catchment, and packaged bottled water. "Unimproved" sources include: unprotected well/spring, tanker-trucks, and surface water (e.g. lake, river, stream, pond, canals, irrigation ditches) or any other source where water is not protected from the outside environment. Available: There is water from the main drinking water source available at the school on the day of the survey or questionnaire.
2. Proportion of schools with single-sex basic sanitation	Proportion of schools (including pre-primary, primary and secondary) with improved sanitation facilities at the school, which are single-sex and usable	Improved: The sanitation facilities are of an "improved" type. An "improved" sanitation facility is one that hygienically separates human excreta from human contact (JMP definition). Such as: flush/pour-flush toilets, pit latrines with slab, and composting toilets. "Unimproved" facilities include: pit latrines without slab, hanging latrines, and bucket latrines, or any other facility where human excreta are not separated from human contact. Single-sex: There are separate toilet facilities dedicated to female use and male use at the school. Note: may not be applicable in pre-primary schools. Usable: Toilets/latrines are accessible to students (doors are unlocked or a key is available at all times), functional (the toilet is not broken, the toilet hole is not blocked, and water is available for flush/pourflush toilets), and private (there are closable doors that lock from the inside and no large gaps in the structure) on the day of the survey or questionnaire. Note: lockable doors may not be applicable in pre-primary schools.
Proportion of schools with basic handwashing	Proportion of schools (including pre-primary, primary and secondary) with handwashing facilities, which have soap and water available	Handwashing facilities: A handwashing facility is any device or infrastructure that enables students to wash their hands effectively using running water, such as a sink with tap, water tank with tap, bucket with tap, tippy tap, or other similar device. Note: a shared bucket used for dipping hands is not considered an effective handwashing facility. Soap and water: Both water and soap are available at the handwashing facilities for girls and boys on the day of the questionnaire or survey. Soapy water (a prepared solution of detergent suspended in water) can be considered as an alternative for soap, but not for water, as non-soapy water is needed for rinsing.

Annex 2: Child-friendly dimensions of sanitation facilities

Child-friendly dimensions of sanitation facilities

Age group	Height of seat	Height basin	Max. reach
3-5 years	26 cm	58 cm	105 cm
5-9 years	30 cm	70 cm	120 cm
9-11 years	34 cm	76 cm	140 cm
11-13 years	38 cm	76 cm	156 cm
13-16 years	42 cm	82 cm	167 cm

Annex 3: Usability concept

Usability concept

Usable		
Accessible	**Functional**	**Private**
• Accessible at all times • Doors are unlocked or • Key is available	• Not broken • Toilet hole not blocked • Water (for pour-flush toilets)	• Door can be locked from the inside • No large gaps in the structure

An additional set of expanded indicators provides further guidance for more detailed WASH in Schools monitoring by adding a quality and acceptability dimension. This includes aspects of MHM as well as cleanliness of facilities. Cleanliness is defined as:

- Free of urine/faeces on seat/floor/walls
- No standing water
- No smell or flies

Annex 4: Toilet design criteria for students with special needs

Toilet design criteria for students with special needs

According to the *MoE Architectural and Engineering Design Guidelines* each school should have at least one toilet accessible for students with special needs.

Additionally the toilet should have:

- Additional space (at least an extra 1m^2) with enough space inside for a wheelchair user to enter, turn, close the door and park by the toilet
- A wider door (minimum 80 cm wide)
- Hand rails for support attached either to the floor or side walls
- Door handle and seat should be within reach of wheelchair or crutches/stick users, including a fixed raised pan or movable raised toilet seat
- An access ramp should be available if toilet facilities are elevated with an ideal gradient of 1:20 (maximum 1:12 if space is limited)

Moreover, other aspects of the school environment also need to be suitable for children with special needs. The MoE Architectural & Design Guidelines and other publications proved further details.

Annex 5: Common O&M activities, frequency and responsible person

Common O&M activities, frequency and responsible person

Activity	Frequency	Responsible
Cleaning of all toilets and urinals	At least daily/twice-daily for double-shift schools	Cleaning staff
Cleaning of walls and floors inside toilet block	At least daily/twice-daily for double-shift schools	Cleaning staff
Cleaning of washing facilities and drains	At least daily/twice-daily for double-shift schools	Cleaning staff
Checking and refilling soap and other supplies	At least daily/twice-daily for double-shift schools	Cleaning staff
Control & monitoring cleanliness of toilet facilities & supplies availability	At least daily/twice-daily for double-shift schools	Designated teacher/principal
Timely procurement of supplies (soap, cleaning material, sanitary pads etc)	Monthly	Cleaning staff to report needs and purchase supplies designated teacher/principal to provide funds for the purchase of supplies
Inspection and minor repair of technical components including flushing reservoirs, cubicle locks, doors, taps/faucets, lighting, leakeage of piping, etc	Weekly inspection/repair as required	Cleaning staff
Painting of toilet blocks, other major and general repairs	Yearly inspection/repair as requried	designated teacher/principal
Emptying of pits, septic tanks etc. (septic tank must be emptied when it is full i.e. 500mm below the top surface of the tank)	As necessary	special service request

Annex 6: WinS Questionnaire

Questions	Response option(s)			Question Level
A.1 Visit Date				School Level
A.2 Interviewer Name				
School Location				
A.3 Village No.				
A.4 School's Name				
Students information				
A.5 School type	Boys school	Girls school	Mixed School	
A.6 Grades offered				
A.7 Number of students in each grade				

A.8 Total number of boys				
A.9 Total number of girls				
A.10 Total number of children with disabilities				
WASH Service domain: Sanitation				
B.1 Only for mixed schools In this school, are the toilet facilities gender-separated? *Gender-separated: Separate blocks with a distance of at least 10 meters is provided for male and female toilets*	Yes	No		School Level
B.2 WASH centre number				WASH Centre Level
B.3 Is this WASH centre used by males, females or both?	Males	Females	Mix	
B.4 Is this WASH centre opened?	Yes	No		
B.5 How many individuals' stalls are there in total in this WASH centre? *(Count each toilet stall individually in every WASH centre including the disabled toilet stall).*				
B.6 - Among them, how many are locked or cannot be assessed?				
B.7 - Among them, how many toilets' stalls are accessible[46]? *Accessible at the time of the survey* *Doors are unlocked or key is available*				
B.8 (Q.B.8 to Q.B.22 only concern toilets' stalls counted as accessible in Q.B.7) How many sanitation facilities of each type does this WASH centre provide: - Pour-flush toilets (Arabic toilet)				
- Flushing toilets (WC)				
- Urinals				
- Other (specify)				
B.9 How many toilets are broken? *The squat pan is either damaged, or parts of it are broken. But there must be parts left - If it is fully damaged (i.e. no part remains), it is not considered a destroyed toilet but as not existing.*				
B.10 How many toilets' holes are blocked? *Look down the hole of the squat pan to see if there is any visible material blocking the exit. If blocked there will be fluids and possible hard material stagnant in the hole.*				

[46] Refer to Annex 3

B.11 How many toilets present some signs of overflowing?			WASH Centre Level
B.12 If "Pour-flush toilets" number different from 0 at Q.B.8 How many toilets have water available to be flushed?			
B.13 How many toilets are private[47]? *-Door can be locked from the inside (the internal lock is functioning)* *-No large gaps in the structure(cannot see through from outside)*			
B.14 How many toilets stalls are cleaned[48]? *-Free of urine/faeces on seat/floor/walls* *-No standing water* *-No smell or flies*			
How many toilets stalls provide, for anal cleansing: B.15 - Water			
B.16 -Other supplies (such as toilet paper)			
B.17 How many toilet facilities are designed (seats) appropriately for different age groups[49] in this WASH centre?			
B.18 Does the WASH centre have at least one stall for persons with disabilities? If the answer to this question is 'No', go to Q.B.24	Yes	No	
B.19 If "Yes" at Q.B.17, how many stalls for persons with disabilities are there in total in this WASH centre?			
If Q. B.18, how many of these stalls comply with the following standards: B.20 - An additional space *-at least an extra 1m2-*			
B.21 - A wider door *(minimum 80 cm wide)*			
B.22 - Hand rails for support attached either to the floor or side walls (also a ramp, a wider (1-1.2m) door and a bigger room			
B.23 -Door handle and seat should be within reach of wheelchair or crutches/stick users, including a fixed raised pan or movable raised toilet seat			
B.24 Are there faeces present outside of the stalls (e.g. in the corridor, on the ceiling, on the doors or on the walls) in this WASH centre?	Yes	No	
B.25 Is there any stagnant water inside this WASH centre on the ground? *Stagnant water is not water coming from recent cleaning, recent rain, recent tap leak or recent water spill.*	Yes	No	WASH Centre Level

[47] Refer to Annex 3
[48] Refer to Annex 3
[49] Refer to Annex 2

B.26 Is this WASH centre provided with waste bin?	Yes	No	
B.27 If "Girls" or "Mix" at Q.B.3: Is the WASH centre provided with disposal bucket/bin with a lid, lined with a plastic bag?	Yes	No	
WASH Service Domain: Hygiene			
WASH Centre - Handwashing facilities			
How many handwashing facilities of each type are available in this WASH centre:[50] C.1 - Sink with tap			WASH Centre Level
C.2 - Water tank with tap			
C.3 - Group handwashing facility (multiple taps structure)			
C.4 - Other (specify)			
If "Group handwashing facility" number different from 0 at question C.3 C.5 How many taps are they composed of?			
C.6 How many handwashing facilities are designed (basins and taps) appropriately for different age groups[51]?			
C.7 How many washing facilities' basins of the WASH centre are made out of concrete or galvanised iron?			
C.8 How many basins in the WASH centre are provided with soap on the day of the survey?			
C.9 How many taps are robust and well-fixed? (as opposed to be loose or badly fitted)			
C.10 How many handwashing facilities are cleaned? *- No accumulation of water in the sink* *- No visible sign of dirt on WASH basins*			
C.11 Is there currently running water in this WASH centre?	Yes	No	
C.12 How many taps are leaking?			
C.13 Is there any stagnant water on the ground in a 2 meters radius around the wash centre?	Yes	No	
C.14 How is water provided to the WASH centre?	Through water tank		
	Through the water pipe network		
	Other (specify)		
C.15 If "Through water tank" at Q.C.14, in what material is the tank made of?	Metal		
	Plastic		
	Other (specify)		
C.16 If "Through water tank" or "Through the water pipe network" at Q.C.14 Is the water tank or water pipe showing any visible signs of leaking?	Yes	No	

[50] Note: that a shared bucket used for dipping hands is not considered an effective handwashing facility.
[51] Refer to Annex 2

C.17 If "Through water tank" at Q.C.14 Is the water tank titled at an angle?	Yes	No	WASH Centre Level
C.18 If "Through water tank" at Q.C.14 What is the storage capacity of this tank?			
Black water disposal			
C.19 Is the WASH centre disposal for black water visible and can be assessed? (Disposal for black water includes private pit, septic tank (PRC), steel tank, THW etc.) If "No", go directly to question D.1	Yes	No	
C.20 - What are the toilets of this WASH centre connected to:	Private pit		
	Septic tank (PRC)		
	Steel tank		
	THW		
	Other (specify)		
C.21 - Is there any visible sign of connection overflow? *It is possible to detect connection overflow by checking whether:* 1. *Septic (smelly) water on top of or around the tank is easily visible or is visible down the connection/pipe* 2. *There are visible signs of black water in the toilets*	Yes	No	
C.22 -Is there any visible sign of septic tank/connection leakage?	Yes	No	
C.23 -Is there any visible sign of septic tank/connection blockage?	Yes	No	
Outdoor – Handwashing facilities			School Level **WASH Outdoor**
How many handwashing facilities of each type are available **outside of this WASH centre**?[52] D.1 - Sink with tap			
D.2 - Water tank with tap			
D.3 - Group handwashing facility			
D.4 - Other (specify)			
D.5 If "Group handwashing facility" number different from 0 at Q. D.3 How many taps are they composed of?			
D.6 How many of these handwashing facilities are located outside of the WASH centre, in close proximity to toilets in the school? *Close proximity: Up to maximum 10m away from the toilet and should be visible when standing at the entrance of the toilet*			
D.7 How many handwashing facilities are designed (basins and taps) appropriately for different age groups[53]?			

[52] Note: that a shared bucket used for dipping hands is not considered an effective handwashing facility.
53 Refer to Annex 2

D.8 How many basins are provided with soap on the day of the survey?			
D.9 How many taps are robust and well-fixed? (as opposed to be loose or badly fitted)			
D.10 How many handwashing facilities are cleaned? *- No accumulation of water in the sink* *- No visible sign of dirt on WASH basins*			
D.11 How many handwashing facilities are made available for users with disabilities[54]? *Check if there is a disability ramp leading up to the taps outside.*			
D.12 Is there running water in the handwashing facilities located outside of the WASH facility on the day of the survey?	Yes	No	
D.13 How many taps are leaking?			
D.14 Is there any stagnant water on the ground in a 2 meters radius around at least one of the handwashing facilities?	Yes	No	
D.15 How is water provided to the handwashing facilities located **outside of the WASH centre**?	Through water tank		
	Through the water pipe network		
	Other (specify)		
D.16 If "Through water tank" or "Through the water pipe network" at Q.D.15 Is the water tank or water pipe showing any visible signs of leaking?	Yes	No	
D.17 If "Through water tank" at Q. D.15 Is the water tank titled at an angle?	Yes	No	
D.18 If "Through water tank" at Q. D.15 What is the storage capacity of this tank?			
Grey water disposal			
WASH centre/ handwashing facilities			School Level **WASH centre and WASH Outdoor**
E.1 Is the handwashing facilities disposal for grey water visible and can be assessed? (Disposal for grey water includes private pit, septic tank (PRC), steel tank, THW etc.) If "No", go directly to question E.7	Yes	No	
E.2 How is grey water from handwashing facilities disposed of in this school?	Private pit		
	Septic tank (PRC)		
	Steel tank		
	THW		
	Other (specify)		
E.3 Is there any visible sign of connection overflow?	Yes	No	

54 Refer to Annex 5

It is possible to detect connection overflow by checking whether: 1. *Septic (smelly) water on top of or around the tank is easily visible or is visible down the connection/pipe* 2. *There are visible signs of black water in the toilets*			
E.4 Is there any visible sign of septic tank/connection leakage?	Yes	No	
E.5 Is there any visible sign of septic tank/connection blockage?	Yes	No	
E.6 Is some of the grey water from handwashing facilities re-used (for cleaning, watering plants etc.)?	Yes	No	
Kitchen			
E.7 Does the school centre include a kitchen?	Yes	No	School Level
If "Yes" at Q.E.7 E.8 Is the kitchen disposal for grey water visible and can be assessed? (Disposal for grey water includes private pit, septic tank (PRC), steel tank, THW etc.) If "No": end of questionnaire	Yes	No	
If "yes" at Q.E.7 and Q.E.8 E.9 How is grey water from the kitchen disposed of in this school?	Private pit Septic tank (PRC) Steel tank THW		
E.10 Is there any visible sign of connection overflow?	Yes	No	
E.11 Is there any visible sign of septic tank/connection leakage?	Yes	No	
E.12 Is there any visible sign of septic tank/connection blockage?	Yes	No	
E.13 Is some of the grey water from the kitchen facility re-used (for cleaning, watering plants etc.)?	Yes	No	

Annex 7: KII - Heads of school

Questions	Response option(s)				Question Level
A.1 Visit Date					School Level
A.2 Interviewer Name					
School Location					
A.3 Village.					
A.4 School's Name					
Students information					
A.5 School type	Boys' school	Girls' school	Mixed school	Kindergarten	
A.6 Grades offered					
A.7 Number of students in each grade					

A.8 Total number of boys			
A.9 Total number of girls			
KI **HEAD OF SCHOOL**			
WASH Service domain: Drinking water			
B.1 After the last long school holiday (more than 20 days) was the entire piped water system of the school compound flushed and disinfected?	Yes	No	School Level
B.2 Has an annual risk assessment been done this year regarding: (responsibility of the Ministry of Health) - Microbiological quality of drinking-water	Yes	No	
- Chemical quality of drinking water	Yes	No	
- Acceptability of drinking water	Yes	No	
B.3 Is drinking water available at the school on the day of the survey?[55]	Yes	No	
B.4 How many litres of drinking water is available per day, per student?			
WASH Service Domain: Hygiene behaviour change and group handwashing			
C.1 Do the school provide hygiene education as part of the regular curriculum?	Yes	No	School Level
C.2 If yes, how many hygiene sessions have been conducted in the school in the past 30 days per grade and per age group, as part of the regular curriculum?	KG / Grade 1 / Grade 2	6-8 years old	
	Grade 3 / Grade 4 / Grade 5	9-12 years old	
	Grade 6 / Grade 7 / Grade 8 / Grade 10 / Grade 11	13-17 years old	

[55] Refer to Annex 1

C.3 *If the school includes children of grades 1 and 2:* Are group handwashing sessions for additional skills-based hygiene education organized?	Yes	No	
WASH Service Domain: Menstrual Hygiene Management			
D.1 Does the school administration provide essential "emergency" Menstrual Hygiene Material (MHM) for girls who require them during school hours?	Yes	No	School Level
D.2 Are the principal and teachers provided with knowledge and awareness on Menstrual Hygiene Material in this school?	Yes	No	
D.3 Is education related to MHM part of the regular health and hygiene curriculum for females and males?	Yes	No	
D.4 If it is not part of the regular curriculum, is educational material *(education and communication (IEC) manual, leaflet, booklet, picture chats or otherwise that focuses on menstrual hygiene management)* available for use by girls and boys alike?	Yes	No	
WASH Service Domain: Operation and maintenance standards			
E.1 Are all toilets and urinals of the school cleaned with water and bleached once a day/twice-daily for double-shift schools?	Yes	No	WASH centre Level
E.2 Are all walls and floors of the school's toilet block cleaned with water and bleached once a day/twice-daily for double shift schools?	Yes	No	
E.3 Are all the school's washing facilities within the WASH centre (individual and group washing) cleaned with water and bleached once a	Yes	No	

day/twice-daily for double shift schools?			
E.4 Are soap, bleach and other consumables checked and refilled in the WASH centre daily/twice-daily for double-shift schools?	Yes	No	
E.5 Are all the school's washing facilities located **outside of the WASH centre** (individual and group washing) cleaned with water and bleached once a day/twice-daily for double shift schools?	Yes	No	School Level **WASH Outdoor**
E.6 Are soap, bleach and other consumables checked and refilled in **outside of the WASH centre** daily/twice-daily for double-shift schools?	Yes	No	
E.7 Is cleanliness and usability of the school washing facilities monitored daily/twice daily for double-shift schools[56]?	Yes	No	School Level
E.8 If yes, who is in charge of monitoring the cleanliness and usability of the school washing facilities?			
E.9 Are roles and responsibilities, as well as frequency and other related management aspects agreed in a written Operation and Maintenance (O&M) plan available to all?	Yes	No	
E.10 Has the school defined and implemented O&M activities, including frequency and assigned responsible personnel[57]?	Yes	No	
WASH service domain: Environment			
F.1 Are waste bins emptied daily/twice-daily for double-shift schools?	Yes	No	School Level

[56] Refer to Annex 3
[57] Refer to Annex 6

F.2 Is waste in the school disposed safely, either through available community waste collection services; or through collection in a safe spot on the school premises such as burying and covering in the ground?	Yes	No	
F.3 Does the school burn waste on ground school?	Yes	No	
F.4 Does the school recycle waste?	Yes	No	
F.5 Is drainage plan/storm water protection part of the school construction planning and management?	Yes	No	

Annex 8: WASH KAP survey

KAP – Water, Sanitation and Hygiene		
Questions	**Responses option(s)**	
General information		
A.1 Interview Date		
A.2 Interviewer Name		
Location		
A.3 Record GPS		
A.4 Village No.		
A.5 Block No.		
A.6 Plot no.		
A.7 Shelter No.		
A.8 Does the person responsible of the child consent to the student to be interviewed?	Yes	No
A.9 If yes at Q.A.8 Is the student willing to participate?	Yes	No
Student information (student's identity needs to be checked prior the interview)		
A.10 Name		
A.11 Gender	Male	Female
A.12 Age		
A.13 Which of the following school do you attend classes at?	Village/District No.	
	Name of the school	
A.14 Grade		
Source of knowledge – Water, Sanitation, Hygiene		
Source of knowledge about general cleanliness and personal hygiene		
B.1 Where do you receive information about general cleanliness and personal hygiene? Check all that apply.	Community	
	School	
	Family and friends	
	Other (specify)	
Access to health and hygiene education at school		
B.2 Do your school provide health and hygiene activities/education?	Yes	No
B.3 If yes, who provide these activities?	Educational staff (teacher, assistant etc.)	
	Aid organisations	
	Other (specify)	
B.4 If yes, when are this health and hygiene activities/education occurring? Check all that apply.	Morning assembly	
	Through school activities	
	During recess	
	During classes	
	Other (specify)	
B.5 If yes, how frequently are this health and hygiene activities/ education occurring?	Once per year	
	Once or twice per semester	
	Once or twice per month	
	Once or twice per week	
	Every - day	
	Do not know	

B.6 If yes, what type of material is used to promote cleanliness and hygiene in your school? Check all that apply.	Brochures/bulletin			
	Games			
	Videos			
	Books			
	Posters/wall magazines			
	Verbal directions			
	Competition			
	Other			
B.7 Are you asked to participate actively in maintaining hygiene in the school you are attending classes to? (ex. Help in maintaining clean and tidy classrooms, in collecting rubbish etc.)	Yes	No		
B.8 If "yes" at the Q.B.2 Do you discuss hygiene behaviours learned at school with your parents/family?	Yes	No		
B.9 If yes at the Q.B.7, what hygiene behaviour do you discuss about? Check all that apply.	Build new sanitary toilets			
	Improve sanitary toilets			
	Not eating unwashed fruits and vegetables			
	Not drinking contaminated water			
	Preventing flies from coming near food			
	Wash hands with soap & water before eating			
	Wash hands with soap & water after urinating and defecating			
	Cleaning teeth			
	Clipping and cleaning fingernails			
	Bathing			
	Wash hands after playing			
	Water conservation			
	Other			
Knowledge towards water, sanitation and hygiene				
Knowledge towards water				
C.1 To your knowledge, why is it important to boil water? Check all that apply.	Kills germs			
	Makes water safe to drink			
	Reduces the chances of getting diarrhoea			
	Gives water a better taste			
	Other (specify)			
C.2 To your knowledge, how long does water need to be boiled to ensure that it is free of disease-causing organisms?	Less than one minute			
	Between one and five minutes			
	More than five minutes			
	Do not know			
Knowledge towards sanitation				
C.3 To your knowledge, why human faeces should be disposed of in a proper way (as opposed to be left in natural areas)? Check all that apply.	Contains germs			
	Avoids contaminating water supplies and soils			
	Smell purposes			
	Do not know			
C.4 What material should you use for bathing?	Soap	Water only without soap	Other (specify)	
C.5 What material should you use for cleaning teeth?	Tooth paste	Water only	Khait	Other (specify)

C.6 What material should you used for anal cleansing?	Paper	Water	Nothing	Other (specify)
C.7 In your opinion, why is it important to be cleaned? Check all that apply.	Health purpose			
	Smell purpose			
	Status in family/ community			
	Because it is not good to be not clean			
	Other (specify)			
Knowledge towards hand washing practices				
C.8 To your knowledge, what are the critical times to wash your hands? Check all that apply.	After playing			
	After coughing and sneezing			
	When wake up from sleep			
	After taking care of pets or farm animals			
	After using toilet			
	After eating			
	Before eating			
	Other (specify)			
C.9 To your knowledge, why is it important to wash your hands using water and soap? Check all that apply.	Reduces the chances of getting diarrhoea			
	Reduces the chances of getting other diseases/ infections			
	Keep hands clean			
	Reduces stomach-ache			
	Religious beliefs			
	Other (specify)			
Knowledge towards diseases				
C.10 To your knowledge, how can you protect yourself against stomach-ache and diarrhoea? Check all that apply.	Eat washed fruits and vegetables			
	Eat non-contaminated and unspoiled food			
	Use clean toilet			
	Drink clean/boiled water			
	Use clean water			
	Wash hands after playing			
	Wash hands after cleaning young children			
	Wash hands before eating			
	Wash hands after using toilet			
	Other (specify)			
Students perception – Sanitation and waste management				
Students perception of proper toilet use				
D.1 In your opinion, what is the proper use of toilet? Check all that apply.	Washing hands after using the toilet			
	Flushing the toilet with water after use			
	Not throwing and leaving toilet paper on the floor			
	Turning off the faucet firmly and not leaving it turned on			
	Defecating/urinating in the toilet bowl			
	Not throwing solid objects into the toilet			
	Avoiding spilling water on the floor			
	Other (specify)			
Students perception of their roles to play in waste management				
D.2 How do you contribute to waste management? Check all that apply.	Using a case for sharpening pencils			
	Throwing cans, bottles and papers in the rubbish bin			
	Not throwing rubbish on the floor			
	Provide advice to my family members (mother, father, brother or sister), relatives and/or friends.			
	Helping to empty rubbish bins			

	Other (specify)	
Water, Sanitation and Hygiene at school		
Attitude towards using school toilets		
D.3 Do you use your schools' toilets?	Yes	No
D.4 If "No", why? Check all that apply.	No toilet paper	
	No soap in the toilet	
	No water in the toilet	
	Inadequate toilets	
	No privacy	
	Out of order	
	Smells bad	
	Dirty	
	Not safe	
	Other	
Only if « Female » at Q.A.11 D.5 Do you and your girls' friends feel comfortable using your school toilets during your menstrual cycles?	Yes	No
If "No" at Q.D.5 D.6 How does it impact your and your girls' friends' behaviours?	I and my girls' friends are trying to use our schools' toilets as little as possible during our menstrual cycles	
	I and my girls' friends are not using our schools' toilets during our menstrual cycles	
	I and my girls' friends are not going to school during our menstrual cycles	
	Other (specify)	
Attitudes towards hand washing facilities at school		
D.7 Do you use hand washing places at school?	Yes	No
D.8 If "No", why? Check all that apply.	Soap not available	
	Wash basins not clean	
	Mixed with female students	
	Mixed with male students	
	Out of order	
	Crowded	
	Little water	
	Far from class rooms	
	Too high to reach	
	Other	
Source of drinking water at school		
D.7 Can you easily reach the water taps at school?	Yes	No
D.8 Where is the water your drink at school usually coming from? Check all that apply.	From school water faucets	
	Bring water from home	
	Purchase bottled water	
	Never get drinking water at school	
	Other (specify)	
Drinking water habits at school		
D.9 How do you usually drink water at school? Check all that apply.	Hands	
	Plastic cups shared with other students	
	Cups shared with other students	

	Shared bottles		
	Own cups		
	Own bottle		
	Directly by mouth (mouth under tap)		
	Other (specify)		
Sanitation and hygiene outside of school			
Attitude towards washing hands			
E.1 Outside of school, when do you wash your hands? Check all that apply.	Before eating		
	After urinating		
	After playing		
	Other (specify)		
E.2 Outside of school, what do you use to wash your hands?	Soap	Water only without soap	Other (specify)
Attitude towards brushing teeth			
E.3 How often do you brush your teeth?	Every day		
	Most of the days		
	Some days		
	Never		
E.4 What are you cleaning your teeth with?	Toothpaste and brush		
	Water and brush		
	Water only		
	Other		
E.5 When do you clean your teeth? Check all that apply.	When I wake up		
	Before going to sleep		
	After I eat		
	Other		
General Hygiene habits			
E.6 How often do you usually wash your hair?	Daily		
	Every two days		
	Every three days		
	Weekly		
	Every two weeks		
	Monthly		
	Never		
E.7 What are your cleaning your hair with?	Shampoo		
	Soap		
	Water only		
	Other		
E.8 How often do you usually take a bath?	Daily		
	Every two days		
	Every three days		
	Weekly		
	Every two weeks		
	Monthly		
	Never		
E.9 How often do you usually clip your fingers' nails?	Daily		
	Every two days		
	Every three days		
	Weekly		
	Every two weeks		

	Monthly
	Never
E.10 How often do you usually cover your mouth and nose when coughing?	Always
	Often
	Sometimes
	Rarely
	Never
E.11 How often do you usually change your underwear?	Daily
	Every two days
	Every three days
	Weekly
	Every two weeks
	Monthly
	Never

Annex 9: KII - Educational staff

Basic Information

Interviewer name: _____

Interviewee name: _____

Selection criteria: ☐ Teacher (please specify which school) _____

☐ Teaching assistant (please specify which school) _____

Interviewee's professional title (if applicable): _____

How long has the interviewee been working/ involved in Jordan's education sector? _____

Interview location: _____

Date of interview: Day: _____ Month: _____ Year: _____

Introduction, Initial KI Contact

- Hello, my name is _____ and I work for REACH Initiative.
- We would like to speak to you as part of a research exercise we are conducting for UNICEF on WASH infrastructure in Azraq schools. The aim of the interviews we are conducting is to help us better understand the current WASH infrastructure needs, facilities, supplies, training/education, behaviour, gender equity and resources available for students and teachers, including students with disabilities. We would also like to understand what challenges and opportunities exist for individuals involved in the educational sector in Azraq Camp, focusing on access and use of WASH facilities.
- Do you confirm that you are willing to take part in the interview? ☐ Yes ☐ No

WASH Infrastructure

❖ WASH facilities

1. According to your experience, to what extent do children feel comfortable visiting WASH facilities? (*Prompt: easy access to the facilities, safety of the infrastructures etc.*)

    a. What factors encourage students to use the school WASH facilities? (*Prompt: Cleanliness, possibility of interchange, preference in using schools' toilets rather the ones made available in the camp etc.)*

    b. What makes the children reluctant to use the school WASH facilities? (*Prompt: Fear of being bullied by other children, lack of hygiene products, lack of cleanliness of the facility, non-suitability of the place for certain categories of students etc.*)

    c. What could be done to increase the use of the school WASH facilities by the students? Please explain.

❖ Water provision

2. Given your experience, is the amount of drinking water provided sufficient to meet students/teaching personal daily needs? Please explain.

3. Given your experience, is the amount of water provided to the school for hygiene practices (washing hands, cleaning etc.) sufficient? Please explain.

- ❖ Hygiene products provision

4. Do you consider that the number of hygiene-related products (soap, water jugs, etc.) provided to teachers and students is satisfying?
    a. In your experience, how often does the school WASH facilities run out of hygiene-related material?
    b. What can these shortages (if any) be attributed to? Please explain.
    c. How could these shortages (if any) be reduced?

- ❖ Cleaning and maintenance of the WASH facilities

5. What are the management systems in place to keep the facilities in proper working and hygienic order? Please explain.
    a. In your opinion, could these management systems be improved?
        → If yes, in which ways?
        → If no, what works with the current management practices?

- ❖ Reporting process

6. Is a complaint process established for students and/or education staff to report the issues they face as regard to the use of the WASH facilities in your school?
    a. Do you know your privileged interlocutors to bring forward issues concerning the use of the WASH facilities in your school?

7. Did students ever complain to you regarding the WASH facilities in your school?
    a. If yes, did you report the complaints?
        → If yes, how did you report the complaints and to whom?
        → If yes, were said complaints addressed?

Training/Education

- ❖ Teacher Training

1. Have you - or the teachers who work in your school - been trained on how to teach sanitation and hygiene to students?
    a. If yes, who was providing the training and where?
    b. If yes, was it a one-time training or is it conducted on regular basis (and if so, how often is this training provided to you/teacher)?

<u>For those who have already received a training only</u>

2. Do you think this training was sufficient? (*Prompt: In terms of hourly volume, actual practice during training session, level of detail provided etc.*)

3. Did you feel comfortable teaching sanitation and hygiene education to your students after being trained? Please explain.
    a. If you were provided with educational materials during your training, to what extent do you feel that these documents helped you to teach your students about sanitation and hygiene afterwards?
    b. How could this training be improved? (*Prompt: More theoretical or practical training, receiving further/different educational materials etc.)* Please explain.

- ❖ Child Education

4. Are the WASH education programs taught to children gender specific?
    a. Are they taught to boys/girls separately?
    b. Do boys have access to the female curriculum and vice versa?

5. In your opinion, is the educational material easily applicable for students in their daily life both at school and outside of it? Please explain.

Student Behaviour

❖ Behavioural Practices at school

1. In your opinion, to what extent are students encouraged to apply what they learn during sanitation and hygiene classes at the school?

    a. To what extent do you think that students are actually putting what they learn during these classes into practice?

    b. To what extent are students incentivized to play an active role in the cleaning and maintenance of facilities? (*Prompt: Cleaning material is made available to them, rotations of cleaning responsibilities among students are organised etc.)*

    c. To what extent are students encouraged to have a hygienic behaviour? (*Prompt: Regular reminder of teacher of basic good hygienic behaviour, peer-to-peer teaching, safe water clubs for WASH practices etc.)*

    d. What kinds of hygiene practices do kids have to comply with at school? (*Prompt: Wash hands before eating and after urinating with soap etc.*)

❖ Behavioural Practices outside of school

2. In your opinion, to what extent are children encouraged to have good hygiene practices outside of school?
    a. What initiatives are currently in place to promote good hygiene practices to children outside of school?
        → Who are the actors behind these initiatives?
        → According to you, what results have been achieved so far thanks to them? Please explain.
    b. In your opinion, could community involvement and encouragement of good hygiene practices be increased? If so, how? Please explain.

3. In your opinion, to what extent are children encouraged to properly use and care of both their own and communal WASH facilities?
    a. What initiatives are currently in place to encourage proper use and care of WASH facilities?
        → Who are the actors behind these initiatives?
        → According to you, what results have been achieved so far thanks to them? Please explain.
    b. In your opinion, could community involvement and encouragement of proper WASH facility use be increased?

Girls/adolescents

❖ Educational Resources

1. Are there child-friendly educational programs that raise awareness about menstrual hygiene management (MHM)?
    a. Could you please further describe the MHM programs/information available?

→ What type of content, if any, is available?
→ How often is this subject discussed?
→ Are the sessions female only or mixed?

b. Do students and teachers feel comfortable to speak freely about this topic?
→ If no, where do you think this difficulty arises from?
→ If no, how could these obstacles be overcome?

❖ Attendance rate and WASH facilities

2. In your experience, how big is the difference of school attendance rate between boys and girls?
   a. According to which factors does this difference vary? (*Prompt: Age, period of the year, period of the month etc.*)
   b. According to your experience, has female attendance been impacted by MHM?
   c. Are there improvements related to schools WASH facilities and hygiene material that could be made to increase female attendance rates?

Children with disabilities

❖ Educational Resources

1. Could you please give us some more information on the educational resources available to address children with disabilities WASH needs? (I.e. are there adjustments made to the WASH curriculum based on the child's development/physical needs?)
   a. What type of content, if any, is available?
   b. How often is this subject discussed?

❖ Attendance rate and WASH facilities

2. In your opinion, to what extent access to the school WASH facilities is limited for children with disabilities? Please explain.
   a. What kind of issues do children with disabilities face in accessing and using school WASH facilities?
   b. Could schools' facilities be improved to facilitate their use by children with disabilities?

3. In your opinion, to what extent is WASH facility access hindering children with disabilities school attendance?
   a. Besides from schools' facilities improvement, what type of initiatives could be implemented to prevent this? (*Prompt: Set up more awareness sessions, providing greater assistance to children with disabilities at school etc.)*

CONCLUSION [5 MINUTES]

– We have now come to the end of our discussion. Thank you for participating. We hope you found it interesting.
– This has been a very successful discussion. Your opinions will be a valuable asset to the study.
– I would like to remind you that any comments featuring in this report will be anonymous.

Annex 10: KII – WASH actors

Basic Information

Interviewer name: _____

Interviewee name: _____

Selection criteria: ☐ UNOPS _____

☐ Aid Worker (please specify organization and position) _____

☐ Educational staff (please specify which school and position) _____

Interviewee's professional title (if applicable): _____

Interview location: _____

Date of interview: Day: _____ Month: _____ Year: _____

Introduction, Initial KI Contact

- Hello, my name is _____ and I work for REACH Initiative.
- We would like to speak to you as part of a research exercise we are conducting for UNICEF on WASH infrastructure in Azraq schools. The aim of the interviews we are conducting is 1) to help us better understand the current state of the WASH infrastructures in the schools and 2) to gather information on the hygiene promotion activities and hygienic products distributions that are conducted in the camp. We would also like to understand what challenges and opportunities exist for individuals involved in the WASH sector in Azraq Camp, focusing on access and use of WASH facilities as well as good hygiene practices dissemination.
- Do you confirm that you are willing to take part in the interview? ☐ Yes ☐ No
- To ensure a fruitful interview, I am going to ask you whether or not you have information on WASH infrastructure (water and hygiene products provision, cleaning and maintenance of facilities, black and grey water system as well as reporting processes) within schools and hygiene promotion activities and hygienic products distributions.

WASH facilities

- Operation and maintenance *(Question 1 to 9 are specifically address to UNOPS workers as they are in charge of hiring and monitoring the state of the facilities in schools)*

1. What are the common activities implemented in schools related to controlling and monitoring the hygiene-related products (soap, water jugs, etc.) supplies?
   Please fill in the table below

Activity	**Frequency** (*Prompt: daily, twice daily, monthly etc.)*	**Responsible** (*Prompt: cleaning staff, designated teacher, principal, organisations involved etc.*)
Checking and refilling soap and other supplies		
Control & monitoring supplies availability		
Timely procurement of supplies (soap, cleaning material, sanitary pads etc.)		
Other (specify)		

   a. Could the monitoring of hygiene-related products available in schools be improved?
      → If yes, how?

2. How frequently are hygiene-related products delivered in schools and by whom?
   a. Could delivery practices be improved?
      → If yes, how?

3. What are the common activities in place to keep the facilities (sanitation, handwashing facilities) in hygienic order? Please fill in the table below

Activity	**Frequency** (*Prompt: daily, twice daily, monthly etc.)*	**Responsible** (*Prompt: cleaning staff, designated teacher, principal, organisations involved etc.*)
Cleaning of all toilets and urinals		
Cleaning of walls and floors inside toilet block		
Cleaning of washing facilities and drains		
Other (specify)		

   a. Could these cleaning practices be improved?
      → If yes, how?

4. What are the common activities in place to ensure that the facilities are kept in proper working conditions?
   Please fill in the table below

Activity	**Frequency** (*Prompt: daily/weekly/yearly inspection, repair as required etc.)*	**Responsible** (*Prompt: cleaning staff, designated teacher, principal, organisations involved etc.*)
Inspection and minor repair of technical components including		

flushing reservoirs, cubicle locks, doors, taps/faucets, lighting.		
Painting of toilet blocks, other major and general repairs		
Other (specify)		

a. Could maintenance practices regarding WASH facilities be improved?
→ If yes, how?

❖ Water provision

5. How many litres of drinking water is available per day, per student in schools?

6. What are the management systems in place to monitor and ensure the maintenance of water tanks and water pipe network located in the schools?
Please fill in the table below

Activity	**Frequency** (*Prompt: daily/weekly/yearly inspection, repair as required etc.)*	**Responsible** (*Prompt: cleaning staff, designated teacher, principal, organisation involved etc...*)
Inspection and minor repair of water tanks		
Inspection and minor repair of water pipe network technical components including leakage of piping, blockage or connection overflow.		
Other (specify)		

a. Could the maintenance of water tanks and water pipes network in schools be improved?
→ If yes, how?

❖ Reporting process

7. Is a complaint process established for students and/or educational staff to report the issues they face as regard to:

-The provision of hygiene products (soap, water jugs, etc.) If yes, who is in charge of addressing these complaints?	
- The amount of water for drinking and for wash purpose provided If yes, who is in charge of addressing these complaints?	
- The cleanliness of the sanitation and handwashing facilities If yes, who is in charge of addressing these complaints?	
- The maintenance (proper working order) of the sanitation and handwashing facilities If yes, who is in charge of addressing these complaints?	
- The maintenance (proper working order) of the black water system If yes, who is in charge of addressing these complaints?	
- The maintenance (proper working order) of the grey water system If yes, who is in charge of addressing these complaints?	

8. To your knowledge, how could these complaint processes be improved?

Only for water tanks

9. What is the storage capacity of the tanks that provide water to the handwashing facilities of the schools in the camps?

10. How often are they refilled and by whom?

❖ Black water and grey water systems

	Black water system	Grey water system
11. Have you ever seen some blackwater/grey water disposals (septic tank, steel tank, THW etc.) in schools presenting some signs of: - Connection Overflow - Leakage - Blockage		
12. If yes, are these minor damages widespread or rather localised in specific schools of the camp? Please explain.		
13. To your knowledge, what could explain the following damages: - Connection Overflow - Leakage - Blockage		
14. To your knowledge, have any parts of the waste water network (WWN) infrastructure in schools been changed or alterations carried out? → If yes, why? → If yes, by whom?		
15. To your knowledge, are people using some components of the WWN for things other than their initial purposes? → If yes, what are people using the WWN infrastructure materials for? → If yes, what would stop people from tampering with or removing parts of the WWN infrastructure?		

❖ Sanitation and Hygiene awareness

16. What gaps in knowledge about hygiene and sanitation do you see in your staff and other professionals in the school? Please specify.

Hygiene promotion activities and hygienic products distributions

❖ Hygiene awareness-raising and sanitation promotion activities

1. Could you please describe the hygiene awareness-raising and sanitation promotion activities that are conducted in the camp?
    a. Is the content of the hygiene awareness-raising and sanitation promotion activities uniform between the different WASH partners of the camp?
    b. Which topics are these activities focused on? (*Prompt: water safety, sanitation, handwashing practices, waste management, proper toilet and washing facilities use etc.*)
    c. Who is the target audience of these activities? (Children, parents etc.)
    d. What type of materials do you/educators use to promote cleanliness and hygiene in the camp?
    e. How frequently are these activities provided?
    f. Are all Villages/Districts provided the same number of hygiene awareness-raising and sanitation promotion activities?

2. In your opinion, to what extent these activities contribute to spread good practices on hygiene and sanitation in the camp? Please explain.
    a. What are the limitations of these activities?
    b. What could be done to increase their impact?

❖ Menstrual Hygiene Management activities

3. Could you please describe the awareness-raising activities about Menstrual Hygiene Management (MHM) conducted in the camp?
    a. Who is the targeted audience of these activities? (Children, parents etc.)
    → Are these activities female only or mixed?
    b. How frequently are these activities provided?
    c. Do you/educators feel comfortable to speak freely about this topic?
        → If no, where do you think this difficulty arises from?
        → If no, how could these obstacles be overcome?

4. In your opinion, to what extent these activities contribute to improve MHM in the camp? Please explain.
    a. What could be done to increase their impact on the MHM in the camp?

❖ Hygienic products distributions

5. To your knowledge, what type of hygienic products are distributed in the camps? (*Prompt: Soap, water jugs, menstrual pads etc.*)
    a. How frequently are these distributions conducted?
    b. Are all Villages/Districts provided the same number of hygienic products distributions?

6. In your opinion, to what extent do these distributions contribute to improve hygiene practices and camp residents' well-being? Please explain.

CONCLUSION [5 MINUTES]

– We have now come to the end of our discussion. Thank you for participating. We hope you found it interesting.

– This has been a very successful discussion. Your opinions will be a valuable asset to the study.

– I would like to remind you that any comments featuring in this report will be anonymous.