



# Philippine Approach to Total Sanitation (PhATS) Baseline Assessment

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*Cover image: Children washing their hands at Latawan Public School, Sara, Iloilo province. ©REACH*

**About REACH**

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

# Executive Summary

## Context

On the 8<sup>th</sup> November 2013, ‘Super Typhoon’ Haiyan (locally known as Yolanda) first made landfall, devastating communities across the Philippines’ central islands. It was one of the worst storms in recorded history, with sustained wind speeds of up to 250km per hour and a tsunami-like storm surge. 14.1 million people were affected, with more than 6000 people killed and 4.1 million people displaced.<sup>1</sup> One year on, as the focus shifts from emergency reconstruction to sustainable development, there is a critical opportunity to address long-term sanitation challenges such as open defecation, which remains a major problem in the Philippines.

**The Philippine Approach to Total Sanitation (PhATS) program was launched to build on the momentum of the emergency response and reinvigorate progress towards the national goals of eliminating open defecation (with 60% of barangays to be declared Zero Open Defecation by 2016) and achieving universal access to safe and adequate sanitation facilities by 2028.** The PhATS program is funded and coordinated by UNICEF, and implemented by a coalition of 11 NGOs: ACF (Action Against Hunger); ACTED (Agency for Technical Cooperation and Development); A Single Drop for Safe Water; Catholic Relief Services (CRS); International Medical Corps (IMC); Islamic Relief; Oxfam; Plan International; Relief International; Save the Children and Samaritan’s Purse (SP). The program is expected to reach over 900,000 beneficiaries across six provinces. PhATS aims to end the practice of open defecation through facilitating changes in social norms and fuelling demand for sanitation and hygiene; sustaining demand through supply side interventions; and promoting good governance, resilience and disaster risk reduction.

The PhATS approach recognizes that sustainable improvements in sanitation and hygiene behavior come through the gradual changing of social norms, and thus require detailed baseline data that goes beyond infrastructure to explore knowledge, attitudes and practices related to Water, Sanitation and Hygiene (WASH). **Given the very limited data available on this in the Philippines (particularly at the provincial level), UNICEF funded REACH to conduct this large-scale assessment, in order to provide PhATS implementing partners with detailed baseline data on WASH knowledge, attitudes and practices, disaggregated by province.** This baseline data will be used to inform program planning and implementation of the program. At the end of the program, an endline evaluation will be conducted, to which this baseline study can be compared. The two reports will enable UNICEF and its implementing partners to understand the impact of the project across the areas of implementation.

**This baseline study focuses on two key areas: water, sanitation and hygiene at household and community level; and water, sanitation and hygiene in schools.** The analysis is based on primary data collected by REACH from September and November 2014, and used a mixed-methods approach to collect both qualitative and quantitative information. This included a survey of 3,025 households across PhATS program areas in six provinces, community focus group discussions, a school survey, student focus group discussions and key informant interviews with representatives from the Department of Health, Department of Education and Department of Interior and Local Government.

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<sup>1</sup> OCHA, [“Philippines: Typhoon Haiyan Situation Report No. 34 \(as of 28 January 2014\)”](#), *Reliefweb*, p. 1.

## Findings

The assessment found significant variation between the six provinces in terms of their WASH profiles and priorities, with marked differences between the reported knowledge, attitudes and practices of households and schools within the PhATS program areas. Nevertheless, data collected in this assessment highlighted a number of opportunities for intervention.

### Household and Community Level

#### *Water*

**An estimated 93% of the population in PhATS project areas are currently using an improved source of drinking water<sup>2</sup>** – with Capiz, Iloilo and Cebu having the highest proportion of households using unimproved sources. Overall, the most common source of drinking water in PhATS project areas was piped water (30.8%). For those who had to fetch water from a source outside their plot, the task took on average less than 15 minutes, and was completed by an adult male for 65.3% of households.

**It was found that half of all households in PhATS project areas are paying for drinking water** – with the highest proportion being in Cebu, Iloilo and Capiz. Moreover, 27.8% reported paying for water for purposes other than drinking, the amount spent being higher than for drinking water.

A focus on water treatment and storage revealed that 96.2% of households in PhATS project areas use containers (such as bottles, jerry cans and drums) as their main method of water storage. 89.6% of households with water stored in containers had all containers covered at the time of the household visit.

**However, most households in PhATS project areas (61.8%) do not treat their drinking water.** This might be linked to the fact that knowledge of health risks of unsafe water was found to be extremely low, except in the case of diarrhea, as 90.8% of all households were able to name this as a health risk of unsafe water.

#### *Sanitation*

**This assessment found that an estimated 88.6% of households in PhATS project areas are currently using an improved sanitation facility** – with the lowest levels of access being in Cebu. Indeed, 80.1% of households in project areas are using flush/pour flush toilets.

24.8% reported using a shared toilet, while 3% are using toilets which are open to the general public. Nevertheless, 78.5% of households overall own the toilet that they use.<sup>3</sup> This varied significantly between provinces, from only 55.8% of households in Cebu to 90.2% in Iloilo, and the main barrier to toilet ownership was reportedly financial.<sup>4</sup>

**However, even in the areas with the highest rates of access, there is still a significant proportion of households (8.1% or more) who are not using improved sanitation facilities. Moreover, an**

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<sup>2</sup> Bottled water was considered as an improved source only where there was a secondary source of improved water for other uses such as personal hygiene and cooking.

<sup>3</sup> Please note this is different to the proportion of households who use a toilet that is not shared, as some households who own their toilet choose to share it with others who are not members of their own household.

<sup>4</sup> The questions on barriers to toilet ownership were asked only of those who did not already own a toilet, and due to this splitting of the sample, the findings on this topic should be considered indicative only.

**estimated 17.3% of households in PhATS areas are practising open defecation (OD)**<sup>5</sup>. The rate varies significantly by province (with Cebu being the highest with 42.3%) but does not drop below 13%.

Even if self-reported reasons for open defecation were linked to a reported lack of infrastructure—with 94.2% of all households identifying not having a toilet as a reason for some people to practice open defecation—the frequency and the number of household members practising it varied across households, demonstrating the role of individual preferences and behavior.<sup>6</sup>

The social acceptance of open defecation is reportedly low, and the topic remains somewhat taboo: most respondents (62.3% overall) reported that they do not talk with their neighbours about open defecation. Furthermore, only 26.7% of households overall reported having received any information about it.

**Nevertheless, the baseline data indicates that awareness of the health risks of open defecation is already high across all project areas;** therefore it may be beneficial to focus messaging on non-health benefits of toilets (such as prestige, privacy, comfort and well-being).

Finally, it was found that the majority of households in PhATS areas are using adequate methods of solid waste disposal: the most common method was burning (reported by 60.1%). However, a significant minority uses methods that may cause health and environmental problems.

### *Hygiene*

**64.2% of households in PhATS project areas reported receiving some kind of hygiene or sanitation related message in the last 6 months;** the most common messages recalled being on safe water (74.7%), with NGOs (78.2%) as the main source of information.

89.8% of all households had a designated place for hand-washing (verified by the enumerator). 79.6% of all households were observed to have washing a hand-washing facility with soap and water present at the time of visit. Iloilo (23.5%) and Capiz (18.9%) had the highest proportion of households without a hand-washing facility, on the contrary to Cebu (2.6%) and Eastern Samar (2.9%)

**71% of respondents reported washing their hands with soap at least five times in the last 24 hours.** This varies across provinces, was higher rates in Leyte (75.5%) and lower ones in Cebu (55.9%), despite Cebu having the highest proportion of households with hand-washing facilities. Even though there are very positive values and perceptions around hand-washing overall, this practice varies according to respondents' activities – with washing hands before eating being the most commonly reported practice (93.3%). Therefore, **it was found that hygiene messaging on key moments to practice hand washing would be particularly relevant,** with a specific focus on the importance of washing hands after defecation as well as before and after taking part in various child care activities.

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<sup>5</sup> This is calculated as households who report having at least one member who ever (always, usually, sometimes or rarely) practises open defecation plus households who do not report ever practising open defecation but report 'no facilities' when asked what kind of toilet facilities their household usually uses. While this definition technically includes households where open defecation may be practised rarely and/or by only one household member, including all non-never responses is likely to give the most accurate picture given that open defecation is likely to be hugely under-reported in a face-to-face survey.

<sup>6</sup> Households who reported that some but not all household members practise open defecation were asked which members defecate openly. Boys and girls were most commonly identified (by 80% and 42% of these households respectively), followed by men (35.0%) and women (9.9%). However due to the twice-split sample and the very sensitive nature of the question (touching on personal OD not just household OD), these figures should be considered a very rough indication only.

**In a general manner, hygiene promotion strategies that go beyond health education and focus on the emotional drivers of hand-washing (eg. affiliation, nurture, status or disgust) may be most effective in PhATS areas.**

## **WASH in Schools**

### *Governance*

WASH was found to be incorporated into governance mechanisms for 66% of schools in PhATS project areas; furthermore, with overall 59% of all schools reporting having funds allocated or available for it. The role of student club, committee and non-student committee in raising awareness on this topic was also highlighted. Moreover, in 48% of schools in PhATS project areas, the school or the Department of Education had led at least one WASH activity in the school in the last six months, with **the most common themes of hygiene awareness campaigns being handwashing, toothbrushing and personal hygiene.**

With regards to group hygiene activities, it was found that **an estimated 57% of schools in PhATS areas are practising daily group hand-washing with soap in all or some classes. Moreover, 55% of schools in PhATS areas were practising daily group tooth-brushing in all or some classes.** In both cases, water shortages were the most frequently reported barriers to such activities (35% and 27% respectively).

However, based on direct observation at the schools in the sample, **an estimated 23% of schools in PhATS areas do not have any hand-washing facilities (HWFs) near the toilets.** When there is no functioning hand-washing facility available, this results in children generally not washing their hands, as reported by 53% of schools.

### *Water Supply*

**Water supply emerged as a key issue, often undermining or constraining the effectiveness of other interventions, including group hygiene activities, new infrastructure and efforts to keep toilets clean.**

Indeed, when 28.6% of schools in PhATS areas had piped water to the school buildings or yard as their main source of drinking water, at least 4% of schools in PhATS areas were relying on unimproved sources of drinking water. Furthermore, **in 55% of schools in PhATS areas, drinking water was reportedly not available in the school compound.** In these schools, any drinking water available was brought in from external sources.

**Additionally, almost a quarter of schools in PhATS areas (24%) reportedly did not have water for purposes other than drinking available in the school compound,** which is likely to severely limit practice of personal hygiene and the cleanliness of toilet facilities. The main source of water for purposes other than drinking was tubewells/boreholes (used by 33% of schools).

### *Sanitation*

**An estimated 93.7% of schools in PhATs areas have improved sanitation facilities,** while 3% of schools have no sanitation facilities at all. The vast majority of toilets were flush or pour flush toilets connected to septic tanks (used by 91.4% of all schools).

In 95% of schools, toilets were less than 2 minutes walk from classrooms, which was actually reported to be a disincentive for students to use them for defecation. **Only 24% of schools had any single-sex toilets**, which is likely to present problems with privacy, particularly for older girls in relation to menstrual hygiene.

In terms of cleanliness, 74% of toilets were observed to be 'mostly clean', while **16% of schools were observed to have unclean toilets at the time of the school survey**. The most commonly reported challenges of keeping toilets clean were a shortage of water and a shortage of cleaning supplies (each reported by 35% of schools). **Interestingly, the assessment found that toilet cleaning was performed by students in 66% of schools, and by teachers in 24%**. Additional concerns (lack of locks, lack of sufficient light, no sanitary bin, and no access for disable people) were also reported.

As a result of this, 79% of schools reported that when school toilets are not functioning, students' main coping mechanisms is to go home to use the toilet. **However, in 12% of schools, it was reported that the main coping mechanism was to defecate openly inside or outside the school compound.**

Indeed, open defecation was reported in 17% of schools in PhATs areas. And even if the vast majority of student focus group discussion participants considered open defecation unacceptable and unsafe, the significant role of teachers in enabling or discouraging the practice was emphasized. Thus, it may be useful to have more extensive teacher consultation and training on these issues, and to develop approaches to working closely with teachers towards zero open defecation.

**Finally, 75% of schools in PhATS areas reported that they were disposing of garbage every day**, the most common method being incineration. Some other garbage disposal methods (such as piling garbage inside the school compound, practised by 29% of schools) might pose a health risk as they likely facilitate students' easy contact with this solid waste. Furthermore, **27% of schools in PhATS areas were observed to have stagnant water inside the school compound.**



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## Geographical Classifications

<b>Region</b>	The highest unit of governance below the national level.
<b>Province</b>	Composed of a cluster of municipalities, or municipalities and composite cities.
<b>Municipality</b>	Composed of a group of Barangays, it serves as the main unit for the coordination and delivery of basic, regular and direct services.
<b>Barangay</b>	The basic political unit of the Philippines and the lowest administrative boundary. As provided by law, it should have a population of at least two thousand inhabitants as certified by the National Statistics Office.

## List of Abbreviations and Acronyms

<b>ACTED</b>	Agency for Technical Cooperation and Development
<b>ACF</b>	Action Against Hunger
<b>AIP</b>	Annual Investment Plan
<b>ASDSW</b>	A Single Drop for Safe Water
<b>DepEd</b>	Department of Education
<b>DILG</b>	Department of the Interior and Local Government
<b>DoH</b>	Department of Health
<b>FGD</b>	Focus Group Discussions
<b>GPTA</b>	General Parent Teachers Association
<b>HWF</b>	Hand Washing Facility
<b>MOOE</b>	Maintenance and Other Operations Expenses
<b>NGO</b>	Non-Government Organisation
<b>OD</b>	Open Defecation
<b>PhATS</b>	Philippine Approach to Total Hygiene and Sanitation
<b>SBO</b>	Student Body Organisation
<b>SBRMF</b>	School Building Repair and Maintenance Fund
<b>SIP</b>	School Improvement Plan
<b>WASH</b>	Water, Sanitation and Hygiene
<b>WinS</b>	WASH in schools
<b>ZOD</b>	Zero Open Defecation

# Introduction

On the 8<sup>th</sup> November 2013, ‘Super Typhoon’ Haiyan (locally known as Yolanda) made landfall, devastating communities across the Philippines’ central islands. It was one of the worst storms in recorded history, with sustained wind speeds of up to 250km per hour and a tsunami-like storm surge. The devastation was overwhelming: 14.1 million people were affected, with more than 6000 people killed and 4.1 million people displaced.<sup>7</sup>

Access to safe water and sanitation in the affected areas was severely compromised, with many of the main water service providers suffering damage to main pumps, transmission lines and distribution pipes.<sup>8</sup> Many water, sanitation and hygiene (WASH) facilities at household and school levels were also damaged or destroyed, with 16,800 classrooms in need of repair and 1,127,041 houses damaged.<sup>9</sup>

The response of the WASH cluster, lead by Department of Health and co-lead by UNICEF, included the rehabilitation of water systems and latrines and the distribution of hygiene kits.<sup>10</sup> The implementation of these activities under the Strategic Response Plan resulted in considerable achievements, in many cases returning access to water and sanitation to pre-Haiyan levels.<sup>11</sup> In fact, the WASH cluster response was able to target not only households with storm-damaged latrines, but also those that had no access to latrines before the typhoon. Despite these achievements in the emergency response, long-term progress on sanitation has remained slow, particularly in rural areas and amongst the lowest income groups.

The emergency and response activities highlighted the need for more long-term, sustainable interventions with a greater focus on behavior-change and local capacity building—both highlighted as gaps in the emergency response.<sup>12</sup> The Philippine Approach to Total Sanitation (PhATS) program was developed to address this need. It aims to build on the work of the emergency response, and use this opportunity to tackle longer-term WASH challenges such as open defecation, which remains a major problem in the Philippines, contributing to the almost 10,000 deaths caused by diarrhoea every year in the country, and constraining economic and social development.

Therefore, the PhATS program is conceptualized as a way to reinvigorate progress towards the goals set forth in the Philippines Sustainable Sanitation Roadmap and the National Sustainable Sanitation Plan. These targets include 85% of the population having sanitary toilets and 60% of all barangays being declared Zero Open Defecation (ZOD) areas by 2016, and universal access to safe and adequate sanitary facilities by 2028.

The PhATS program is funded and coordinated by UNICEF, and implemented by a coalition of 11 NGOs: ACF (Action Against Hunger); ACTED (Agency for Technical Cooperation and Development); A Single Drop for Safe Water; Catholic Relief Services (CRS); International Medical Corps (IMC); Islamic Relief; Oxfam; Plan International; Relief International; Save the Children and Samaritan’s Purse (SP). The program is expected to reach over 900,000 beneficiaries across six provinces.

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<sup>7</sup> OCHA, note 1 *supra*, p. 1.

<sup>8</sup> Philippine Humanitarian Country Team, “[Typhoon Haiyan \(Yolanda\) Strategic Response Plan: November 2013 – November 2014](#)”, OCHA, p. 67.

<sup>9</sup> OCHA, “[Super Typhoon Haiyan Key Facts](#)”, *HumanitarianResponse.info*, p. 1.

<sup>10</sup> Philippine Humanitarian Country Team, “[Typhoon Haiyan \(Yolanda\) Strategic Response Plan: Periodic Monitoring Report covering February to April 2014](#)”, *Reliefweb*, p. 20.

<sup>11</sup> *Ibid.*, p. 18.

<sup>12</sup> OCHA, note 1 *supra*, p. 6.

It aims to end the practice of open defecation through facilitating changes in social norms and fuelling demand for sanitation and hygiene; sustaining demand through supply side interventions; and promoting good governance, resilience and disaster risk reduction.

With the launch of the PhATS program, there was a need for baseline data at household and school levels to inform program planning and implementation and to monitor progress. In particular, baseline data on knowledge, attitudes and practices was required to inform and evaluate PhATS program activities that aim to go beyond infrastructure to change social norms.

To provide this baseline data, UNICEF funded REACH to carry out a mixed-method baseline assessment, comprising of a large-scale household survey, community focus group discussions, a school survey, student focus group discussions and key informant interviews with representatives from the Department of Health, Department of Education and Department of Interior and Local Government. This fieldwork was conducted in each of the six provinces of Leyte, Eastern Samar, Samar (Western Samar), Cebu, Iloilo and Capiz, between September and November 2014 (see Map 1).

This report provides a detailed description of the methodology and outlines the key findings, organized into two main sections. The first section focusses on assessing Wash, Sanitation and Hygiene (WASH) at household and community level. The second section addresses WASH in schools (WinS) - including WASH governance, group hygiene activities, water supply and sanitation.

## Methodology

This assessment used a mixed-methods approach, collecting both quantitative and qualitative data. Household level surveys were conducted to provide statistically significant quantitative data. Focus group discussions were conducted for additional depth and context (particularly around social norms), therefore providing qualitative information. A similar approach was taken at the schools level, with a school survey administered to principals/head teachers, supplemented by focus group discussions with students in selected schools. In addition, interviews were conducted with key informants from the Department of Health (DoH), the Department of Education (DepEd) and the Department of the Interior and Local Government (DILG) at regional and provincial levels, to provide contextual information on both community and school level WASH facilities.

The questionnaires and other tools (see Annexes 3 and 4) were designed in close consultation with UNICEF, and all fieldwork was conducted between September and November 2014. Data collection was undertaken by mixed teams of female and male enumerators, who were thoroughly trained on the tools and methodology (between two and four full days of training depending on their roles).

## Geographical Scope

This assessment is limited to PhATS project areas, which were identified by the WASH cluster as the areas being in greater need of intervention after Yolanda. The project areas include three regions, six provinces and 828 barangays, covering a total of 207,895 households and 939,568 individuals see Table 1 below).

Table 1: PhATS Project Areas

Partner	Province	# Municipalities	# Barangays	# Households	# Population
ACTED	Eastern Samar	4	74	12,634	59,331
ACF	Eastern Samar/Iloilo	7	88	19,190	94,139
ASDSW	Capiz	6	76	20,569	104,213
Catholic Relief Services	Leyte	4	80	26,954	115,447
International Medical Corps	Leyte	5	76	12,999	56,742
Islamic Relief	Cebu	2	15	13,308	58,842
Oxfam	Eastern Samar	5	79	14,209	63,835
Plan International	Easter Samar/Samar	5	88	14,086	67,478
Relief International	Leyte	7	92	20,071	94,983
Save the Children	Leyte	5	58	29,887	124,558
Samaritan's Puse	Leyte/Samar	3	102	23,988	100,000
<b>Total coverage</b>		<b>53</b>	<b>828</b>	<b>207,895</b>	<b>939,568</b>

## WASH Assessment at Household and Community Level

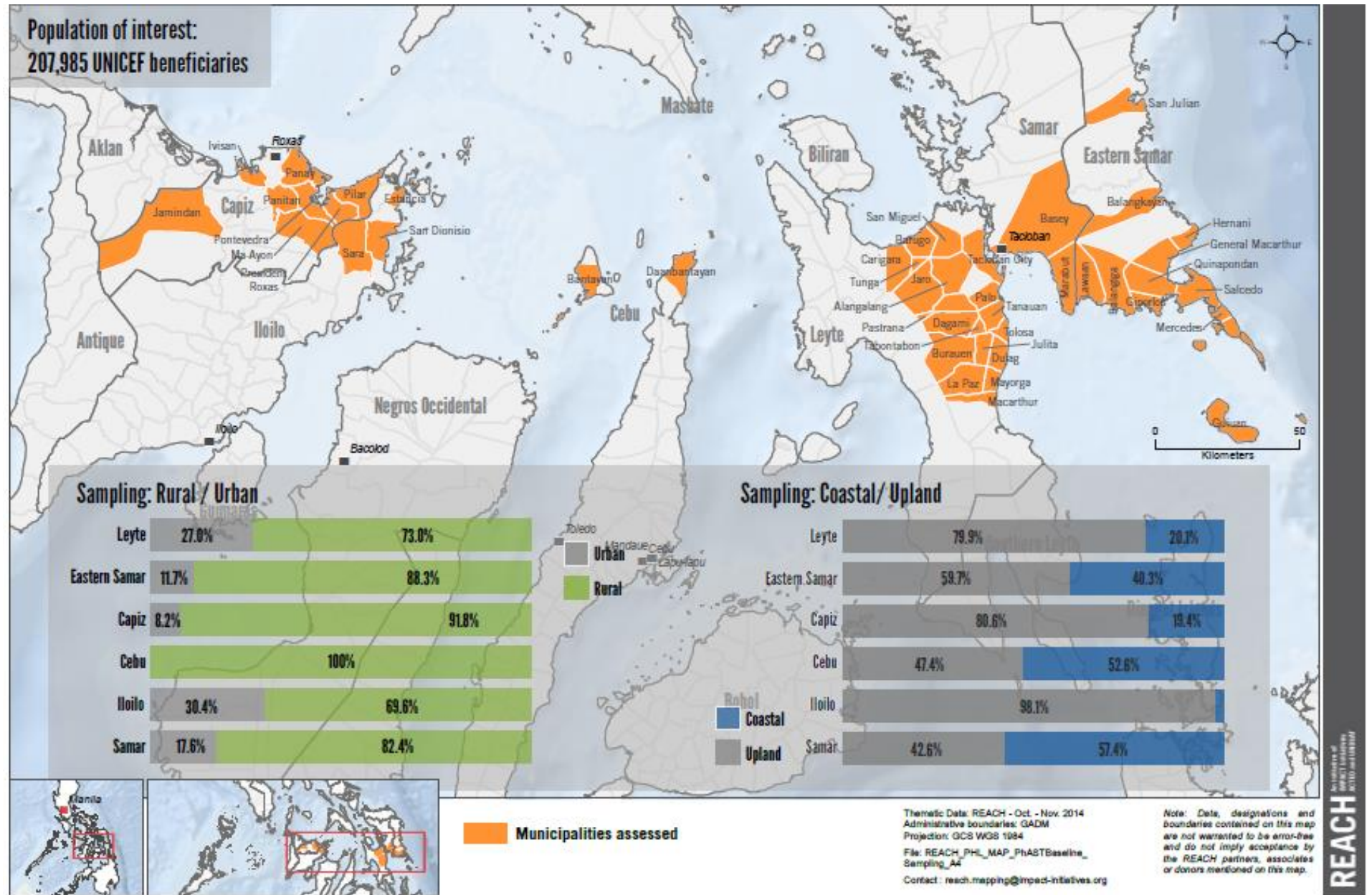
### Quantitative Data: Household Surveys

A total of 3025 households were assessed as part of the household survey. The sampling methodology was designed to generate representative data at the municipal level and statistically significant data at the province level, with a confidence level of 95% and a margin of error of +/- 5% (see Table 2 below). All of the 53 municipalities covered by the PhATs project were assessed as part of the household survey, with 345 barangays within these municipalities selected for inclusion. Map 1 shows the municipalities assessed, with the full list of all barangays included in the household survey available in Annexe 1.

The sampling process gave each household in a given municipality an equal chance of selection, with more populous barangays therefore having a greater chance of being selected. Households per municipality were listed; thereafter a random selection of households was made by using a random number generator. The barangay that each selected household belonged to was included in the sample, and a cluster of five surveys was conducted in each selected barangay. Where a barangay was selected more than once, an additional cluster of five surveys was added. Following this process, between 5 and 60 households were assessed per barangay, with at least 50 households assessed in each municipality.<sup>13</sup> At least 370 households were assessed in each province, with 3025 households surveyed overall (see Table 2).

<sup>13</sup> The data collected through this process was weighted by population when aggregated. For example, where four municipalities were aggregated to the province level, the data was weighted in such way that the municipalities with the largest population had the largest impact on the aggregated province level results (even if the sample size in each municipality was the same). This allowed for accurate generalization at the provincial level. Following the same process, provinces were weighted by population to give the overall figure, and this is why the 'overall' numbers may look different to what one could expect.

Map 1: Municipalities assessed in the household survey, with rural/urban and coastal/upland breakdown



**Table 2: Sample size and statistical significance by administration level**

Administration Level	Population (estimated)	Sample Size	Statistical Significance
<b>All PhATS project areas</b>	207,800	3025	99% +/- 2.51%
<b>Province (6)</b>			
Eastern Samar	42,300	550	95% +/- 5%
Samar	9,700	370	
Leyte	108,600	950	
Cebu	13,300	380	
Capiz	26,900	400	
Iloilo	7,000	375	
<b>Municipality</b>			
Various (45)	Estd. 4500 each	Min. 50	95% +/- 13.7%
<i>Smallest</i>	1,150	50	<i>Approx. 95% +/- 13.5%</i>
<i>Largest</i>	14,000	50	<i>Approx. 95% +/- 13.8%</i>

The selection of households within selected barangays was done randomly, based on a list of all households in the barangay (provided by the barangay captain). Each household on the list was assigned a number, and a random number generator was used to select the required number of households. Interviewers then visited these households and requested to interview the head of household. This list-based sampling approach was chosen instead of an ‘every fifth house’ type geographical approach, to ensure that households far away from the centre of the barangay also had an equal chance of being selected. This approach was time-consuming, but meant that households outside the central sitios (which often had very different sanitation facilities and practices) were included in the assessment.

The household survey also included visual observation components, such as verifying the type of toilet used or asking to see soap if it was reportedly used. All data collected at household level were collected using smartphones with the Open Data Kit (ODK) software. This allowed completed questionnaires to be uploaded directly from the phone to the database, therefore eliminating the need for data entry and improving accuracy.

### **Qualitative Data: Community Focus Group Discussions**

A total of 44 community focus group discussions (FGDs) were conducted were conducted to help analyse and explain information collected from household surveys. FGDs were held with a male and a female group in each of the 22 barangays. These barangays were purposively selected to ensure the inclusion of rural and urban barangays that had high and low sanitation coverage. As far as possible, selected barangays reflected the typical profile (eg. coastal/inland status) of barangays in that province. In each province<sup>14</sup>, barangays matching four profiles were selected to conduct FGDs in:

- Rural barangay with high sanitation coverage
- Rural barangay with low sanitation coverage
- Urban barangay with high sanitation coverage
- Urban barangay with low sanitation coverage

<sup>14</sup> With the exception of Cebu: here, 2 barangays instead of 4 have been selected as there are no urban barangays in the sample (and only 15 barangays in the sample altogether).



## **WASH in Schools (WinS)**

### **Quantitative Data: School Surveys**

245 schools were assessed as part of the school survey. These schools were randomly selected from the list of all schools in PhATS program areas (a total of 649 schools). This sampling methodology was designed to generate statistically significant data (95% confidence level, +/- 5% margin of error) at the level of all schools in PhATS program areas. The 245 randomly selected schools were in 58 school districts, with each of the seven DepEd divisions covered by the PhATS program represented. A full list of the assessed schools is available in Annexe 2.

The school survey had two parts: a key informant interview with the school principal (or Officer in Charge) and a direct observation component covering toilets, taps and other facilities. This allowed for cross-checking and triangulation of information. The full questionnaire is available in Annexe 5.

### **Qualitative Data: Student Focus Group Discussions and Key Informant Interviews**

In selected schools, student focus group discussions were held to draw out student perspectives and supplement the quantitative data collected in the school survey. A total of 28 student FGDs in 14 schools were conducted, with boys and girls FGDs held separately in each school. The schools were purposively selected to ensure the inclusion of schools of different sizes, and of schools in each of the seven DepEd divisions covered by the PhATS program. It was important to ensure that the perspectives of both older and younger students were included. Therefore, in one school in each division FGDs were held with grade six students and in the other with grade two students (with separate FGDs for boys and girls in all cases).

Key informants from the Department of Health (DoH), the Department of Education (DepEd) and the Department of the Interior and Local Government (DILG) were also interviewed as part of this assessment, providing important contextual information on WASH at both school and community levels. Representatives of these three departments at both the provincial and regional level were approached in all three regions and six provinces (seven divisions in the case of the DepEd) the PhATS program will operate in. For confidentiality reasons, it is not possible to identify the 31 key informants interviewed. However, Table 3 below provides a general indication of the profiles of those interviewed at regional and provincial/division level<sup>15</sup>.

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<sup>15</sup> This table is an indication only and that the positions of people interviewed varied between the provinces and regions included in this assessment.

**Table 3: Overview of key informants at provincial and regional level**

	Province	Region
DoH	<ul style="list-style-type: none"> <li>Provincial sanitary inspectors</li> <li>Provincial health officers</li> </ul>	<ul style="list-style-type: none"> <li>DoH WASH Focal person</li> <li>Regional director</li> </ul>
DepEd	<ul style="list-style-type: none"> <li>Division superintendent</li> <li>SBM coordinator (division level)</li> </ul>	<ul style="list-style-type: none"> <li>Regional Director</li> <li>SBM Coordinator (regional level)</li> </ul>
DILG	<ul style="list-style-type: none"> <li>Local government officer</li> <li>Provincial director</li> </ul>	<ul style="list-style-type: none"> <li>Regional director</li> <li>Project development and management unit staff</li> </ul>

## Limitations

### Biases in Self-Reported Data and Key Informant Reports

This assessment was largely based on self-reported data. Indeed, one of the key objectives was to go beyond assessing infrastructure (which can be directly observed) to explore attitudes and social norms, which are best assessed through individual self-report and group discussions. Self-report is also a practical method of collecting data on individual behaviour, as direct observation of hygiene behaviours (such as hand-washing or open defecation) of large numbers of individuals over extended periods is rarely feasible. However, self-reported data is subject to various biases, with social desirability bias being a particular concern for WASH topics.

Such a concern also arose at school level. Indeed, the school survey was administered to school principals (or the Officer in Charge where the school did not have a full-time principal or where the principal was unavailable). This offered a useful snapshot of the WASH situation in each school, but was based largely on the report of key informants, who may have been incentivized to either understate or overstate problems with WASH in their schools. A range of strategies were used to minimize the impact of social desirability and other biases, including:

- Ensuring complete **anonymity** and **confidentiality** of all data collected, and carefully explaining this to respondents before beginning the survey/FGD.
- Explaining before FGDs and household surveys that **there are no right or wrong answers**, and making sure that respondents understand why these questions are being asked, how the information will be used, and why truthful responses are important.
- **Giving respondents the opportunity to skip any question** they would prefer not to answer (minimizing the chance of capturing false answers when respondents are not comfortable answering truthfully)
- **Training data collection team** on the importance of neutral, non-judgemental approaches, including specific verbal and non-verbal facilitation and interview techniques.
- **Ordering questions** so that more sensitive questions come later in the interview/FGD when greater trust has been established.
- **Worded questions** so that there is no assumption of hygiene-positive behavior, or even an assumption of hygiene-negative behavior, so that disclosing socially undesirable behavior (including behavior perceived as shameful) is as easy as possible for the respondent. For example, the question used to ask about open defecation was 'how often does a member of your household defecate openly?' instead of 'do any

members of your household defecate openly?’ This phrasing assumed open defecation was being practised, to make it easier for households to disclose this practice, while still allowing respondents to report that members of their households never defecated openly.

- **Including direct observation components** to verify self-reported data where possible. For example, as part of the household survey, soap and hand-washing facilities were observed to verify self-reported data on hand-washing and soap availability. Another example is from the school survey: in order to verify the information reported, the assessment team requested to observe toilets, water infrastructure, hand-washing facilities, outside areas and (where group hygiene practices were reportedly practised) evidence of group hygiene practice. The direct observation component also allowed to assess issues that may be overlooked by principals but important to students (such as adequate light in toilets and facilities for menstruating girls).
- **Triangulating data from difference sources** (eg. FGDs, survey, key informant interviews and secondary data).

Despite these strategies to minimize the impact of social desirability bias, behaviours perceived as ‘undesirable’ are still likely to be somewhat underreported, and behaviours perceived as socially desirable overreported. This is noted in the findings where relevant.

## Generalization

The sampling methodology for the household assessment allows for accurate generalization about households in PhATS areas in each province and overall. However, this does not apply to data from questions that were not asked to every household<sup>16</sup>. This data, particularly at province level, offers an indication only. This limitation is noted in the findings where relevant.

The assessment of knowledge, attitudes and practices was focused at household level rather than individual level. This was an efficient way of assessing WASH practices that relate to households rather than individuals (eg. water storage) and enabled the generation of statistically significant data at province level across the six provinces - which would not have been feasible to do at individual level with the existing resources. However, a limitation of this approach was that variation within households – for example, gender differences in attitudes and knowledge – could not be thoroughly explored.

The sampling methodology for the schools assessment was designed to generate statistically significant data (95% confidence level, +/- 5% margin of error) at the level of all schools in PhATS program areas. It does not provide accurate data at the province/division level that can be used to compare between provinces/divisions.

Selecting statistically significant samples at the level of each province/division was discussed, but not considered efficient as it would essentially have involved a census, which was not required. Actual student input was limited to 28 focus group discussions, which allowed for some student perspectives to be included in the analysis, but was not representative. A compressive student survey on WASH knowledge, attitudes and practices was well beyond the scope of this assessment, but may be relevant to consider in the future.

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<sup>16</sup> For example, questions relating to disposal of child stools, which were only asked of households with children under the age of 3

# Summary of Key Findings

This section presents a brief summary of the key findings regarding the two main sections: WASH assessment at household and community level and WASH in schools.

## WASH Assessment at Household and Community Level

### Water

- An estimated **93% of the population in PhATS project areas are currently using an improved source of drinking water.**<sup>17</sup> This varies across provinces – with Capiz, Iloilo and Cebu having the highest proportion of households using unimproved sources. **Overall, the most common source of drinking water in PhATS project areas was piped water (30.8%).**
- **Half of all households in PhATS project areas are paying for drinking water** – with the highest proportion being in highest in Cebu, Iloilo and Capiz. Only 27.8% of households in PhATS project areas pay for water for purposes other than drinking – however, the amount spent on it is higher than for drinking water.
- **The majority of households who fetch water from a source outside their plot report that it takes them less than 15 minutes to go to the water source, collect water and come back.** 65.3% of households reported that this task was completed by an adult male
- **96.2% of households in PhATS project areas use containers (such as bottles, jerry cans and drums) as their main method of water storage.** 89.6% of households with water stored in containers had all containers covered at the time of the household visit. However, **most households in PhATS project areas (61.8%) do not treat their drinking water.**
- **This assessment found a widespread understanding of the link between unsafe water and diarrhea,** with 90.8% of all households able to name this as a health risk of unsafe water. However, knowledge of other health risks of unsafe water is extremely low.

### Sanitation

- **This assessment found that an estimated 88.6% of households in PhATS project areas are currently using an improved sanitation facility** – with the lowest levels of access being in Cebu. Even in the areas with the highest rates of access, there is still a significant proportion of households (8.1% or more) who are not using improved sanitation facilities.
- **80.1% of households in project areas are using flush/pour flush toilets.**
- **24.8% of all households in PhATS areas use a shared toilet** and 3% of households in PhATS areas are using toilets which are open to the general public.

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<sup>17</sup> Bottled water was considered as an improved source only where there was a secondary source of improved water for other uses such as personal hygiene and cooking.

- **78.5% of households overall own the toilet that they use.**<sup>18</sup> This varied significantly between provinces, from only 55.8% of households in Cebu to 90.2% in Iloilo. **The main barrier to toilet ownership was reportedly financial**, with 88.1% of households without their own toilet identifying high cost as a barrier.<sup>19</sup>
- **An estimated 17.3% of households in PhATS areas are practising open defecation.**<sup>20</sup> The rate varies significantly by province (with Cebu being the highest with 42.3%) but does not drop below 13%. **However, the frequency and the number of household members practising it varies across households**, demonstrating the role of individual preferences and behavior.<sup>21</sup>
- **The self-reported reasons for open defecation emphasize infrastructure**, with 97.1% of households practising OD and 94.2% of all households identifying not having a toilet as a reason some people practice open defecation. Moreover, social acceptance of open defecation is reportedly low. **When asked what they saw as the risks and problems of open defecation, 88.6% of all households mentioned disease, with the next most commonly mentioned answer being dirty surroundings**
- **Most respondents (62.3% overall) reported that they do not talk with their neighbours about open defecation.** However, a significant minority (37.7% overall and at least a quarter in each province) are talking to their neighbors about open defecation. Only 26.7% of households overall reported having received any information about a zero open defecation (ZOD) program or rewards for becoming a zero open defecation barangay.
- **Only 50.9% of households with children under 3 disposed of their child's last stool safely**, with approximately half using unsanitary disposal methods.
- The majority of households in PhATS areas are using adequate methods of solid waste disposal: the most common method was burning (reported by 60.1%). However, a significant minority uses methods that may cause health and environmental problems.

## Hygiene

- **64.2% of households in PhATS project areas reported receiving some kind of hygiene or sanitation related message in the last 6 months.** Of those who reported receiving a WASH message in the last six months, the most common messages recalled were on **safe water** (74.7%), and the main source was **NGOs** (78.2%), followed by Health staff (43%).
- **89.8% of all households had a designated place for hand-washing** (verified by the enumerator). **79.6% of all households were observed to have washing a hand-washing facility with soap and water present at the time of visit.** Iloilo (23.5%) and Capiz (18.9%) had the highest proportion of households without a hand-washing facility, on the contrary to Cebu (2.6%) and Eastern Samar (2.9%)

<sup>18</sup> Please note this is different to the proportion of households who use a toilet that is not shared, as some households who own their toilet choose to share it with others who are not members of their own household.

<sup>19</sup> The questions on barriers to toilet ownership were asked only of those who did not already own a toilet, and due to this splitting of the sample, the findings on this topic should be considered indicative only.

<sup>20</sup> This is calculated as households who report having at least one member who ever (always, usually, sometimes or rarely) practises open defecation plus households who do not report ever practising open defecation but report 'no facilities' when asked what kind of toilet facilities their household usually uses. While this definition technically includes households where open defecation may be practised rarely and/or by only one household member, including all non-never responses is likely to give the most accurate picture given that open defecation is likely to be hugely under-reported in a face-to-face survey.

<sup>21</sup> Households who reported that some but not all household members practise open defecation were asked which members defecate openly. Boys and girls were most commonly identified (by 80% and 42% of these households respectively), followed by men (35.0%) and women (9.9%). However due to the twice-split sample and the very sensitive nature of the question (touching on personal OD not just household OD), these figures should be considered a very rough indication only.

- **71% of respondents reported washing their hands with soap at least five times in the last 24 hours.** This varies across provinces, was higher rates in Leyte (75.5%) and lower ones in Cebu (55.9%), despite Cebu having the highest proportion of households with hand-washing facilities. **Even though there are very positive values and perceptions around hand-washing overall,** this practice varies according to respondents' activities – with washing hands before eating being the most commonly reported practice (93.3%). Therefore, hygiene messaging on key moments to practice hand washing will be particularly relevant, with a specific focus on the importance of washing hands after defecation as well as before and after taking part to various child care activities.

## WASH in Schools

### WASH Governance

- **66% of schools in PhATS project areas reported that WASH was currently incorporated into their Annual Investment Plan (AIP) or School Improvement Plan (SIP) and over half of all schools in PhATS project areas (59%) reported having funds allocated or available for WASH** in the Maintenance and Other Expenses (MOOE) or the School Building Repair and Maintenance Fund (SBRMF).
- Approximately a quarter of schools in PhATS project areas have a **student club or committee** promoting water, sanitation and hygiene awareness and a similar proportion of schools reported having an active **non-student committee** undertaking the same duties.
- In 48% of schools in PhATS project areas, the school or the Department of Education had led at least one WASH activity in the school in the last six months – with hygiene awareness activity (57%) being the most common type, on the contrary to infrastructure projects.
- The most common themes of **hygiene awareness campaigns** in the last six months were **handwashing, toothbrushing and personal hygiene.**
- With regards to group hygiene activities, **an estimated 57% of schools in PhATS areas are practising daily group hand-washing with soap in all or some classes.** The top three most frequently reported barriers preventing such activities were water shortages (35%), not having a functioning group WASH facility (26%) and not having soap available (19%). **Moreover, 55% of schools in PhATS areas were practising daily group tooth-brushing in all or some classes.** The top three most frequently reported barriers were water shortages (27%), not having toothpaste available (22%) and not having toothbrushes available (21%).
- Based on direct observation at the schools in the sample, **an estimated 23% of schools in PhATS areas do not have any hand-washing facilities (HWFs) near the toilets.** The two main types of hand-washing facilities were taps connected to piped water (57% of schools with HWFs) and buckets or containers (38%). However, at the time of visit, some schools with HWFs were sometimes lacking water or soap. Therefore, **53% of schools reported that when there is no functioning hand-washing facility available, children generally do not wash their hands.**

## Water Supply

- Issues with water supply emerged as a major barrier to practising daily group hygiene activities and maintaining functional hand-washing facilities.
- **28.6% of schools in PhATS areas had piped water to the school buildings or yard as their main source of drinking water.** At least **4% of schools in PhATS areas were relying on unimproved sources of drinking water.** However, the majority of schools without water points in the compound were able to collect water from improved water sources outside the school rather than resort to relying on water from unimproved sources.
- **In 55% of schools in PhATS areas, drinking water was reportedly not available in the school compound.** In these schools, any drinking water available was brought in from external sources. **Only 42.9% of schools had an improved drinking water source in the school compound.**
- The most commonly reported problem encountered in accessing drinking water was water quality (mentioned by 24% of schools). When water points are not functioning, 84% of key informants reported that the most common coping strategy is for students to bring water from home.
- **Almost a quarter of schools in PhATS areas (24%) reportedly did not have water for purposes other than drinking available in the school compound,** which is likely to severely limit practice of personal hygiene and the cleanliness of toilet facilities. **The main source of water for purposes other than drinking was tubewells/boreholes** (used by 33% of schools).

## Sanitation

- **An estimated 93.7% of schools in PhATS areas have improved sanitation facilities,** while 3% of schools have no sanitation facilities at all. The vast majority of toilets **were flush or pour flush toilets connected to septic tanks** (used by 91.4% of all schools).
- **Only 24% of schools had any single sex toilets, with 21% of schools having at least one girls only toilet.** The absence of single-sex toilets in most schools is likely to present problems with privacy, particularly for older girls in relation to menstrual hygiene.
- **In 95% of schools, toilets were less than 2 minutes walk from classrooms.** FGD data indicated that having toilets too close to classrooms was actually disincentive for students to use them for defecation.
- While 74% of toilets were observed to be 'mostly clean', **16% of schools were observed to have unclean toilets at the time of the school survey.** The most commonly reported challenges of keeping toilets clean were a shortage of water and a shortage of cleaning supplies (each reported by 35% of schools). **Interestingly, the assessment found that toilet cleaning was performed by students in 66% of schools, and by teachers in 24%.**
- Additional concerns (lack of locks, lack of sufficient light, no sanitary bin, and no access for disable people) were also reported.
- 79% of schools reported that when school toilets are not functioning, students' main coping mechanisms is to go home to use the toilet. **In 12% of schools, it was reported that the main coping mechanism was to defecate openly inside or outside the school compound.**

- **Open defecation was reported in 17% of schools in PhATs areas**, while open urination was reported in 82%. Focus group data emphasized the significant role teachers played in enabling or discouraging open defecation, even if the vast majority of student focus group discussion (FGD) participants considered open defecation unacceptable and unsafe.
- **75% of schools in PhATS areas reported that they were disposing of garbage every day, with only 9% reporting irregular garbage disposal.** The most common method of garbage disposal was incineration, followed by piling solid waste inside the school compound. Some garbage disposal methods (such as piling garbage inside the school compound, practised by 29% of schools) might pose a health risk as they likely facilitate students' easy contact with this solid waste.
- **27% of schools in PhATS areas were observed to have stagnant water inside the school compound.**

## Findings

This section of the report presents the main findings of the baseline assessment and is comprised of two main sections: WASH assessment at household and community level; and WASH in schools.

### WASH Assessment at Household and Community Level

This sub-section of the report presents the main findings from the household survey and the community focus group discussions. It outlines findings on access to water, sanitation and hygiene.

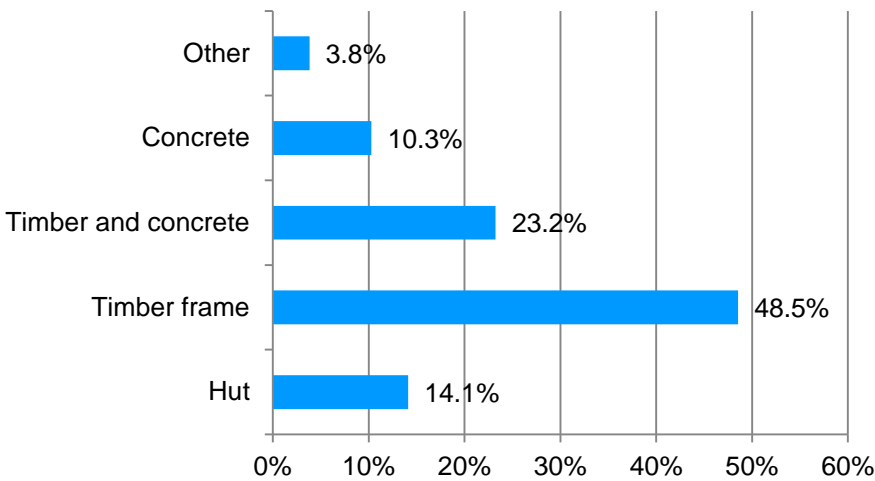
#### Demographics

A brief demographic profile of the household survey sample is given here, to provide context for the following sections.

The household survey sample was largely rural (80.6%) and upland (72.7%), though this varied by province (see Map 2). Almost half of households surveyed lived in timber frame houses with nipa or corrugated iron roofs (see **Error! Reference source not found.** below). The next most common house type was timber and concrete (23.2%), followed by huts (14.1%) and then concrete houses (10.3%).



Figure 1: House types of households in sample

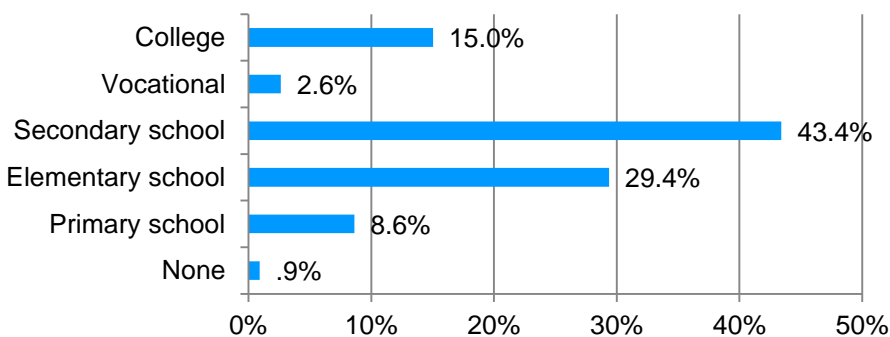


In 35.1% of households overall, and at least a quarter of households in each province, the main income earner was a farmer or fisherman. In 51.3% of households, the main income earner was self-employed. This was the most common income type across all provinces. Income from daily labour was the next most common in each province and overall (30.8%). These findings indicate that many households in PhATS areas are likely to be vulnerable to income shocks.

63.8% of households overall (and the majority of households in each province) had a household income of less than 3,333 PHP per month (under PHP 40, 000 per year), placing them in the country's lowest income bracket.

61% of respondents had completed secondary school or higher (see **Error! Reference source not found.** below), with Cebu the only province where the majority of respondents had not finished secondary school. The proportion of college graduates was highest in Eastern Samar and Leyte.

Figure 2: Educational level of respondents



The mean household size in PhATS program areas was 5.2 people. Variation across provinces was minimal, with mean household size between 4.7 and 5.3 in each province.

19.6% of households in the sample were female-headed households, in line with the national figure of 19%.<sup>22</sup> This assessment found the highest proportion of female-headed households (over a quarter) in the Region VI provinces of Iloilo and Capiz, and the lowest proportion (9.3%) in Cebu.

9.6% of households in the sample reported they had at least one household member with a disability.

Moreover, the *Philippines National Demographic and Health Survey 2013* found that 8% of children under 5 suffered from diarrhoea in the two weeks preceding the survey.<sup>23</sup> In this baseline assessment in PhATS areas, 12% of households with a child under 5 had a child under 5 who suffered from diarrhoea in the past two weeks (see Map below). The findings on this topic are indicative only,<sup>24</sup> but suggest that diarrhoea prevalence may be particularly high in PhATS areas, likely reflecting issues with WASH

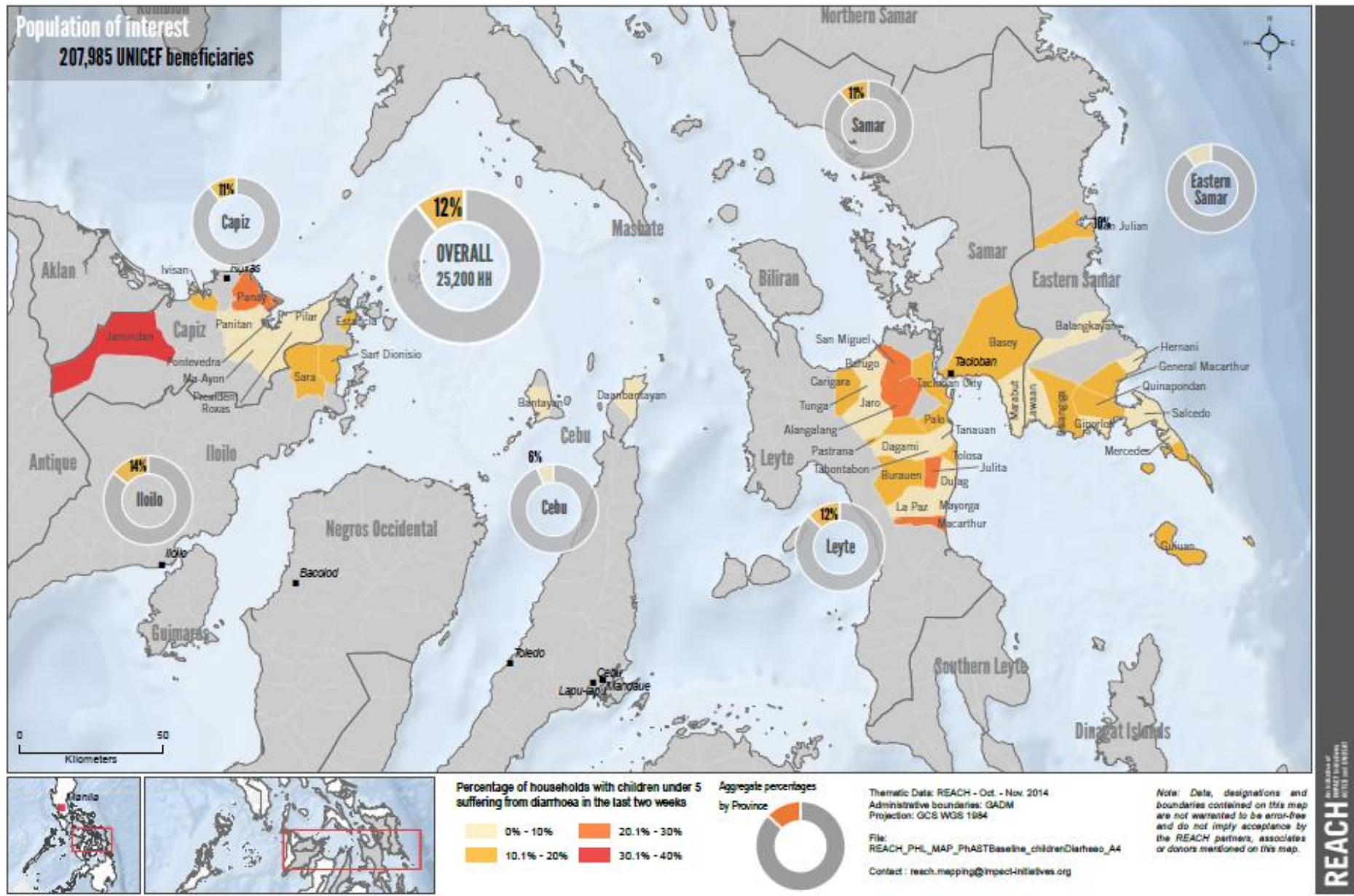
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<sup>22</sup> Philippine Statistics Authority (PSA) & ICF International, *Philippines National Demographic and Health Survey 2013* (Manila, Philippines and Rockville, Maryland, USA: 2014), p. 14.

<sup>23</sup> Ibid, p. 130.

<sup>24</sup> The sampling methodology for the household assessment allows for accurate generalization about households in PhATS areas in each province and overall. However, this level of accuracy does not apply to data from questions that were not asked of every household, such as these questions relating to child health, which were only asked of households with children under the age of 5. As such, this data (particularly at province level) offers an indication only.

Map 2: Percentage of households with children under 5 where a child under 5 suffered from diarrhoea in the past 2 weeks



## Access to Water

### *Source of Drinking Water*

This assessment found that an estimated **93% of the population in PhATS project areas are currently using an improved source of drinking water.**<sup>25</sup> Despite PhATS project areas being among the most affected by Typhoon Haiyan, this is equivalent to the pre-Haiyan national figure of 92%<sup>26</sup>, reflecting the rehabilitation of water systems and other efforts by WASH cluster partners in the response and recovery phases.

There was significant variation between provinces, as Map 3 below illustrates. Eastern Samar had the lowest proportion of households using unimproved sources and **Capiz had the the highest, with 15.2% of the population in PhATs project areas using an unimproved water source - an estimated 15,840 individuals.**<sup>27</sup> In Iloilo and Cebu too, more than 12% of the population in PhATS project areas were using unimproved sources. There was also significant variation within provinces, with municipality level data provided in Annexe 3. Interestingly, there was no significant variation between urban and rural areas.

**The most common source of drinking water in PhATS project areas was piped water, used by 30.8% of households** (see Figure 3 below). 11.3% of all households had piped water into their dwelling, with piped water connections more often found outside in the yard or plot (17.6% of all households). An estimated 2% of households relied on their neighbours' piped water connections as their main source of drinking water. After piped water, the most common source of drinking water was tube wells/boreholes, used by 25.2% of households in PhATS project areas This was followed by public taps (15.5%), bottled water (13.9%) and protected dug wells (5.3%), with no other source used by more than 5% of households.

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<sup>25</sup> Bottled water was considered as an improved source only where there was a secondary source of improved water for other uses such as personal hygiene and cooking.

<sup>26</sup> WHO/UNICEF 2014, [Estimates on the use of water sources and sanitatoin facilites updated April 2014](#), Joint Monitoring Program for Water Supply and Sanitation.

<sup>27</sup> This figure is based on the population data in Table 1 of this report.

Map 3: Percentage of households in PhATS project areas using an unimproved source of drinking water

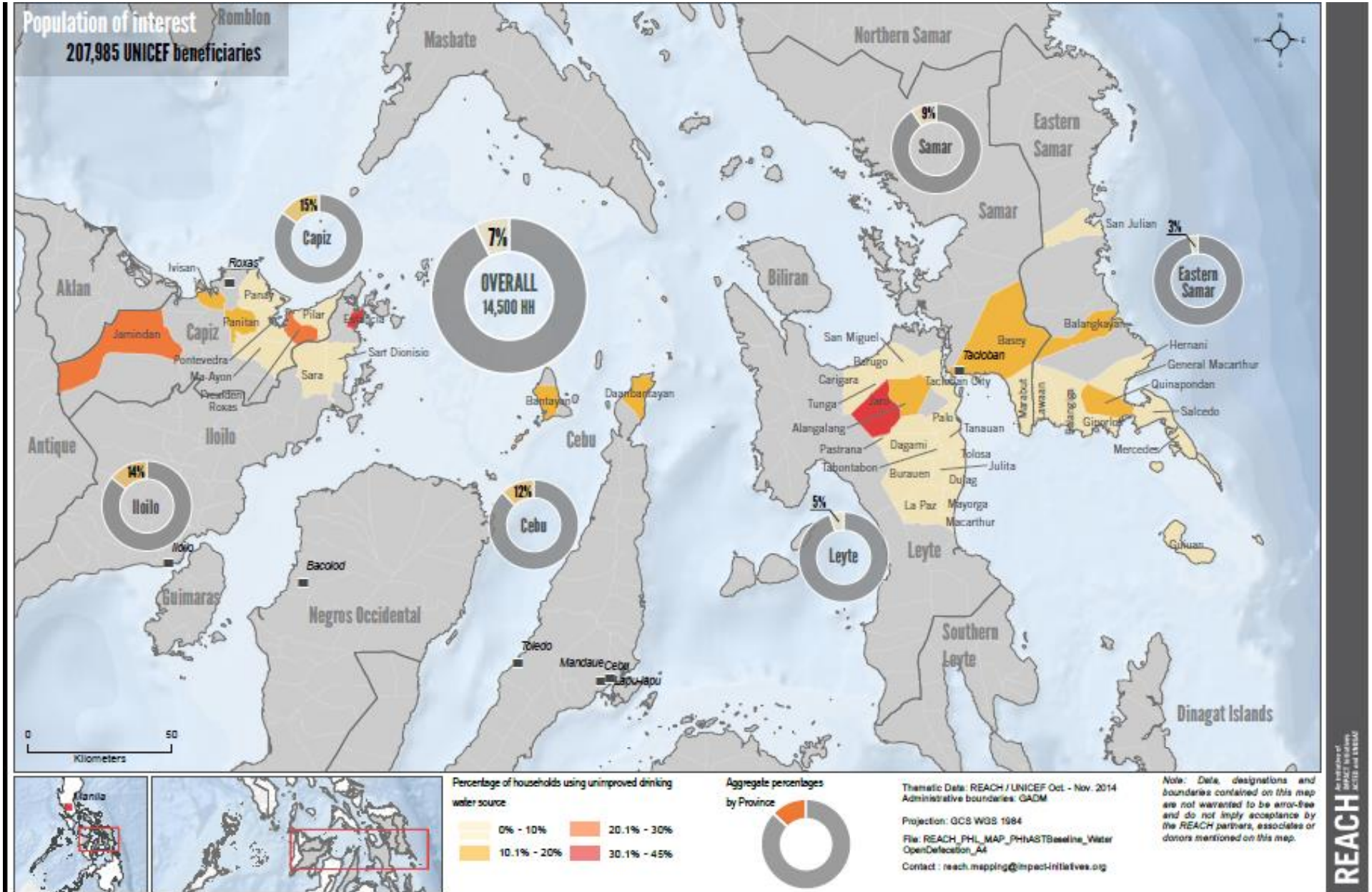
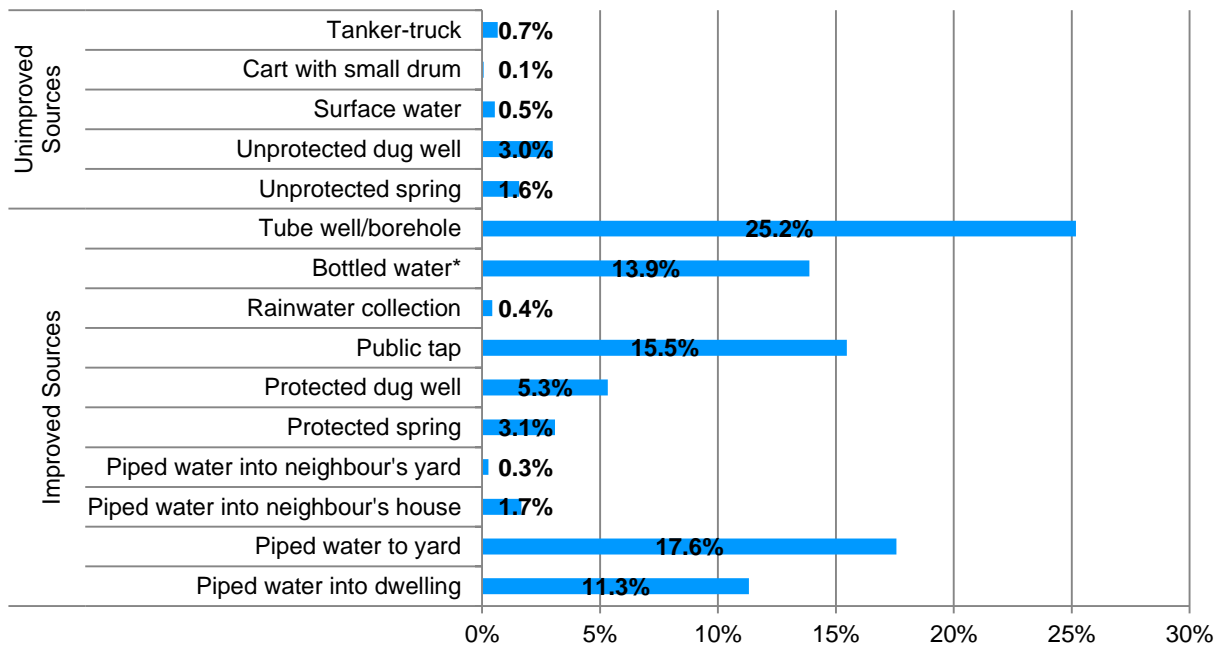


Figure 3: Main source of drinking water for households in PhATS project areas



\* Bottled water is considered as an improved source only where there is a secondary source of improved water for other uses such as personal hygiene and cooking. To avoid duplication, bottled water has been included with improved sources in this graph, as most (85.9%) households using bottled water as their main source of drinking water did have access to a secondary improved source.

Sources of drinking water varied between the provinces. The full breakdown by province is outlined in Table 4 below, with the most commonly used drinking water source highlighted in blue and sources used by more than 10% of households highlighted in grey. Piped water was the main source of drinking water overall and in Leyte, but it was used by less than 20% of households in project areas in Iloilo, Capiz, Eastern Samar and Samar. Tube wells were the main source of drinking water in Capiz, Iloilo and Eastern Samar; in Samar it was public taps. In project areas in Cebu, bottled water was the main source of drinking water, relied upon by 36.4% of households.

Most households using bottled water as their main source of drinking had a secondary source of improved water for other uses such as personal hygiene and cooking. However a significant proportion (12.2% in Cebu and 14.1% overall) did not have a secondary source of improved water, which suggests that they may be paying for expensive bottled water because they do not have access to another safe source of drinking water. This is a serious concern, as these households may be vulnerable to income shocks, and could be forced to rely on unsafe water if they are unable to pay for bottled water for a period of time.

These findings indicate that while the majority of households are using improved sources of drinking water such as piped water and tube wells, there remains a significant proportion of the population

(particularly in project areas in Regions VI and VII) who is drinking water from unimproved sources. The most commonly used unimproved water source was unprotected dug wells, used as the main source of drinking water for 3% of households overall, with a higher proportion in Capiz and Cebu (9.8% and 7.7% respectively). Water from unimproved sources is likely to be of unsuitable quality, and may have serious health impacts. As such, a focus on water may be a relevant component of the PhATs project. Although the overall proportion of households using an unimproved source of drinking water is relatively small at 6%, given the PhATs project areas have a combined population of 939,568, this translates to an estimated 65,770 people using unimproved sources of drinking water. This may justify project activities focused on safe water, especially but not exclusively in project areas in Regions VI and VII.

**Table 4: Main source of drinking water, by source and province**

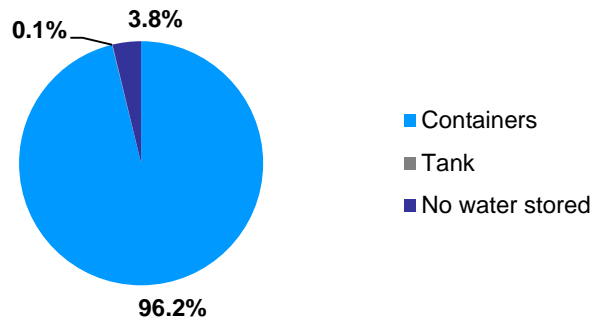
Province	Improved Sources										Unimproved Sources				
	Piped water into dwelling	Piped water to yard	Piped water into neighbour's house	Piped water into neighbour's yard	Protected spring	Protected dug well	Public tap	Rainwater collection	Bottled water	Tube well	Unprotected spring	Unprotected dug well	Surface water	Cart with small drum	Tanker-truck
Capiz	8.5%	6.7%	0.8%	1.3%	4.1%	11.3%	4.9%	1.3%	9.5%	37.8%	3.3%	9.8%	0.4%	0.3%	0.0%
Iloilo	5.8%	9.6%	1.0%	2.9%	2.9%	7.7%	6.7%	0.0%	9.6%	46.2%	1.9%	1.9%	0.0%	0.0%	3.8%
Cebu	5.1%	27.2%	0.0%	0.0%	0.0%	8.2%	4.1%	0.0%	36.4%	10.8%	0.5%	7.7%	0.0%	0.0%	0.0%
Leyte	13.7%	25.3%	2.7%	0.0%	1.4%	5.2%	17.9%	0.0%	8.2%	20.9%	1.0%	1.9%	0.7%	0.0%	1.1%
Samar	8.6%	9.3%	0.7%	0.0%	4.3%	3.6%	28.6%	5.7%	13.6%	19.3%	1.4%	2.9%	1.4%	0.6%	0.0%
Eastern Samar	10.4%	4.9%	0.5%	0.0%	7.6%	0.8%	18.1%	0.0%	24.6%	30.5%	2.1%	0.3%	0.2%	0.0%	0.0%
<b>All areas</b>	<b>11.3%</b>	<b>17.6%</b>	<b>1.7%</b>	<b>0.3%</b>	<b>3.4%</b>	<b>5.3%</b>	<b>15.5%</b>	<b>0.4%</b>	<b>13.9%</b>	<b>25.2%</b>	<b>1.6%</b>	<b>3.0%</b>	<b>0.5%</b>	<b>0.1%</b>	<b>0.8%</b>

### Household Water Storage

The main way households store drinking water is in containers - such as bottles, jerry cans and drums - as reported by 96.2% of respondents in PhATs project areas. 3.8% reported that they do not store water at household level, and only 0.1% reported using water tanks (see Figure 4 below). This pattern was consistent across the six provinces. It demonstrates that even when households have piped water (as over a quarter of households in PhATs areas do), many still choose to store water in containers. This phenomenon has been reported elsewhere in Asia, and typically occurs where water supplies are not reliable in terms of quantity, quality and consistency.<sup>28</sup>

<sup>28</sup> World Health Organization, [Dengue haemorrhagic fever: diagnosis, treatment, prevention and control](#), 2<sup>nd</sup> ed, (Geneva: World Health Organization 1997), p. 53

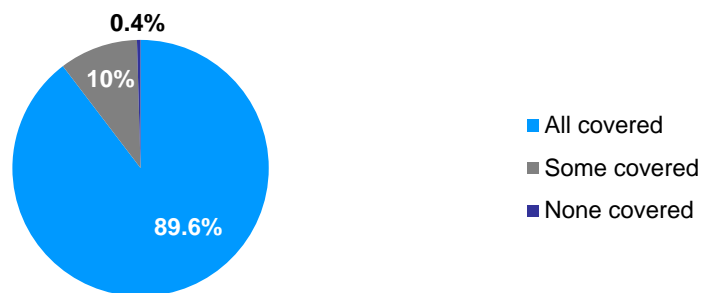
Figure 4: Main method of water storage at household level



Household water storage containers play a dominant role in aedes vectors breeding in many areas, and can thus contribute to the spread of dengue.<sup>29</sup> Unclean and uncovered containers can also contaminate water and cause diarrheal disease, with a 1995 study in the Philippines showing that water contamination at point of consumption through improper handling and storage of water was even greater than contamination at source.<sup>30</sup>

As part of the household survey, enumerators asked to observe the water containers of all households who reported having water stored in containers, to check whether they were covered. 89.6% of households with water stored in containers had their containers covered at the time of the survey, with a further 9.9% having some but not all water containers covered. Only 0.4% of households with water stored in containers did not have any of these containers covered (see Figure 5 below). This pattern was consistent across the six provinces, with households with no containers covered representing less than 1% of households in PhATS project areas in each province.

Figure 5: Proportion of covered water containers among households storing water in containers



With the vast majority of households already covering their water containers, hygiene messaging on this topic do not need to be a priority as part of PhATS hygiene promotion activities. However, the 10% of households who store water in containers but did not have all their containers covered at the time of the survey indicates that there may still be room for preventing contamination and improving vector control through hygiene messaging on the importance of covering all water containers.

<sup>29</sup> Ibid., p. 53

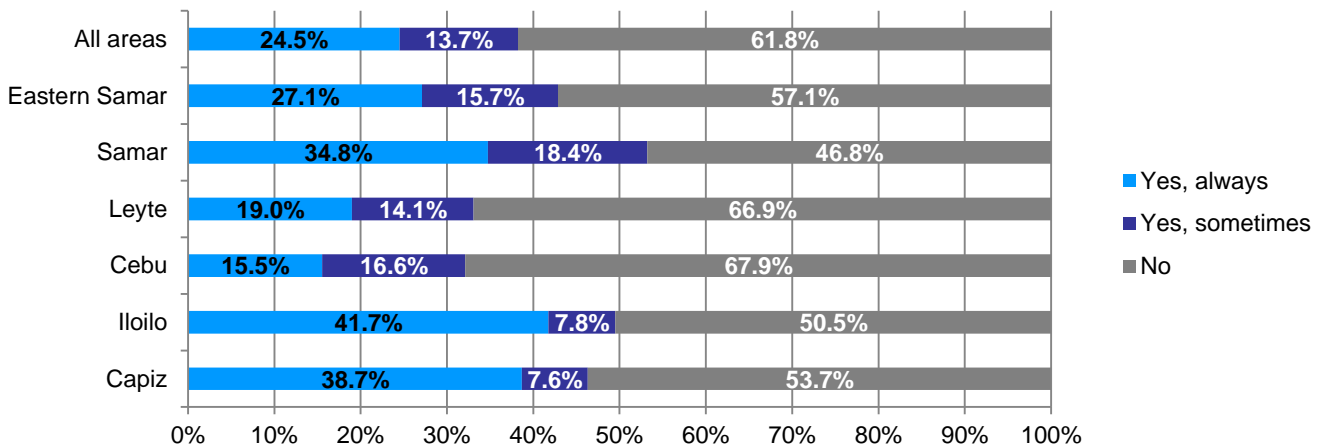
<sup>30</sup> Government of the Philippines, [Philippine Progress Report on the Millennium Development Goals](#) (Manila, Philippines: 2003) p. 22.



## Household Water Treatment

Most households in PhATS project areas (61.8%) do not treat their drinking water. An estimated one quarter (24.5%) of all households report that they always treat their drinking water, with a further 13.7% reporting that they sometimes do.<sup>31</sup> The relatively low rate of household water treatment does not necessarily constitute a problem, given that 93% of households are using improved sources of drinking water. Samar had the greatest proportion of households who reported treating their drinking water always or sometimes (53.2%), while Capiz and Iloilo – which had the highest proportion using unimproved sources of drinking water – had the next highest rates of household water treatment (46.3% and 29.5 respectively). Cebu had lowest proportion of households treating their drinking water, likely due to the prevalence of bottled water (the main source of drinking water for 36.4% of households).

**Figure 6: Households treating their drinking water, by province**

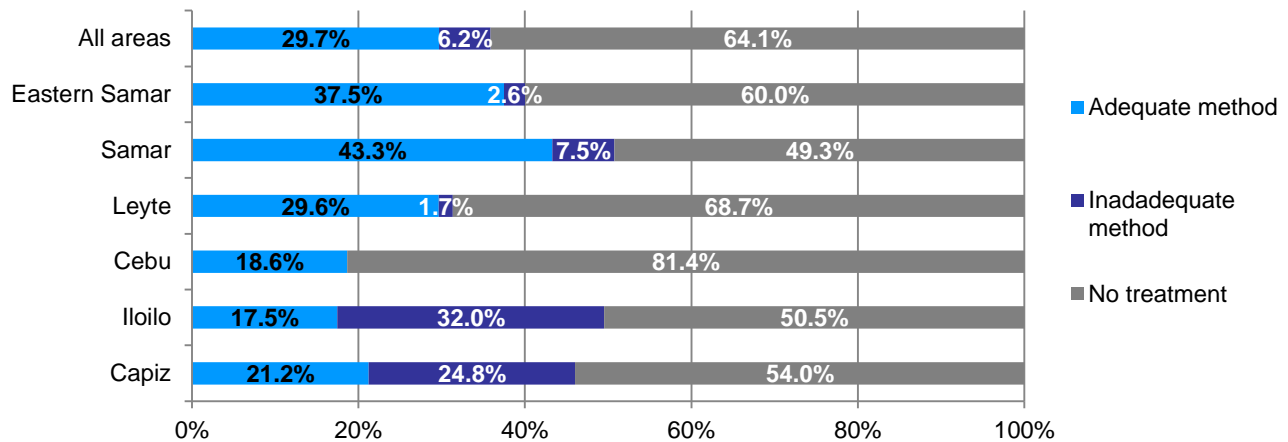


The adequacy of water treatment methods used varied greatly between the provinces (see Figure 7 below).<sup>32</sup> In Cebu, no households used an inadequate method of water treatment, and in Leyte and Eastern Samar less than 3% of households who treated their drinking water used an inadequate method. However, in Capiz and Iloilo – the provinces with the highest proportion of households using unimproved sources of drinking water – most households treating their drinking water were using methods that were insufficient to make water safe to drink. This is a major concern, and indicates a need for awareness campaigns on water treatment in Iloilo and Capiz. Such campaigns may also be beneficial in Samar, but are not so relevant in other provinces.

<sup>31</sup> Households treating their drinking water 'sometimes' include those that treat water for some family members only (eg. children only) as well as those that treat water at some times but not others (eg. only when water looks dirty, or only when there is money available for chlorine solution).

<sup>32</sup> Where households combined multiple methods of water treatment, it was considered adequate if at least one adequate method was mentioned.

Figure 7: Households treating their drinking water with adequate methods, by province



The full results of water treatment methods used by province is outlined in Table 5 below, with the most commonly used method in each province highlighted in blue and methods used by more than 20% of households treating their water highlighted in grey.

The main water treatment method used in Capiz and Iloilo (by 43.4% and 58.7% of households respectively) was straining water through a cloth, which may remove dirt or other particles but is not sufficient to make water safe to drink. This method was also used by more than 10% of households treating their drinking water in Samar and Eastern Samar. Allowing water to stand and settle - another method insufficient for making water safe to drink - was also used by more than 10% of households treating their drinking water in Capiz and Iloilo. However, the most commonly used methods in all other provinces were adequate methods.

The most commonly used water treatment method in Cebu, Leyte, Eastern Samar and PhATS project areas overall was boiling. Adding bleach/chlorine was the most frequently used method in Samar, used by 53.5% of households who reported treating their water.

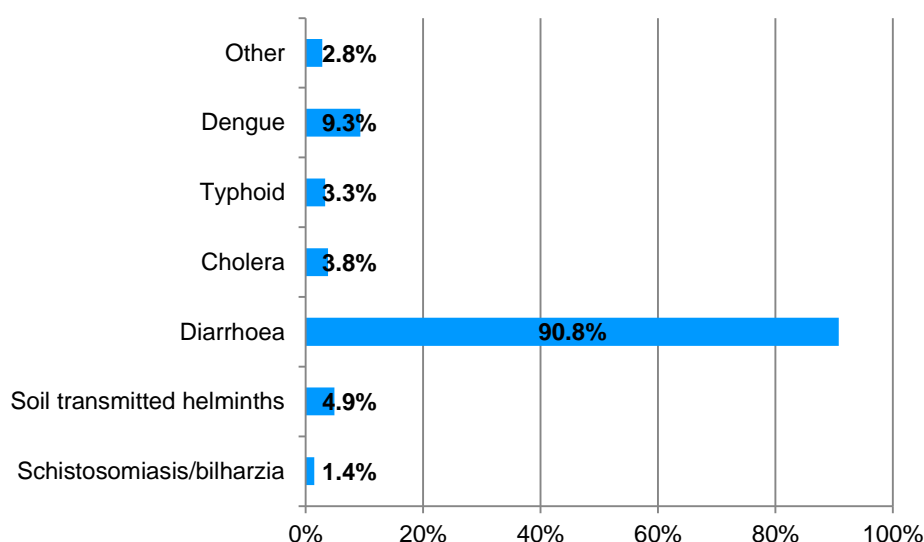
Table 5: Household water treatment methods, by province

	Adequate methods				Inadequate methods	
	Bleach/chlorine	Water filter	Boil	Solar disinfection	Stand and settle	Strain through cloth
Capiz	4.5%	4.6%	36.9%	0.0%	22.6%	43.4%
Iloilo	3.2%	11.0%	21.1%	0.0%	11.9%	58.7%
Cebu	11.4%	3.3%	45.9%	5.0%	0.0%	5.9%
Leyte	44.8%	1.0%	56.4%	0.0%	1.7%	3.6%
Samar	53.5%	3.4%	29.5%	0.0%	0.9%	17.7%
Eastern Samar	33.8%	5.0%	56.1%	0.4%	0.0%	10.3%
<b>All areas</b>	<b>32.9%</b>	<b>3.2%</b>	<b>49.4%</b>	<b>0.4%</b>	<b>4.9%</b>	<b>14.8%</b>

## Knowledge of Risks of Unsafe Water

91.9% of all respondents could name at least one specific health risk of unsafe water, with diarrhea by far the most commonly identified health risk (mentioned by 90.8% of all households). The next most commonly mentioned was dengue fever, identified by 9.3% of households, with no other health risk mentioned by more than 5% of households overall (see Figure 8 below).

**Figure 8: Percentage of households identifying each risk as a health risk of unsafe water**



This pattern was similar across the six provinces, with diarrhea being by far the most commonly identified health risk of unsafe water. Interestingly, the region VI provinces of Capiz and Iloilo had a much higher proportion of households identifying cholera, typhoid and dengue as health risks of unsafe water than the other provinces. The full results by province are outlined in Table 6 below, with the most commonly identified risk in each province highlighted in blue and risks identified by more than 10% of households highlighted in grey.

**Table 6: Percentage of households identifying each risk as a health risk of unsafe water, by province**

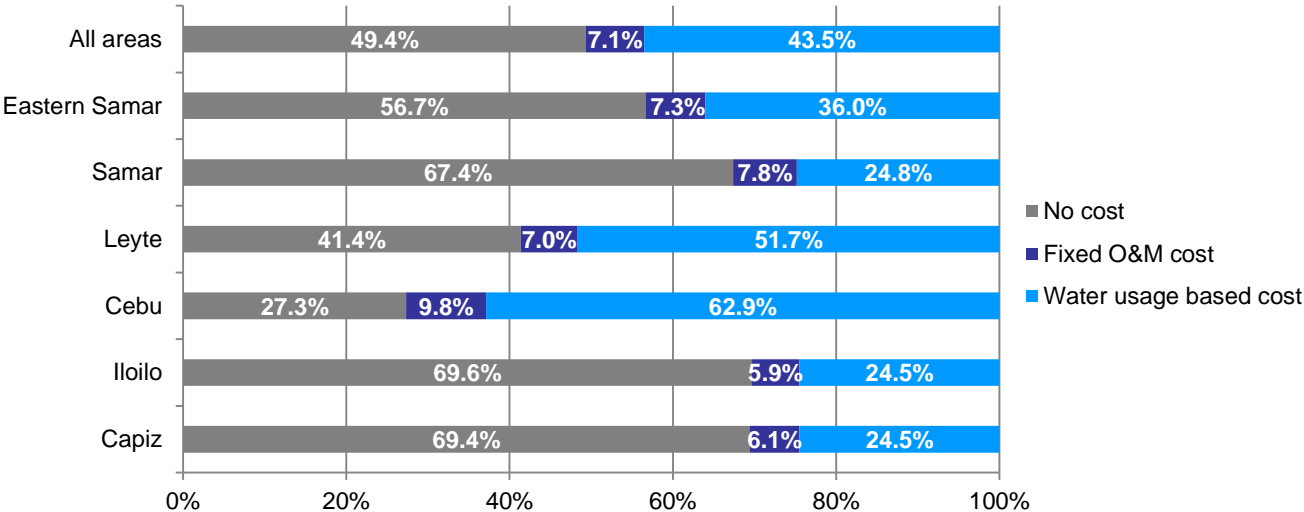
	Schistosomiasis/bilharzia	Soil transmitted helminths	Diarrhoea	Cholera	Typhoid	Dengue	Other
Capiz	1.1%	3.5%	89.0%	12.0%	10.8%	12.2%	3.6%
Iloilo	1.2%	5.0%	90.6%	9.5%	17.4%	12.0%	5.6%
Cebu	0.3%	3.7%	81.8%	2.1%	0.3%	4.2%	6.0%
Leyte	1.9%	5.3%	92.4%	3.0%	2.3%	9.4%	2.3%
Samar	0.8%	5.7%	88.9%	1.0%	0.6%	6.2%	3.4%
Eastern Samar	0.9%	4.8%	91.0%	0.7%	0.5%	9.1%	2.2%
<b>All areas</b>	<b>1.4%</b>	<b>4.9%</b>	<b>90.8%</b>	<b>3.8%</b>	<b>3.3%</b>	<b>9.3%</b>	<b>2.8%</b>

There is widespread understanding of the link between unsafe water and diarrhea. However, the low level of awareness of other health risks of unsafe water is quite striking. Despite the high prevalence of soil transmitted helminth (intestinal worm) infections in the Philippines— with an infection rate of approximately 54% among elementary school children<sup>33</sup> – less than 5% of households overall identified intestinal worms (commonly known as “bulate sa tiyan”) as a risk when asked about the health risks of unsafe water. Similarly, it is worrying that less than 2% of households in any province identified schistosomiasis as a health risk of unsafe water, given that it is endemic in Leyte, Samar and Eastern Samar.<sup>34</sup> The low levels of awareness of schistosomiasis, soil transmitted helminths, cholera, typhoid, dengue fever, leptospirosis and hepatitis A and B as health risks of unsafe water indicate that there is an opportunity to develop a fuller understanding of the specific risks of unsafe water, beyond just diarrhea. A fuller understanding of the specific risks of unsafe water may motivate changes in household behavior, such as improving methods of treatment for drinking water and removing standing water around the house and yard.

*Household Water Costs*

Half of all households in PhATS project areas are paying for drinking water. This was highest in Cebu, with an estimated 72.7% paying for drinking water, and lowest in the Region VI provinces of Iloilo and Capiz (see Figure 9 below). Among households who pay for drinking water, only a small proportion pays a fixed operations and maintenance cost, with the vast majority paying a water usage based cost.

**Figure 9: Percentage of households who pay for drinking water**



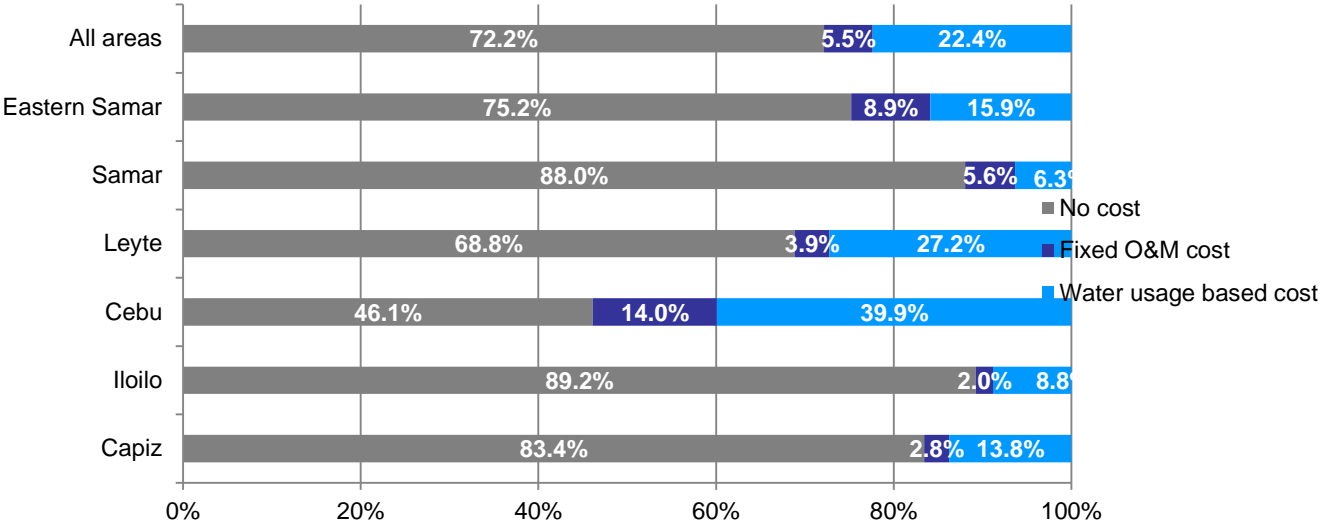
A much smaller proportion (27.9%) of households in PhATS project areas pay for water for purposes other than drinking (see Figure 10 below). However, as with drinking water, this was highest in Cebu

<sup>33</sup> Belizario, VY, WU de Leon, YF Lumampao, MB Anastacio and CM Tai 2009, “Sentinel surveillance of soil-transmitted helminthiasis in selected local government units in the Philippines”, *Asia Pacific Journal of Public Health* 21 (1): pp. 26-42.

<sup>34</sup> Olveda, DU, Y Li, RM Olveda, AK Lam, DP McManus, TNP Chau, DA Harn, GM Williams, DJ Gray and AGP Ross 2014, “Bilharzia in the Philippines: past, present, and future”, *International Journal of Infectious Diseases* 18: pp. 52-56.

(with 53.9% of households paying for water for purposes other than drinking), and in most cases it was a water usage based cost rather than a fixed operations and maintenance cost.

**Figure 10: Percentage of households who pay for water for purposes other than drinking**



**Among households paying for drinking water, most (66%) reported paying 250 PHP per month or less for it, with 7.8% paying more than 500 PHP per month.** Although fewer households reported paying for water for purposes other than drinking, the amount spent on it was higher than for drinking water (probably due to the larger quantities required). Among households paying for water for purposes other than drinking, the most frequently reported monthly spend was between 101 and 250 PHP per month (for water for purposes other than drinking only), with 12.8% paying more than 500 PHP per month. The breakdown of household water costs by province is detailed in Table 7 below.

**Table 7: Household water cost per month among those paying for water, by province and water use type**

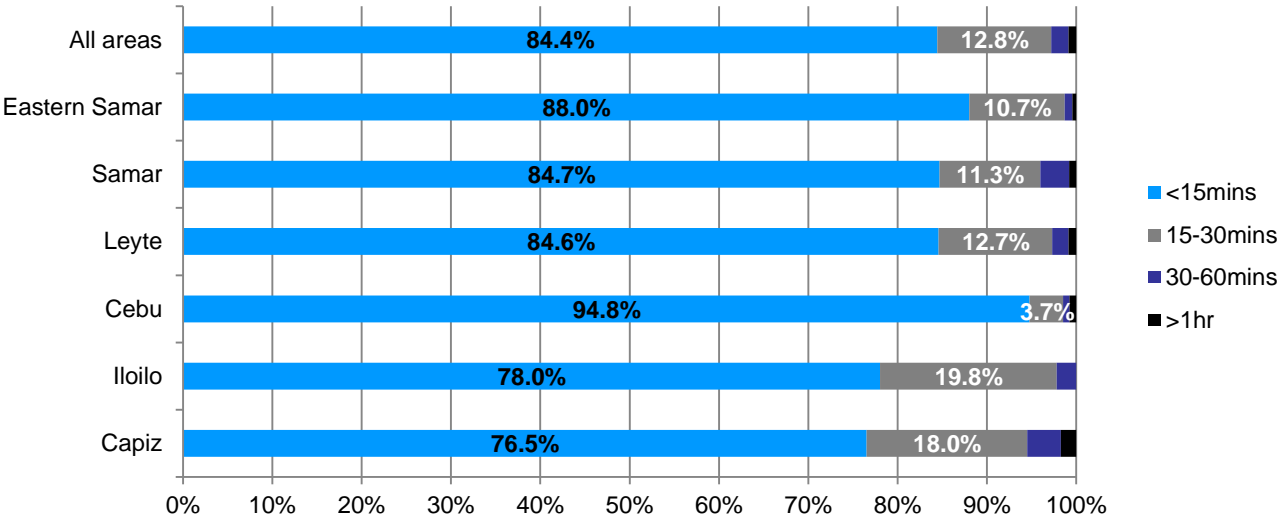
Province	Water use	<100 PhP	101-250 PhP	251-500 PhP	>500 PhP
Capiz	Drinking	35.3%	35.3%	23.5%	5.9%
	Other	25.0%	26.6%	40.6%	7.8%
Iloilo	Drinking	37.5%	37.5%	21.9%	3.1%
	Other	27.3%	18.2%	45.5%	9.1%
Cebu	Drinking	19.7%	59.2%	19.7%	1.4%
	Other	26.2%	54.4%	18.4%	1.0%
Leyte	Drinking	32.1%	29.9%	27.4%	10.6%
	Other	14.9%	36.9%	28.9%	19.3%
Samar	Drinking	34.0%	31.9%	27.7%	6.4%
	Other	43.8%	31.3%	25.0%	0.0%
Eastern Samar	Drinking	42.1%	27.4%	27.1%	3.4%
	Other	53.3%	21.1%	22.4%	3.3%
All areas	Drinking	33.1%	32.9%	26.2%	7.8%
	Other	24.7%	35.0%	27.5%	12.8%

Given that most (70.4%) households in PhATs project areas have a household income below 3333 PHP per month, these water costs are significant, particularly for those paying for water both for drinking and other purposes. For those who must pay for water used for other purposes, the cost may limit the availability of water for handwashing and other critical hygiene practices at household level. Moreover, households who currently pay for their drinking water and are vulnerable to income shocks could be forced to rely on unsafe water if they are unable to pay for drinking water for a period.

*Water Hauling*

The majority of households who fetch water from a source outside their plot report that it takes them less than 15 minutes to go to the water source, collect water and come back (excluding any time spent socializing). Across all project areas, 15.6% of households who fetch water take 15 minutes or more for this task. As Figure 11 below illustrates, the proportion of households who take longer than 15 minutes is higher in Capiz, with 1.7% of households reporting that water collection takes more than 1 hour.

**Figure 11: Water collection time for households who fetch water, by province**



These findings indicate that overall, even among households who rely on a water source outside their plot, water sources tend to be reasonably accessible. However, it is important to note that even short distances to a water source may be a barrier for the elderly, people with disabilities, pregnant women and other vulnerable people. For these groups, water collection times of less than 15 minutes may still imply that water sources are not sufficiently close or accessible to the household to ensure that there is a sufficient daily volume of water for basic household purposes.

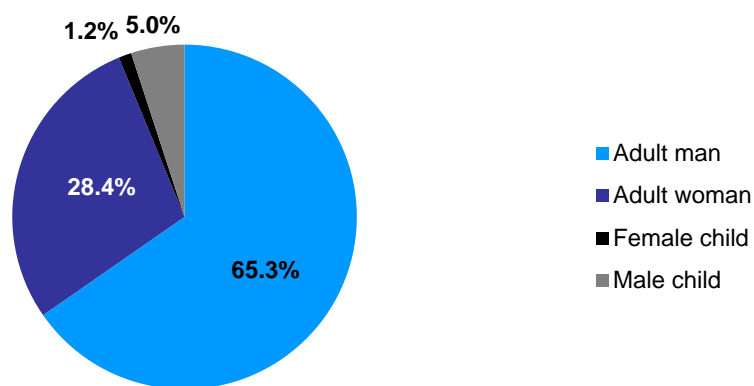
This can be an important barrier to the practice of handwashing and other key hygienic practices. Focus group data indicates that relatively short distances to water sources are not just an issue for those with mobility restrictions, but that it can also be an important disincentive for handwashing and the use of toilets more generally. Many participants reported that people sometimes practise open defecation because they are ‘lazy’ to get the water needed to use toilets.

In addition to the important impact even short distances can have on the practice of handwashing and open defecation, it is important to note the long distances and collection times reported by a small

proportion of households. Although the proportions are small - with only 2.8% of all households who fetch water reporting collection times of more than 30 minutes, rising to 5.5% in Capiz -, the impact on these households is likely to be very significant. It may severely limit the volume of water available at household level, and the willingness of household members to use it for hygiene activities which they may consider non-essential. This underlines the need for interventions in these areas.

Moreover, for households who spend more than 30 minutes on each water collection trip, the time burden of water collection is quite significant, especially when multiple trips per day are required. The burden of water collection fell mainly on adult men, with 65.3% of households reporting that an adult male was the person who usually fetched the water for the household. This pattern (see Figure 12 below) was consistent across all six provinces. As it is primarily men who do the work of collecting water for household use in PhATS project areas, it will be critical to convince them of the importance of having sufficient water available at household level for hygiene activities. As such, it will be particularly important for PhATS hygiene messaging to fully include – and perhaps specifically target – men.

**Figure 12: Gender and age profile of person who usually fetches water for the household (among households who fetch water)**



## Sanitation

### *Access to Improved Sanitation Facilities*

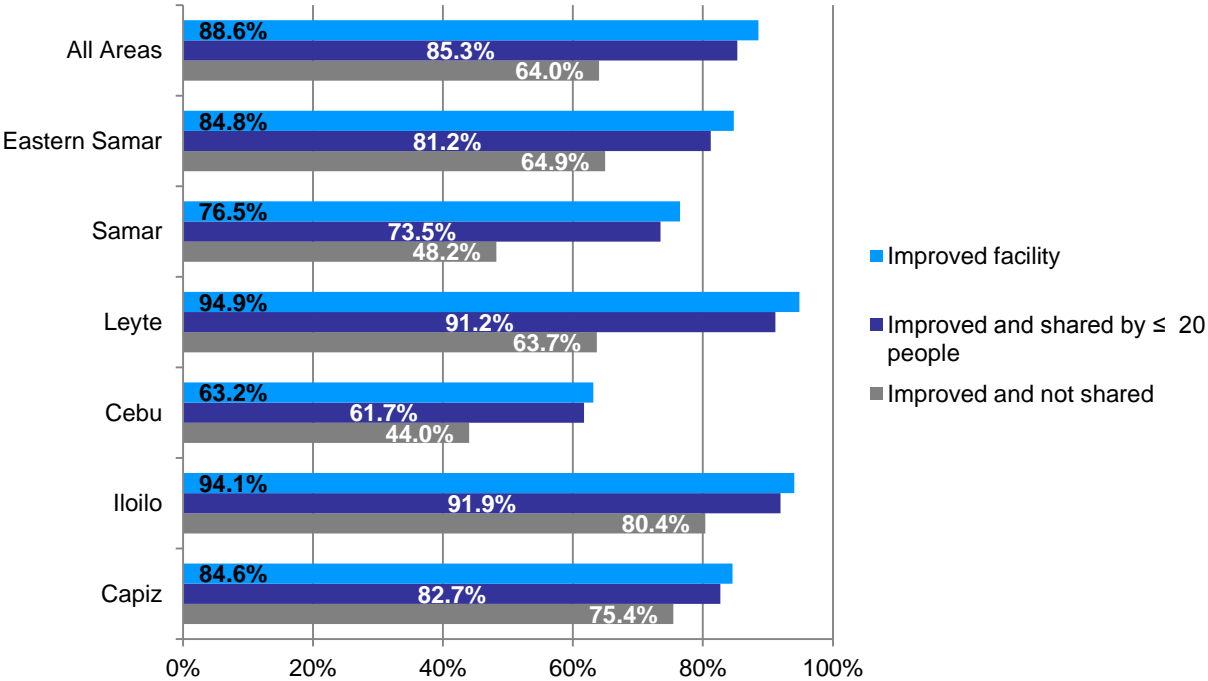
This assessment found that an estimated 88.6% of households in PhATS project areas are currently using an improved sanitation facility. This figure relates to facilities that hygienically separate human excreta from human contact, regardless of whether the facility is shared or not. Where facilities are considered as ‘improved’ only if they are shared by less than 20 people or not shared between households at all, the proportion of households in PhATS areas using an improved sanitation facility drops to 85.3% and 64% of households respectively. **The proportion of households in PhATS areas using improved facilities (shared or unshared) is similar to the pre-Haiyan national figure of 90%, but the proportion using improved facilities that are not shared between households is much lower, at only 64% compared to 74% nationally in 2012.**<sup>35</sup> The use of shared facilities can be problematic, as shared facilities (particularly when shared by more than 20 people) are less likely to be

<sup>35</sup> WHO/UNICEF 2014, note 26 *supra*

kept clean and may not be regarded as sufficiently private. These issues can discourage the use of the facilities and may lead to open defecation: in three PhATS provinces, toilets being dirty or smelling bad was the second most frequently mentioned reason for open defecation (after 'no toilet').

The proportion of households using an improved facility varied significantly between provinces, as illustrated in Figure 13 and Map 4 below. Project areas in Iloilo had the highest proportion of households using improved sanitation facilities (by all definitions), with 94.1% of households using an improved facility, 91.9% using an improved facility shared by less than 20 people, and 80.4% using a facility which was improved and not shared. Leyte had a similarly high proportion of households using improved facilities, but a far lower proportion of households using unshared improved facilities (63.7%). Only the Region VI provinces of Capiz and Iloilo had over 70% of households using an unshared improved facility. The lowest levels of access to improved sanitation facilities were in Cebu, with only 63.1% of households in project areas using a (shared or unshared) improved facility, and only 44% using an unshared improved facility.

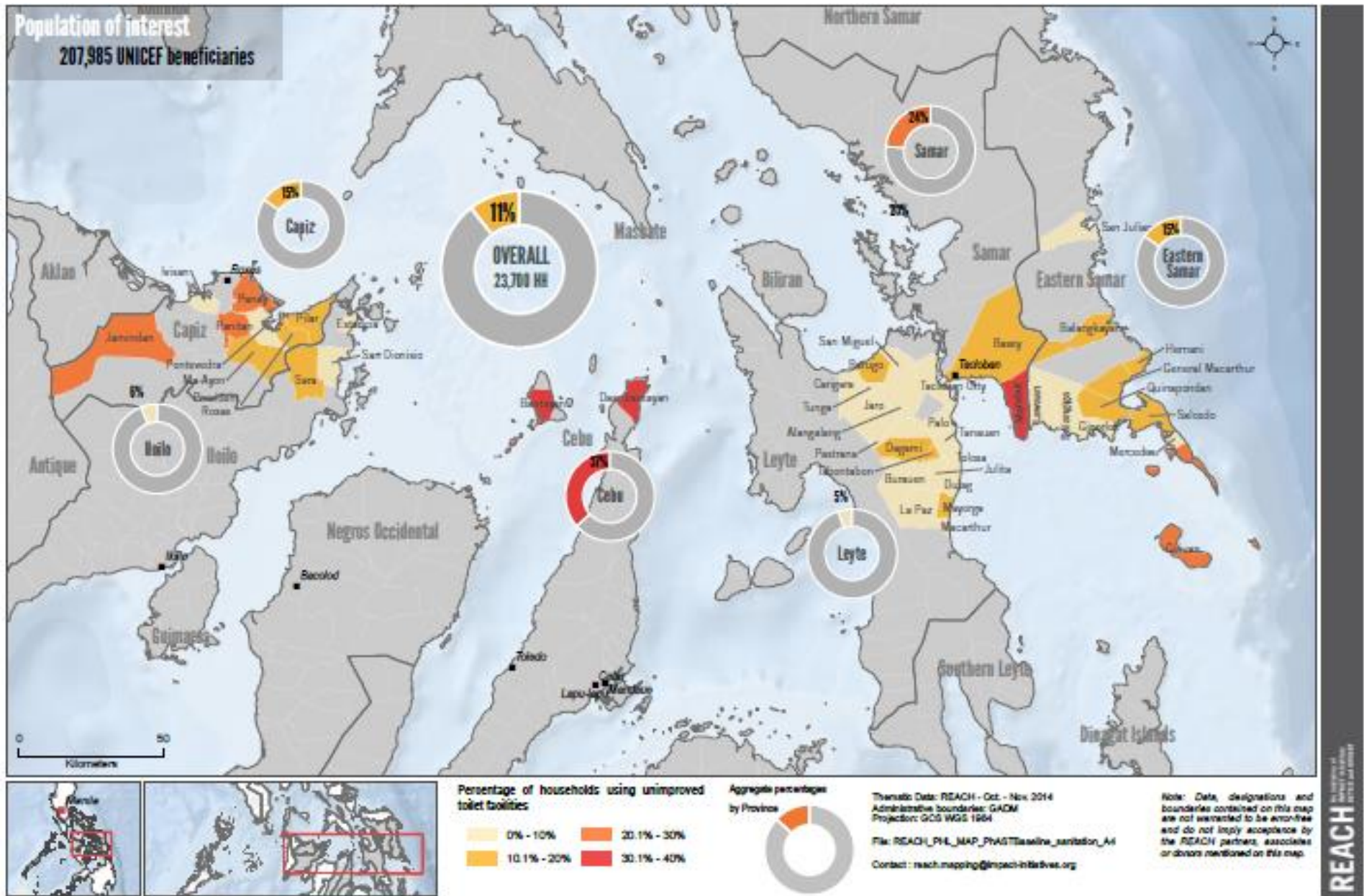
**Figure 13: Households using improved sanitation facilities, by province**



The extremely low rate of access to improved sanitation facilities in project areas in Cebu is a serious concern, and should be a priority for PhATS programming in this province. However, even in the areas with the highest rates of access, there is still a significant proportion of households who are not using improved sanitation facilities (shared or unshared): 8.1% or more in every province. Unimproved facilities are unlikely to provide the adequate separation of excreta from human contact, and as such pose a major health risk. Consequently, even where the proportion of households using unimproved facilities is relatively low, the health impact may be high.

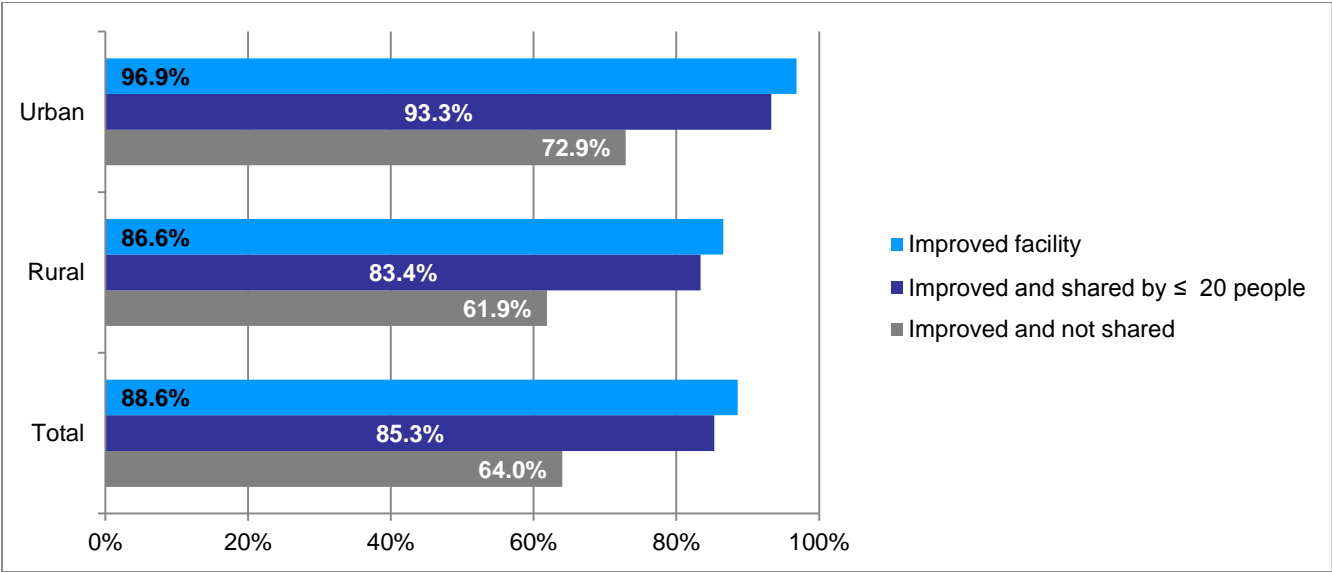


Map 4: Percentage of households using unimproved sanitation facilities



Urban/rural disaggregation of this data indicates that households not having access to facilities that allow for the hygienic separation of excreta from human contact is a much greater issue in rural project areas than in urban project areas (see Figure 14 below). Overall, 96.9% of urban households had access to a (shared or unshared) improved facility, compared to only 86.6% in rural areas. Despite the high rates of access to a (shared or unshared) improved sanitation facility in urban areas, the rates of those accessing an improved and unshared sanitation facility were much lower, with only 72.9% of urban households (compared to 61.9% of rural households) using an unshared improved sanitation facility. This indicates that demand creation activities at community level (which aim to build demand for household level sanitation facilities) and related interventions are relevant in both urban and rural areas. However, unlike with access to improved water sources, there is a significant difference between access to improved sanitation in rural and urban areas, and rural areas should be prioritized.

**Figure 14: Households using improved sanitation facilities in urban and rural areas**



*Types of Sanitation Facilities*

80.1% of households in project areas are using flush/pour flush toilets. The most common type of sanitation facility was a flush/pour flush toilet with septic tank (used by 63.2% of households), followed by flush/pour flush pit latrine (used by 16.9%).<sup>36</sup> Strikingly, the third most common ‘facility’ reported when respondents were asked what they and members of their household usually used was ‘no facilities’, with 8% of households open defecating in the bush, river or ocean. Unimproved facilities such

<sup>36</sup> Enumerators generally classified toilet types based on direct observation. However, where it was not possible to distinguish between flush/pour flush to pit latrine and flush/pour flush to septic tank by observation only, the respondent was asked “Where does this toilet flush to?” with their answer determining the classification. As such, there is likely to be a degree of inaccuracy here, with some toilets flushing to pit latrines mistakenly reported as flushing to septic tanks, and vice versa.

as hanging latrines, pit latrines without slabs and open pits were uncommon, with no unimproved facility type only reported by more than 3% of households overall (see Figure 15 below).

This demonstrates that where toilets exist, they tend to be improved (largely flush/pour flush) facilities, which may be an indication of a good understanding of demand for improved facilities. However, there is a stark inequality between households who have improved flush or pour flush toilets and those who have no toilets, with very little in between.

**Figure 15: Percentage of households using each type of sanitation facility in PhATS areas overall**

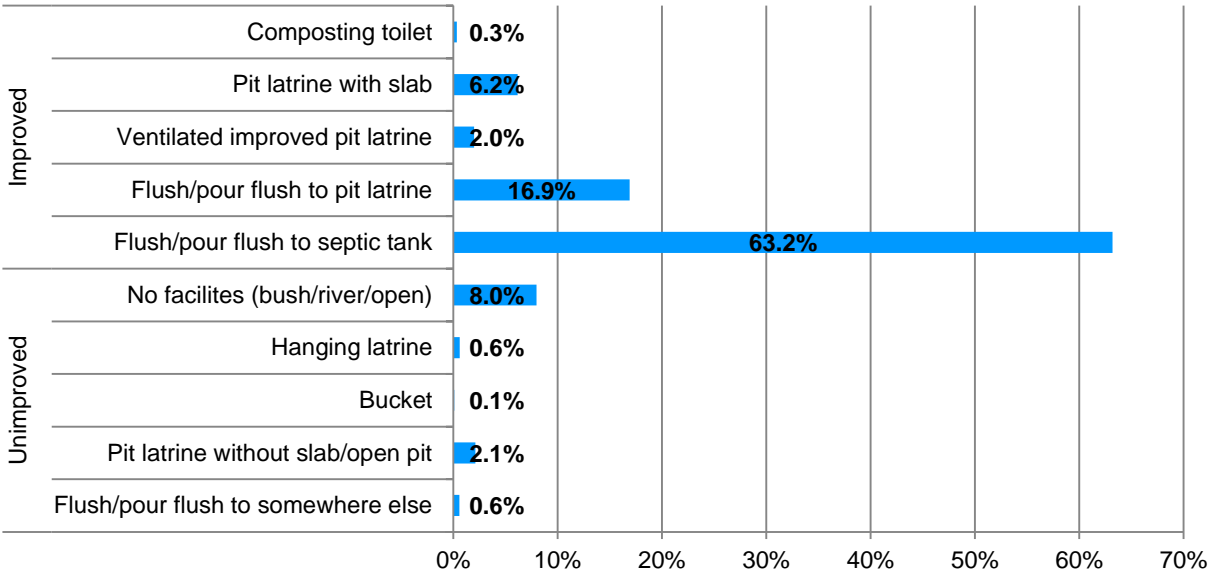


Table 8 below outlines the breakdown of facility type by province, with the most common type highlighted in blue and all types used by more than 10% of households highlighted in grey. The most common types were quite consistent across the provinces, with flush/pour flush to septic tank being the most common type of facility used by households in all provinces, except Iloilo (where flush/pour flush to pit latrine was the most common type).

The proportion of households not using any facility varied significantly: 11.5% in project areas in Eastern Samar, 16.9% in Samar, and a staggering 35.6% in Cebu did not use any facility, compared to less than 5% of households Capiz, Iloilo and Leyte. As discussed, most households who were not using an improved facility were not using any facility at all, but where unimproved facilities were used, the prevalence of different types varied between provinces. While still relatively uncommon, hanging latrines were used more often in Samar than in other provinces, and pit latrines without slabs/open pits were found most often in Capiz.

**Table 8: Type of sanitation facilities used, by province**

	Unimproved					Improved				
	Flush/pour flush to somewhere else <sup>37</sup>	Pit latrine without slab/open pit	Bucket	Hanging latrine	No facilities (bush/river/open)	Flush/pour flush to septic tank	Flush/pour flush to pit latrine	Ventilated improved pit latrine	Pit latrine with slab	Composting toilet
Capiz	2.1%	6.7%	0.3%	1.3%	4.9%	35.8%	32.2%	8.8%	5.4%	2.5%
Iloilo		4.0%			2.0%	37.6%	43.6%	5.9%	6.9%	
Cebu	0.5%	0.5%			35.6%	47.6%	14.7%		1.1%	
Leyte	0.2%	1.4%			3.5%	69.9%	16.1%	0.5%	8.4%	
Samar	0.7%	1.5%	0.7%	3.7%	17.0%	63.2%	7.4%	2.9%	2.9%	
Eastern Samar	0.8%	1.3%	0.2%	1.5%	11.5%	72.4%		1.3%	3.2%	
All areas	0.6%	2.1%	0.1%	0.6%	8.0%	63.2%	16.9%	2.0%	6.2%	0.3%

The prevalence of flush/pour flush toilets in all provinces raises some issues around maintenance and water usage. In areas where there are water shortages, where the water source is some distance away, and/or where households are paying for water, the water required to use flush/pour flush toilets may disincentivise their use.

This is supported by focus group data, with many male and female participants reporting that people sometimes practise open defecation because they are ‘lazy’ to get the water needed to use toilets. In addition, toilets which flush to septic tanks (the most common type of toilet used in PhATS areas) can be challenging to maintain, with many areas having limited or no access to desludging services. Several focus group participants explained that when septic tanks fill up and households are not able to empty them (because equipment/services are too expensive or do not exist in the area), these toilets are rendered unusable and households are left without any sanitation facility. The reliance on septic tanks is of particular concern in the disaster prone PhATS areas, where septic tanks can be flooded by storm surges or heavy rain, as occurred after Typhoon Yolanda.

Interestingly, composting toilets<sup>38</sup> - which do not require water for flushing or tanks to be emptied - were observed only in Capiz, and only by 2.6% of households there. This indicates that promotion of composting toilets and other alternative sanitation solutions in PhATS areas could be an extremely useful intervention in PhATS areas, under the ‘sustaining demand through supply side interventions’ pillar of the program. However, it will be particularly important to explore community acceptance of alternatives, as the prevalence of flush/pour flush toilets and scarcity of other facility types may indicate a strong community preference for flush toilets.

<sup>37</sup> Flush/pour flush to elsewhere refers to a facility which does not flush into a pit, septic tank or sewer. Excreta may be flushed to the yard or plot, an open sewer, a ditch or other location.

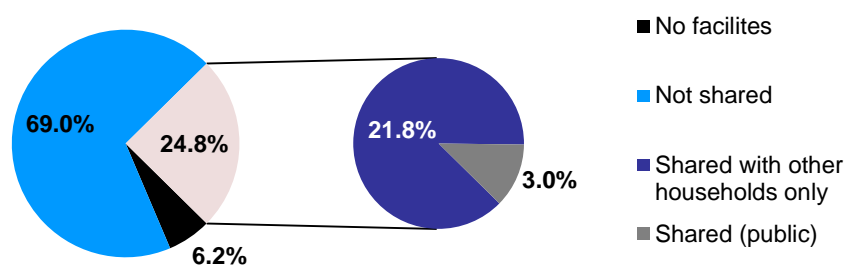
<sup>38</sup> Composting toilets are dry toilets into which carbon-rich material is added under specific conditions to produce inoffensive compost.

## Sharing and Ownership of Toilets

24.8% of all households in PhATS areas use a shared toilet. The vast majority of these households (and 21.8% of all households) are sharing with other households that they know (and in most cases less than 20 people in total),<sup>39</sup> as opposed to sharing toilets that are open to the general public (see Figure 16).

While the ultimate goal is for each household to have its own toilet, toilets shared between households that know each other (particularly when the number of users are small) may in some cases be appropriate medium term solutions. Of greater concern is the 3% of households using toilets which are open to the general public. Shared toilets, particularly those open to the use of the general public, are associated with a range of problems: they are often dirty and poorly maintained, lack sufficient privacy, may be unsafe (especially at night), and may be too far away or otherwise difficult to access.<sup>40</sup> These factors can discourage people from using them, and lead to open defecation.

Figure 16: Proportion of households who share a toilet



Reliance on public toilets was highest in Samar, with 4.5% of all households using toilets open to the general public as their usual toilet. This was followed by Leyte (3.2%) and Capiz (3.1%), with rates below 3% in the other provinces.

It may be useful for activities designed to encourage and/or facilitate the construction of household level toilets to target the areas with the highest proportion of households using shared toilets open to the public, and not just the highest proportion using shared toilets.

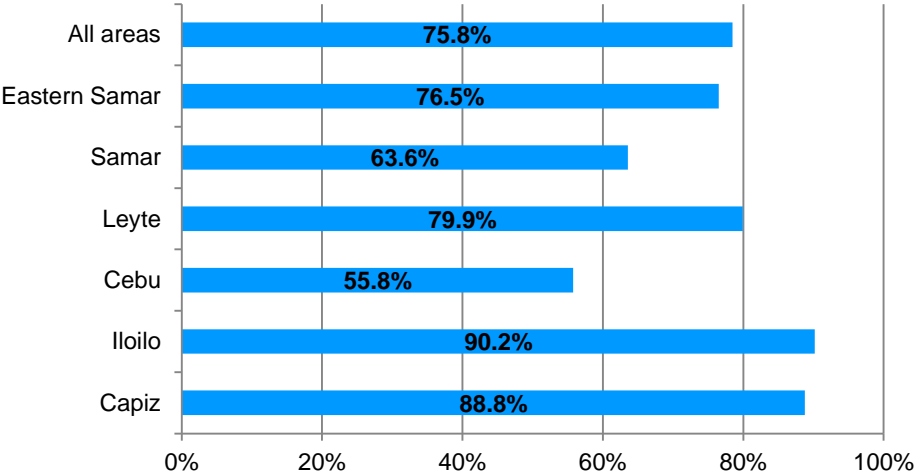
Closely related to the sharing of toilets is the issue of ownership. 75.8% of households overall own the toilet that they use.<sup>41</sup> This varied significantly between provinces, from only 55.8% of households in Cebu to 90.2% in Iloilo (see below).

<sup>39</sup> 2.5% of households sharing with other households that they know (0.5% of all households) reported that the toilet was shared by more than 20 people.

<sup>40</sup> Water and Sanitation for the Urban Poor (WSUP) 2011, [When are communal or public toilets an appropriate option?](#), Topic Brief

<sup>41</sup> Please note this is different to the proportion of households who use a toilet that is not shared, as some households who own their toilet choose to share it with others who are not members of their own household.

Figure 17: Percentage of households who own the toilet that they use



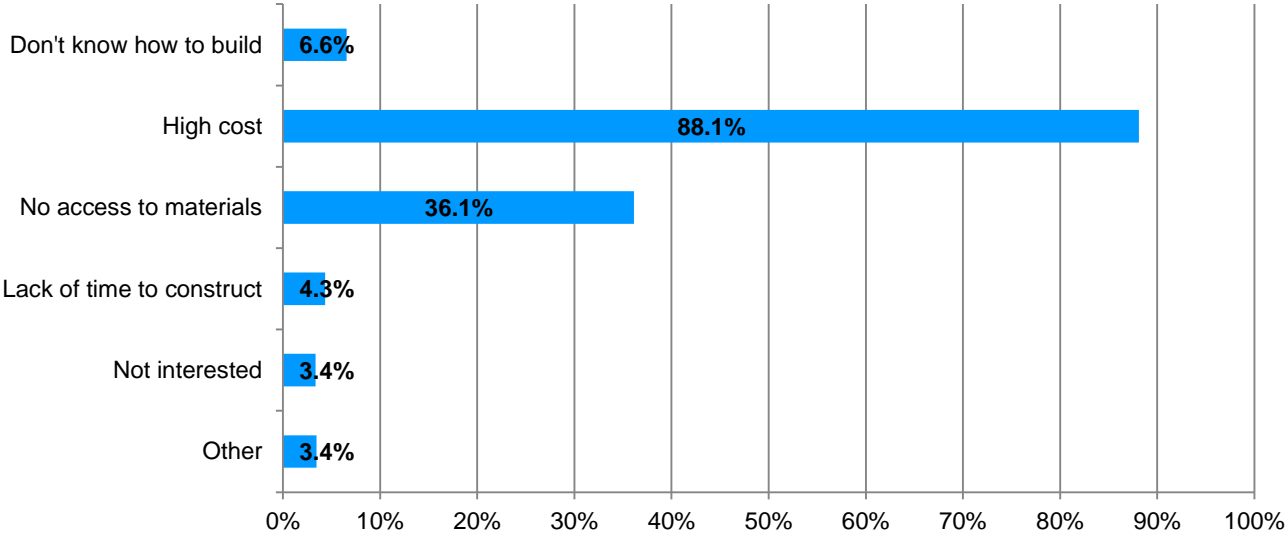
When asked if they would like to have their own toilet, 98.9% of households who did not have their own toilet said ‘yes’. In practice, there are important barriers to households having their own toilets, as discussed below.

The main barrier to toilet ownership was reportedly financial, with 88.1% of households without their own toilet identifying high cost as a barrier (see Figure 18 below).<sup>42</sup> 36.1% of households without their own toilet mentioned access to materials as a barrier, with only 6.6% reporting that not knowing how to build one was a barrier.

Whether or not the cost is considered too high is related to the perceived value of toilets (as well as the household’s resources) and this may be altered through triggering and awareness activities about the health and other benefits of toilets. Subsidies may also be relevant for the most vulnerable households.

<sup>42</sup> The questions on barriers to toilet ownership were asked only of those who did not already own a toilet, and due to this splitting of the sample, the findings on this topic – particularly at province level – should be considered as indicative only.

Figure 18: Main barriers to having own toilet (among households who do not own the toilet that they use)



The barriers identified were broadly consistent across the provinces, as outlined in Table 9 below. The most commonly reported barrier in each province was high cost, followed by access to materials.

Interestingly, 18.2% of respondents in Cebu mentioned lack of interest as a barrier to having their own toilet, whereas this was very rarely mentioned as a barrier elsewhere. More information is needed to determine what is behind this reported lack of interest, but it could indicate that toilet construction is simply not being prioritised.

Other differences between provinces include lack of time (being more of an issue in Cebu and Leyte), and not knowing how to build a toilet (being raised most often in Leyte and Samar, and not at all in Capiz and Iloilo). These differences between provinces are indicative only, but may be useful to consider in terms of targeting project activities.

**Table 9: Main barriers to having own toilet (among households who do not own the toilet that they use), by province**

Province	Don't know how to build	High cost	No access to materials	Lack of time to construct	Not interested	Other
Capiz	0.0%	85.5%	37.2%	1.5%	0.0%	0.0%
Iloilo	0.0%	91.1%	39.3%	0.0%	0.0%	6.2%
Cebu	3.0%	95.8%	34.0%	6.7%	18.2%	4.3%
Leyte	8.9%	80.7%	35.4%	6.3%	1.5%	4.2%
Samar	8.3%	93.8%	34.1%	3.7%	0.0%	2.8%
Eastern Samar	5.2%	98.5%	39.1%	0.0%	1.2%	2.5%
All areas	6.6%	88.1%	36.1%	4.3%	3.4%	3.4%

### *Financing Toilet Construction*

All households without their own toilet were asked, “If you were to construct a toilet, how would you pay for the construction cost?”. The most common answer was self-financing (mentioned by 55%), followed by sharing the cost (29%). This should not necessarily be understood as willingness to pay, and caution should be exercised in interpreting these responses. However, results are included in Table 10 below, in order to inform programming on the development of sanitation financing options for households (including microfinance).

**Table 10: ‘If you were to construct a toilet, how would you pay for the construction cost?’ (among households without their own toilet)**

Province	Loan	Self finance	Share the cost	Other	Don't know
Capiz	20.5%	40.9%	15.9%	2.3%	20.5%
Iloilo	27.3%	54.5%	9.1%		9.1%
Cebu		45.8%	37.3%	8.4%	8.4%
Leyte	4.4%	57.3%	30.7%	1.3%	6.3%
Samar	5.8%	57.7%	23.1%	1.9%	11.5%
Eastern Samar	6.2%	58.6%	28.3%	0.7%	6.2%
All areas	5.8%	55.0%	29.0%	2.2%	8.0%

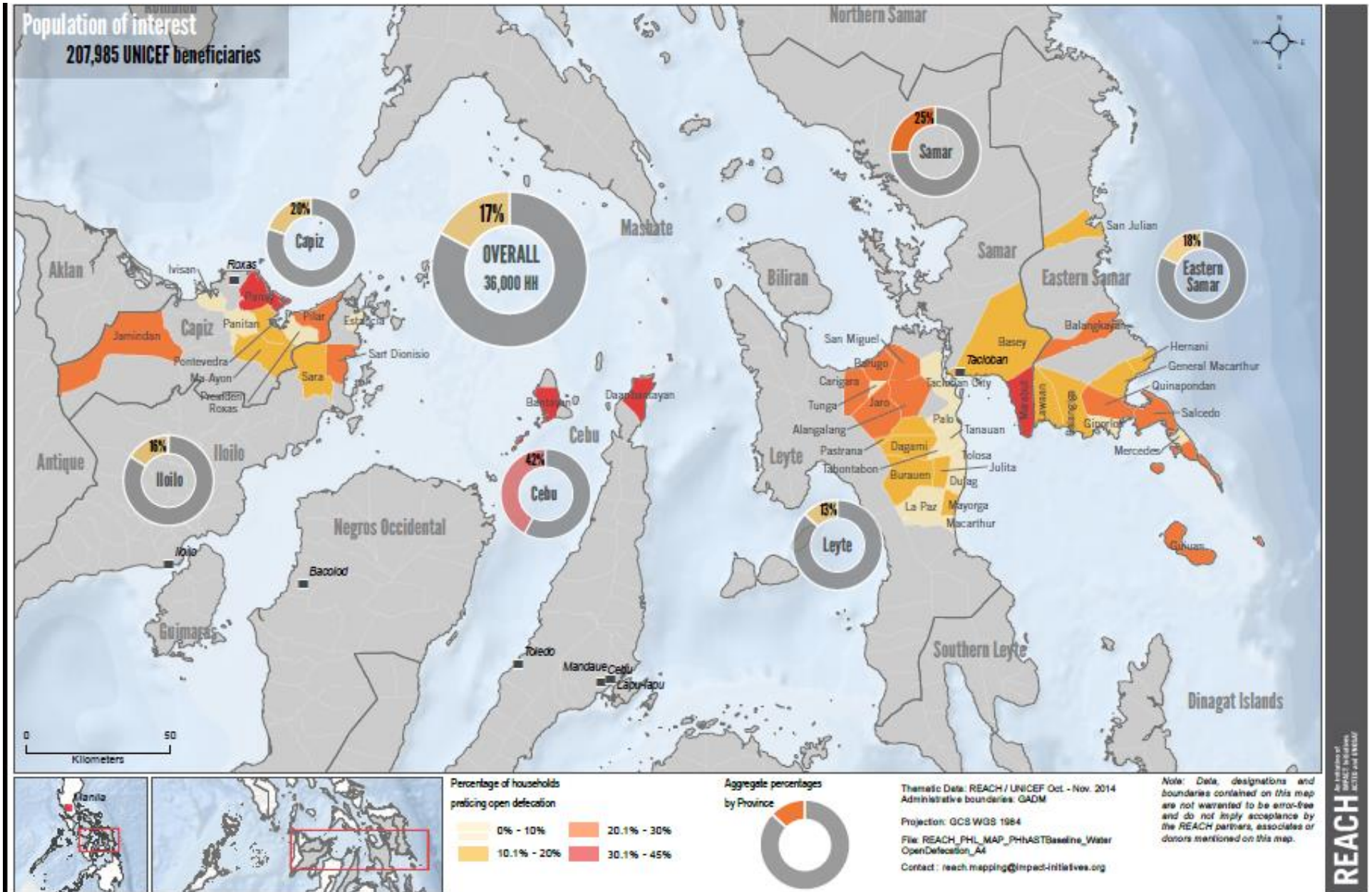
### *Practice of Open Defecation*

An estimated 17.3% of households in PhATS areas are practising open defecation.<sup>43</sup> The rate of open defecation (OD) varies significantly by province (see Map 5 below) but does not drop below 13%, and is the highest in Cebu, with 42.3% of households in project areas practising open defecation. There is also significant variation within provinces, with municipality level data outlined in Annexe 4. These findings confirm the need for urgent intervention to curb open defecation in these areas.

<sup>43</sup> This is calculated as households who report having at least one member who ever (always, usually, sometimes or rarely) practises open defecation plus households who do not report ever practising open defecation but report ‘no facilities’ when asked what kind of toilet facilities their household usually uses. While this definition technically includes households where open defecation may be practised rarely and/or by only one household member, including all non-never responses is likely to give the most accurate picture given that open defecation is likely to be hugely under-reported in a face-to-face survey.

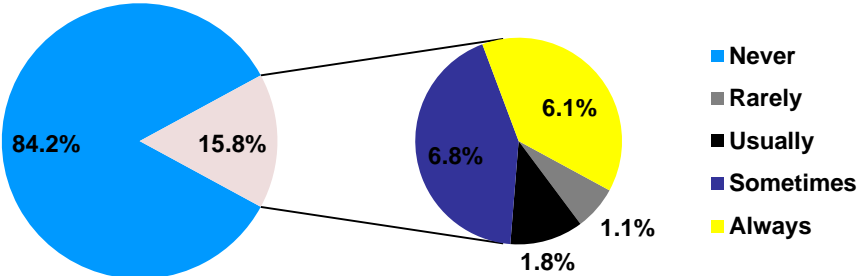


Map 5: Percentage of households practising open defecation



15.8% of all households in PhATS areas acknowledge ever practising open defecation.<sup>44</sup> Of these households, most report defecating in the open sometimes (6.8% of all households) or always (6.1% of all households), with smaller proportions reporting practice of open defecation ‘rarely’ or ‘usually’ (see Figure 19 below).

Figure 19: ‘How often does a member of your household defecate openly?’ (Self reported)



This pattern is broadly consistent across the provinces, as outlined in Table 11 below, with the most common answers for each province (excluding ‘never’) highlighted in blue and the second most common in grey.

Table 11: ‘How often does a member of your household defecate openly?’ (Self reported), by province

Province	Never	Rarely	Usually	Sometimes	Always
Capiz	81.4%	4.1%	3.6%	8.4%	2.6%
Iloilo	87.3%	2.9%	2.0%	3.9%	3.9%
Cebu	57.9%	2.1%	2.6%	6.2%	31.3%
Leyte	88.4%	.6%	1.7%	6.3%	3.0%
Samar	78.2%		2.8%	8.5%	10.6%
Eastern Samar	84.3%	.2%	.5%	7.3%	7.8%
All areas	84.2%	1.1%	1.8%	6.8%	6.1%

<sup>44</sup> The open defecation rate has been calculated as households who acknowledge ever practising open defecation plus households who do not report ever practising open defecation but report ‘no facilities’ when asked what kind of toilet facilities their household usually uses. Please see footnote 43.

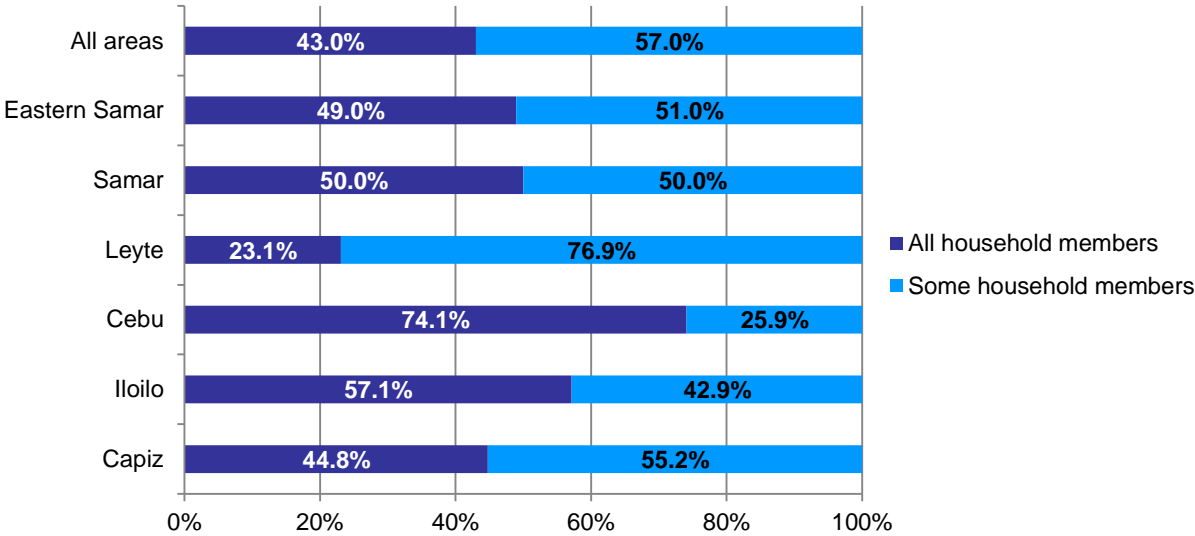
These responses must be interpreted with caution, with the practice and frequency of open defecation likely to be underreported due to social stigma. Nevertheless, these findings indicate that at least half of all households who practise open defecation do so always or usually. When taken together with the reasons given for open defecation, it suggests that most households who practise open defecation are doing so because they do not have access to a toilet.

However, there is also a significant proportion of households who report practising open defecation only rarely or sometimes. While some of these households may be underreporting and may actually practise OD more frequently, the reasons given for open defecation support the idea that where OD is practised, it is not necessarily practised *all the time*. In these cases, it means that there is at least some access to toilet facilities.

Moreover, among the households where open defecation is practised, it is not necessarily practised by *all* household members. **Indeed, among the 57% of households practising OD, it was reportedly practised by some household members only.**<sup>45</sup>

This varied quite dramatically between provinces, as Figure 19 below illustrates. In Cebu and Iloilo, open defecation was practised by all household members for 74.1% and 57.1% of the households practising OD respectively. In Capiz, Eastern Samar and Leyte, OD was reportedly practised by some household members in more than half of households where OD was practised. This was highest in Leyte, where OD was reportedly practised by some household members in 76.9% of households practising OD.<sup>46</sup>

**Figure 20: Percentage of households where open defecation is practised by all/some members only (among households that have at least 1 member ever practising OD)**



<sup>45</sup> Households who reported that some but not all household members practise open defecation were asked which members defecate openly. Boys and girls were most commonly identified (by 80% and 42% of these households respectively), followed by men (35.0%) and women (9.9%). However due to the twice-split sample and the very sensitive nature of the question (touching on personal OD, not just household OD), these figures should be considered as a very rough indication only.

<sup>46</sup> As with the other self-reported data on open defecation, caution should be exercised in interpreting these responses, with the proportion of households where all members practise OD likely to be higher than reported (due to the potential additional discomfort of admitting that oneself as well as other household members practises a stigmatized behavior).

This variation in OD practice within one household demonstrates the role of individual preferences and behaviour, and underlines the fact that open defecation is not only about sanitation infrastructure.

However, infrastructure issues may still be very relevant in framing these preferences and behaviours, as open defecation being practised by whole households may indicate complete lack of access to infrastructure. Therefore it is not surprising to see that in Leyte - which has a relatively high rate of toilet ownership and access to improved facilities -, OD is practised by *some* members of the households only, on the contrary to Cebu - which has the lowest rates of toilet ownership and access to improved facilities - where OD is usually practised by *all* household members.

As another example, where a shared toilet is available, limited privacy may discourage female household members more than male, and a toilet across a ditch may be accessible for most but difficult to access for elderly family members.

Therefore these findings on OD practice within households, together with the findings on OD frequency mentioned earlier, underline **the importance of targeting both infrastructure and behavior change as part of working towards the elimination of open defecation in PhATS project areas.**

Indeed, we have seen that even the reasons that are likely to drive *occasional* practice of OD or practice among *some* members of households only (eg. long waiting times for toilets or limited privacy), mostly relate to insufficient or inadequate infrastructure. However, in the cases where there is at least some access to toilet facilities, there is a potential for behavior change focused programs, to encourage more consistent use of toilets.

In order to explore the relationship between the practice of open defecation and various demographic and other characteristics, bivariate regression analysis was performed with the relevant variables of the baseline dataset. The variables tested included house type, use of improved water source, hygiene messages received, knowledge of risks of unsafe water, hand-washing practices, income, livelihood type, assets owned, urban/rural, coastal/upland and family size and type. Although some variables showed some effect on open defecation, no variable was found to show a strong explanatory power for the occurrence of open defecation. The variables with the strongest effect were the socio-economic indicators (notably type of income and type of livelihood). However, even these explained less than 6% of the variation.

Based on the bivariate regression analysis, a multi-regression model (included in Annexe X) was built using the stepwise method. This model has a very low predictive power, with only 11% of cases of open defecation correctly predicted by the model. This will be tested again in the endline, however at this stage we are essentially limited to the self-reported reasons for open defecation

The self-reported **reasons** for practising open defecation emphasise infrastructure: 94.2% of all households and 97.1% of households practising OD reported not having a toilet as a reason for some people to practise open defecation. Other reasons given by both groups

**“We really don’t accept this [open defecation], but we don’t have a choice because some of us don’t have toilets. That’s why we defecate in the open, especially here in the seashore.”**

**– Male FGD participant, Eastern Samar.**

included the toilet being too far away, long waiting time (for communal toilets), no privacy, the toilet being dirty or smelling bad and the toilet being unsafe (see Table 12 and Table 13 below).

The reasons given by households practising OD were broadly similar to those given by households overall. Interestingly, toilets being dirty or smelling bad was mentioned more often by households overall, whereas privacy was mentioned more often by households who practise OD. 3% of all households and 1.9% of households practising open defecation mentioned ‘laziness’ or ‘lack of discipline’ as a reason some people practised open defecation. This issue was explored in the focus group discussions, and was usually discussed as ‘laziness’ to get water needed for using toilets, particularly in communities where defecating in the river/ocean was an alternative. While this was most often discussed by participants as laziness, the core issue related to the accessibility and (less commonly) scarcity of water, highlighting the important relationship between accessible water and accessible sanitation facilities.

**Table 12: Reasons given for open defecation (by all households)**

#	Reason	%
1	No toilet	94.2%
2	Toilet dirty/smells bad	6.9%
3	Long waiting time	6.2%
4	Toilet far away	5.2%
5	Toilet unsafe	3.6%
6	Lazy/no discipline	3.0%
7	No privacy	1.6%

**Table 13: Reasons for open defecation (self-reported by households practising OD)**

#	Reason	%
1	No toilet	97.1%
2	Toilet far away	7.4%
3	Long waiting time	5.3%
4	No privacy	3.4%
5	Toilet dirty/smells bad	2.8%
6	Lazy/lazy to get water	1.9%
7	Toilet unsafe	0.9%

Table 14 below disaggregates by province the reasons given for open defecation (by all households), with the most commonly reported reason highlighted in blue and the next most commonly reported in grey. While not having a toilet was by far the most commonly reported reason for OD in every province, the other reasons identified varied widely between provinces. For example, long waiting times was the second most frequently mentioned reason in project areas in Eastern Samar (mentioned by 10.4% of all households), but it was not mentioned at all in Cebu and by less than 3% of all households in Capiz.

**Table 14: Reasons given for open defecation (by all households), by province**

Province	Long waiting time	No toilet	No privacy	Toilet far away	Toilet dirty/smells bad	Toilet unsafe	Lazy/no discipline	Other
Capiz	2.9%	92.7%	3.4%	13.6%	2.1%	1.3%	2.7%	1.2%
Iloilo	4.6%	91.8%	0.5%	12.1%	1.5%	0.9%	3.4%	0.0%
Cebu	0.0%	100.0%	1.3%	9.7%	0.3%	0.0%	0.0%	3.7%
Leyte	6.2%	92.8%	0.8%	1.4%	9.1%	4.6%	3.8%	3.0%
Samar	5.9%	94.8%	0.8%	2.5%	11.1%	2.1%	2.6%	1.6%
Eastern Samar	10.4%	97.5%	2.7%	7.6%	6.5%	4.7%	1.8%	2.6%
All areas	6.2%	94.2%	1.6%	5.2%	6.9%	3.6%	3.0%	2.5%

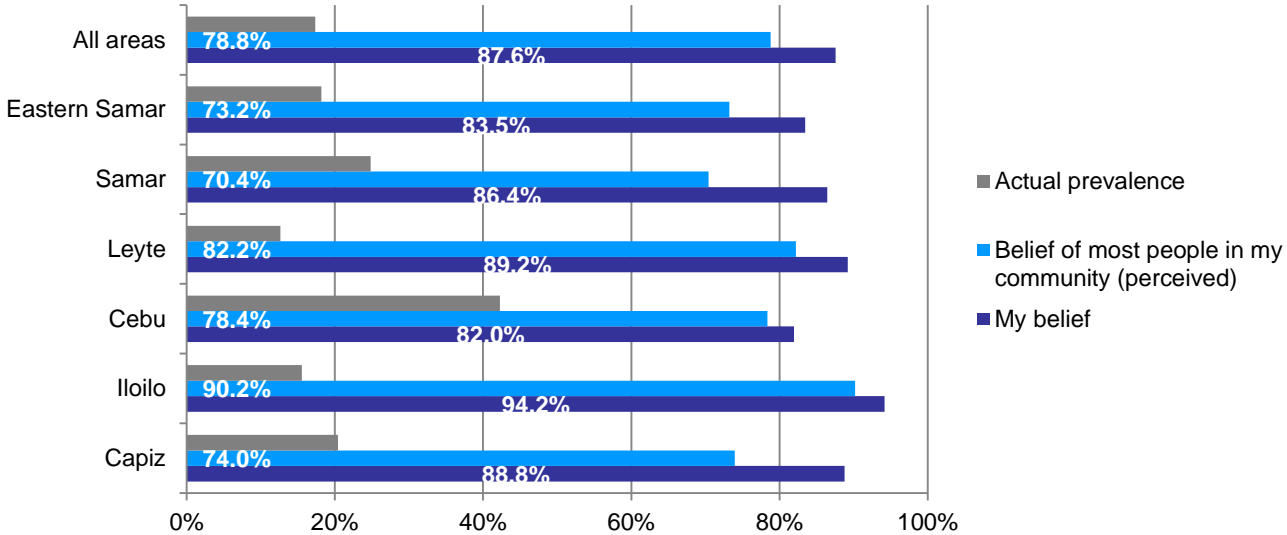
It is important to remember that these are the reasons given by *all* households - and not just those practising open defecation -, and as such reflects the perceived rather than actual reasons for people to practise open defecation.<sup>47</sup> Nevertheless, these provincial differences in the reasons identified, together with the provincial differences in frequency and practice within households, help to shape to a distinct profile of open defecation in each province. ‘Wh’o practises open defecation, ‘how often’ and ‘why’ varies across the PhATS project areas, underlining the importance of tailored approaches to curb open defecation.

*Social Acceptance of Open Defecation*

Social acceptance of open defecation is reportedly low, with 87.6% of respondents overall reporting that they disagreed or strongly disagreed with the statement ‘I believe that defecating in the open is acceptable’. This figure was consistently high across all provinces, from 82% in Cebu to 94.2% in Iloilo (see Figure 21 below).

When asked to respond to the statement ‘Most people in my community believe that defecating in the open is acceptable’, 78.8% of respondents overall reported that they disagreed or strongly disagreed. As expected, provinces with higher prevalence of OD tended to have higher levels of reported acceptance of the practice, and perceived community acceptance of OD was higher than self-reported acceptance of the practice. Nevertheless, the perceived community acceptance of open defecation was low in all provinces, with at least 70% of respondents in each province reporting that they disagreed or strongly disagreed with the fact that most people in their community would believe OD is acceptable.

**Figure 21: Percentage of respondents that disagree or strongly disagree with the statements ‘I believe/most people in my community believe that OD is acceptable’**



<sup>47</sup> With only 17.3% of households in the sample practising open defecation, this split sample is too small to provide an accurate provincial breakdown of the reasons given by households practising open defecation.

These findings were supported by focus group discussions data. In 42 out of 44 focus groups, all participants agreed that open defecation was not accepted in their communities. In the two other remaining groups, one was divided about whether or not it was acceptable in the community, and the other one agreed that it was acceptable.

When asked about community perceptions of open defecation, the language used was quite strong: FGD participants discussed open defecation as 'shameful', 'not acceptable', and 'not allowed'. Importantly, where open defecation was considered acceptable, participants made it very clear that 'it is accepted in our community because we don't have a choice', due to lack of toilet facilities (as reported by a male FGD participant, Eastern Samar). This underlines the importance of interpreting with caution the responses of those who agreed that they/most people in their community believe that defecating in the open is acceptable: focus group data indicates that this acceptability may be less about knowledge and attitudes, and more about the absence of facilities.

Of course, the idea of not having a choice, repeatedly expressed in FGDs, also requires exploration. In some cases, not having a choice may be a question of prioritizing other things above sanitation in deciding how to use available household resources (including money and water). It is in such cases that awareness and triggering activities could work to alter the perceived importance of sanitation and encourage households to prioritize toilet construction, while recognizing that this may not be viable for the poorest and most vulnerable households.

### *Perceived Risks and Problems of Open Defecation*

When asked what they saw as the risks and problems of open defecation, 88.6% of all households mentioned disease. This was the most commonly mentioned issue in every province, indicating a widespread understanding of the link between open defecation and disease. Based on FGD data, health risks were also the main driver of the low social acceptance of open defecation.

The next most commonly mentioned risk/problem of open defecation was dirty surroundings, including concerns about visual pollution, bad smells, attracting flies, and the risk of stepping in faeces. This was the second most commonly mentioned issue in each province.

**“We plant vegetables as our source of income. So if someone defecates in our crops it will cause disease to those who will buy our vegetables.”**

**– Male FGD participant, Iloilo.**

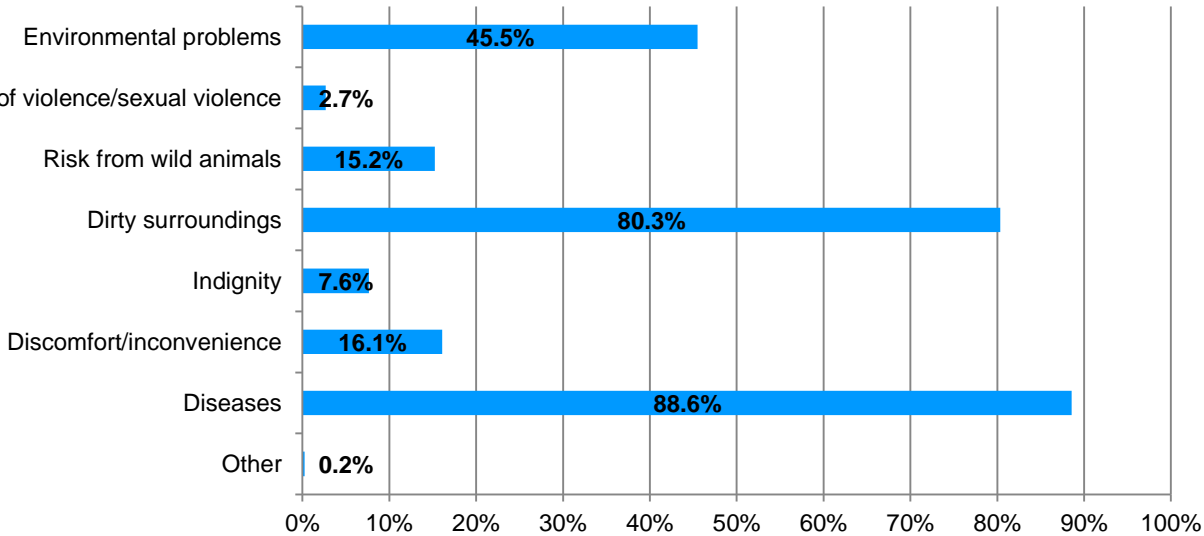
Focus group data indicated that in some cases, these dirty surroundings were not just problematic on a practical level but were felt to be 'shameful to others, especially to the barangay' (female FGD participant, Leyte). While 80.3% of respondents identified dirty surroundings as a problem of OD, only 45.5% of respondents mentioned specific environmental problems (see Figure 22 below).

These included impact on livestock and other animals and contamination of crops. As one male FGD participant from Iloilo explained, this can impact livelihoods: 'we plant vegetables as our source of income. So if someone defecates in our crops it will cause disease to those who will buy our vegetables.'

Less commonly mentioned risks or problems of open defecation were discomfort/inconvenience (mentioned by only 16.1% of households), risk from wild animals such as snakes (15.2%) and indignity

(7.6%). Indignity, where mentioned, was mostly perceived as a risk for women practicing OD during the day (where they could be seen by others). Threat of violence, including sexual violence, was identified as a risk of OD by only 2.7% of households.

Figure 22: Percentage of households mentioning each issue as a risk/problem of open defecation



The risks and problems identified were quite consistent across provinces, with disease being the top issue and dirty surroundings the second most commonly mentioned risk in each province. The most striking difference was that threat of violence/sexual violence was mentioned as a risk of OD much more often in Cebu (by 14.8% of households) than in the other provinces. Figure 23 outlines the full results by province, with the most commonly mentioned issue highlighted in blue, and all issues identified by more than 50% highlighted in grey.

Figure 23: Percentage of households mentioning each issue as a risk/problem of open defecation, by province

Province	Diseases	Discomfort/inconvenience	Indignity	Dirty surroundings	Risk from wild animals	Threat of violence/sexual violence	Environmental problems	Other
Capiz	83.2%	6.0%	8.2%	80.4%	6.7%	2.4%	40.4%	0.2%
Iloilo	85.9%	7.5%	4.5%	79.4%	5.2%	0.2%	41.9%	0.9%
Cebu	99.5%	26.0%	6.4%	95.5%	31.3%	14.8%	52.3%	0.0%
Leyte	87.0%	18.2%	3.9%	79.0%	8.5%	0.9%	44.6%	0.1%
Samar	86.2%	14.6%	7.1%	79.5%	13.2%	1.2%	47.5%	0.2%
Eastern Samar	93.6%	15.6%	17.8%	79.3%	35.0%	4.3%	48.9%	0.6%
All areas	88.6%	16.1%	7.6%	80.3%	15.2%	2.7%	45.5%	0.2%

Sanitation programs usually focus on the health risks (particularly fecal-oral disease transmission) of open defecation, and awareness of these risks is high across all PhATs project areas. Notably, this awareness was the highest - with 99.5% of households identifying disease as a risk of open defecation – in Cebu, the province with the highest rate of open defecation.



This demonstrates that sensitizing households to the health risks is not sufficient to end the practice of open defecation. Awareness campaigns have their limits and there are resource constraints and other barriers that may prevent households from building their own toilets, regardless of their knowledge and attitudes.

However, part of the issue may be due to the health focus of awareness and sensitization campaigns: there is a growing body of evidence which suggests that health promotion messages often fail to motivate changes in sanitation behavior, and that actual motives for households to build toilets are more likely to involve prestige and well-being.<sup>48</sup>

An academic study conducted in the Philippines asked rural householders to prioritize reasons for satisfaction with their new latrines, and found that the top reasons were (1) lack of smell and flies; (2) cleaner surroundings; (3) privacy; (4) less embarrassment when friends visit and (5) less gastrointestinal infections.<sup>49</sup> This suggests that **health considerations play only a minor role in discouraging OD/encouraging construction of household toilets, and that it may be more effective for awareness and sensitization campaigns to focus on issues of cleanliness, comfort, privacy and social status.**

Indeed, the proportion of households who mentioned these types of risks and problems of OD was relatively low, with discomfort/inconvenience mentioned by only 16.1% of households and indignity/privacy mentioned by only 7.6%. As such, there is an opportunity to focus sensitization and triggering activities on non-health issues that are not commonly perceived as risks or problems of open defecation (and may be important drivers of behavior change), as well as building on existing knowledge of the health risks.

### *Community Discussion about Open Defecation*

Most respondents (62.3% overall) reported that they do not talk with their neighbours about open defecation (see Figure 24 below). However, a significant minority (37.7% overall and at least a quarter in each province) are talking to their neighbors about open defecation. This indicates that taboos are being eroded and many people consider the issue important enough to risk facing the social difficulties associated with discussing it. However, the sensitivity of the topic and willingness to talk about it varies by province, and these differences should inform on the best approach to be taken with awareness campaigns.

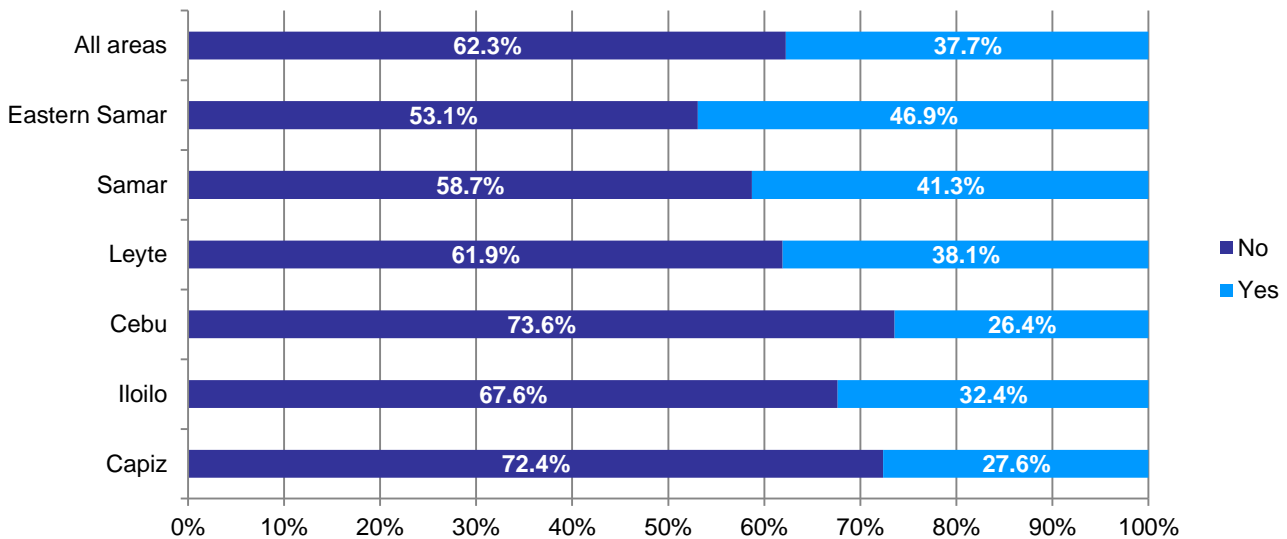
Eastern Samar had the highest proportion of households who reported talking with their neighbours about OD (at 46.9%), while Cebu – with the highest rate of open defecation – had the lowest proportion of households who talk about it (only 26.4%).

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<sup>48</sup> Jenkins, M.W. and V. Curtis 2006, "Achieving the 'good life': why some people want latrines in rural Benin", *Social Science and Medicine* 61 (11): pp. 2446-2459.

<sup>49</sup> Water and Sanitation Program 2004, [The case for marketing sanitation](#), Field note, p. 5

Figure 24: Percentage of households talking with their neighbours about open defecation



Focus group data indicates that where people did not talk about OD with their neighbours, it was often because they considered open defecation is a private matter, and ‘none of our business’ (Capiz male). By contrast, those that did talk about OD with their neighbours saw it as very much a community issue: ‘we educate and inform our neighbors about the risks of defecating openly, and encourage them not to do it, because they are not the only one who would suffer but the whole community’ (female FGD participant, Leyte).

**“We educate and inform our neighbours about the risks of defecating openly, and encourage them not to do it, because they are not the only one who would suffer but the whole community.”**

Other barriers to discussing OD identified by focus group participants were that it was considered as shameful; there was also some concerns that talking about it may offend neighbours and cause trouble. Particularly in Cebu, some felt that talking about the issue was not always useful: ‘yes, we talk, but we cannot do anything, just talk’ (male FGD participant, Cebu); ‘whatever we talk about is not always effective’ (female FGD participant, Cebu).

**– Female FGD participant, Leyte.**

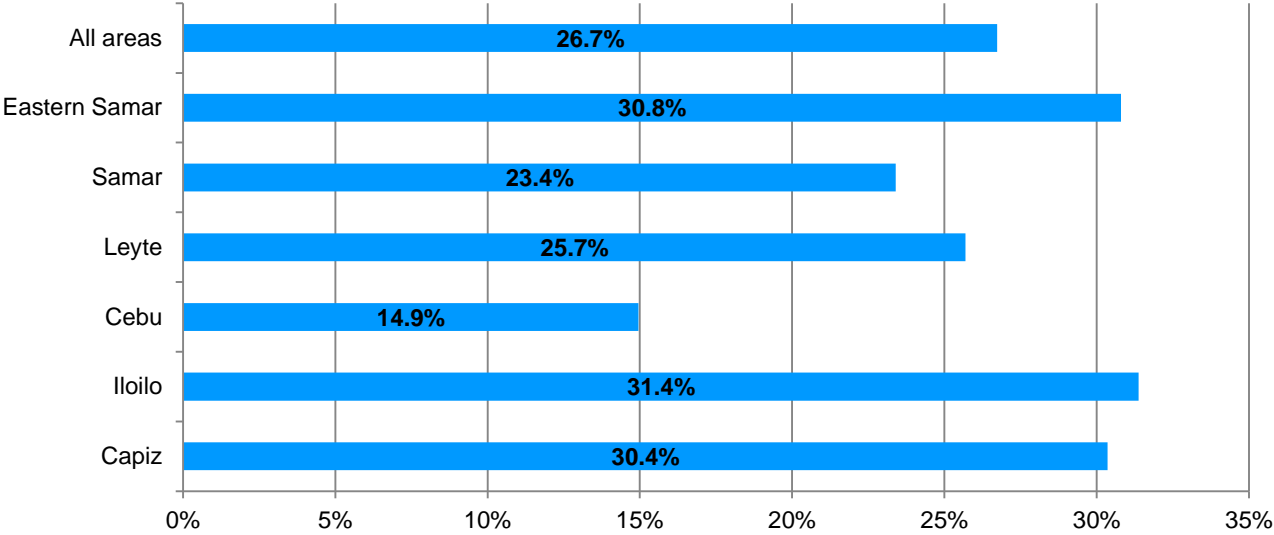
However, community discussion about open defecation *is* a key step in developing sustainable, community-led approaches to tackling the issue. Efforts to stimulate discussions about OD will need to be sensitive to these concerns, and build from existing attitudes and discussions.

Only 26.7% of households overall reported having received any information about a zero open defecation (ZOD) program or rewards for becoming a zero open defecation barangay. This was higher in Iloilo, Eastern Samar and Capiz; and there may be lessons learned from the success of awareness campaigns in these areas that could be usefully applied to project areas in other provinces.

The proportion of households who reported receiving any information about a zero open defecation program or associated rewards was the lowest by far in Cebu, at only 14.9% (see Figure 25 below). Given that project areas in Cebu have the highest rate of open defecation and the lowest proportion of households who currently discuss the issue with their neighbours, the external stimulation of a ZOD

program may be particularly useful here. As such, increasing awareness of the ZOD program and associated rewards may be a relevant intervention in Cebu.

**Figure 25: Percentage of households who report having received any information about a zero open defecation (ZOD) program or rewards for becoming a zero open defecation barangay**



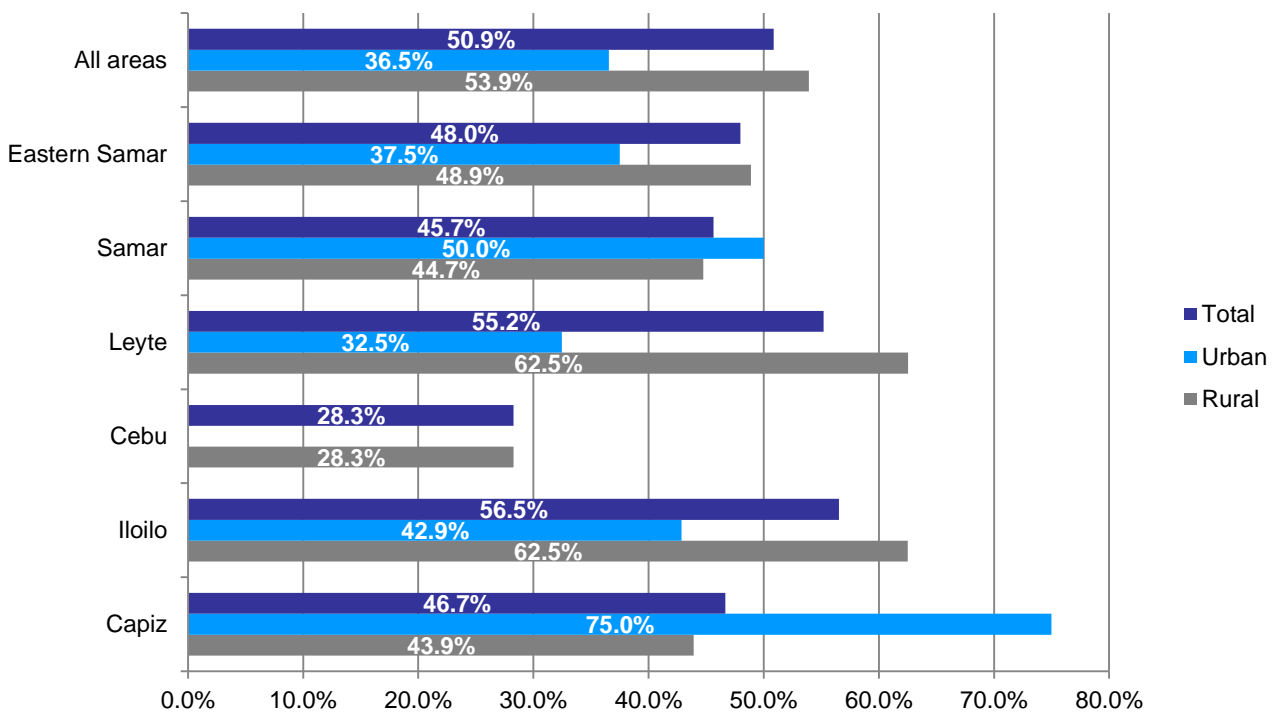
*Disposal of Children’s Faeces*

The disposal of children’s faeces is of particular importance, as it can be one of the main sources of contamination to the immediate household environment. The faeces of babies and young children are not always considered harmful, and as such less care may be given to the safe disposal of their stools. This can have serious consequences, as unhygienic disposal of children’s stools can lead to faecal contamination and many of the same health impacts as open defecation, even in communities where open defecation is not practised.

As part of the household survey, households with children under the age of 3 were asked how their child’s most recent stool was disposed of. Only 50.9% of households with children under 3 disposed of their child’s last stool safely, with approximately half using unsanitary disposal methods such as rinsing them into a drain or ditch, throwing them in the garbage or leaving them on the ground.

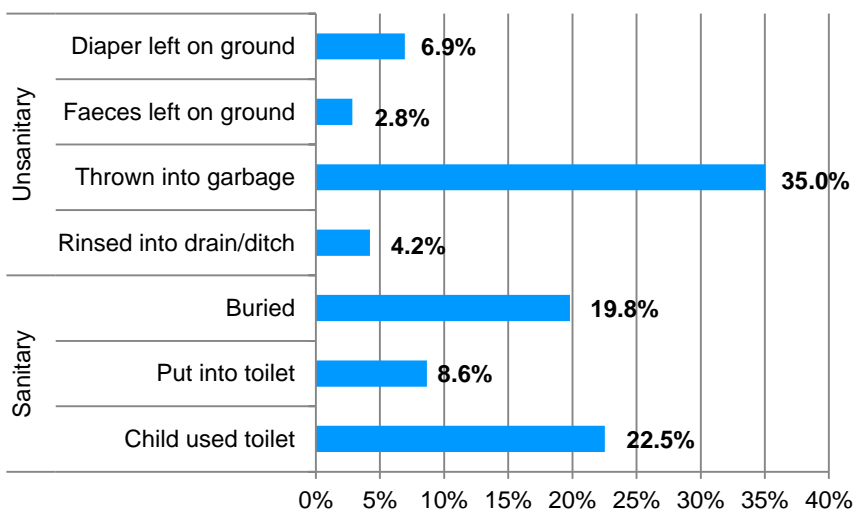
Interestingly, the rates of safe disposal were lower in urban areas, with only 36.5% of urban households with children under 3 disposing of their child’s last stool safely (compared to 53.9% of their rural counterparts). As Figure 25 below illustrates, this pattern was consistent in urban areas in Eastern Samar, Leyte, and Iloilo (but was reversed in Samar and Capiz). Cebu had the lowest rate of safe disposal at only 28.3%, and no province had an overall rate higher than 56%. These findings clearly show that changing knowledge, attitudes and practices around the disposal of children’s faeces will be a critical part of reducing faecal contamination and improving sanitation in PhATS project areas across all six provinces.

**Figure 26: Percentage of households with children under 3 where the child’s most recent stool was disposed of safely**



The most commonly used method of disposal (reported by 35% of respondents) was throwing the stool into the garbage, an unsanitary method which can contaminate the immediate household environment. (see Figure 27 below). The next most commonly mentioned methods were all sanitary: the child using the toilet (22.5%), burying the stool (19.8%) and rinsing or putting the stool into the toilet (8.6%). A smaller proportion of households with children under 3 reported disposing of their child’s most recent stool using the unsanitary methods of leaving the diaper on the ground, rinsing faeces into a drain or ditch, or leaving faeces directly on the ground

**Figure 27: Method of disposal of child’s most recent stool (among households with children under 3)**



The unsanitary method of disposing of stools in the garbage was the most commonly reported method in every province. Other unsanitary methods used varied by province. Disposing of children’s stools by rinsing them into a drain or ditch or leaving faeces on the ground was reported by more than 10% of respondents in Cebu only. Leaving the faeces in the diaper on the ground (where dogs and wild animals can rip into them and contaminate the environment) was reported by more than 10% of respondents in Capiz, Cebu and Samar.

In addition to sensitizing communities to the risks that both child and adult stools pose when not properly disposed of, there is a clear need for targeted awareness campaigns about safe and unsafe methods of child stool disposal. Table 15 below outlines the full breakdown of disposal methods currently used by province, with the most common disposal method in each province highlighted in blue and methods mentioned by 10% or more highlighted in grey.

**Table 15: Method of disposal of child’s most recent stool (among households with children under 3), by province**

Province	Sanitary			Unsanitary			
	Child used toilet	Put into toilet	Buried	Rinsed into drain/ditch	Thrown into garbage	Faeces left on ground	Diaper left on ground
Capiz	17.8%	6.7%	22.2%	3.3%	35.6%	4.4%	10.0%
Iloilo	21.7%	8.7%	30.4%	4.3%	30.4%		4.3%
Cebu	10.9%	4.3%	13.0%	10.9%	28.3%	10.9%	21.7%
Leyte	22.5%	10.4%	22.3%	3.8%	33.5%	1.9%	5.6%
Samar	23.9%	8.7%	13.0%	6.5%	34.8%	2.2%	10.9%
Eastern Samar	27.3%	6.2%	14.4%	3.6%	40.7%	3.1%	4.6%
All areas	22.5%	8.6%	19.8%	4.2%	35.0%	2.8%	6.9%

### *Solid Waste Disposal*

An estimated 60.1% of households in PhATS areas dispose of their household waste by burning it. Garbage collection was the second most commonly reported method, reported by 28.8% of households overall (see Figure 28). This indicates that the majority of households in PhATS areas are using adequate methods of solid waste disposal. However, a significant minority are using methods that may cause health and environmental problems: 12.3% of households overall dispose of their household waste in open pits, and 6.6% reported that they dump it anywhere. These methods may pose a safety risk and affect vector control.

Burning was the most common method of waste disposal in every province, with garbage collection being the second most common in Leyte and Eastern Samar. However, the prevalence of unsafe methods varied significantly between provinces. Disposing of waste in an open pit was most widespread in Capiz and Iloilo (reported by 23.7% and 23.4% respectively), while dumping anywhere was most commonly reported in Samar and Eastern Samar (13.4% and 12.8% respectively). This indicates that it may be worthwhile for PhATS awareness campaigns to include safe household waste disposal. However, given that the majority of households are already using safe methods, it will be important to target areas where unsafe methods are commonly used. Table 16 below outlines the

breakdown of household waste disposal methods by province, with the most common method highlighted in blue and the second most common highlighted in grey.

Figure 28: Percentage of households using each disposal method for their household garbage

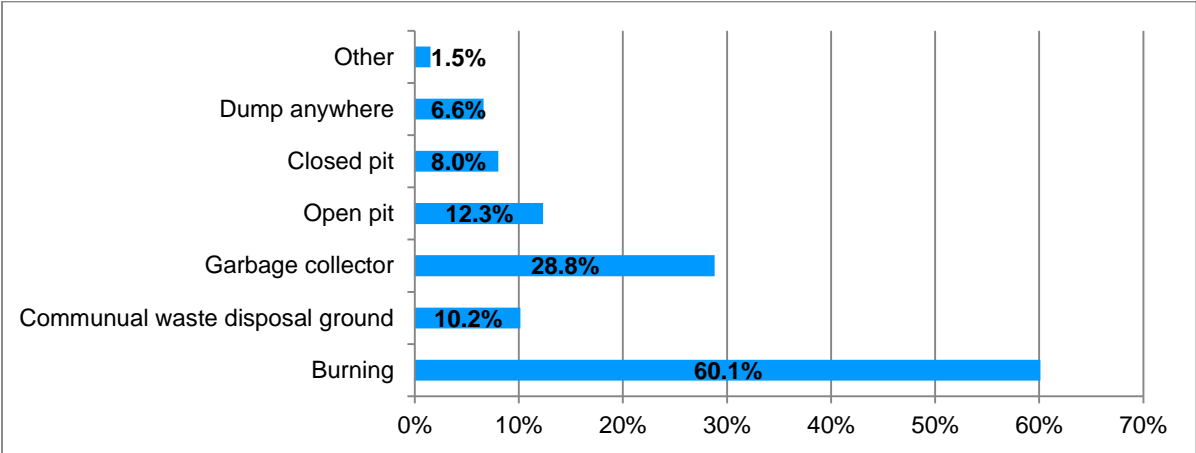


Table 16: Percentage of households using each disposal method for their household garbage, by province

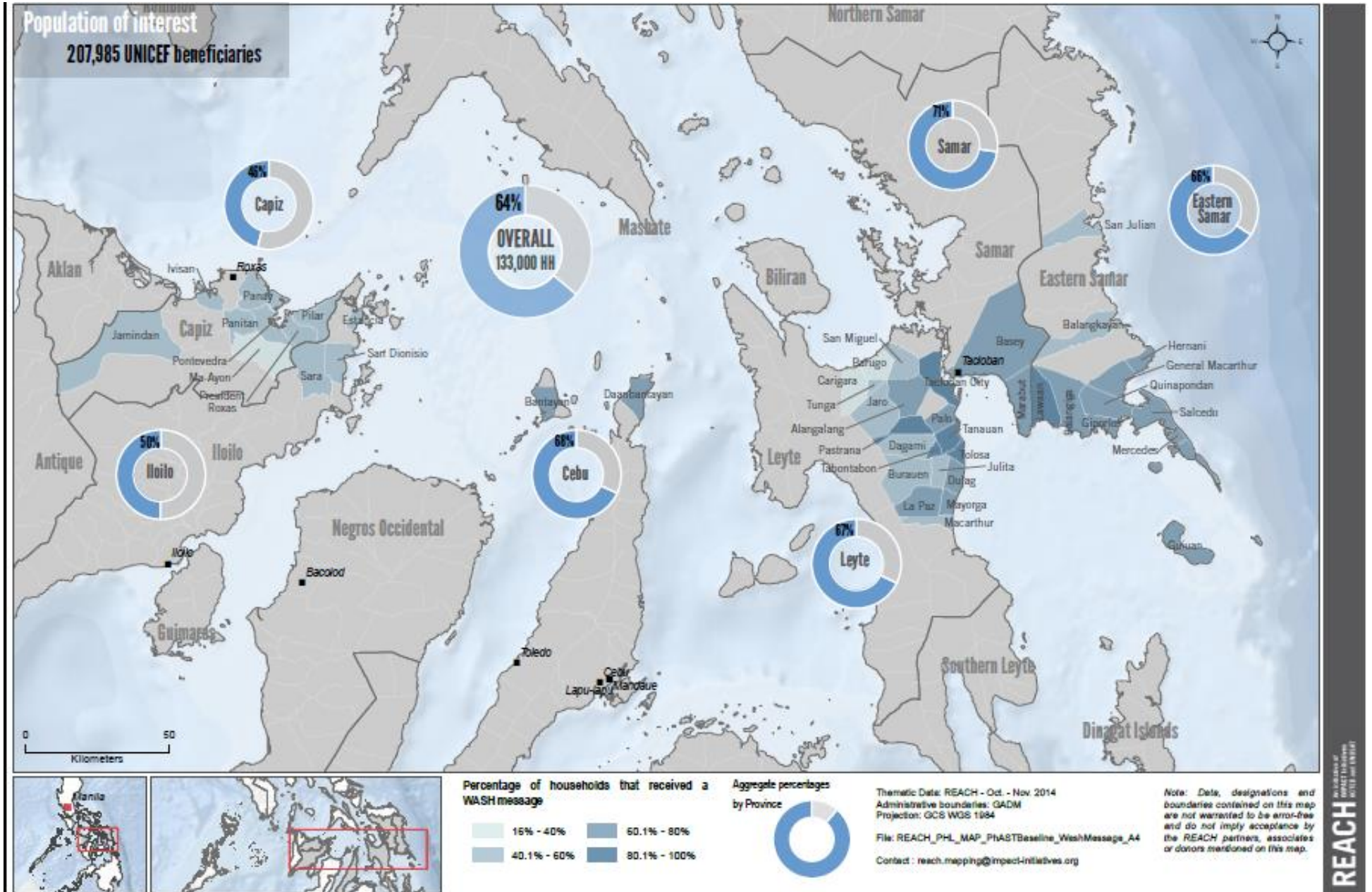
Province	Burning	Communal waste disposal ground	Garbage collector	Open pit	Closed pit	Dump anywhere	Other
Capiz	77.2%	5.9%	7.7%	23.7%	2.0%	4.3%	0.0%
Iloilo	72.4%	5.3%	10.1%	23.4%	2.7%	3.2%	0.0%
Cebu	74.6%	12.3%	8.8%	16.4%	26.7%	7.7%	0.8%
Leyte	58.8%	11.3%	34.3%	11.2%	7.8%	4.3%	2.1%
Samar	62.4%	14.4%	19.8%	9.4%	4.4%	13.4%	4.0%
Eastern Samar	45.5%	9.1%	39.5%	5.3%	8.4%	12.8%	0.8%
All areas	60.1%	10.2%	28.8%	12.3%	8.0%	6.6%	1.5%

## Hygiene

### Hygiene Messages

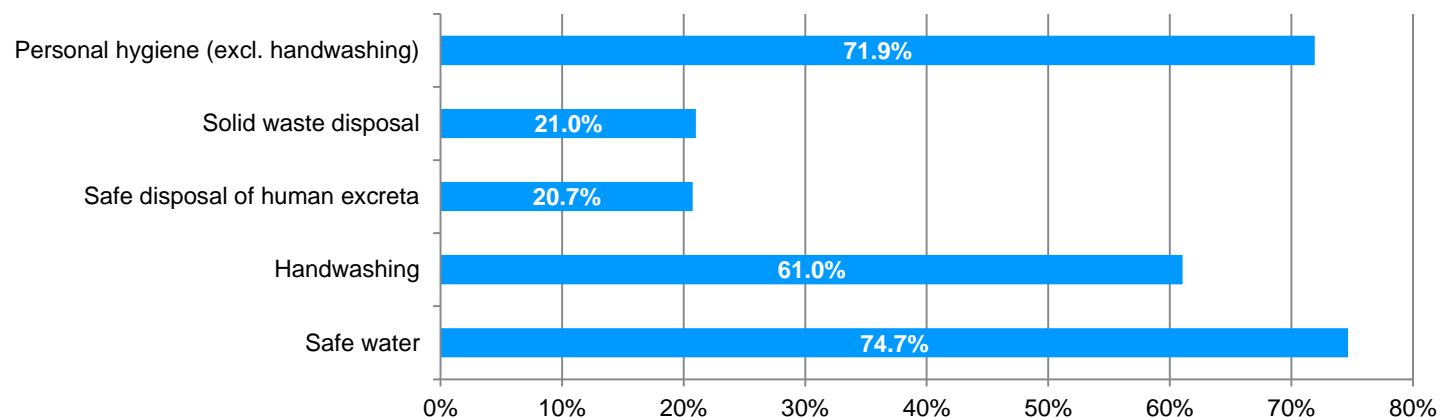
64.2% of households in PhATS project areas reported receiving some kind of hygiene or sanitation related message in the last 6 months. This impressive coverage is likely due to hygiene campaigns conducted by WASH cluster partners as part of the Typhoon Yolanda response and reconstruction effort. Map 6 below illustrates the coverage by province. Samar had the highest proportion of households who reported having received a WASH message in the last six months (70.7%), while Iloilo and Capiz had the lowest, with 49.5% and 45.9% respectively. These were the only provinces where the majority of households did not report receiving a hygiene or sanitation message in the last six months, and there was very little variation between urban and rural areas overall.

Map 6: Percentage of households who reported having received a WASH related message in the last 6 months



Households who reported receiving a WASH message in the last six months were asked to recall what the message was. The most common messages recalled were on safe water (recalled by 74.7), closely followed by personal hygiene (excluding handwashing), recalled by 71.9%. Messages on handwashing were recalled by 61.0% of households. By contrast, messages relating to solid waste disposal and safe disposal of human excreta were recalled by only 21.0% and 20.7% respectively.

**Figure 29: Types of WASH messages received by households (among those who reported receiving a WASH message in the last 6 months)**



This pattern was extremely consistent across the provinces, with safe water or personal hygiene always the most often recalled, and solid waste disposal or safe disposal of human excreta the least often recalled (see Table 17 below, with the most often and least often recalled message type highlighted in blue and grey respectively).



Table 17: Types of WASH messages received (among those who received a WASH message in the last 6 months), by province

Province	Safe water	Handwashing	Safe disposal of human excreta	Solid waste disposal	Personal hygiene (excl. handwashing)
Capiz	55.6%	16.8%	15.7%	29.8%	66.2%
Iloilo	63.1%	19.0%	12.2%	31.1%	61.8%
Cebu	64.3%	65.3%	36.1%	29.3%	92.3%
Leyte	80.0%	67.2%	19.0%	15.8%	71.3%
Samar	71.0%	65.4%	24.2%	17.8%	75.1%
Eastern Samar	74.9%	67.4%	22.9%	27.7%	69.9%
<b>All areas</b>	<b>74.7%</b>	<b>61.0%</b>	<b>20.7%</b>	<b>21.0%</b>	<b>71.9%</b>

The low rate of recall of sanitation messages indicates that despite the wide coverage of WASH awareness campaigns, there is a gap relating to sanitation messaging in all six provinces. It is difficult to determine to what extent the low rate of recall for this type of message is due to sanitation messages being shared less often than other WASH messages, and to what extent it relates to these messages being less readily taken on and recalled (perhaps due to perceived low importance). This needs further investigation, however there is clearly room for improvement on sanitation messaging in all six provinces.

#### *Sources of WASH Messages*

**The main source of WASH messages was NGOs, with 78.2% of households who received WASH messages in the last six months reporting that they received them from an NGO.** Health staff (including barangay health workers) were the next most common source (mentioned by 43%), followed by TV or radio (10.1%), friends and neighbours (7.4%) and sanitary inspectors (3.5%). No other source was mentioned by more than 1% of households who received a WASH message in the past six months.

The pattern was broadly similar across the six provinces, with some notable differences. NGOs were by far the most common source of WASH messages in Leyte, Samar and Eastern Samar. However, in Capiz and Iloilo, the most common source was health staff, who were mentioned more than twice as often as NGOs. Only 1% of all households who received WASH messages identified school children as a source, yet in Capiz, this figure rose to 7.8%. This suggests that WASH in schools campaigns in Capiz have been successful in spreading WASH messages through the community. Table 18 illustrates the full provincial breakdown, with the most

common sources of WASH messages in each province highlighted in blue, and sources reported by over 20% of households who received WASH messages highlighted in grey.

**Table 18: Source of WASH messages, by province**

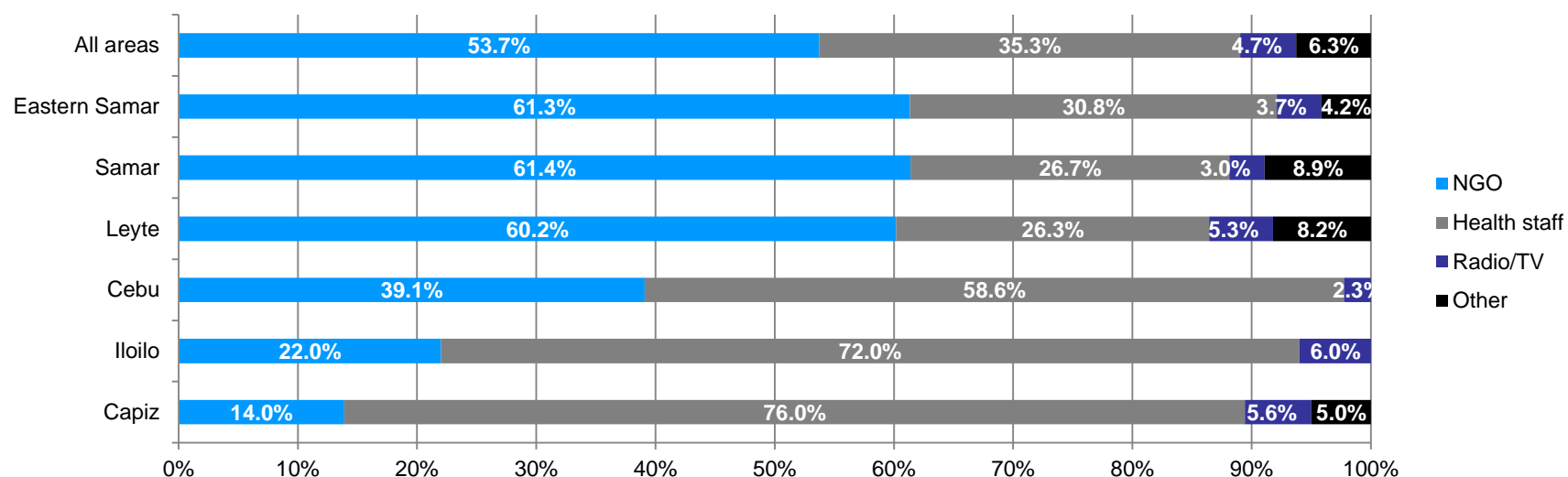
	NGO	Friend/neighbour	Health staff	Radio/TV	School children	Sanitary inspector	Other
Capiz	24.6%	1.5%	74.7%	21.2%	7.8%	2.6%	2.4%
Iloilo	33.3%	0.9%	70.5%	14.5%	3.1%	0.0%	4.6%
Cebu	84.0%	0.0%	70.2%	3.9%	0.0%	1.2%	0.0%
Leyte	83.9%	10.6%	38.1%	12.0%	0.2%	3.4%	1.3%
Samar	85.5%	11.8%	39.2%	3.4%	1.1%	6.7%	1.2%
Eastern Samar	89.1%	3.7%	30.5%	3.2%	0.2%	4.6%	1.8%
Total	78.2%	7.4%	43.0%	10.1%	1.0%	3.5%	1.5%

These findings indicate that NGOs have been very successful in disseminating WASH messages, particularly in regions VII and VIII. They also clearly demonstrate that health staff, schools and sanitary inspectors can be extremely effective in this capacity, and there may be lessons learned that could be usefully applied to other provinces. For example, the success of schools in Capiz in spreading WASH messages through the broader community may provide a useful model for WASH in schools programs in other divisions. It is also worth noting the sources of WASH information that were not often mentioned, including print media/material, mothers groups and youth groups and religious leaders. There may be room for these potential sources to be better used to disseminate WASH messages, in order to reach an even greater proportion of the population.

The most trusted source of WASH information generally followed the pattern of where most people received their WASH information. Among those who received WASH messages in the last six months, 53% identified NGOs as the most trusted source, and NGOs were most frequently identified as the most trusted source in Samar and Eastern Samar, where the highest proportions of households received WASH information from NGOs. In Capiz and Iloilo - where the most common source of WASH information was health staff - , health staff were identified as the most trusted source of information. The exception was Cebu, where NGOs were the most common source of WASH messages, but health staff were the most trusted.

Figure 30 below outlines the breakdown of most trusted source by province.

Figure 30: Most trusted source of WASH information (among those who reported receiving WASH messages in the last 6 months)



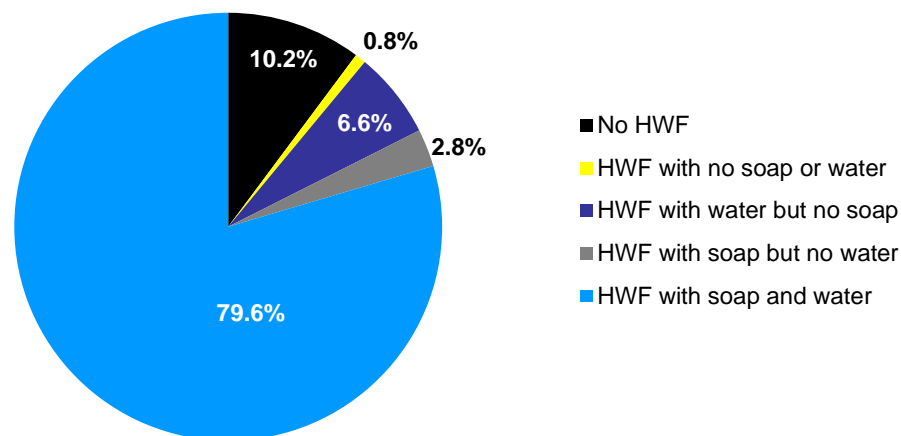
Despite some concerns raised about the potential for government officials to use public awareness campaigns for political advantage, it was noted in one FGD that – unlike NGOs – barangay officials are always around the community to remind them of the messages. Many focus group participants expressed strong trust in the Department of Health, commenting that ‘they know what they are doing and they have a license to give information’ (female FGD participant, Capiz). In terms of the delivery of messages, focus group participants valued house to house visits and public demonstrations, as it gave them the opportunity to actually see and/or practice the relevant technique (eg. proper handwashing). Barangay meetings were also valued - although not attended by all -, and some FGD participants expressed that with the high number of people attending it was often hard to hear, and also pointed out the difficulty to understand if not done in their own dialect. Many focus group participants also emphasized the importance of informal communication between friends, neighbours and family members.

#### *Hand-washing Facilities at Household Level*

As part of the household survey, respondents were asked if their household had a designated place for hand-washing. Enumerators then asked to observe these hand-washing facilities, to verify the response and check for soap and water. Overall, **89.8% of households had a designated place for hand-washing** (verified by the enumerator), and where hand-washing facilities (HWF) were

present they usually had both soap and water, with **79.6% of all households observed to have a hand-washing facility with soap and water present at the time of visit**. 6.6% of households had a hand-washing facilities with water but no soap present at the time of observation, with fewer households (2.8%) having a facility with soap but no water (see Figure 31 below). Less than 1% of households had a hand-washing facility with no soap nor water available at the time of observation (for example, empty containers set out for hand-washing).

Figure 31: Percentage of households with hand-washing facilities (observed)



There was a significant variation between provinces (as well as within provinces, as outlined in the municipality level data in Annexe 3). Iloilo and Capiz had the highest proportion of households without a hand-washing facility, with 23.5% and 18.9% of households respectively lacking any kind of hand-washing facility. These Region VI provinces are also the provinces with the longest water collection times (see Figure 11 **Error! Reference source not found.**) and the lowest levels of access to improved drinking water sources (see Table 4).

By contrast, Cebu and Eastern Samar had the highest proportion of households with hand-washing facilities, with only 2.6% and 2.9% of households respectively lacking a hand-washing facility. The proportion of households with hand-washing facilities with water but no soap was highest in Leyte, while the proportion with soap but no water was highest in Iloilo.

As with handwashing facilities overall, the highest proportion of handwashing facilities with soap and water present was in Cebu and the lowest was in Iloilo: Indeed, 92.3% of households in project areas in Cebu had a hand-washing facility with soap and water present at the time of visit, compared to 67.6% in Iloilo. The full breakdown by province is outline in

Table 19 below. There was no significant difference between rural and urban areas.

**Table 19: Percentage of households with hand-washing facilities (observed), by province**

	No HWF observed	HWF with no soap or water	HWF with water but no soap	HWF with soap but no water	HWF with soap and water
Capiz	18.9%	0.8%	4.9%	3.3%	72.1%
Iloilo	23.5%	0%	4.9%	3.9%	67.6%
Cebu	2.6%	0.5%	3.1%	1.5%	92.3%
Leyte	10.5%	0.6%	8.1%	3.5%	77.3%
Samar	14.8%	1.4%	6.3%	2.8%	74.6%
Eastern Samar	2.9%	1.5%	5.0%	1.1%	89.4%
<b>All areas</b>	<b>10.2%</b>	<b>.8%</b>	<b>6.6%</b>	<b>2.8%</b>	<b>79.6%</b>

The high proportion of households with hand-washing facilities is a great achievement of previous hand-washing campaigns, and highlights the need to carefully target further hand-washing awareness activities. Activities designed to encourage households to establish a place for hand-washing should be targeted to project areas where fewer households currently have them (such as Iloilo and Capiz), or use strategies (such as house-to-house visits) designed to reach the small proportion of households in other project areas who do not have hand-washing facilities. Despite the relatively small proportion of households, the likely health impact of not having a place for hand-washing means that encouraging this in the 10.2% of households in PhATS project areas who do not currently have one remains a relevant goal of hygiene messaging. However, the prevalence of hand-washing facilities at household level does suggest that it may be beneficial to shift the focus of awareness campaigns from the *importance* of having these facilities to their proper use (including key moments for hand-washing).

#### *Availability of Ssoap*

As part of the household survey, respondents were asked if soap was available in their household. Where it was reportedly available, enumerators requested to see it. **90.2% of households were observed to have soap available at the time of the survey**, which was

**9.8% of households in PhATS project areas did not have soap available at the time of the survey.**

consistent with the self reported figures (see Figure 32 and 33 below). 76.1% of households reported that they always had soap available, with a further 21.6% reporting that it was sometimes available. Despite the relatively high proportion of households which were observed to have soap available at the time of the survey, the 9.8% of households in PhATS areas who did not have soap available at the time constitute a major concern. Moreover, given that the availability of soap varies and observations provide only a snapshot at one point in time, the proportion of households without soap available may vary upwards from the 9.8%: **23.9% of households report that they don't always have soap available.**

Figure 32: Households with soap available (observed)

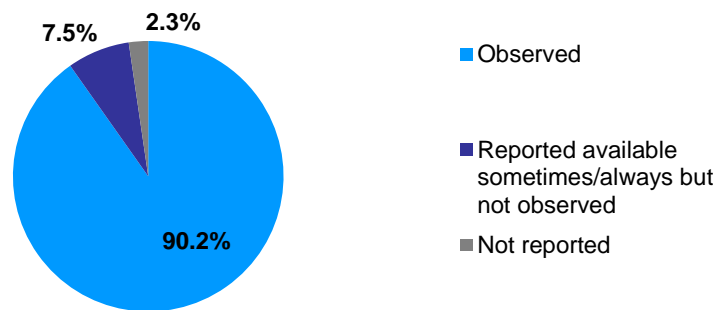
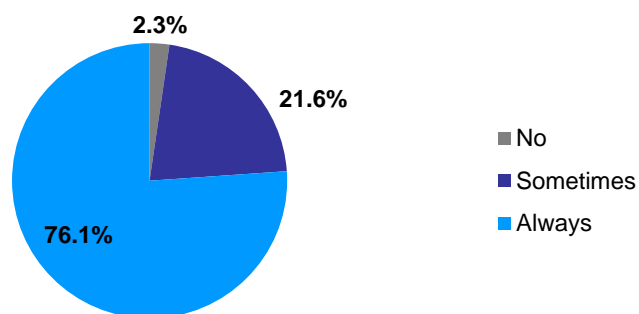


Figure 33: Households with soap available (self reported)



Cebu had the highest levels of soap availability, with 95.4% of households in project areas observed to have soap available at the time of the survey. This is in line with the finding that Cebu had the highest proportion of households with a hand-washing facility. Samar had the lowest proportion of households with soap available at the time of the survey, at 87.2% (see Table 20 below). However, looking at the reported availability, Capiz has the lowest proportion of households reporting that they always have soap available, at only 67.9% (see Table 21 below). This indicates that a significant proportion of households in Capiz who were observed to have soap at the time of the survey do not always have soap available.

It is important to note that the same soap is often used for washing clothes and dishes as well as hands, so the observed availability of soap does not necessarily mean it is available for hand-washing. However, we rely on self-report here due to the difficulty of gathering comprehensive observational data on hand-washing behavior.

**Table 20: Households with soap available (observed), by province**

Province	Observed	Reported available sometimes/always but not observed	Not reported
Capiz	89.5%	7.9%	2.6%
Iloilo	90.3%	7.8%	1.9%
Cebu	95.4%	4.1%	0.5%
Leyte	88.8%	8.6%	2.6%
Samar	87.2%	9.9%	2.8%
Eastern Samar	93.4%	4.7%	1.9%
All areas	90.2%	7.5%	2.3%

**Table 21: Households with soap available (self reported), by province**

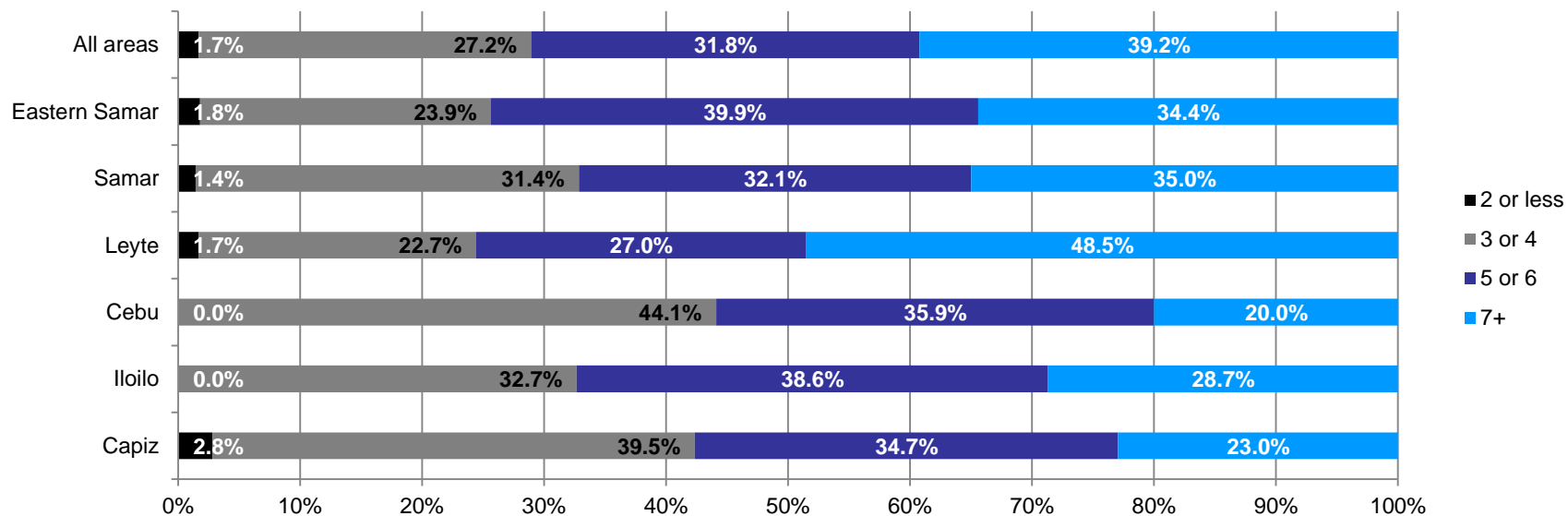
Province	No	Sometimes	Always
Capiz	2.6%	29.6%	67.9%
Iloilo	1.9%	27.2%	70.9%
Cebu	.5%	19.1%	80.4%
Leyte	2.6%	20.3%	77.1%
Samar	2.8%	19.1%	78.0%
Eastern Samar	1.9%	20.3%	77.8%
All areas	2.3%	21.6%	76.1%

Where soap was not kept at the hand-washing facility, respondents were asked to bring the soap, and enumerators timed how long this took. It took less than one minute to locate and bring the soap in over 99% of cases, and soap was generally already at the hand-washing facility. This indicates that where households had soap, it was generally easily accessible.

### Hand-washing Behavior

**Overall, 71% of respondents reported washing their hands with soap at least five times in the last 24 hours** (see Figure 34 below). This was higher in Leyte (75.5%) and lower in Cebu (55.9%), despite Cebu having the highest proportion of households with hand-washing facilities. Only 0.1% of all respondents admitted not washing their hands with soap in the last 24 hours.

Figure 34: Number of times hands were washed with soap in the last 24 hours (self reported)





It is important to keep in mind that despite efforts to minimize social desirability bias<sup>50</sup>, the frequency of hand-washing with soap is very likely to be over-reported, due to the tendency of respondents to answer in a way that is viewed as socially desirable. The fact that only 0.1% of respondents admitted that they did not wash their hands with soap in the last 24 hours (despite 9.8% of households not having soap available at the time of the survey) gives some indication of the scale of over-reporting.

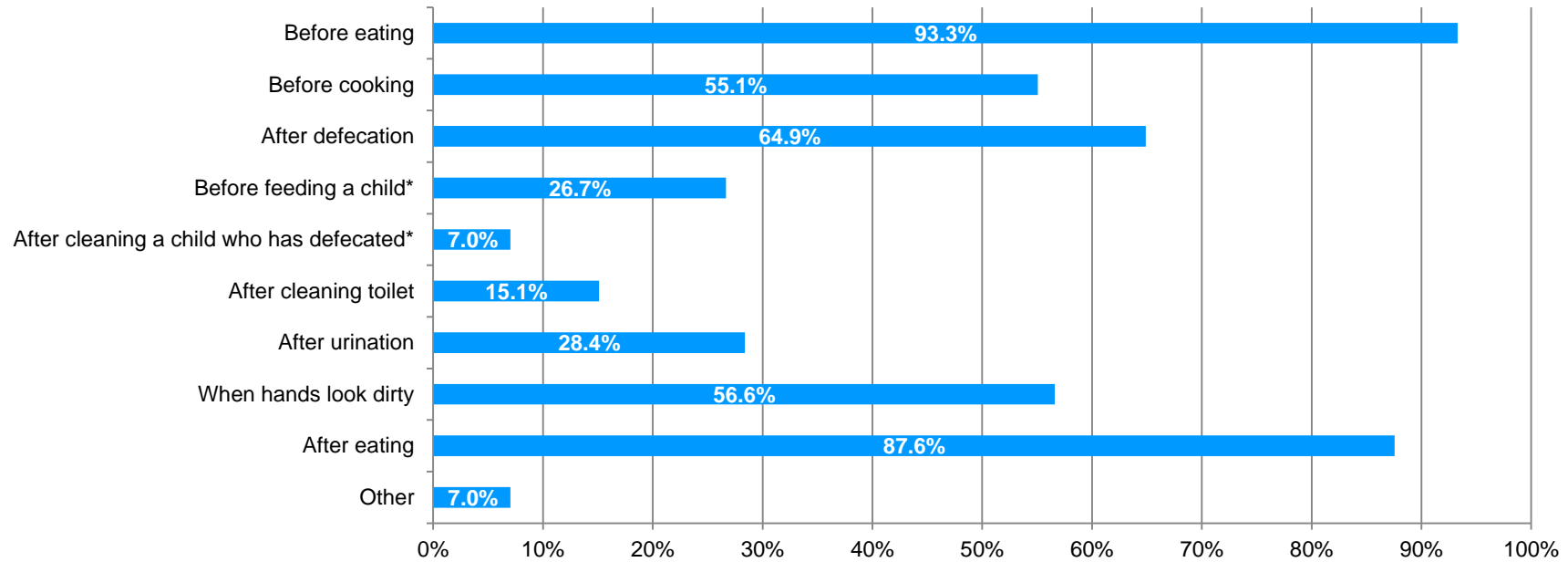
More relevant than the frequency of hand-washing is the practice of hand-washing with soap at key moments, for example before cooking and during food preparation, before eating, and after defecation. This as well is subject to some degree of over-reporting, though this was minimized through asking the open question of 'in the last 24 hours, when did you wash your hands with soap?', rather than prompting for yes/no responses on each of the key moments.

**93.3% of respondents reported washing their hands with soap before eating in the last 24 hours**, with this being the most commonly reported time for hand-washing. The next most commonly reported times were after eating (reported by 87.6%), after defecation (64.9%), when hands look dirty (56.6%), and before cooking (55.1%), with no other times reported by more than 50% of respondents (see Figure 35 below).

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<sup>50</sup> See Methodology section for a full description of techniques employed to reduce social desirability bias.

Figure 35: 'In the last 24 hours, when did you wash your hands with soap?' (self-report)



\* The percentage is of households with children under 5

Table 22 below outlines the full breakdown by province, with the most frequently mentioned in each province highlighted in blue, and all moments mentioned by over 50% highlighted in grey. The full table is provided for reference purposes, while the key hygiene relevant moments for hand-washing are explored below.

Table 22: 'In the last 24 hours, when did you wash your hands with soap?' (self report), by province

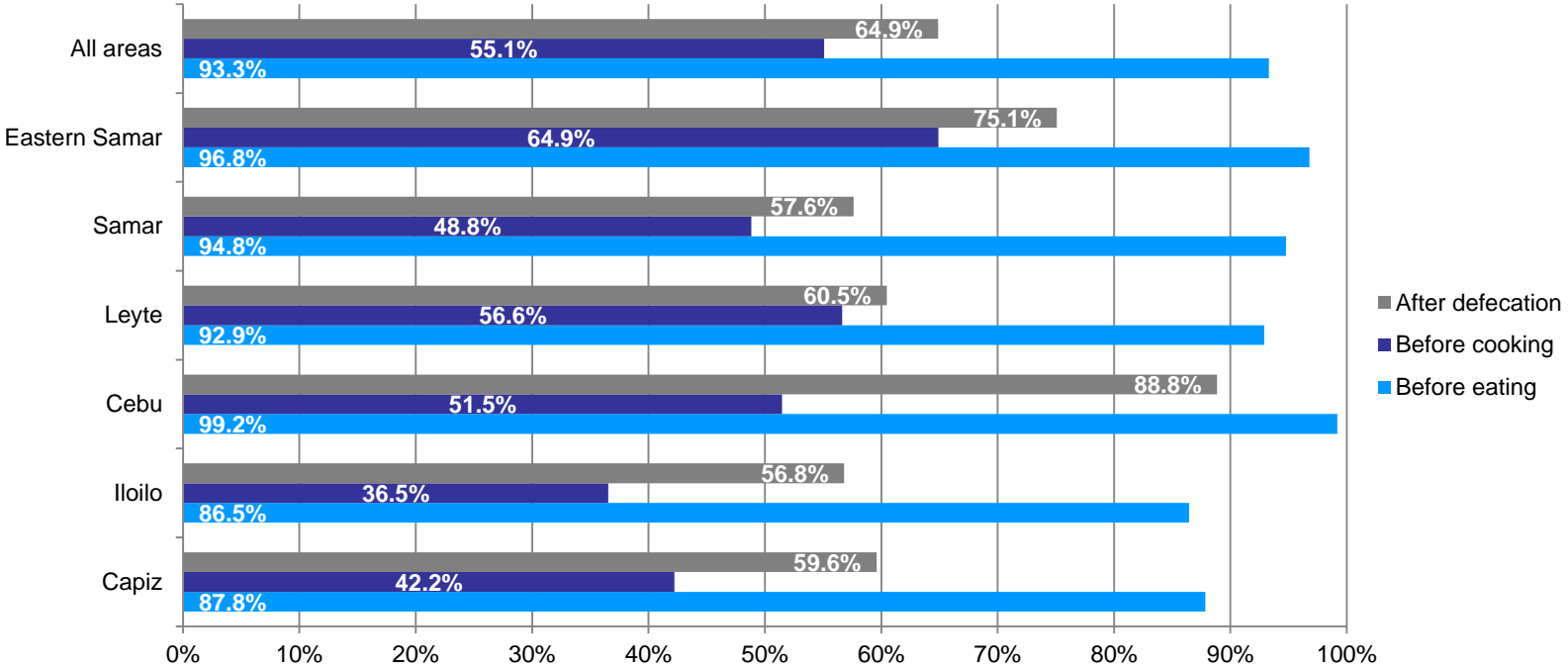
Province	Before eating	After defecation	Before cooking	Before feeding a child*	After cleaning a child who has defecated*	After cleaning toilet	After urination	When hands look dirty	After eating	Other
Capiz	87.8%	59.6%	42.2%	17.8%	8.5%	9.3%	26.1%	30.1%	85.7%	11.7%
Iloilo	86.5%	56.8%	36.5%	28.7%	6.6%	4.8%	21.2%	39.6%	86.7%	5.8%
Cebu	99.2%	88.8%	51.5%	9.6%	0.7%	1.3%	31.0%	81.9%	98.1%	3.2%
Leyte	92.9%	60.5%	56.6%	30.0%	8.4%	20.9%	27.3%	57.6%	86.6%	10.1%
Samar	94.8%	57.6%	48.8%	24.4%	6.9%	12.3%	20.4%	56.4%	85.4%	11.0%
Eastern Samar	96.8%	75.1%	64.9%	27.1%	4.6%	10.7%	34.8%	65.8%	88.6%	9.5%
All areas	93.3%	64.9%	55.1%	26.7%	7.0%	15.1%	28.4%	56.6%	87.6%	9.6%

\* The percentage is of households with children under 5

Focusing in on the key hygiene relevant moments and looking at the breakdown by province, a clear trend emerges. In every province, the most commonly mentioned key moment for hand-washing with soap is before eating, with fewer respondents mentioning hand-washing after defecation. The proportion of respondents who mention washing their hands with soap before cooking is lower, but this is likely to be partly due to the fact that not all respondents (especially males) had cooked in the last 24 hours.

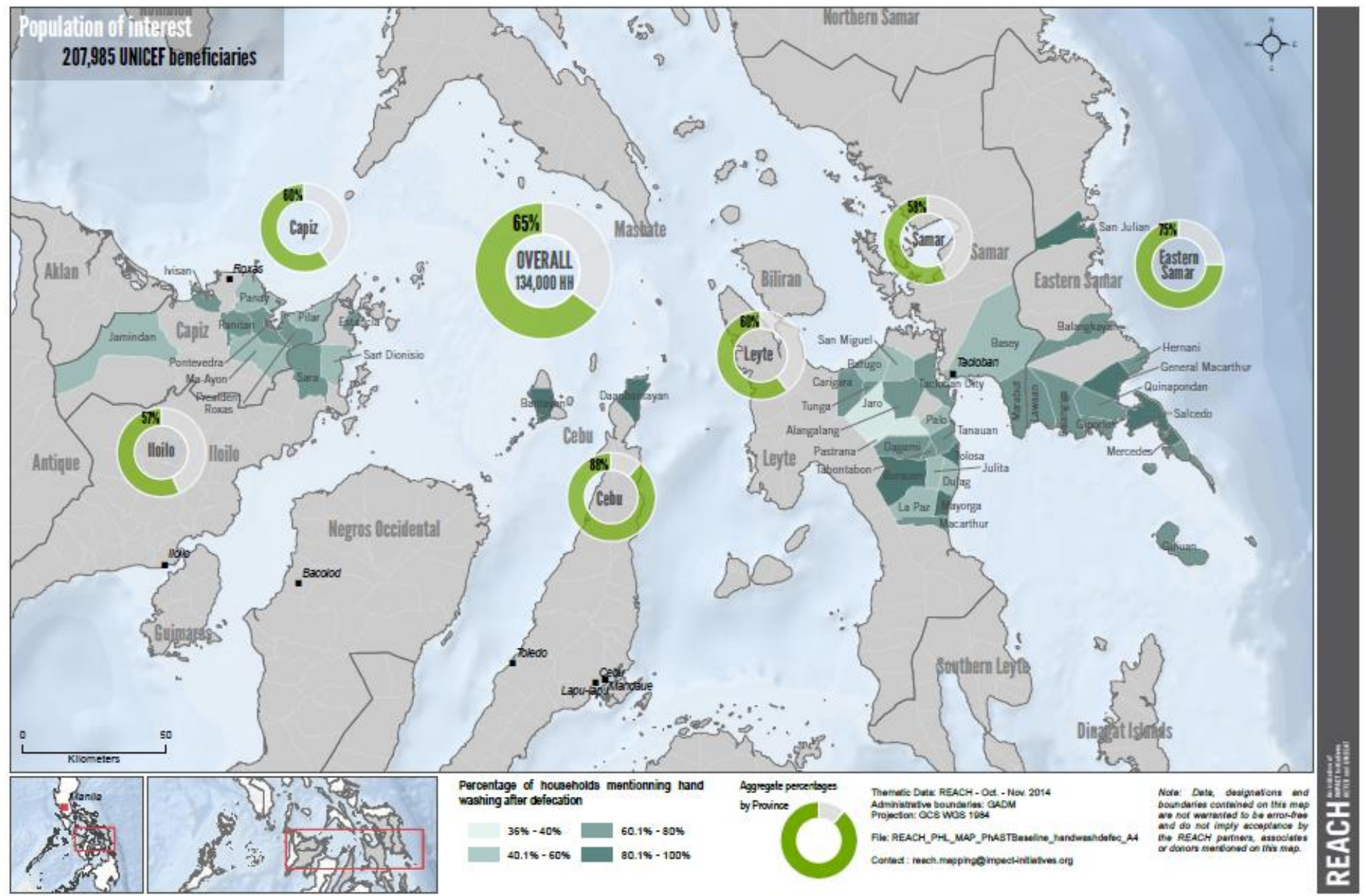
Iloilo had the lowest proportion of respondents reporting hand-washing at each of these three key moments: 86.5% of respondents mentioned hand-washing before eating in the last 24 hours, only 56.8% after defecation and 36.5% after cooking (see Figure 36 below). Cebu had the highest proportion of respondents reporting hand-washing with soap before eating (99.2%) and after defecation (88.8%) (see Table 22 above).

Figure 36: Percentage of respondents who mentioned hand-washing with soap at key moments in the last 24 hours



Map 7, on the following page, illustrates the geographic distribution of households in which the respondent reported washing their hands after defecation in the last 24 hours.

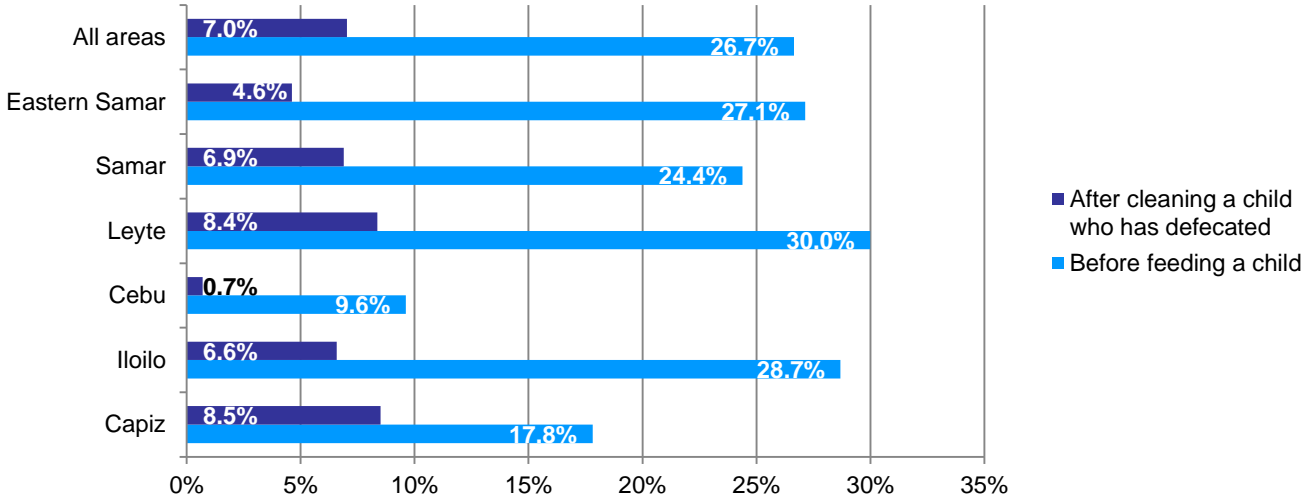
Map 7: Percentage of households in which respondent reported washing their hands after defecation in the last 24 hours



Looking at key hand-washing moments for those with children, the picture is quite different. The proportion of respondents in households with children under 5 who reported washing their hands before feeding a child and after cleaning a child who had defecated was very low: only 26.7% and 7% respectively. Even allowing for the fact that not all respondents in households with children under 5 are engaged in these childcare tasks, these figures are surprisingly low, especially given that over 70% of all respondents were female (and as such more likely to be involved with these tasks).

Just as hand-washing before eating was practised more commonly than hand-washing after defecation, in every province hand-washing before feeding a child was practised more often than after cleaning a child who had defecated (see Figure 37 below). Interestingly, whereas Cebu had the highest levels of hand-washing before eating and after defecating, it had the lowest levels of handwashing before feeding a child (9.6%) and after cleaning a child who had defecated (only 0.7%). Even where these levels were higher, they were still low: no province had more than 8.5% of respondents in households with children under 5 mentioning hand-washing after cleaning a child who had defecated, or more than 30% mentioning hand-washing before feeding a child. This is a serious hygiene concern, which may have an important impact on the child’s health.

**Figure 37: Percentage of households with children under 5 reporting hand-washing at key childcare moments in last 24 hours**



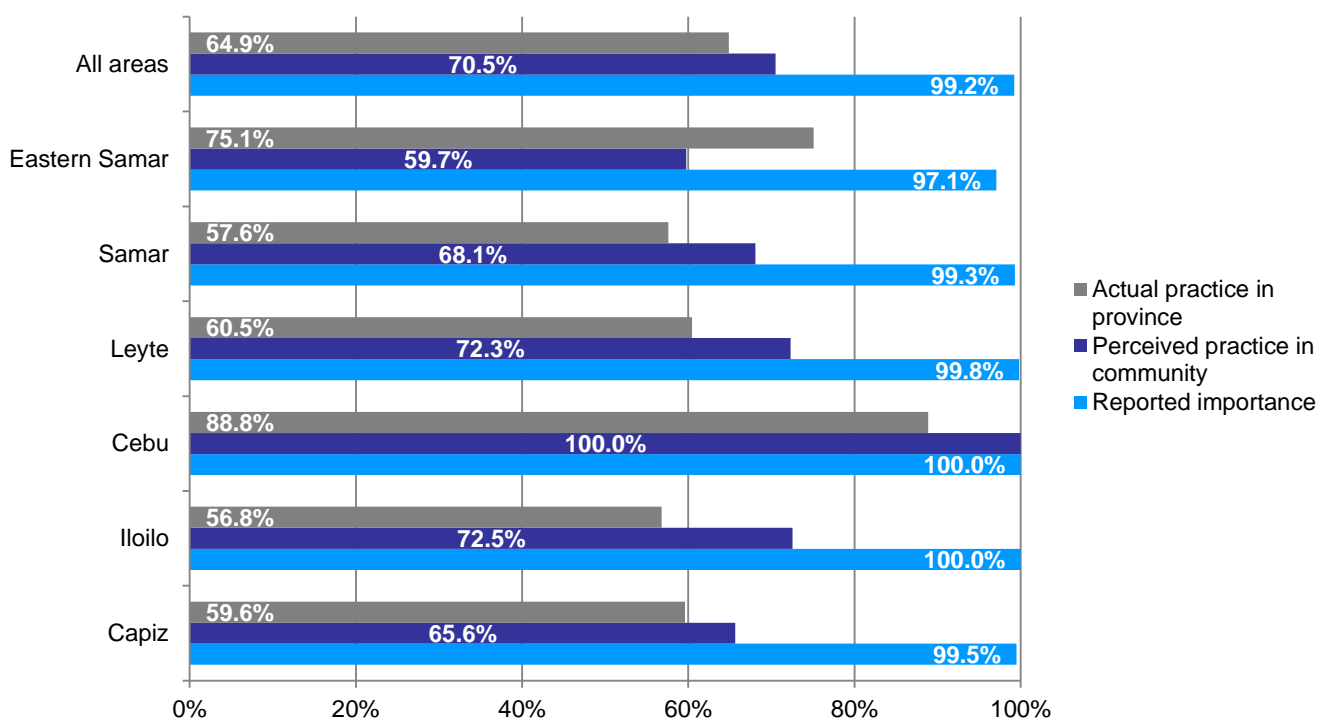
These findings on hand-washing behavior indicate that there is a good base of knowledge and practice of hand-washing at key moments, as well as clear areas for improvement. Geographically, community education on key moments for hand-washing will be particularly relevant in the Region VI provinces of Iloilo and Capiz. Thematically, hygiene messaging on hand-washing before food seems to have been more successful than messaging on hand-washing after defecation, and as such a specific focus on the latter may be beneficial. More emphasis on the importance of hand-washing before feeding children and after cleaning a child who has defecated is also needed, particularly in Cebu.

## Values and Perceptions around Hand-washing

Hand-washing with soap after using the toilet was reportedly important to respondents, with 99.2% of respondents overall stating that they strongly agreed or agreed with the statement 'it's important to wash hands with soap after using the toilet'. 70.5% of respondents overall believed that most people in their community were washing hands with soap after using the toilet, with the actual proportion of people who reported washing their hands with soap after defecating in the last 24 hours at 64.9%.

Reported importance was over 97% in every province (see Figure 38 below). There was more variation in perceived practice in the community. In Cebu, where the actual practice was the highest (88.8%), 100% of respondents believed that most people in their community were washing hands with soap after using the toilet. On the contrary, only 59.7% of respondents in Eastern Samar believed that most people in their community were washing hands with soap after using the toilet, despite actual practice being higher at 75.1%.

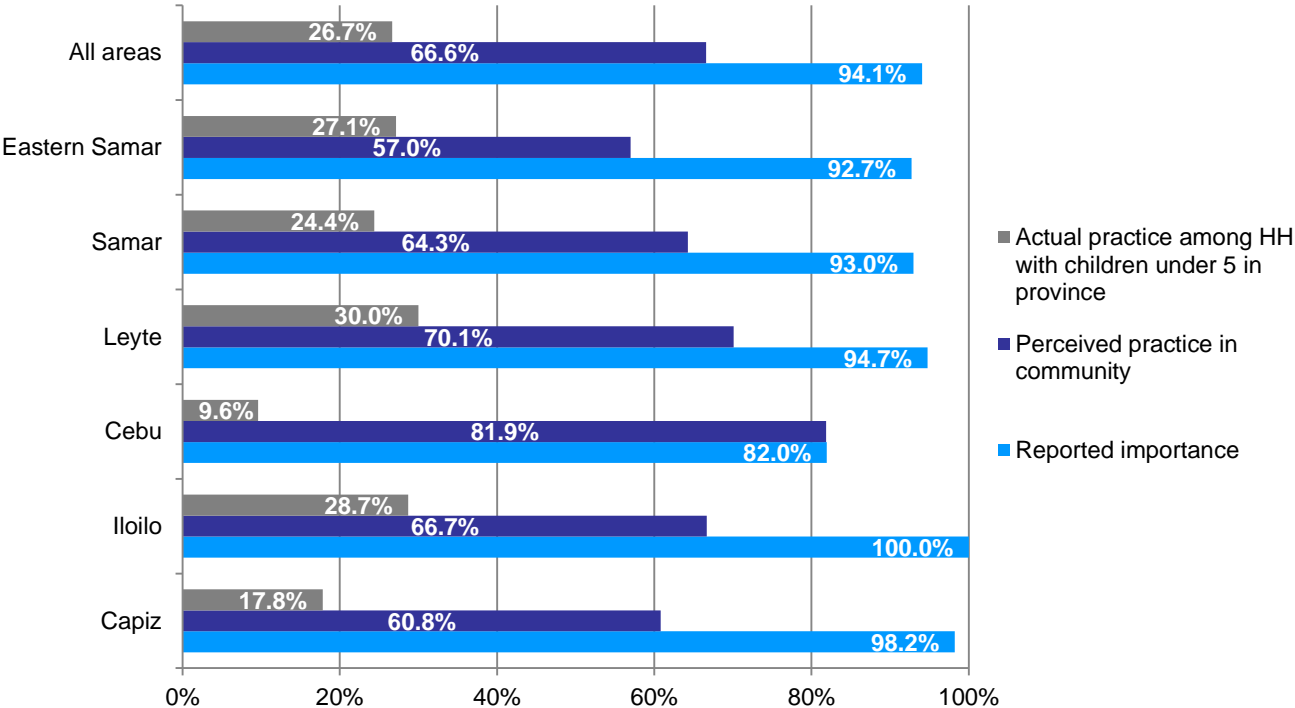
Figure 38: Reported importances vs perceived and actual practice of hand-washing after using the toilet



The significant gap between reported importance and practice in all provinces indicates that while virtually all households are aware that hand-washing after using the toilet is (or should be) considered important, this is not being translated into behavior change in all cases. It is likely that the reported importance of hand-washing after using the toilet is due to knowledge of the health benefits, however this knowledge may not always be sufficient to drive behavior change. This suggests that hygiene promotion activities that go beyond health education and focus on triggering strategies that aim to generate an emotional or visceral response (eg. disgust) may be most effective in PhATS project areas. The pattern of reported importance and perceived practice in community was quite different regarding hand-washing with soap before feeding children. The reported importance was still high (though lower

than for hand-washing after using the toilet), with 94.1% of respondents overall stating that they strongly agreed or agreed with the statement ‘it’s important to wash hands with soap before feeding children’. However the gap between perceived and actual practice was much more dramatic, with two thirds of respondents believing that most people in their community were washing hands with soap before feeding children, while only 26.7% of respondents in households with children under 5 reported doing so in the last 24 hours (see Figure 39 below).

**Figure 39: Reported importance vs perceived and actual practice of hand-washing before feeding children**



There was very little variation between the provinces. However, Cebu stood out as having the lowest levels of reported importance, with only 82% of respondents agreeing or strongly disagreeing with the statement ‘it’s important to wash hands with soap before feeding children’. The smaller proportion of households rating it as important appeared to translate into a smaller proportion of households practising it, with only 9.6% of respondents in households with children under 5 reporting washing their hands with soap before feeding a child in the last 24 hours (significantly lower than the other provinces).

This suggests that, particularly in Cebu, it may still be beneficial to build awareness of the health benefits of washing hands with soap before feeding children. However, given the very large gap between reported importance and actual practice in all provinces, focusing on emotional drivers of hand-washing may be more effective in driving behavior change. As such, it may be relevant to develop campaigns for use in PhaTS areas which frame the benefits of hand-washing in terms of nurture (the desire for a happy, thriving child) and other emotional drivers such as affiliation, status and disgust. Additionally, given that the practice of hand-washing before feeding children is practised far less commonly than what most people believe, simply raising awareness on the current low levels of the practice may stimulate some communities to develop their own methods of addressing the problem.



## WASH in Schools

This section outlines the main assessment findings on WASH governance in schools, group hygiene practices, handwashing facilities, water supply and sanitation. It is based on direct observation and interviews with key informants (school principals or head teachers) in 245 schools across PhATS project areas, as well as student focus group discussions in selected schools.

### WASH Governance

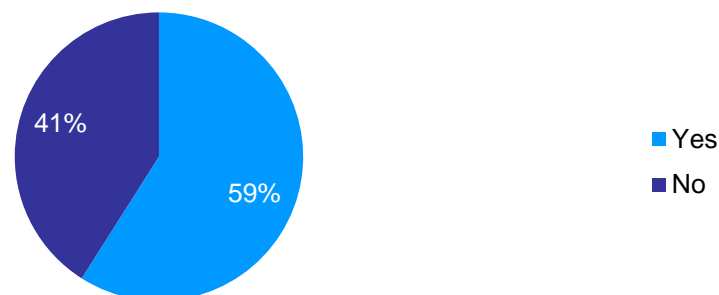
Good governance is a critical component of sustainable progress in WASH. This sub-section covers elements of WASH governance in schools, including the incorporation of WASH in school level planning, the allocation and availability of funds for WASH, the existence of committees promoting and overseeing WASH, and the frequency and type of WASH activities led by schools and the Department of Education.

66% of schools reported that WASH was currently incorporated into their Annual Investment Plan (AIP) or School Improvement Plan (SIP) (see Figure 40 below). Moreover, over half of all schools in PhATS project areas (59%) reported having funds allocated or available for WASH in the Maintenance and Other Expenses (MOOE) or the School Building Repair and Maintenance Fund (SBRMF), as illustrated in Figure 41 below. These findings indicate that there are opportunities for greater incorporation of WASH in both planning and funding allocation in schools in PhATS areas.

**Figure 40: Schools in PhATS areas with WASH incorporated into their Annual Improvement Plan (AIP) or School Improvement Plan (SIP)**

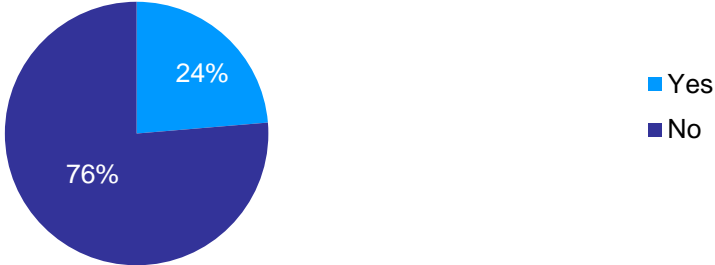


**Figure 41: Schools in PhATS areas with funds allocated or available for WASH in the MOOE or SBRMF**



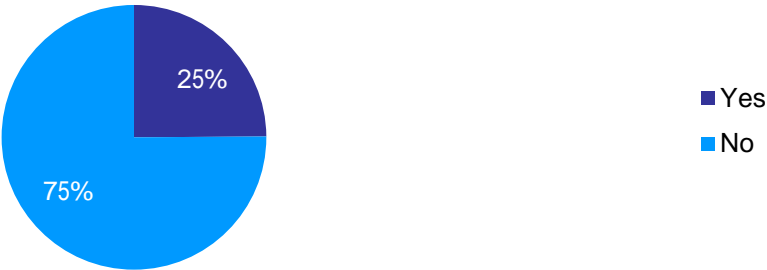
Approximately a quarter of schools in PhATS project areas reported having a student club or committee promoting water, sanitation and hygiene awareness (see Figure 42 below). This was generally the Student Body Organization (SBO), rather than a separate club or committee established specifically for WASH promotion.

**Figure 42: Schools in PhATS areas with student committee promoting WASH**



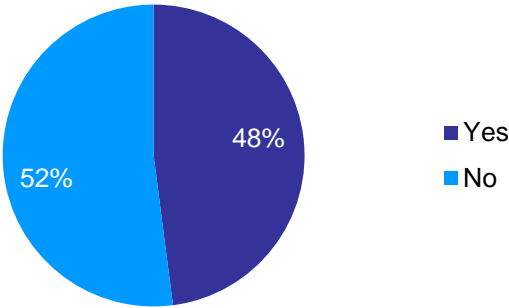
A similar proportion (25%) of schools reported having an active non-student committee overseeing water, sanitation and hygiene at the school (see Figure 43 below). This role was usually performed by the General Parent Teachers Association (GPTA). These findings indicate that only a minority of schools in PhATS project areas currently have committees actively involved in promoting or overseeing WASH in schools. This represents an opportunity for improving WASH governance at school level, and the schools with student and non-student committees already playing an active role in WASH may provide a useful model for integrating WASH governance into existing school structures.

**Figure 43: Schools in PhATS areas with active non-student committees overseeing WASH**



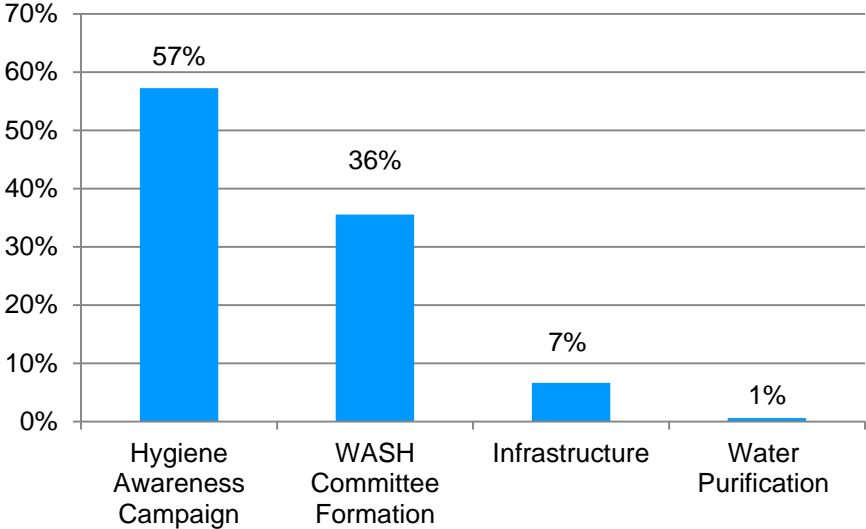
In almost half (48%) of schools in PhATS project areas, the school or the Department of Education had led at least one WASH activity in the school in the last six months (see Figure 44 below). This indicates strong leadership on WASH on the part of individual schools and the Department of Education (DepEd), particularly in the context of many other actors working on WASH in schools in the aftermath of Typhoon Yolanda.

Figure 44: Schools in PhATS areas with at least one WASH activity in the last six months led by the school or the DepEd



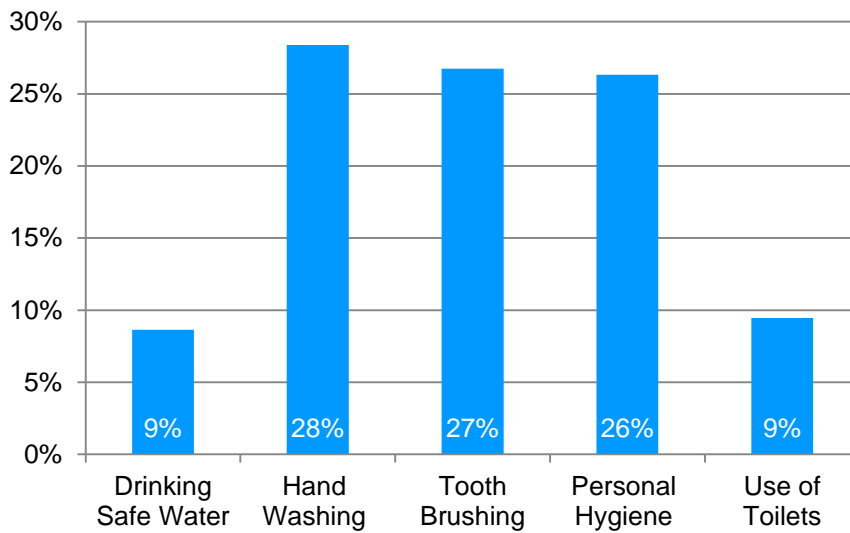
The most common type of WASH activity led by schools or the Department of Education was hygiene awareness (as reported by 57% of schools). The next most common WASH activity led by schools or the Department of Education was WASH committee formation. **Infrastructure projects were the least common, reported by only 7% of schools who led a WASH activity in the last six months and 4.5% of all schools in PhATS project areas** This is likely due to the heavy resource requirements of infrastructure projects compared to awareness campaigns, and indicates that even the schools that are most active in initiating WASH activities may still have infrastructure needs they are unable to address. These infrastructure gaps can seriously undermine the effectiveness of other activities, as discussed in the following section on group hygiene activities (See Figure 45 below).

Figure 45: Type of WASH activities conducted by schools who led a WASH activity in the last six months



The most common themes of hygiene awareness campaigns in the last six months were handwashing, toothbrushing and personal hygiene (see Figure 46 below). Campaigns on drinking safe water and use of toilets were far less commonly reported, each by only 9% of all schools in PhATS project areas.

**Figure 46: Most common themes of hygiene awareness campaigns in schools in the last six months**



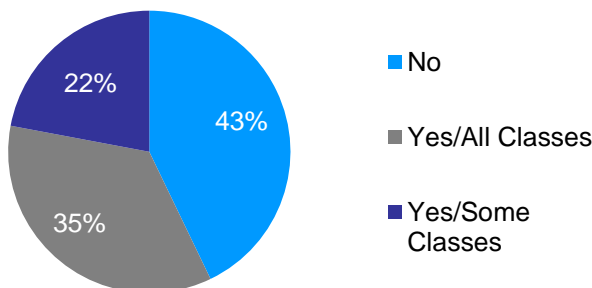
### Group Hygiene Activities

**Group hand-washing with soap and group tooth-brushing reinforce positive hygiene habits for students.**

#### *Daily Group Hand-washing with Soap*

In an estimated 35% of schools in PhATs areas, all classes are practising daily group hand-washing with soap, with a further 22% of schools practising this in some classes only. 43% of schools were not practising daily group-handwashing with soap at all (see Figure 47 below). These findings indicate that there is some uptake of this activity in most schools, though also an opportunity to broaden the practice.

**Figure 47: Schools in PhATS areas practising daily group hand-washing with soap**

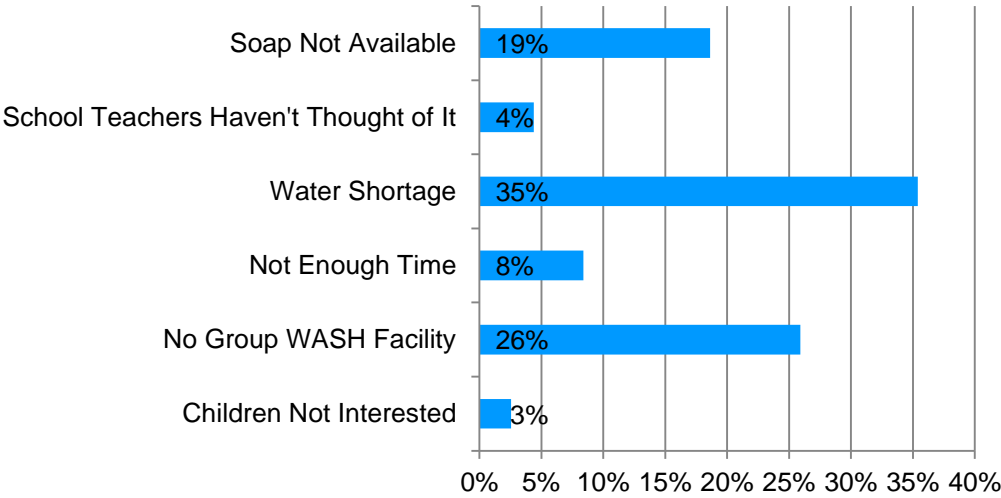


Though there is likely to be some benefit in simply reinforcing hand-washing with soap as a habit, FGD data indicates that there may be an opportunity to better use group hand-washing in schools to clarify and reinforce the key moments for hand-washing. FGD data indicated that some hand-washing

messages were being well understood, but that there was some confusion about when and why a person should wash their hands,; it also indicated a particular need to reinforce the importance of hand-washing after defecation.

Where daily group hand-washing with soap was not practised in all classes, key informants were asked about the barriers to practising daily group hand-washing. **The top three most frequently reported challenges were water shortages (35%), not having a functioning group WASH facility (26%) and not having soap available (19%).** These findings indicate that the barriers to practising group hand-washing in schools are largely resource based. Only 3% of schools reported that their students were not interested in hand washing (see Figure 48 below).

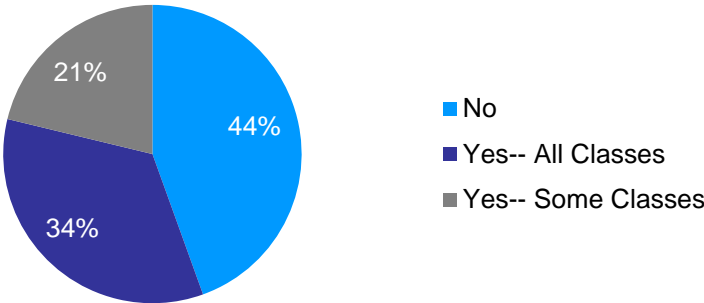
Figure 48: Reported barriers to practising group hand-washing with soap



*Daily Group Toothbrushing*

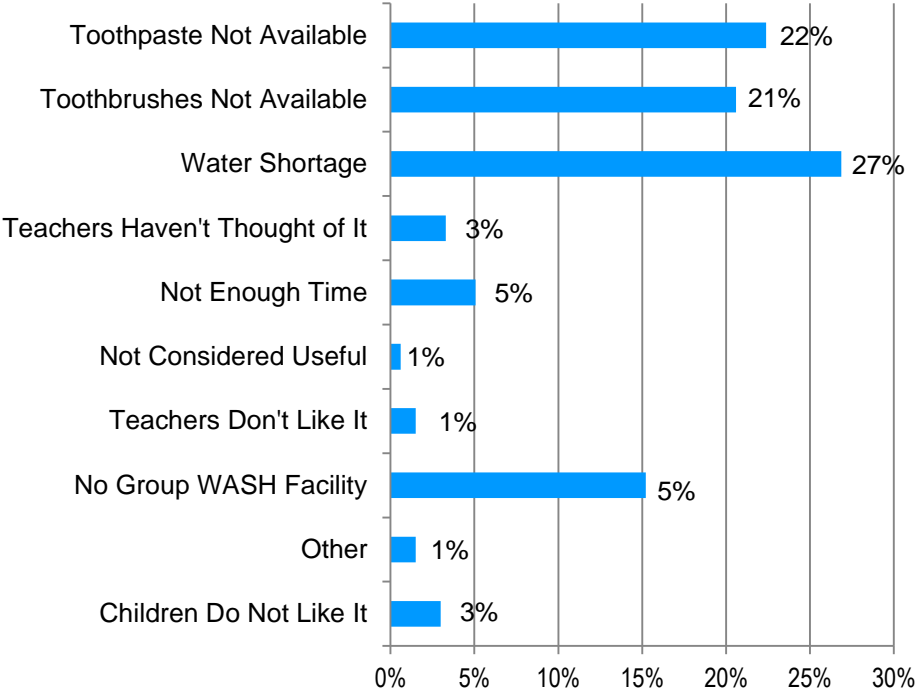
34% of schools in PhATS areas were practising daily group toothbrushing activities in all classes, with an additional 21% practising it in some classes only. 44% of schools were not practising any daily group tooth-brushing activities (see Figure 49 below). Therefore the proportion of schools practising group tooth-brushing was very similar to the proportion of schools practising group hand-washing.

Figure 49: Schools in PhATS areas practising daily group tooth-brushing



Such as with group hand-washing, the main issues preventing group tooth-brushing activities in school were resource based. **Among schools who did not practise group tooth-brushing in all classes, the most commonly reported barrier was water shortages (reported by 27% of schools that did not practise it in all classes), followed by lack of toothpaste (22%) and lack of toothbrushes (21%).**

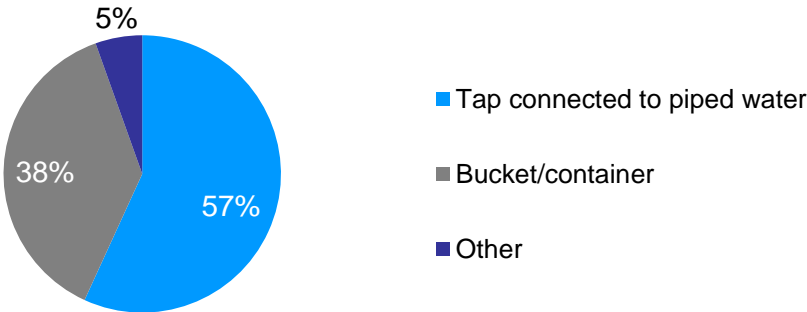
Figure 50: Barriers to practising group tooth-brushing reported by schools not practising it in all classes



**Hand-washing Facilities**

Based on direct observation at the schools in the sample, **an estimated 23% of schools in PhATS areas do not have any hand-washing facilities (HWFs) near the toilets.** A further 36% have hand-washing facilities near some but not all toilets.<sup>51</sup> Where schools did have hand-washing facilities, the two main types were taps connected to piped water (57% of schools with HWFs) and buckets or containers (38%), as Figure 51 below illustrates.

Figure 51: Type of hand-washing facilities used in schools with any hand-washing facilities

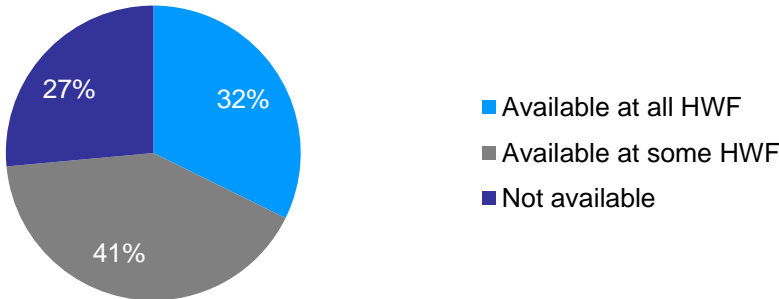


<sup>51</sup> Hand-washing facilities were considered 'near' toilets if there was a one minute walk or less between the HWF and the toilet.

Lack of water was a major barrier to properly functioning hand-washing facilities. At the time of visit, **64% of schools with hand-washing facilities were observed not to have water at some or all of the HWFs.** The scale of the problem was confirmed by key informants, with just over half of the schools (53%) reporting that they did not always have water at the HWFs. Issues with water supply at HWFs undermined progress with group hygiene activities, as well as improvements in infrastructure. The assessment teams reported seeing many new group hand-washing facilities that were unable to be used because of water supply issues. These issues are discussed further in the next section.

Another challenge in facilitating proper hand-washing was the lack of soap in a significant proportion of school HWFs. Direct observation indicated that **27% of schools with HWFs near toilets did not have soap at any HWFs at the time of visit**, with a further 41% having soap at some but not all HWFs (see Figure 52 below). Key informant reports indicate that there is some variability in the availability of soap, with 37% of schools with HWFs near toilets reporting that soap was available only sometimes and 12% reporting that it was never available. These findings indicate that lack of soap at school hand-washing facilities is a major issue, and an important barrier to having functioning HWFs in schools.

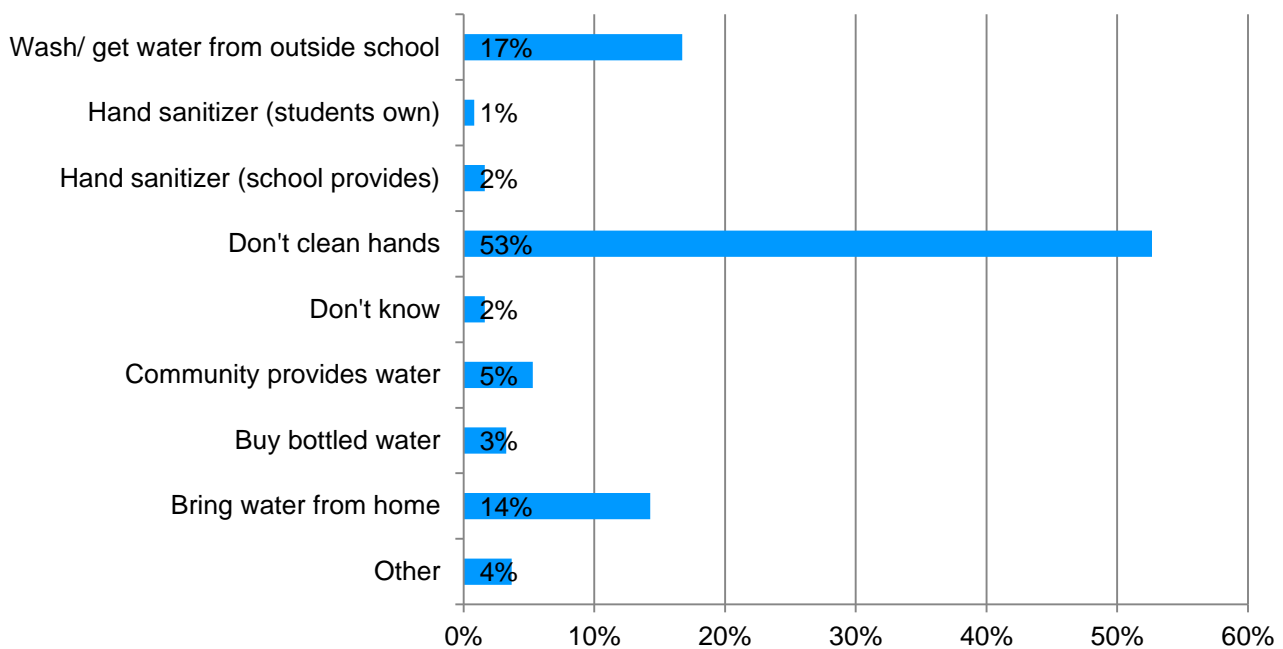
Figure 52: Observed availability of soap at schools with HWF near toilets



According to key informants (KI), children generally do not wash their hands when there is no functioning hand-washing facility available. (see Figure 53 below). A range of other coping mechanisms were reported in a minority of schools, including students leaving the school to wash their hands, bringing water for hand-washing from home, the community providing water for the school, and the school providing hand sanitizer. These coping mechanisms indicate a strong and very commendable commitment to hand-washing on the part of students, schools and communities in some areas.

However, given that the majority of schools reported that children simply do not wash their hands when hand-washing facilities are not functioning, addressing this issue is a critical aspect of hygiene promotion in schools in PhATS areas.

Figure 53: Coping mechanisms when there is no functioning HWF available (reported by KIs)



Interestingly, despite most schools having some practice of group hand-washing, nearly all members of each student FGD reported that they wash their hands more often at home than at school. This is a strong indication that issues like lack of soap and water are a major barrier to hand-washing at school, undermining the effectiveness of hygiene promotion activities.

## Water Supply

Issues with water supply emerged as a major barrier to maintaining functional hand-washing facilities and practicing daily group hygiene activities. The following section covers the main sources of water used for drinking and other purposes in schools, and the barriers to accessing water.

### *Drinking Water*

**In 55% of schools in PhATS areas, drinking water was reportedly not available in the school compound.** In these schools, any drinking water available was brought in from external sources, such as children bringing in water from home or teachers fetching water for school use from a communal source outside the school compound. This situation was often a result of damage to school water infrastructure caused by Typhon Haiyan and that had not yet been repaired. Over one year on from the typhoon, this remains a major problem, which is likely to lead to interruption of teaching and learning and not having sufficient drinking water available to meet students' needs.

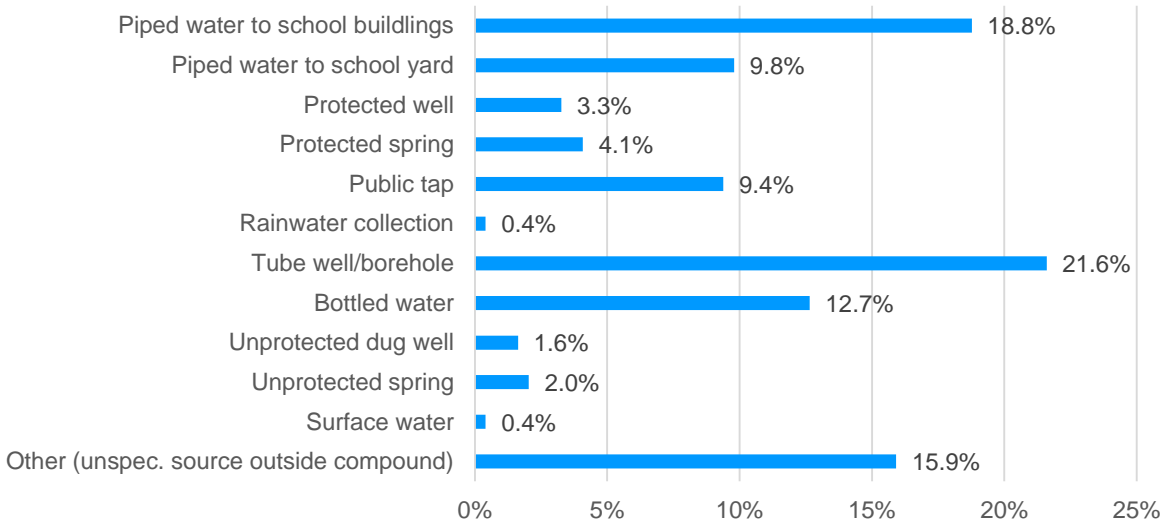
**28.6% of schools in PhATS areas had piped water to the school buildings or yard as their main source of drinking water.** The next most common source of drinking water was tubewells/boreholes (inside or outside the school compound), which were used by 21.6% of schools. 12.7% of schools were relying on bottled water as their main source of drinking water, raising questions about the financial burden this imposes on students and what those who cannot afford it do for drinking water while at school. At least 4% of schools in PhATS areas were relying on unimproved sources of drinking water -



such as unprotected wells, unprotected springs and surface water. However, the majority of schools without water points in the compound were able to collect water from improved water sources outside the school rather than resort to relying on water from unimproved sources. While this is a positive coping strategy in terms of accessing safe water, it is likely to have a significant impact on teaching and learning, particularly where the water source is a long distance from the school.

**Only 42.9% of schools had an improved drinking water source in the school compound.**

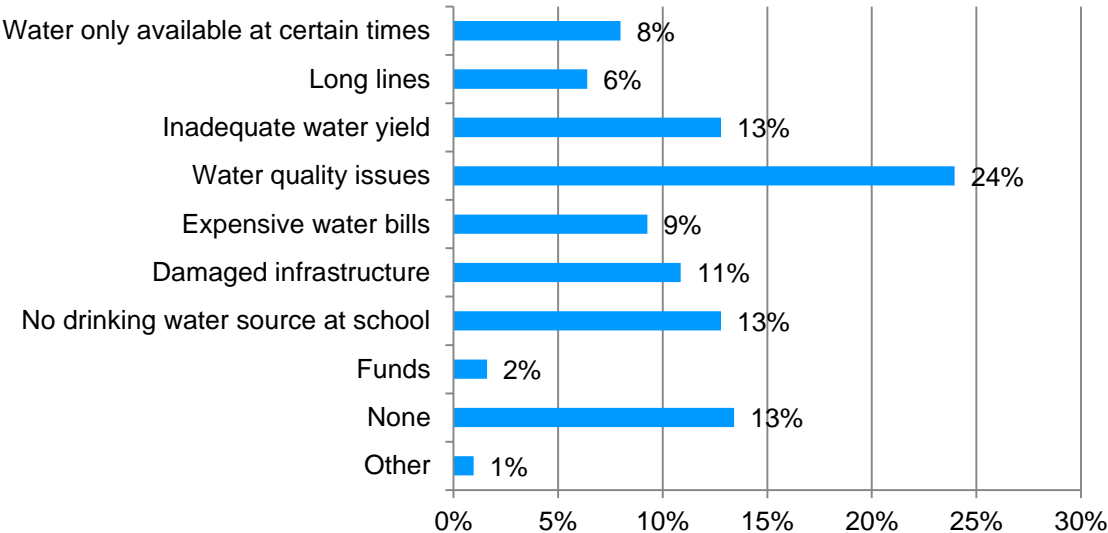
Figure 54: Main source of drinking water for schools in PhATS areas



When key informants at each school were asked about the problems encountered in accessing drinking water, the most common problem identified was water quality (mentioned by 24% of schools). 13% of schools specifically mentioned the problem of not having a drinking water source at the school, 13% identified inadequate water yield as a problem, and 11% identified issues with damaged infrastructure. Other issues were reported by less than 10% of schools (see Figure 55 below), while only 13% of schools reported that there were no major issues in accessing drinking water.

These findings indicate a clear need to work on water infrastructure in many schools in PhATS areas.

Figure 55: Problems schools encountered in accessing drinking water



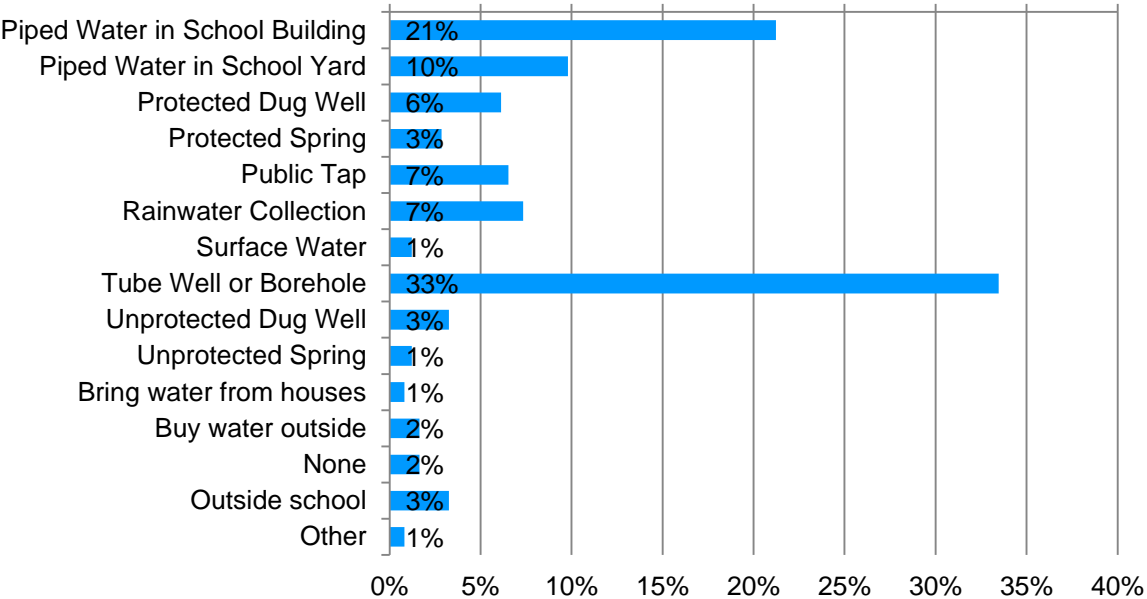
When water points are not functioning, 84% of key informants reported that the most common coping strategy for students is to bring water from home, with other coping strategies (such as drinking water from unsafe sources or the community providing water for the whole school) reported as the most common strategy in less than 5% of schools.

*Water for Purposes Other Than Drinking*

**Almost a quarter of schools in PhATS areas (24%) reportedly did not have water for purposes other than drinking available in the school compound, which is likely to severely limit practice of personal hygiene and the cleanliness of toilet facilities.**

The main source of water for purposes other than drinking was tubewells/boreholes, used for non-drinking water by 33% of schools (significantly higher than the proportion using them as sources of drinking water). 31% of schools used water piped to the school buildings or yard as the main source of water for purposes other than drinking, and no other source was relied upon by more than 10% of schools (see Figure 56 below).

**Figure 56: Main source of water for purposes other than drinking for schools in PhATS areas**



The problems encountered in accessing water for purposes other than drinking were similar to those encountered in accessing drinking water. Inadequate water yield was mentioned more often (by 17% of schools) as a problem in relation to water for other purposes, suggesting that water shortages may be having a greater impact on the availability of water for hand-washing and cleaning than on the availability of drinking water. 19% of schools reported that they had no major issues accessing water for purposes other than drinking (compared to only 13% in relation to drinking water), suggesting that problems accessing water are more widespread and/or considered more problematic in relation to drinking water.

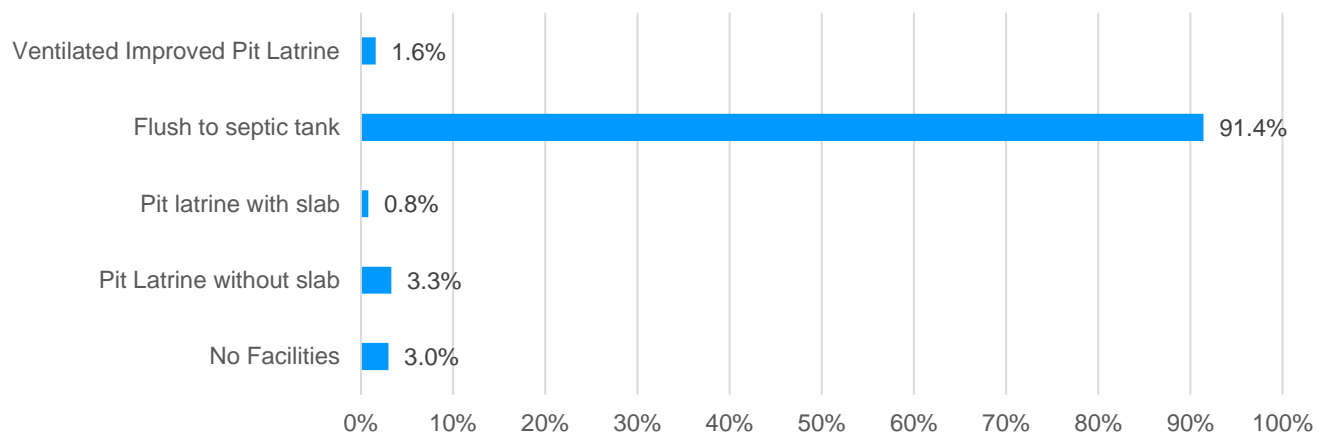
## Sanitation

This sub-section outlines key findings related to school toilets, open defecation and solid waste disposal.

### *School Toilets*

**An estimated 93.7% of schools in PhATs areas have improved sanitation facilities, while 3% of schools have no sanitation facilities at all.** The vast majority of toilets were flush or pour flush toilets connected to septic tanks (used by 91.4% of all schools). While these toilets allow for the hygienic separation of excreta, they also require large quantities of water, which is likely to be problematic given the difficulties in accessing water reported by many schools. Indeed, a lack of water available for flushing was discussed as a problem in some student focus groups.

**Figure 57: Main toilet type at schools in PhATS areas**

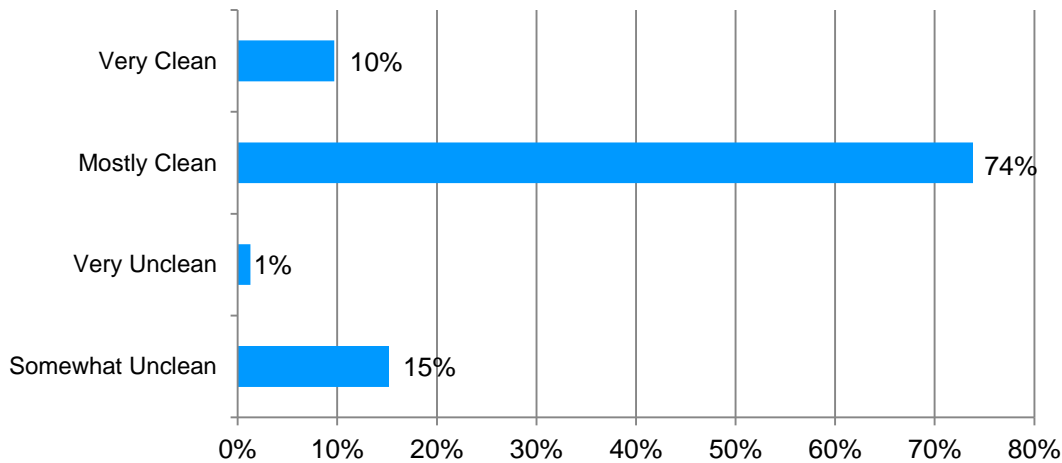


A key issue identified by the assessment was the relative rarity of single sex toilets in schools in PhATS areas. The vast majority of existing toilets in schools are unisex, which can present problems with privacy, particularly for older girls in relation to menstrual hygiene. Only 24% of schools had some single sex toilets, with 21% having at least one girls-only toilet.

In 95% of schools, toilets were less than 2 minutes walk from classrooms. In the remaining 5% of schools, toilets were 2-5 minutes walk from classrooms. These findings indicate that having to walk too far from classrooms to toilets was not a major problem in most cases. In fact, FGD data indicated that having toilets too close to (and particularly adjacent to) classrooms was actually disincentive to their use for defecation in some cases. Many focus group participants expressed embarrassment and concerns (particularly about the smell reaching the classroom) about defecating in toilets so close to their classrooms.

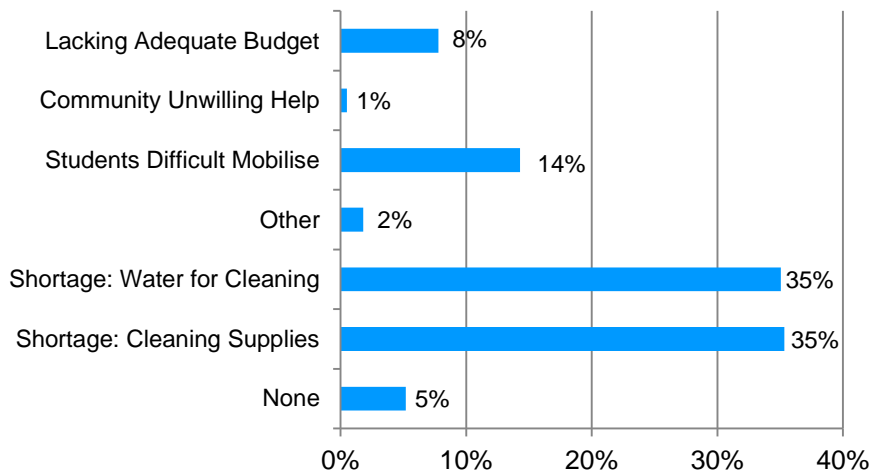
The cleanliness of toilets was a problem in some schools. While 74% of toilets were observed to be 'mostly clean', 16% of schools were observed to have unclean toilets at the time of the school visit, with only 10% of schools observed to have 'very clean' toilets (see Figure 58 below).

Figure 58: Cleanliness of toilets in schools in PhATS areas (observed)



Key informants at each school were asked about the challenges of keeping toilets clean. The main challenges reported were a shortage of water and a shortage of cleaning supplies (each reported by 35% of schools). The third most common challenge identified was students being difficult to mobilise for cleaning (14%).

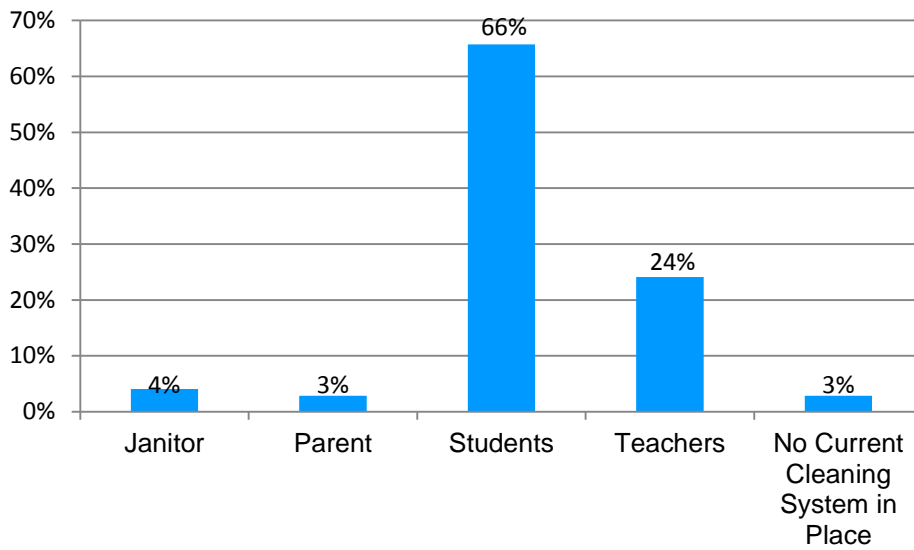
Figure 59: Main challenges in keeping school toilets clean



The significance of this third challenge is explained by the widespread reliance on students for cleaning school toilets. **While 97% of schools had some system in place for the regular cleaning of toilets, only 4% reported that toilets were cleaned by a janitor, with toilet cleaning performed by students in 66% of schools, and by teachers in 24%** (see Figure 60 below).

This is problematic as it may interfere with teaching and learning activities, and it may be beneficial to explore other strategies for cleaning school toilets. 3% of schools reported that toilets were cleaned by parent volunteers, which may offer a possible model for schools that lack the resources to pay for cleaning services.

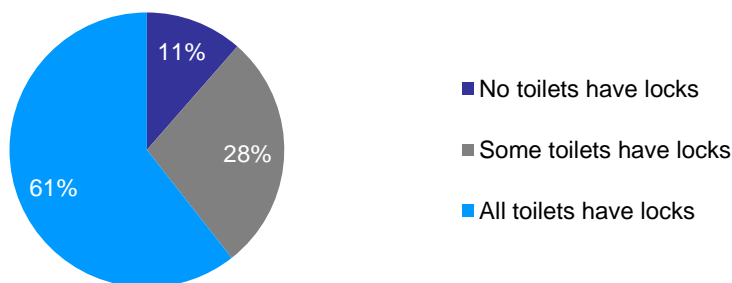
Figure 60: Who cleans toilets in schools in PhATS areas



In addition to cleanliness, the field team assessed other factors that could potentially discourage students from using toilets at school. In 69% of schools, all toilets were able to provide privacy for the user, with an additional 22% of schools having some but not all toilets meeting the criteria. However, in 10% of schools there were no toilets considered to provide adequate privacy for the user.

61% of schools had inside locks on all doors, with 11% of schools not having any lockable toilets (see Figure 61 below). Considering that the vast majority of these toilets are unisex, the issue of privacy takes on a heightened importance.

Figure 61: Schools with toilets with inside locks (observed)

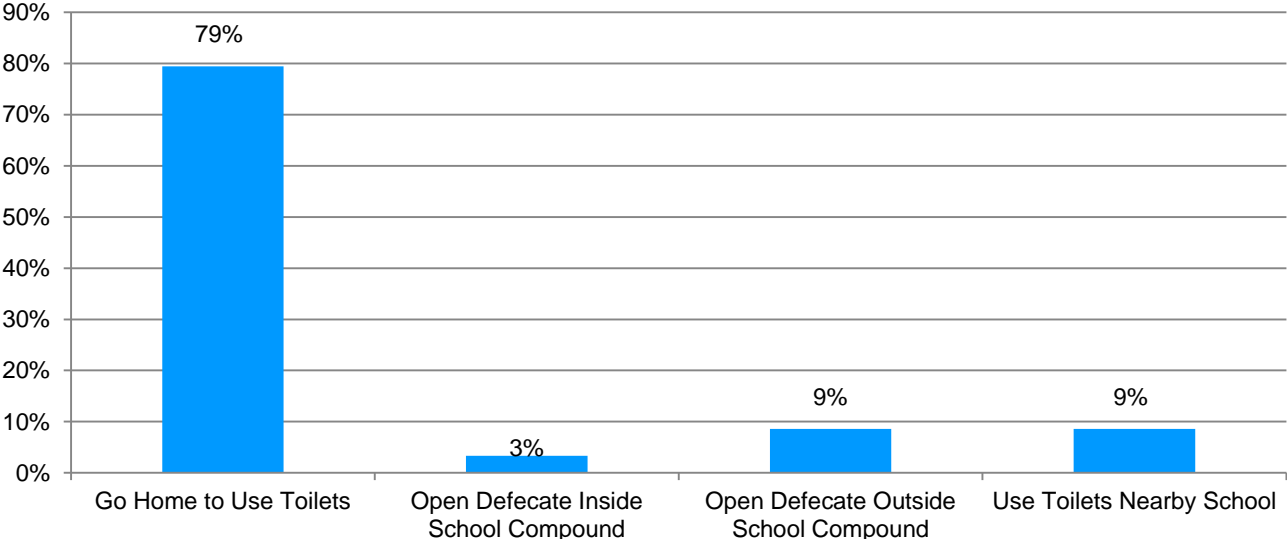


26% of schools did not have sufficient light in all toilets (during the day), which may make some (particularly younger) children uncomfortable using them. Crucially, **70% of schools in PhATS areas did not have any female toilets with a sanitary bin and a washing facility inside**, leaving girls without the privacy and facilities needed to manage their menstrual hygiene with dignity. This is an

important issue to address, as it can lead to stigma, shame and poor school attendance.<sup>52</sup> Most schools were also ill equipped to accommodate the sanitation needs of students with physical disabilities, with an estimated 88% of schools in PhATS areas lacking a toilet allowing for disability access.

Key informants at each school were asked what students do when school toilets are not functioning. In 79% of schools, students’ main coping mechanism was to go home to use the toilet. This disrupts learning, particularly where students’ homes are far away, and at least one FGD participant reported staying home for the rest of the day after he returned to use the toilet. **In 12% of schools, it was reported that the main coping mechanism was to defecate openly inside or outside the school compound**(see Figure 62). These negative coping mechanisms emphasise the importance of ensuring that school toilets are functioning and sufficiently comfortable for students to use them.

Figure 62: Main student coping mechanism when toilets are not functioning (reported by KIs)



*Open Defecation*

**Open defecation was reported in 17% of schools in PhATs areas**, while open urination was reported in 82%. Focus group data emphasized the significant role teachers played in enabling or discouraging open defecation.

In one focus group, students explained that their teacher specifically forbid defecation in the school toilets, and instead asked them to go home to defecate, forcing those who couldn’t make it home in time to defecate openly. In this case, the teacher concerned explained that she discouraged defecation in the school toilets due to concerns about the children not being able to clean themselves or the toilet properly after defecation. It is not clear how widespread the practice of teachers discouraging defecation in school toilets is, but further exploration may be worthwhile. In FGDs, students also discussed other ways teachers influenced the practice of open defecation either positively or negatively, for example by allowing or not allowing students to go home if the school toilet was not functioning. These FGD findings highlight the importance of looking beyond infrastructure, and

<sup>52</sup> Sommer, Marni, Emily Vasquez, Nancy Worthington, Murat Sahin and Therese Dooley, ed. 2014, [Proceedings of the Menstrual Hygiene Management in Schools Virtual Conference 2013](#), New York: UNICEF and Columbia University, , p. 41.

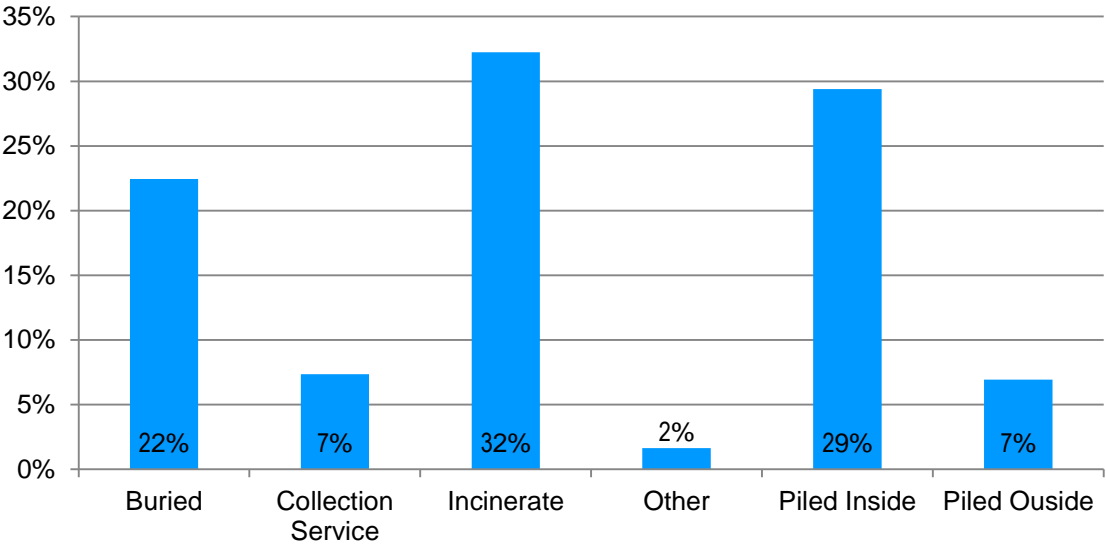
emphasise the role of teachers as essential actors in curbing open defecation. It may be relevant to consider more extensive teacher consultation and training on these issues, and develop approaches to working closely with teachers towards zero open defecation.

Student perceptions of the acceptability and safety of open defecation were also explored in FGDs. The vast majority of FGD participants considered open defecation unacceptable and unsafe: only three and four groups out of twenty-eight had members who felt open defecation was acceptable and safe respectively. Most FGD participants expressed that they would be more likely to open defecate at home than at school, due to the shame associated with being caught defecating openly at school. This indicates that social pressure may be limiting open defecation at school, though this does not necessarily extend to behavior outside of school.

*Solid Waste Disposal and Stagnant Water*

75% of schools in PhATS areas reported that they were disposing of garbage every day, with only 9% reporting irregular garbage disposal. The most common method of garbage disposal was incineration, followed by piling solid waste inside the school compound. **Piling garbage inside the school compound was practiced by 29% of schools**, with an additional 7% piling it outside the school compound. These garbage disposal methods pose a health risk as they are likely to facilitate students' easy contact with this solid waste. As such, promotion of safer methods of garbage disposal may be an important part of improving sanitation in schools.

**Figure 63: Garbage disposal methods in schools in PhATS areas**



**27% of schools in PhATs areas were observed to have stagnant water inside the school compound.** This can create problems with vector control, and as such may also pose a health risk to children and others. Consequently, it will be important to incorporate strategies for addressing stagnant water into broader strategies for improving sanitation in schools.

## Conclusion

One year after Typhoon Haiyan, as the focus shifts from emergency reconstruction to sustainable development, there is a critical opportunity to address long-term sanitation challenges such as open defecation, which remains a major problem in the Philippines. The Philippine Approach to Total Sanitation (PhATS) program was launched by UNICEF to build on the momentum of the emergency response and reinvigorate progress towards the national goals of eliminating open defecation (with 60% of barangays being declared Zero Open Defecation by 2016) and achieving universal access to safe and adequate sanitation facilities (by 2028). The PhATS approach recognizes that sustainable improvements in sanitation and hygiene behavior come through the gradual changing of social norms, and thus requires detailed baseline data on WASH knowledge, attitudes and practices. This assessment was designed to provide that baseline data at household and school levels, which will be used to inform program planning and implementation and to monitor and evaluate progress.

**This assessment confirms the scale of the problem of open defecation, with an estimated 17.3% of households in PhATS areas practising open defecation.**<sup>53</sup> The disaggregated baseline data will enable careful targeting of WASH program activities, both geographically and thematically. There is significant variation between the six provinces in terms of their WASH profiles and priorities, and programming should reflect this. For example, Cebu has the highest proportion of households with hand-washing facilities, but also the greatest sanitation needs. Iloilo and Capiz, which perform better on sanitation indicators, may benefit more from interventions related to water supply and hygiene awareness campaigns on key moments for hand-washing.

**There is a good base level of hygiene awareness and knowledge in PhATS areas, which makes careful selection and targeting of relevant hygiene messages particularly important.** Key gaps include awareness of adequate/inadequate methods of water treatment (in Iloilo and Capiz); awareness of the link between unsafe water and health risks other than diarrhea (eg. soil transmitted helminths and schistosomiasis); sensitization to the risks of unhygienic disposal of children's faeces; and sensitization to the importance of washing hands before feeding children and after cleaning a child who has defecated.

The baseline data indicates that awareness of the health risks of open defecation is already high across all project areas, so it may be beneficial to focus messaging on non-health benefits of toilets (such as prestige, privacy, comfort and well-being). Similarly, the significant gap between reported importance of hand-washing and its practice suggests that hygiene promotion strategies that go beyond health education and focus on the emotional drivers of hand-washing (eg. affiliation, nurture, status or disgust) may be most effective in PhATS areas.

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<sup>53</sup> This is calculated as households who report having at least one member who ever (always, usually, sometimes or rarely) practises open defecation plus households who do not report ever practising open defecation but report 'no facilities' when asked what kind of toilet facilities their household usually uses. While this definition technically includes households where open defecation may be practised rarely and/or by only one household member, including all non-never responses is likely to give the most accurate picture given that open defecation is likely to be hugely under-reported in a face-to-face survey.



The baseline data on WASH in schools also highlighted a number of opportunities for intervention in schools in PhATS areas. Water supply emerged as a key issue, often undermining or constraining the effectiveness of other interventions, including group hygiene activities, new infrastructure and efforts to keep toilets clean. As such, addressing these water supply issues could be a particularly useful strategy. There are also opportunities for greater incorporation of WASH in both planning and funding allocation in schools in PhATS areas, and for the establishment of school committees responsible for promoting and overseeing WASH (in the majority of schools that do not have them yet). Crucially, the assessment highlighted the role of teachers as essential actors in curbing open defecation, suggesting that it may be useful to have more extensive teacher consultation and training on these issues, and to develop approaches to working closely with teachers towards zero open defecation.

Given the very limited data available on WASH knowledge, attitudes and practices in the Philippines (particularly at the provincial level), this large-scale assessment was designed to provide PhATS implementing partners with detailed baseline data by province. **It is hoped that this data will enable implementing partners to carefully design and target programming in their respective areas of intervention based on the different priorities, needs and existing capacities in each area, maximizing the efficiency and effectiveness of the PhATS program.** At the end of the program, this baseline assessment (together with the endline data) will provide a framework to evaluate the effectiveness of the program, and to build a detailed picture of what worked where and why. In this way, this assessment seeks to contribute to the development of best practices for sustainable change in sanitation and hygiene behavior in the Philippines context, as the country works towards achieving universal access to safe and adequate sanitation facilities by 2028.

## Annexes

### Annexe 1: List of barangays assessed through the household survey

Province	Municipality	Barangay	Urban/Rural (NSCB data)	Coastal/Inland	Households assessed
Capiz	Ivisan	Cabugao	Rural	Sea access	15
		Matnog	Rural	Sea access	15
		Mianay	Rural	Inland	15
		Santa Cruz	Rural	Within 2km	5
	Jamindan	Agbun-od	Rural	Inland	5
		Agcagay	Rural	Inland	5
		Agloloway	Rural	Inland	5
		Caridad	Rural	Inland	5
		Guintas	Rural	Inland	5
		Jaena Norte	Rural	Inland	10
		Lucero	Rural	Inland	5
		Masgrau	Rural	Inland	5
		Pangabat	Rural	Inland	5
	Ma Ayon	Cabungahan	Rural	Inland	5
		East Villaflores	Rural	Inland	5
		Indayagan	Rural	Inland	15
		New Guia	Rural	Inland	5
		Poblacion Ilawod	Urban	Inland	10
		Tuburan	Rural	Inland	10
	Panay	Bantique	Rural	Sea access	5
		Buntod	Rural	Sea access	5
		Cabugao Este	Rural	Inland	5
		Calapawan	Rural	Inland	5
		Cogon	Rural	Inland	5
		Ilamnay	Rural	Inland	5
		Linao	Rural	Inland	5
		Pawa	Rural	Sea access	15
	Panitan	Agloway	Rural	Inland	10
		Ambilay	Rural	Inland	5
		Cabugao	Rural	Inland	5
		Cabangahan	Rural	Inland	15

		Cogon	Rural	Inland	10
		Pasugue	Rural	Inland	5
	Pilar	Binaobawan	Rural	Sea access	5
		Monteflor	Rural	Within 2km	5
		Poblacion	Urban	Sea access	20
		Rosario	Rural	Sea access	10
		Sinamongan	Rural	Inland	10
	Pontevedra	Bailan	Rural	Inland	5
		Banate	Rural	Inland	5
		Linampongan	Rural	Inland	5
		Malag-it	Rural	Inland	10
		Rizal	Rural	Inland	5
		San Pedro	Rural	Within 2km	5
		Tacas	Urban	Inland	10
		Yatingan	Rural	Inland	5
	President Roxas	Badiangon	Rural	Inland	5
		Bayuyan	Rural	Inland	10
		Cubay	Rural	Inland	5
		Culilang	Rural	Inland	10
		Goce	Rural	Inland	10
Pinamihagan		Rural	Sea access	5	
Quiajo		Rural	Sea access	5	
<b>Capiz total</b>				<b>400</b>	
Cebu	Bantayan	Atop-Atop	Rural	Sea access	40
		Baod	Rural	Sea access	15
		Kabac	Rural	Sea access	20
		Guiwanon	Rural	Sea access	15
		Kabangbang	Rural	Inland	15
		Obo-Ob	Rural	Sea access	15
		Patao	Rural	Sea access	40
		Sillon	Rural	Sea access	30
	Daanbantayan	Carnaza	Rural	Sea access	10
		Lanao	Rural	Within 2km	25
		Logon	Rural	Sea access	40
		Talisay	Rural	Sea access	20
		Tapilon	Rural	Sea access	35
		Tominjao	Rural	Sea access	60
<b>Cebu total</b>				<b>380</b>	
Eastern Samar	Balangiga	Guinmaayohan	Rural	Inland	5
		Barangay Poblacion I	Rural	Within 2km	10
		Barangay Poblacion II	Urban	Within 2km	5
		Barangay Poblacion IV	Urban	Within 2km	5
		San Miguel	Rural	Sea access	10

		Santa Rosa	Rural	Inland	15
	Balangkayan	Balogo	Rural	Inland	5
		Bangon	Rural	Inland	5
		Cabay	Rural	Sea access	10
		Guinpoliran	Rural	Sea access	5
		Julag	Rural	Inland	5
		Maramag	Rural	Sea access	5
		Poblacion V	Urban	Inland	15
	General McArthur	Calutan	Rural	Inland	10
		Poblacion Barangay 2	Rural	Sea access	5
		Poblacion Barangay 7	Rural	Sea access	5
		Laurel	Rural	Inland	5
		Vigan	Rural	Sea access	20
		Aguinaldo	Rural	Sea access	5
	Giporlos	Barangay 7 (Pob.)	Rural	Within 2km	10
		Biga	Rural	Sea access	10
		San Isidro (Malabag)	Rural	Sea access	5
		Barangay 4 (Pob.)	Urban	Within 2km	5
		Barangay 5 (Pob.)	Rural	Sea access	15
		Parina	Rural	Sea access	5
	Guiuan	Bitaugan	Rural	Sea access	5
		Suluan	Rural	Sea access	5
		San Juan	Rural	Sea access	5
		Campoyong	Urban	Sea access	5
		Cogon	Rural	Within 2km	10
		Ngolos	Rural	Sea access	5
		Pagnamitan	Rural	Sea access	5
		Poblacion Ward 6	Rural	Sea access	5
		Hagna	Rural	Sea access	5
	Hernani	Batang	Rural	Sea access	5
		Garawon	Rural	Sea access	5
		Canciledes	Rural	Sea access	5
		Nagaja	Rural	Sea access	5
		Padang	Rural	Within 2km	10
		Barangay 1 (Pob.)	Rural	Within 2km	5
		Barangay 4 (Pob.)	Urban	Sea access	5
		San Isidro	Rural	Within 2km	5
		San Miguel	Rural	Sea access	5
		Lawaan	Guinob-an	Rural	Sea access
	Maslog		Rural	Sea access	5
Barangay Poblacion 3	Rural		Sea access	5	
Barangay Poblacion 5	Rural		Within 2km	5	
Barangay Poblacion 8	Urban		Inland	5	

		Barangay Poblacion 9	Urban	Inland	10		
		Barangay Poblacion 10	Rural	Inland	5		
		Taguite	Rural	Sea access	10		
	Mercedes		Anuron	Rural	Sea access	10	
			Cambante	Rural	Sea access	5	
			Barangay 1 Poblacion	Rural	Sea access	10	
			Barangay 2 Poblacion	Rural	Sea access	5	
			Sung-an	Rural	Sea access	5	
			Palamrag (Cabiliri-an)	Rural	Sea access	10	
			San Roque	Rural	Sea access	5	
		Quinapondan		Anislag	Rural	Inland	5
				Bagte	Rural	Sea access	5
			Rizal (Pana-ugan)	Rural	Within 2km	10	
			Santo Niño	Rural	Within 2km	15	
			Palactad (Valley)	Rural	Within 2km	5	
			Alang-alang	Rural	Within 2km	5	
			San Isidro	Rural	Inland	5	
	Salcedo		Maliwaliw	Rural	Sea access	10	
			Bagtong	Rural	Sea access	10	
			Barangay 13 (Pob.)	Rural	Sea access	5	
			Barangay 2 (Pob.)	Rural	Sea access	5	
			Burak	Rural	Sea access	5	
			Iberan	Rural	Sea access	5	
			Matarinao	Rural	Sea access	5	
			Naparaan	Rural	Inland	5	
	San Julian		Bunacan	Rural	Inland	5	
			Campidhan	Urban	Sea access	5	
			Libas	Urban	Sea access	5	
			Nena (Luna)	Rural	Sea access	10	
			Barangay No. 1 Poblacion	Urban	Sea access	5	
			Barangay No. 3 Poblacion	Rural	Sea access	5	
			Putong	Rural	Inland	5	
			San Isidro	Rural	Sea access	10	
		<b>Eastern Samar total</b>			<b>550</b>		
Iloilo	Estancia	Bulaqueña	Urban	Within 2km	45		
		Calapdan	Urban	Within 2km	5		
		Pani-an	Urban	Within 2km	20		
		Poblacion Zone 1	Urban	Sea access	35		
		Tabu-an	Urban	Within 2km	20		
	San Dionisio	Amayong	Rural	Inland	10		
		Batuan	Rural	Inland	10		
		Canas	Rural	Inland	10		

		Capinang	Rural	Within 2km	5
		Cudionan	Rural	Inland	20
		Dugman	Rural	Inland	20
		Madanlog	Rural	Within 2km	10
		Naborot	Rural	Sea access	5
		Santol	Rural	Inland	20
		Talo-ato	Rural	Inland	10
		Tuble	Rural	Inland	5
	Sara	Apelo	Rural	Inland	10
		Aposaga	Rural	Inland	15
		Gildore	Rural	Inland	5
		Improgo	Rural	Inland	25
		Latawan	Rural	Inland	15
		Poblacion Market	Rural	Inland	5
		Posadas	Rural	Inland	10
		Preciosa	Rural	Inland	10
		Salcedo	Rural	Inland	20
		Villahermosa	Rural	Inland	10
				<b>Iloilo total</b>	
Leyte	Alangalang	Bugho	Rural	Inland	15
		Cabadsan	Rural	Inland	5
		Mudboron	Rural	Inland	5
		P. Barrantes	Rural	Inland	10
		San Vicente	Rural	Inland	15
	Barugo	Bukid	Rural	Inland	5
		Calingcaguig	Rural	Inland	5
		Canomantag	Rural	Sea access	10
		Hilaba	Rural	Within 2km	10
		San Isidro	Rural	Within 2km	10
		Santa Rosa	Rural	Inland	10
	Buraen	Abuyogon	Rural	Inland	5
		Cagangon	Rural	Inland	10
		Cansiboy	Rural	Inland	5
		Logsongan	Rural	Inland	5
		Malaihao	Rural	Inland	5
		Roxas	Rural	Inland	5
		Sambel	Rural	Inland	5
		San Jose East	Rural	Inland	5
		Kagbana	Rural	Inland	5
	Carigara	Baybay	Urban	Sea access	5
		East Visoria	Rural	Sea access	5
		Guindapunan East	Rural	Sea access	5
		Guindapunan West	Rural	Sea access	5

		Jugaban	Rural	Sea access	5	
		San Mateo	Urban	Sea access	10	
		Sawang	Urban	Within 2km	10	
		West Visoria	Rural	Sea access	5	
	Dagami		Cabariwan	Rural	Inland	10
			Guinarona	Rural	Inland	5
			Hilabago	Rural	Inland	5
			Hinologan	Rural	Inland	5
			Hitumnog	Rural	Inland	10
			San Benito	Rural	Inland	5
			Tagkip	Rural	Inland	10
	Dulag		Cabacungan	Rural	Inland	10
			Calubian	Rural	Inland	5
			Del Pilar	Rural	Inland	10
			Sungi	Rural	Sea access	5
			Salvacion	Urban	Within 2km	5
			San Agustin	Rural	Inland	5
			Tabu	Rural	Inland	5
			Tigbao	Rural	Inland	5
	Jaro		Burabod	Rural	Inland	5
			Kaglawaan	Rural	Inland	5
			Canhandugan	Rural	Inland	10
			Hiagsam	Rural	Inland	10
			Kalinawan	Rural	Inland	5
			Macopa	Rural	Inland	5
			Olotan	Rural	Inland	10
	Julita		Balante	Rural	Inland	5
			Bongdo	Rural	Inland	10
		Bonifacio	Rural	Inland	5	
		Cuya-e	Rural	Inland	10	
		Dita	Rural	Inland	15	
		Hindang	Rural	Inland	5	
La_Paz		Bagacay East	Rural	Inland	5	
		Cacao	Rural	Inland	5	
		Cagngaran	Rural	Inland	5	
		Caltayan	Rural	Inland	5	
		Limba	Rural	Inland	5	
		Pawa	Rural	Inland	5	
		Rizal	Rural	Inland	5	
		San Victoray	Rural	Inland	5	
		Santa Ana	Rural	Inland	10	
Macarthur		Causwagan	Rural	Inland	5	
		Danao	Rural	Inland	10	

		Poblacion District 1	Urban	Sea access	5
		Pongon	Rural	Sea access	10
		San Antonio	Rural	Inland	5
		San Pedro	Rural	Sea access	5
		Santa Isabel	Rural	Inland	5
		Tuyo	Rural	Sea access	5
	Mayorga	Mabini	Rural	Inland	15
		General Antonio Luna	Rural	Sea access	5
		Ormocay	Rural	Inland	10
		Talisay	Rural	Inland	15
		Wilson	Rural	Inland	5
	Palo	Baras	Rural	Sea access	5
		Cabarasan Guti	Rural	Inland	5
		Cangumbang	Rural	Inland	5
		Cogon	Urban	Sea access	5
		Libertad	Rural	Inland	10
		Luntad	Urban	Within 2km	5
		Salvacion	Urban	Sea access	5
		San Agustin	Rural	Inland	5
		San Joaquin	Urban	Sea access	5
	Pastrana	Aringit	Rural	Inland	5
		Cancaraja	Rural	Inland	5
		Manaybanay	Rural	Inland	10
		Maricum	Rural	Inland	5
		District 3	Rural	Inland	5
		Tingib	Rural	Inland	5
		Yapad	Rural	Inland	5
		Lourdes	Rural	Inland	10
	San Miguel	Bahay	Rural	Inland	5
		Bairan	Rural	Inland	10
		Cabatianuhan	Rural	Inland	5
		Caraycaray	Rural	Inland	5
Guinciaman		Rural	Inland	5	
Lukay		Rural	Inland	5	
Pinarigusan		Rural	Sea access	5	
Santol		Rural	Inland	10	
Tabontabon	Aslum	Rural	Inland	5	
	Balingasag	Rural	Inland	10	
	Cambucao	Rural	Inland	5	
	Capahuan	Rural	Inland	5	
	Mercadohay	Rural	Inland	5	
	District I Pob. (Quezon)	Rural	Inland	15	
	District II Pob. (Rizal)	Urban	Inland	5	



	Tacloban City	Barangay 74	Urban	Sea access	5
		Barangay 84	Urban	Sea access	10
		Barangay 96	Urban	Within 2km	5
		Barangay 109	Urban	Within 2km	5
		Barangay 110	Urban	Within 2km	5
		Barangay 62-A	Urban	Sea access	15
		Barangay 83-C	Urban	Sea access	5
	Tanauan	Bislig	Rural	Sea access	5
		Cabuynan	Rural	Sea access	10
		Catmon	Rural	Inland	5
		Mohon	Rural	Sea access	5
		Canramos	Urban	Within 2km	5
		San Isidro	Rural	Inland	10
		Santa Cruz	Rural	Sea access	5
		Santo Niño Poblacion	Urban	Sea access	5
	Tolosa	Burak	Rural	Within 2km	5
		Malbog	Rural	Within 2km	5
		Olot	Rural	Sea access	5
		Opong	Rural	Sea access	10
		San Roque	Rural	Sea access	10
		Tanghas	Rural	Sea access	5
		Telegrafo	Rural	Sea access	10
	Tunga	Balire	Rural	Inland	15
		Banawang	Rural	Inland	5
		San Antonio (Pob.)	Urban	Inland	5
		San Roque	Urban	Inland	20
		San Vicente (Pob.)	Urban	Inland	5
	<b>Leyte total</b>				<b>950</b>
Samar	Basey	Amandayehan	Rural	Sea access	10
		Bacubac	Rural	Sea access	20
		Can-Abay	Rural	Within 2km	10
		Dolongan	Rural	Inland	15
		Nouvelas Occidental	Rural	Sea access	5
		Old San Agustin	Rural	Inland	20
		Buscada	Rural	Within 2km	10
		Lawa-An	Urban	Within 2km	10
		Loyo	Urban	Sea access	15
		Sulod	Rural	Within 2km	10
		Roxas	Rural	Within 2km	5
		Sawa	Rural	Inland	5
		Tinaogan	Rural	Sea access	10
		Tingib	Rural	Sea access	25
Villa Aurora	Rural	Inland	15		

	Marabut	Caluwayan	Rural	Sea access	20
		Ferreras	Rural	Sea access	5
		Legaspi	Rural	Sea access	15
		Logero	Urban	Sea access	15
		Osmeña	Rural	Sea access	5
		Pinalanga	Urban	Sea access	5
		Pinamitanan	Rural	Sea access	5
		San Roque	Rural	Sea access	5
		Tagalag	Rural	Within 2km	15
		Tinabanan	Rural	Sea access	20
		Amantillo	Urban	Within 2km	15
		Binukyahan	Urban	Sea access	5
		Lipata	Rural	Within 2km	10
		Mabuhay	Rural	Sea access	15
		Malobago	Rural	Sea access	5
		Odoc	Rural	Sea access	5
		Panan-Awan	Rural	Inland	10
		Roo	Rural	Inland	5
		Santa Rita	Rural	Sea access	5
				<b>Samar total</b>	
		<b>TOTAL</b>			<b>3025</b>

## Annexe 2: List of assessed schools

Division	District	School
Capiz	Ivisan	Agustin P. Navarra ES
		Tigis PS
	Jamindan	Agloloway ES
		Caridad PS
		Jaena Norte ES
		Lucero ES
		Maantol Elementary School
		Manuel Ganzon Advincula Elem. Sch.
		North Lucero PS
		Pasol-o PS
		Ma-ayon
	Cabungahan ES	
	West Villaflores ES	
	Panay	Eugenio Regalado PS
		Justice Jose Hontiveros MS
		Pawa ES
	Panitan	Cabugao ES (Panitan)
		Tincupon ES
	Pilar	Epifania P. Bernas Elementary School
		Sinamongan ES
	Pontevedra	Bailan ES
		Banate ES
		Concepcion Catalan Bisnar MS
		Rizal ES
		San Pedro Elem. School
	President Roxas	Bayuyan ES
		Carmencita-Sto.Niño ES
		Cubay-Ibaca ES
		Pondol ES
	Iloilo	San Dionisio
Amayong PS		
Cudionan PS		
Madanlog PS		
Sara		Latawan PS
Cebu	Bantayan I	Obo-ob IS
	Bantayan II	PUTI-AN ES
	Daanbantayan II	Carnaza ES
		Tominjao ES
		Tapilon Central ES

Eastern Samar		Guimbitayan PS
	Balangiga-Lawaan	Bangon ES
		Guinmaayohan ES
	Balangkayan	Balangkayan CES
		Bangon ES
		Julag PS
		Talisay ES
	General Macarthur-Hernani	Aguinaldo ES
		Domrog ES
		Laurel PS
		Limbujan PS
		Quirino PS
		Sta. Cruz ES
		Sta. Fe PS
		Tandang Sora PS
	Giporlos	Cansingkol ES
		COTICOT ELEM. SCHOOL
		Paya ES
		Pres. Roxas ES
		San Miguel ES
	Guiuan North	Banahao ES
		Cogon ES
		Cagdara-o PS
		Hagna PS
		San Juan ES
		Trinidad ES
		San Pedro ES
	Guiuan South	Baras ES
		Bitaugan ES
		Culasi ES
		Sulangan CES
		Taytay ES
	Guiuan East	Bungtod ES
		Campoyong ES
		Dalaragan Primary School
		Hamorawon ES
		Salug ES
		Sapao ES
	Hernani	Batang ES
		Canciledes ES
		Padang ES
San Isidro ES		
San Miguel ES		

	Lawaan	Beta-og ES
		Guinob-an ES
		San Isidro PS
		Taguite Elementary School
	Mercedes	Anuron ES
		Busay PS
		Mercedes CS
	Quinapondan	Anislag ES
		Bagte ES
		Cagdaja PS
		Naga ES
		Paco ES
		Quinapondan CS
		Rizal ES
		San Isidro PS
		Sto. Nino ES
		Valley ES
	Salcedo II	Asgad ES
		Bagtong Central Elementary School
		Burak ES
		Capanoypoyan PS
	Salcedo I	Sta. Cruz Primary School
		Caridad ES
		Casili-on ES
		Iberan ES
		Karapdapan Elementary School
		Naparaan ES
		Salcedo CES
		Seguinon ES
		Tagbacan ES
	Talangdawan ES	
	San Julian	Bunacan ES
		Campidhan ES
		Casoroy ES
		Putong ES
		San Julian CS
San Miguel ES		
Alangalang I	Dapdap Elementary School	
	Lingayon Elementary School	
Alangalang II	Mudboron ES	
	Penalosa ES	
	San Vicente ES	
	Cabadsan PS	
<b>Leyte</b>		

	Barugo II	Bukid ES
		Calingcaguig ES
	Barugo I	Cabolo-an ES
		Santarin ES
	Burauen North	Abuyogon ES
		Anonang ES
		Matin-ao ES
		Caanislagan PS
		Cadahunan ES
		Calao ES
		Libas ES
		PATONG ELEMENTARY SCHOOL
	Burauen South	Candag-on ES
		Cansiboy ES
		Esperanza ES
		Hapunan PS
		Hibunauan ES
		Bobon PS
		Cagangon ES
		Mahagnao ES
		Pangdan PS
		Pusod ES
		Villa Aurora ES
	Carigara I	A.T.A.M.C.S.
	Dagami South	Banayon Elementary School
		Cabuloran Elementary School
	Dagami North	Balilit Elementary School
		Buntay Elementary School
		Hinabuyan Elementary School
		Hitomnog Elementary School
Victoria Primary School		
Dulag North	San Agustin Elementary School	
	San Jose Central School	
	San Rafael Elementary School	
	Tabu Elementary School	
Jaro I	Badiang Elementary School	
	Buenavista Elementary School	
	Canhandugan Elementary School	
Jaro II	Granja Central School	
	Hiagsam Elementary School	
	Olotan Elementary School	
	Pitogo Elementary School	
Julita	Bongdo ES	

		Dita ES
	La Paz	Bagacay East PS
		Bongtod PS
		Buracan ES
		Cabadiangan ES
		Caltayan PS
		Canbarez PS
		Gimiranat West ES
		Nicasio Vivero MPS
		Rizal ES
	Macarthur	Catalina Mundala Closa Elementary School
		Causwagan Elementary School
		Maya Elementary School
		Prisco A. Pille Elementary School
		Sta. Isabel Elementary School
		Villa Imelda Primary School
	Mayorga	A. Bonifacio ES
		Gen. A. Luna PS
		Wilson PS
	Palo II	Arado ES
		Barayong Elementary School
		Cabarasán Guti PS
		Campetik ES
		Candahug ES
		Cangumbang PS
		Cogon ES
		Kauswagan ES
		Pawing Elementary School
	Palo I	Teraza ES
	Pastrana	Aringit PS
		Bahay ES
		Calsadahay ES
		Halaba PS
		Jones PS
		Lanauan ES
		Lima PS
		Macalpiay ES
		Malitbogay ES
		Manaybanay ES
		Maricum ES
		Yapad ES
San Miguel	Cabatianohan ES	
	Caray-caray ES	

		Malpag PS
		Mawodpawod ES
		Pinarigusan PS
		SANTOL ELEMENTARY SCHOOL
	Tabontabon	Belisong Primary School
		Guingauan Elementary School
		Mercaduhay Elementary School
		Mohon Primary School
	Tanauan II	Binongto-an Elementary School
		Mohon Elementary School
		Pasil Elementary School
		Salvador Elementary School
		Sta. Cruz Primary School
	Tanauan I	Sto. Nino Elementary School
		Tanauan I Central School
		Cogon Elementary School
		Sacme Primary School
		Picas Elementary School
		Catmon Elementary School
Tolosa	Burak ES	
	Capangihan ES	
Tunga	Astorga ES	
Samar (Western Samar)	Basey II	Bacubac ES
		Calbang ES
		Can-Abay ES
	Marabut	Kaluwayan ES
		Logero ES
		Mabuhay ES
	San Roque ES	
Tacloban City	District Learning Center I	Bliss Elementary School
	District Learning Center II	Judge Antonio R. Montilla, Sr. ES (JARMS)
		Utap Elementary School
	District Learning Center V	Manlurip Elementary School
District Learning Center VI	V & G Mem. ES	



### Annexe 3: Municipality level data on key indicators

Municipality level data for three key indicators is provided below. Municipalities performing below the province weighted average are highlighted in blue, with the lowest performing municipalities in each province highlighted in grey.

Province	Municipality	% Households practicing OD	% Households using improved source of drinking water	% Households with HWF (observed)
Capiz	Ivisan	4.0%	81.6%	85.7%
	Jamindan	22.0%	72.0%	68.0%
	Ma Ayon	20.0%	98.0%	74.0%
	Panay	40.0%	93.8%	88.0%
	Panitan	6.0%	80.0%	70.0%
	Pilar	30.0%	94.0%	88.0%
	Pontevedra	15.7%	92.2%	94.1%
	President Roxas	10.0%	72.0%	90.0%
Cebu	Bantayan	41.1%	87.4%	98.9%
	Daanbantayan	43.2%	87.9%	96.3%
Eastern Samar	Balangiga	12.0%	96.0%	96.0%
	Balangkayan	20.0%	89.8%	90.0%
	General McArthur	16.0%	90.0%	100.0%
	Giporlos	10.0%	100.0%	80.0%
	Guiuan	26.0%	98.0%	100.0%
	Hernani	14.0%	90.0%	94.0%
	Lawaan	12.0%	100.0%	100.0%
	Mercedes	8.0%	98.0%	98.0%
	Quinapondan	20.0%	90.0%	98.0%
	Salcedo	20.0%	100.0%	100.0%
	San Julian	10.0%	100.0%	98.0%
Iloilo	Estancia	4.0%	68.9%	85.6%

	San Dionisio	20.8%	93.6%	67.2%
	Sara	20.0%	95.2%	81.6%
Leyte	Alangalang	26.0%	84.0%	72.0%
	Barugo	26.0%	96.0%	100.0%
	Burauen	20.0%	96.0%	92.0%
	Carigara	22.0%	98.0%	84.0%
	Dagami	18.0%	98.0%	94.0%
	Dulag	6.0%	98.0%	100.0%
	Jaro	24.0%	58.0%	88.0%
	Julita	16.0%	98.0%	96.0%
	La Paz	10.0%	94.0%	92.0%
	Macarthur	6.0%	98.0%	92.0%
	Mayorga	18.0%	92.0%	96.0%
	Palo	8.0%	95.8%	92.0%
	Pastrana	10.0%	100.0%	90.0%
	San Miguel	24.0%	96.0%	90.0%
	Tabontabon	4.0%	100.0%	76.0%
	Tacloban City	10.0%	98.0%	82.0%
	Tanauan	8.0%	96.0%	96.0%
	Tolosa	8.0%	96.0%	66.0%
	Tunga	10.0%	94.0%	86.0%
	Samar	Basey	14.6%	88.0%
Marabut		37.8%	95.1%	85.9%

## Annexe 4: Open defecation regression analysis

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Urban_or_Rural(1)	rural	.356	.168	4.460	1	.035	1.427	1.03E+00	1.99E+00
group_1.single_head_female	no	.697	.178	15.377	1	.000	2.007	1.42E+00	2.84E+00
group_1.hh_boy_under5		.328	.077	18.267	1	.000	1.388	1.19E+00	1.61E+00
group_1.hh_girl_under5		.503	.081	38.184	1	.000	1.653	1.41E+00	1.94E+00
<b>group_1.house_type</b>	<b>out: timber frame</b>			<b>40.800</b>	<b>4</b>	<b>.000</b>			
group_1.house_type(1)	concrete	-.537	.256	4.387	1	.036	.585	3.54E-01	9.66E-01
group_1.house_type(2)	hut	.513	.140	13.363	1	.000	1.671	1.27E+00	2.20E+00
group_1.house_type(3)3	other	-.325	.297	1.198	1	.274	.723	4.04E-01	1.29E+00
group_1.house_type(4)	timber concrete	-.609	.166	13.486	1	.000	.544	3.93E-01	7.53E-01
<b>group_3.wash_message</b>	<b>out: yes</b>			<b>25.651</b>	<b>2</b>	<b>.000</b>			
group_3.wash_message(1)	dont_kno	-1.120	1.200	.871	1	.351	.326	3.11E-02	3.43E+00
group_3.wash_message(2)	no	.551	.112	24.390	1	.000	1.736	1.39E+00	2.16E+00
<b>group_6.primary_income</b>	<b>out:self employ</b>			<b>7.451</b>	<b>4</b>	<b>.114</b>			
group_6.primary_income(1)	daily_la	.269	.122	4.842	1	.028	1.309	1.03E+00	1.66E+00
group_6.primary_income(2)	does_not	-4.318	16.020	.073	1	.787	.013	3.08E-16	5.76E+11
group_6.primary_income(3)	other	-5.738	53.875	.011	1	.915	.003	4.46E-49	2.33E+43
group_6.primary_income(4)	salaried	-.256	.265	.935	1	.333	.774	4.61E-01	1.30E+00
<b>group_6.main_work</b>	<b>out: street vendors</b>			<b>45.915</b>	<b>10</b>	<b>.000</b>			
group_6.main_work(1)	domestic	.061	.369	.028	1	.868	1.063	5.16E-01	2.19E+00
group_6.main_work(2)	fishing	.591	.208	8.079	1	.004	1.806	1.20E+00	2.71E+00
group_6.main_work(3)	governme	-.326	.413	.621	1	.431	.722	3.21E-01	1.62E+00
group_6.main_work(4)	harvesti	-.153	.176	.757	1	.384	.858	6.07E-01	1.21E+00
group_6.main_work(5)	migrant_	1.787	.682	6.861	1	.009	5.972	1.57E+00	2.27E+00
group_6.main_work(6)	other	.558	.577	.934	1	.334	1.747	5.63E-01	5.42E+00
group_6.main_work(7)	raising_	.393	1.121	.123	1	.726	1.481	1.65E-01	1.33E+00
group_6.main_work(8)	refused	-5.535	13.713	.163	1	.686	.004	8.39E-15	1.86E+09
group_6.main_work(9)	shopkeep	-1.161	.330	12.361	1	.000	.313	1.64E-01	5.98E-01
group_6.main_work(10)	skilled_	-.154	.188	.672	1	.413	.857	5.92E-01	1.24E+00
<b>group_6.monthly_income</b>	<b>out less 33</b>			<b>11.576</b>	<b>7</b>	<b>.115</b>			

group_6.monthly_income(1)	28834PHP	-	7.888	.609	1	.43	.002	4.10E-10	1.10E+0
		6.155				5			4
group_6.monthly_income(2)	3333_500	-.454	.165	7.544	1	.00	.635	4.59E-01	8.78E-01
group_6.monthly_income(3)	5001_833	.031	.249	.016	1	.90	1.032	6.33E-01	1.68E+0
						0			0
group_6.monthly_income(4)	8334_208	-	.737	3.193	1	.07	.268	6.32E-02	1.14E+0
		1.317				4			0
group_6.monthly_income(5)	dont_kno	-.082	.308	.070	1	.79	.922	5.04E-01	1.69E+0
						1			0
group_6.monthly_income(6)	no_incom	-.344	.445	.597	1	.44	.709	2.96E-01	1.70E+0
						0			0
group_6.monthly_income(7)	refused	-	39.05	.017	1	.89	.007	3.73E-36	1.15E+3
		5.027	7			8			1
group_6.cellphone_ownd(1)	no	.575	.129	19.838	1	.00	1.778	1.38E+00	2.29E+0
						0			0
group_6.tv_owned(1)	no	.237	.116	4.218	1	.04	1.268	1.01E+00	1.59E+0
						0			0
Constant		-	.274	126.27	1	.00	.046		
		3.074		3		0			

## Annexe 5: Household KAP Questionnaire

# KNOWLEDGE, ATTITUDES AND PRACTICE (KAP) HOUSEHOLD SURVEY QUESTIONNAIRE PHILIPPINES APPROACH TO TOTAL SANITATION (PHATS)

AUGUST 2014

### INFORMED CONSENT

I am \_\_\_\_\_, a representative of REACH, an independent consulting entity, which is contracted for a baseline field survey of UNICEF's Early Recovery program in the Yolanda affected areas. This programme aims to improve sanitation practices, through targeted behavioural change communication and demand creation, access to safe drinking water, WASH in schools (WINS), sanitation marketing, solid waste, waste water and drainage management in a phased approach

We are conducting a household survey and would appreciate your participation.

I would like to ask about water, hygiene and sanitation related aspects of the community and your family. This information will help UNICEF and partners to assess and plan for water, hygiene/health and sanitation related services in the community.

The survey takes around 30 minutes to complete.

All information provided will be kept strictly confidential and will be dealt with anonymity.

Participation in this survey is voluntary and you can choose not to answer any individual questions.

However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?

RESPONDENT AGREES TO BE INTERVIEWED

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED

END



### INSTRUCTIONS:

Respondent shall be selected following the below listed criteria:

- Head of household (or if head of household not available, another adult)
- Respondents shall not be from the same HH/family

*Household is defined as a group of family members contributing to a single kitchen (In case of multiple kitchens, the respondent should respond only in relation to earnings related to the one he/she is part of/contributing to).*

THIS SECTION NEEDS TO BE COMPLETED PRIOR TO START OF THE INTERVIEW

TEAM #: (Drop down list 1-5)

INTERVIEWER #: (Drop down list 1-7)

PROVINCE: (Drop down list)

LGU: (Drop down list)

BARANGAY: (Drop down list)

URBAN/RURAL: Urban

Rural

COASTAL/UPLAND: Coastal

Upland

ALL QUESTIONS ARE TO BE ADDRESSED TO THE RESPONDENT

Sex of Respondent: Male  Female   
 Age of Respondent: 18-24  25-44  45-64  65+  Refused   
 Respondent's Level Of Education:  
 None  Grades 1-4 (Primary)  Grades 5-6 (Elementary)  Grades 7-10 (Secondary)   
 Vocational  College  Refused   
 Is this a female headed household? Yes  No  Refused   
 Relationship of respondent to the head of household: \_\_\_\_\_  
 Household head  Spouse of HH  Son/daughter/son-in-law/daughter-in-law of HH   
 Grandchild of HH  Parent of HH  Grandparent of HH  Sibling of HH  Other  
 relative of HH  Unrelated to HH  Refused   
 Total HH members including respondent: \_\_\_\_\_ (ODK constraint 50) Refused  (Skip to  
 disability question)  
 Number of boys under 5 \_\_\_\_\_ Number of girls under 5 \_\_\_\_\_  
 Number of boys 5-17 \_\_\_\_\_ Number of girls 5-17 \_\_\_\_\_  
 Number of adults including the respondent \_\_\_\_\_  
 (ODK constraint: total number of girls, boys and adults must add to answer given for 'total HH  
 members')  
 Do any members of the household have a physical disability?: Yes  No  Refused   
 House type:  
 Hut   
 Timber frame   
 Timber and concrete   
 Concrete   
 Other (Specify): \_\_\_\_\_

Access To Water, Use Of Household Water Treatment And Safe Storage			
1.	What is the main source of drinking water for your household? PLEASE OBSERVE.	Piped Water Into Dwelling (House) <input type="checkbox"/> Piped Water To Yard/Plot <input type="checkbox"/> Public Tap/Standpipe <input type="checkbox"/> Tube Well/Borehole <input type="checkbox"/> Protected Dug Well <input type="checkbox"/> Unprotected Dug Well <input type="checkbox"/> Protected Spring <input type="checkbox"/> Unprotected Spring <input type="checkbox"/> Rainwater Collection <input type="checkbox"/> Bottled Water <input type="checkbox"/> Cart With Small Tank/Drum <input type="checkbox"/> Tanker-Truck <input type="checkbox"/> Surface Water <input type="checkbox"/> DK <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/>	
2.	Where is the drinking water point located?	Inside the house/yard <input type="checkbox"/> Outside the house/yard <input type="checkbox"/> DK <input type="checkbox"/> 99 <input type="checkbox"/>	
3.	Do you treat your drinking water?	Yes, always <input type="checkbox"/> Yes, sometimes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/>	
4.	How do you treat your drinking water?	Boil <input type="checkbox"/> Add Bleach/Chlorine <input type="checkbox"/>	Only ask if 'yes'

	<b>RECORD ALL MENTIONED</b>	Strain It Through A Cloth <input type="checkbox"/> Use A Water Filter (ceramic, sand, etc) <input type="checkbox"/> Solar Disinfection <input type="checkbox"/> Let It Stand And Settle <input type="checkbox"/> Don't Know <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/>	always' or 'yes sometimes' at Q3.
5.	What is the main way you store drinking water? <b>Interviewer note: containers include bucket, jerry can, jerkin, bottle, drum</b>	In Containers <input type="checkbox"/> Tank <input type="checkbox"/> No Water Stored <input type="checkbox"/> Don't Know <input type="checkbox"/> Other (Specify): _____ <input type="checkbox"/>	
6.	<b>OBSERVATION ONLY:</b> If water is stored in CONTAINERS: Are the containers covered?	All Are <input type="checkbox"/> Some Are <input type="checkbox"/> None Are <input type="checkbox"/> Not Observed/Allowed <input type="checkbox"/>	Ask only if 'containers' at Q5.
7.	Do you have access to water for purposes other than drinking (such as cooking, cleaning and bathing)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
8.	What is the main source of water used by your household for purposes other than drinking (such as cooking, cleaning and bathing)? PLEASE ASK TO OBSERVE WATER SOURCE.	Piped Water Into Dwelling (House) <input type="checkbox"/> Piped Water To Yard/Plot <input type="checkbox"/> Public Tap/Standpipe <input type="checkbox"/> Tube Well/Borehole <input type="checkbox"/> Protected Dug Well <input type="checkbox"/> Unprotected Dug Well <input type="checkbox"/> Protected Spring <input type="checkbox"/> Unprotected Spring <input type="checkbox"/> Rainwater Collection <input type="checkbox"/> Bottled Water <input type="checkbox"/> Cart With Small Tank/Drum <input type="checkbox"/> Tanker-Truck <input type="checkbox"/> Surface Water <input type="checkbox"/> DK <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/>	Ask only if yes at Q7.
9.	Who usually goes to fetch water for your household?	Adult woman (15+) <input type="checkbox"/> Adult man (15+) <input type="checkbox"/> Female Child (Under 15 Years) <input type="checkbox"/> Male Child (Under 15 Years) <input type="checkbox"/> N/A (eg. piped, delivered, etc) <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	
10.	How long does it take to go there, get water, and come back? <b>PROBE: Try to probe the amount of time spent on socialization that should be excluded in the time value.</b>	Less Than 15 Minutes <input type="checkbox"/> 15 Minutes To 30 Minutes <input type="checkbox"/> 30 Minutes To 1 Hour <input type="checkbox"/> More Than 1 Hour <input type="checkbox"/> N/A (eg. piped, delivered, etc) <input type="checkbox"/> DK <input type="checkbox"/>	
11.	How many times is water collected on average per day?	Less often than once per week <input type="checkbox"/> Less than once per day (but at least once a week) <input type="checkbox"/> Once per day <input type="checkbox"/>	

		2-3 times per day <input type="checkbox"/> 4-5 times per day <input type="checkbox"/> 6+ times per day <input type="checkbox"/> N/A (eg. piped, delivered, etc) <input type="checkbox"/> DK <input type="checkbox"/>	
12.	Do you pay for water used for drinking?	Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	
13.	Is this a fixed operations and maintenance cost or a water usage based cost?	Fixed O/M Cost <input type="checkbox"/> Water usage based cost <input type="checkbox"/> Other (specify): ____ <input type="checkbox"/> DK <input type="checkbox"/>	Ask if yes at Q12.
14.	How much does this cost per month (for drinking water only)?	<100 PHP <input type="checkbox"/> 101-250 PHP <input type="checkbox"/> 251-500 PHP <input type="checkbox"/> 501-750 PHP <input type="checkbox"/> 751-1000 PHP <input type="checkbox"/> 1000+ PHP <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	Ask if yes at Q12.
15.	Are you paying for water for uses other than drinking (such as cooking, cleaning and bathing)?	Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	
16.	If you are paying for water (for uses other than drinking), is this a fixed operations and maintenance cost or a water usage based cost?	Fixed O/M Cost <input type="checkbox"/> Water usage based cost <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> DK <input type="checkbox"/>	Ask if yes at Q15
17.	If yes, how much per month (for uses OTHER THAN DRINKING only)?	<100 PHP <input type="checkbox"/> 101-250 PHP <input type="checkbox"/> 251-500 PHP <input type="checkbox"/> 501-750 PHP <input type="checkbox"/> 751-1000 PHP <input type="checkbox"/> <input type="checkbox"/> 1000+ PHP <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	Ask if yes at Q15.

### Health & Hygiene Awareness And Practice Of Hand Washing

18.	Have you received any hygiene and sanitation related message in the last 6 months?	Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/>	
19.	Of the sanitation and hygiene messages you received in teh last six months, what messages can you remember? <b>RECORD ALL MENTIONED</b>	Personal Hygiene (excluding handwashing) <input type="checkbox"/> Clean And Safe Water <input type="checkbox"/> Environmental & Domestic Hygiene <input type="checkbox"/> Safe Disposal Of Human Excreta <input type="checkbox"/>	Ask only if yes at Q18.



		Solid Waste (Garbage) Disposal <input type="checkbox"/> Hand washing with soap <input type="checkbox"/> None <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Refused <input type="checkbox"/>	
20.	Where did you get the message/s related to hygiene and sanitation? <b>RECORD ALL MENTIONED</b>	Health staff <input type="checkbox"/> Village Pharmacy/Shopkeeper <input type="checkbox"/> Sanitary Inspector <input type="checkbox"/> CBO/NGOs <input type="checkbox"/> Religious Leaders <input type="checkbox"/> Friend/Neighbour <input type="checkbox"/> Radio/TV <input type="checkbox"/> Print Media/Material <input type="checkbox"/> Mothers/youth groups <input type="checkbox"/> School Children <input type="checkbox"/> Don't Know <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Refused <input type="checkbox"/>	Ask only if yes at Q18.
21.	What source of sanitation and hygiene information do you trust most? <b>Record one.</b>	Health staff <input type="checkbox"/> Village Pharmacy/Shopkeeper <input type="checkbox"/> Sanitary Inspector <input type="checkbox"/> CBO/NGOs <input type="checkbox"/> Religious Leaders <input type="checkbox"/> Friend/Neighbour <input type="checkbox"/> Radio/TV <input type="checkbox"/> Print Media/Material <input type="checkbox"/> Mothers/youth groups <input type="checkbox"/> School Children <input type="checkbox"/> Don't Know <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Refused <input type="checkbox"/>	
22.	What are the health risks of unsafe water? <b>[Record all mentioned]</b>	Diarrhoea <input type="checkbox"/> Cholera <input type="checkbox"/> Typhoid <input type="checkbox"/> Dystentery <input type="checkbox"/> Leptospirosis <input type="checkbox"/> Hepatitis A/E <input type="checkbox"/> Schistosomiasis/bilharzia <input type="checkbox"/> Soil transmitted helminths (intestinal worms) <input type="checkbox"/> Dengue <input type="checkbox"/> Malaria <input type="checkbox"/> Sickness (can't name any specific) <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> DK <input type="checkbox"/>	
23.	Does your household have a designated place for hand washing? <b>Interviewer note: If the same place is used for washing dishes/clothes etc, the answer is still YES.</b>	Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/>	

24.	<b>Request to see the hand-washing facility, and OBSERVE:</b>	<p>a. Was there a place for handwashing?</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>Unable to check <input type="checkbox"/></p> <p>b. Is WATER present?</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>Unable to check <input type="checkbox"/></p> <p>c. Is SOAP present?</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>Unable to check <input type="checkbox"/></p>	Ask only if yes at Q23.
25.	Is soap available in your house? [Please ask respondent, this is not observation]	<p>Yes, always. <input type="checkbox"/></p> <p>Yes, sometimes. <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>DK <input type="checkbox"/></p>	
26.	Can you please show me the soap?	<p>Soap was seen <input type="checkbox"/></p> <p>Soap was not seen <input type="checkbox"/></p> <p>Unable to check <input type="checkbox"/></p>	Skip if no at Q25.
27.	Observation only: record how long it took for respondent to bring the soap.	<p>Soap was already at HWF <input type="checkbox"/></p> <p>Less than one minute <input type="checkbox"/></p> <p>More than one minute <input type="checkbox"/></p>	Ask only if 'soap was seen' at Q26.
28.	In the last 24 hours, was there any time you washed your hands with soap?	<p>1 time <input type="checkbox"/></p> <p>2 times <input type="checkbox"/></p> <p>3 times <input type="checkbox"/></p> <p>4 times <input type="checkbox"/></p> <p>5-6 times <input type="checkbox"/></p> <p>7-8 times <input type="checkbox"/></p> <p>9-10 times <input type="checkbox"/></p> <p>More than 10 times <input type="checkbox"/></p> <p>No/none <input type="checkbox"/></p>	
29.	In the last 24 hours, when did you wash your hands with soap?" <b>RECORD ALL MENTIONED; DON'T PROMPT.</b>	<p>Before Eating <input type="checkbox"/></p> <p>After Eating <input type="checkbox"/></p> <p>Before Praying <input type="checkbox"/></p> <p>Before Breastfeeding A Child <input type="checkbox"/></p> <p>Before Feeding A Child <input type="checkbox"/></p> <p>Before Cooking Or Preparing Food <input type="checkbox"/></p> <p>After Defecation <input type="checkbox"/></p> <p>After Urination <input type="checkbox"/></p> <p>After Cleaning Child That Has Defecated/Changing A Child's Nappy <input type="checkbox"/></p>	Skip if no at Q28.

		When your hands look dirty After Cleaning The Toilet Or Potty Never DK Other (specify): _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	<i>I am now going to read out a list of statements. For each one, please tell me if you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree. Here is the first statement:</i>			
30.	<i>It's important to wash hands with soap after using the toilet</i>	Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
31.	<i>I believe most people in my community wash their hands with soap after using the toilet</i>	Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
32.	<i>It's important to wash hands with soap before feeding children.</i>	Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
33.	<i>I believe most people in my community wash their hands with soap before feeding their children.</i>	Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
34.	In the past two weeks has any child under 5 years old in your household suffered from diarrhoea?	Yes No DK Refused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Only to be asked for households with one or more child under 5.
35.	Was this a female child or a male child who suffered from diarrhoea in the past two weeks?	Male child/ren Female child/ren Male and female child/ren	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Ask if yes at Q34.

Access To & Use Of Sanitary Facilities And Disposal Of Human Excreta			
36.	What kind of toilet facility do members of your household usually use? PLEASE OBSERVE FACILITY. <b>Interviewer note: please ask to see the toilet.</b>	Flush/Pour Flush To: – Piped Sewer System <input type="checkbox"/> – Septic Tank <input type="checkbox"/> – Pit Latrine <input type="checkbox"/> – Elsewhere <input type="checkbox"/> – DK <input type="checkbox"/>  Ventilated Improved Pit(VIP) Latrine <input type="checkbox"/> Pit Latrine With Slab <input type="checkbox"/> Pit Latrine Without Slab/Open Pit <input type="checkbox"/> Composting Toilet <input type="checkbox"/> Bucket (Excreta collected from floor in bucket) <input type="checkbox"/> Hanging Toilet/Hanging Latrine <input type="checkbox"/> No facilities: bush/field/river/open <input type="checkbox"/> Other (specify) : _____ <input type="checkbox"/> Refused <input type="checkbox"/>	
37.	Do you share your sanitation facility with others who are not members of your household?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
38.	Do you share this facility only with members of other households that you know, or is the facility open to the use of the general public?	Other households only (shared) <input type="checkbox"/> Communal toilet <input type="checkbox"/>	Ask only if yes at Q37.
39.	How many people use this facility?	20 or less <input type="checkbox"/> 21-50 <input type="checkbox"/> More than 50 <input type="checkbox"/>	Ask if 'other households only' at Q38.
40.	Do you own the toilet that you use?	Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/>	
41.	Would you like to have your own toilet?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Ask if no at Q40.
42.	What are the main barriers to having your own toilet? <b>List all mentioned; don't prompt.</b>	High Cost <input type="checkbox"/> Lack of Time (to construct) <input type="checkbox"/> No access to supplies/materials <input type="checkbox"/> No interest <input type="checkbox"/> Don't know how _____ to build one <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> DK <input type="checkbox"/>	Ask if no at Q40.
43.	If you were to construct a toilet, how would you pay for the construction cost?	Self-finance <input type="checkbox"/> Loan <input type="checkbox"/> Share the cost <input type="checkbox"/>	Ask if no at Q40.

		Other (specify) : _____ <input type="checkbox"/> DK _____ <input type="checkbox"/>	
44.	Did your household construct the toilet that you use?	Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	Ask if yes at Q40.
45.	When did you construct the toilet?	Since Yolanda <input type="checkbox"/> In last 3 years (but before Yolanda) <input type="checkbox"/> In the last 5 years (but more than 3 years ago) <input type="checkbox"/> More than 5 years ago <input type="checkbox"/> DK <input type="checkbox"/>	Ask if yes at Q44.
46.	Did you receive help with toilet construction from any organization? <b>Record all mentioned.</b>	Yes, help with technical design <input type="checkbox"/> Yes, financial help <input type="checkbox"/> Yes, supplies <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	Ask if yes at Q44.
47.	What type of financial help did you receive? <b>Record all mentioned.</b>	Cash <input type="checkbox"/> Voucher <input type="checkbox"/> Rebate <input type="checkbox"/> Loan <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	Ask if 'yes, financial help' at Q46.
48.	What are the reasons that some people practice Open Defecation? <b>RECORD ALL MENTIONED</b>	No Toilet <input type="checkbox"/> Toilets Are Dirty <input type="checkbox"/> Toilets are unsafe <input type="checkbox"/> Toilet smells bad <input type="checkbox"/> No Privacy <input type="checkbox"/> Toilet Is Far From House <input type="checkbox"/> Long Waiting Time <input type="checkbox"/> DK <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Refused <input type="checkbox"/>	
49.	How often does a member of your household defecate openly?	Always <input type="checkbox"/> Usually <input type="checkbox"/> Sometimes <input type="checkbox"/> Rarely <input type="checkbox"/> Never <input type="checkbox"/> <input type="checkbox"/> Refused <input type="checkbox"/>	
50.	Is it all household members who defecate openly?	All household members <input type="checkbox"/> Only some household members <input type="checkbox"/> Refused <input type="checkbox"/>	Ask if always, usually, sometimes or rarely at Q49.
51.	Which household members defecate openly – girls, boys, women, men?	Female children <input type="checkbox"/> Male children <input type="checkbox"/> Women <input type="checkbox"/>	Ask if only some at

	<b>Record all mentioned.</b>	Men <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	Q50.
52.	Do household members defecate openly during the day only, night only or both?	Daytime only <input type="checkbox"/> Night-time only <input type="checkbox"/> Both <input type="checkbox"/>	If always, usually, sometimes or rarely at Q49.
53.	Do you have any children under the age of 3?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
54.	The last time your youngest child passed stools, how did you dispose of them?	Child Used Toilet <input type="checkbox"/> Put/Rinsed Into Toilet <input type="checkbox"/> Put/rinsed into drain or ditch <input type="checkbox"/> Thrown Into Garbage <input type="checkbox"/> Buried <input type="checkbox"/> Diaper left on ground (not in garbage or buried) <input type="checkbox"/> Not Disposed Of/Left On The Ground <input type="checkbox"/> DK <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Refused <input type="checkbox"/>	Ask only if yes at Q53
	<i>I am now going to read out two statements. For each one, please tell me if you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree. Here is the first statement:</i>		
55.	Most people in my community believe that defecating in the open is acceptable	Strongly agree <input type="checkbox"/> Agree <input type="checkbox"/> Neither agree nor disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Refused <input type="checkbox"/>	
56.	I believe that defecating in the open is acceptable	Strongly agree <input type="checkbox"/> Agree <input type="checkbox"/> Neither agree nor disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Refused <input type="checkbox"/>	
57.	How many people in your community do you think are defecating in the open?	None <input type="checkbox"/> Less than 20% <input type="checkbox"/> 21-40% <input type="checkbox"/> 41-60% <input type="checkbox"/>	

		61-80% <input type="checkbox"/> 81-100% <input type="checkbox"/> DK <input type="checkbox"/>	
58.	How many people in your community think that households should build their own toilets?	None <input type="checkbox"/> Less than 20% <input type="checkbox"/> 21-40% <input type="checkbox"/> 41-60% <input type="checkbox"/> 61-80% <input type="checkbox"/> 81-100% <input type="checkbox"/> DK <input type="checkbox"/>	
59.	What are the risks/problems of open defecation? <b>Record all mentioned</b>	Dirty Surroundings <input type="checkbox"/> Diseases <input type="checkbox"/> Environmental Problems <input type="checkbox"/> Discomfort/inconvenience <input type="checkbox"/> Indignity <input type="checkbox"/> Threat of violence/sexual violence <input type="checkbox"/> Risk from wild animals <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> None <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	
60.	Do you talk with your neighbours about defecating openly?	Yes <input type="checkbox"/> No <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	
61.	Have you received any information about a zero open defecation (ZOD) program or rewards for becoming a zero open defecation Barangay?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
<b>Solid Waste Management</b>			
62.	What do you do with your household garbage?	Open Pit <input type="checkbox"/> Closed Pit <input type="checkbox"/> Burning <input type="checkbox"/> Garbage Collector <input type="checkbox"/> Communal Waste Disposal Ground <input type="checkbox"/> Dump anywhere <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	
<b>Work &amp; Income</b>			
63.	What type of work does the primary income earner in this	Does Not Work <input type="checkbox"/> Self-Employee <input type="checkbox"/> Daily Labourer <input type="checkbox"/>	

Work & Income			
	household do?	Salaried Worker <input type="checkbox"/> Retired <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Refused <input type="checkbox"/>	
63.	What is the nature of the main work that the primary income earner does?	Harvesting/Farming <input type="checkbox"/> Shopkeeper <input type="checkbox"/> Street Vendor <input type="checkbox"/> Domestic Worker <input type="checkbox"/> Raising Live Stock <input type="checkbox"/> Fishing <input type="checkbox"/> Skilled Worker <input type="checkbox"/> Migrant Worker <input type="checkbox"/> Government Job <input type="checkbox"/> Refused <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/>	Ask if self-employee, daily labourer, salaried worker, or other at Q63.
64.	What is your household average monthly income?	Under 3, 333 PHP <input type="checkbox"/> 3, 334 – 5000 PHP <input type="checkbox"/> 5001 – 8, 333 PHP <input type="checkbox"/> 8, 334 – 20, 833 PHP <input type="checkbox"/> 28, 834 PHP and over <input type="checkbox"/> No income <input type="checkbox"/> DK <input type="checkbox"/> Refused <input type="checkbox"/>	

**Do you own the house you are living in?**

Yes 1 No 2 DK  Refused

**Do you own livestock?**

Yes 1 No 2 Refused

**Do you own land?**

Yes 1 No 2 Refused

**Do you (or does anyone in your household) own a bicycle?**

Yes 1 No 2 Refused

**Do you (or does anyone in your household) own a motorcycle/scooter?**

Yes 1 No 2 Refused

**Do you (or does anyone in your household) own a cell phone?**

Yes 1 No 2 Refused

**Does your household have a radio?**

Yes 1 No 2 Refused

**Does your household have a television?**

Yes 1 No 2 Refused

Thank you for taking the time to speak with me and answer these questions. ☺  
The information you provided will be kept strictly confidential and will be used with anonymity.



## Annexe 6: School Key Informant Questionnaire

### Public School Sanitation Survey PHILIPPINES APPROACH TO TOTAL SANITATION (PHATS)

QUESTIONNAIRE IS TO BE ADMINISTERED WITH SCHOOL PRINCIPAL/ HEAD TEACHER

#### Introduction to the Interviewee (Informed Consent):

I am \_\_\_\_\_, a representative of an independent organization called REACH, who has been contracted for the baseline survey of UNICEF's sanitation program in the Yolanda affected areas using the Philippines Approach to Total Sanitation (PHATS). This programme aims to improve sanitation practices, through targeted behavioural change communication and demand creation, access to safe drinking water, WASH in schools (WINS), sanitation marketing, solid waste, waste water and drainage management in a phased approach. I would like to ask about water, hygiene and sanitation related aspects/services at schools and about children's knowledge and practices. This information will help UNICEF and its partners to assess and plan health, hygiene and sanitation related services for the children. The survey takes around 30 minutes to complete.

Whatever information you provide, will be kept strictly confidential and dealt with anonymity.

Participation in this survey is voluntary and you can choose not to answer any individual questions. However, I hope you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?

RESPONDENT AGREES TO BE INTERVIEWED

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED  END

### GENERAL INFORMATION

#### To be filled out by interviewer:

TEAM #: (Drop down list 1-5)

INTERVIEWER #: (Drop down list 1-7)

- i. Region:
  - 6
  - 7
  - 8
- ii. Province (drop down menu)
- iii. Division: (drop down menu)
- iv. Municipality: (drop down menu)
- v. District: (drop down menu)
- vi. Barangay: (drop down menu)
- vii. School: (drop down menu)

**To be asked of KI:**

- viii. Name of respondent: \_\_\_\_\_
- ix. Position/ role of respondent:  
 Principal  
 Head teacher  
 Teacher  
 Other (specify): \_\_\_\_\_
- x. Contact number of KI: \_\_\_\_\_
- xi. Number of students \_\_\_\_\_
- xii. Number of boys \_\_\_\_\_ Number of girls \_\_\_\_\_ (*ODK constraint total xi = x*)
- xiii. Number of students with physical disabilities \_\_\_\_\_
- xiv. Number of boys with disabilities \_\_\_\_\_ Number of girls with disabilities \_\_\_\_\_ (*ODK constraint total xiii = xii*)
- xv. Number of teachers \_\_\_\_\_
- xvi. Number of male teachers \_\_\_\_\_ Number of female teachers \_\_\_\_\_  
(*ODK constraint total xv= xiv*)
- xvii. Are there any funds allocated/available for water, sanitation and hygiene related activities in the Maintenance and Other Operations Expenses (MOOE) or School Building Repair and Maintenance Fund (SBRMF)?  
Yes  No  DK  N/A  Refused
- xviii. Is WASH currently incorporated in the Annual Investment Plan (AIP)/School Improvement Plan (SIP)?  
Yes  No  DK  N/A  Refused

**Hygiene**

1. How frequently does the school dispose (solid waste) garbage?  
 Daily  
 Several times a week  
 Weekly  
 Several times a month  
 Monthly  
 Irregular  
 No disposal  
 Other (specify): \_\_\_\_\_  
 DK
2. How does the school dispose (solid waste) garbage?  
 Incinerate  
 Collection Service

- Thrown/Piled outside of school premises
  - Thrown/Piled inside of school premises
  - Buried
  - No disposal
  - Other (specify): \_\_\_\_\_
  - DK
3. Is group hand-washing with soap practised daily?
- Yes, all classes (every day)
  - Yes, some classes (every day)
  - No
4. What are the barriers to practising group hand-washing with soap daily? *(record all mentioned)*
- Soap not available
  - Shortage of water
  - No group wash facility
  - Not enough time
  - Not considered useful/important
  - Children aren't interested/don't like it
  - Teachers don't like it
  - School/teachers haven't thought of it
  - Other (specify): \_\_\_\_\_
  - DK
5. Is group tooth-brushing practised daily?
- Yes, all classes (every day)
  - Yes, some classes (every day)
  - No
6. May I see the group tooth-brushing facility? *(Ask only if 'yes all' or 'yes some' at Q5)*
- Toothbrushes/toothbrush holders observed
  - Toothbrushes/toothbrush holders NOT observed
  - Unable to check
7. What are the barriers to practising group tooth-brushing daily? *(Ask only if 'no' or 'yes, some' at Q5; record all mentioned)*
- Toothbrushes not available
  - Toothpaste not available
  - Shortage of water
  - No group wash facility
  - Not enough time
  - Not considered useful/important
  - Children don't like it
  - Teachers don't like it
  - School/teachers haven't thought of it
  - Other (specify)
8. During the last six months, has the school or Dep. Ed led any water, sanitation or hygiene activity in the school?

- Yes
- No
- DK

9. What activity/activities? *(Ask only if yes at Q8; record all mentioned)*

- Infrastructure (toilet or water point)
- Hygiene awareness campaign/event/activities
- WASH committee formation/training
- Other (specify): \_\_\_\_\_

10. What was the theme of this/these campaigns/events/activities? *(Ask only if Hygiene awareness was selected at Q9; record all mentioned)*

- Drinking safe water
- Use of toilets
- Hand washing
- Tooth brushing
- Personal hygiene (excl. hand washing and tooth brushing)
- Environmental cleanliness/waste management
- Menstrual hygiene
- DK
- Other (specify): \_\_\_\_\_

11. Is there any student club or committee promoting water, sanitation and hygiene awareness?

- Yes
- No

12. Is there any (other) sort of ACTIVE committee at the school that oversees water, sanitation and hygiene activities?

- Yes
- No

## WATER SUPPLY

13. Is drinking water available in the school compound?

- Yes
- No
- Sometimes

14. What is the main source of drinking water? PLEASE OBSERVE

- Piped Water Into School buildings
- Piped Water into school Yard/Plot
- Public Tap/Standpipe
- Tube Well/Borehole
- Protected Dug Well
- Unprotected Dug Well
- Protected Spring
- Unprotected Spring

- Rainwater Collection
- Bottled Water
- Cart With Small Tank/Drum
- Tanker-Truck
- Surface Water
- DK
- Other (specify): \_\_\_\_\_

15. What problems are encountered in accessing drinking water? *(Record all mentioned)*

- Water only available at set times
- Inadequate water yield
- Damaged infrastructure
- Long lines
- Expensive water bills
- Water quality issues (looks dirty, is salty, tastes bad, smells bad)
- Other (specify): \_\_\_\_\_
- None

16. What do most children do when the school drinking water point is not working?

- Bring water from home
- Buy bottled water
- Buy ice water
- Community provides water for whole school
- Don't drink water
- Drink from coconuts
- Drink soft drinks instead of water
- Drink from unsafe source
- Other (specify): \_\_\_\_\_
- Don't know

17. Is water for purposes other than drinking (eg. hand washing, cleaning) available in the school compound?

- Yes
- No
- Sometimes

18. What is the main source of water for purposes other than drinking (eg. Hand washing, cleaning)? PLEASE OBSERVE

- Piped Water Into School buildings
- Piped Water into school Yard/Plot
- Public Tap/Standpipe
- Tube Well/Borehole
- Protected Dug Well
- Unprotected Dug Well
- Protected Spring
- Unprotected Spring
- Rainwater Collection
- Bottled Water
- Cart With Small Tank/Drum
- Tanker-Truck
- Surface Water

- DK
- Other (specify): \_\_\_\_\_

19. What problems are encountered accessing water for purposes other than drinking? (*Record all mentioned*)

- Water only available at set times
- Inadequate water yield
- Damaged infrastructure
- Long lines
- Expensive water bills
- Water quality issues (looks dirty, is salty, smells bad)
- Other (specify): \_\_\_\_\_
- None

20. Are hand washing facilities available near the toilet/s for children's use?

- Yes, all
- Yes, some but not all
- No

21. What type of hand washing facility? (If multiple kinds: probe for main kind) (*Ask only if yes or multiple toilet blocks at Q20; record all mentioned*)

- Tap connected to piped water
- Tippy tap
- Other locally made facility
- Bucket/container
- Water bottles
- Other (specify): \_\_\_\_\_

22. Is soap available at the hand-washing facility? (*Ask only if yes at Q20*)

- Yes, always.
- Yes, sometimes.
- No.

23. How often is water available at the hand-washing facility? (*Ask only if yes at Q20*)

- Always
- Most of the time
- Sometimes
- Rarely
- Never

24. What do most children do when the hand washing facility is not working? (*Interviewer note: where there is no HWF at all, rephrase this as 'what do most children do without a HWF'*)

- Don't clean hands
- Hand sanitizer /alcohol provided by students
- Hand sanitizer /alcohol provided by school/teacher
- Bring water from home
- Buy bottled water/iced water to wash hands
- Community provides water for whole school
- Other (specify): \_\_\_\_\_
- DK

## SANITATION

25. How many functional toilets are there?

\_\_\_\_\_

26. Are male and female student toilets separated?

Yes (all or some)

No.

27. How many functional student toilets are for girls only? \_\_\_\_\_ (Ask only if yes at Q26)

28. How many functional student toilets are for boys only? \_\_\_\_\_ (Ask only if yes at Q26)

29. How many functional student toilets are for both girls and boys? \_\_\_\_\_

30. How many functional teacher toilets are there? \_\_\_\_\_

*(ODK constraint: Q27 + Q28 + Q29 + Q30 should equal Q25)*

31. On, average, how long does it take for a student to walk from their classroom to the toilet?

Less than 2 mins

2-5mins

6-10mins

11-15mins

More than 15mins

32. What is the main type of toilet found at the school? PLEASE OBSERVE

Flush/Pour Flush To:

Piped Sewer System

Septic Tank

Pit Latrine

Elsewhere

DK

Ventilated Improved Pit (VIP) Latrine

Pit Latrine With Slab

Pit Latrine Without Slab/Open Pit

Composting Toilet

Bucket (Excreta collected  
from floor in bucket)

Hanging Toilet/Hanging Latrine

No facilities: bush/field/river/open

Other (specify): \_\_\_\_\_

33. What other types of the toilet are found at the school? *(Record all mentioned)*

Flush/Pour Flush To:

Piped Sewer System

Septic Tank

- Pit Latrine
- Elsewhere
- DK
- Ventilated Improved Pit (VIP) Latrine
- Pit Latrine With Slab
- Pit Latrine Without Slab/Open Pit
- Composting Toilet
- Bucket (Excreta collected from floor in bucket)
- Hanging Toilet/Hanging Latrine
- None
- Other (specify): \_\_\_\_\_

34. Are there children that urinate in the open?

- Yes
- No
- DK

35. Are there children that defecate in the open?

- Yes
- No
- DK

36. Are toilets cleaned on a REGULAR basis?

- Yes, by janitor/cleaning staff
- Yes, by teachers
- Yes, by parent/community volunteers
- Yes, by students
- Yes, other.
- No, no current system in place.
- DK

37. What are the main challenges in keeping toilets clean? (*Record all mentioned*)

- Lack of adequate budget for staff
- Shortage of water for cleaning
- Shortage of cleaning supplies
- Community unwilling to help
- Students difficult to mobilise/organise for cleaning
- Lack of imitative from teachers
- Other (specify): \_\_\_\_\_
- None

38. What do children do (for defecation) when toilets are not functioning/break down?

- Open Defecate inside school grounds
- Open Defecate Outside school grounds
- Go home to use toilets
- Use toilets nearby to school (excl. at their own homes)
- Use them anyway
- DK
- N/A (e.g. very large number of toilets, unlikely to all break down at once)



- Other (specify): \_\_\_\_\_

## OBSERVATION

Thank you very much for your time. I'd now like to have a look at some of the facilities, if that's ok?

### WATER AND HAND WASHING

39. Was drinking water available in the school at the time of visit?
- Yes
  - No
  - Unable to check
40. Did you observe a hand washing facility near the toilet/s? (Interviewer note: this includes buckets for hand-washing).
- Yes, all
  - Yes, some
  - No
  - Unable to check
41. Is water available at the hand-washing point/s?
- Yes, all
  - Yes, some
  - No
  - There was no hand washing point/s
  - Unable to check
42. Is soap available at the hand washing point/s?
- Yes, all
  - Yes, some
  - No
  - There was no hand washing point/s
  - Unable to check

### TOILETS - Please check all toilet facilities.

43. How many functional toilets are there?
- Record number: \_\_\_\_\_
  - Unable to check

*(ODK: If answer here equals answer at Q25, skip Q44-Q47)*

44. How many functional student toilets are for girls only?
- Record number: \_\_\_\_\_
  - Unable to check
45. How many functional student toilets are for boys only?
- Record number: \_\_\_\_\_

Unable to check

46. How many functional student toilets are for both girls and boys?

Record number: \_\_\_\_\_

Unable to check

47. How many functional toilets are only for teachers?

Record number: \_\_\_\_\_

Unable to check

*(ODK constraint: If recorded, Q44+ Q45 + Q46 + Q47 must equal answer at Q43)*

*(ODK note: allow "0" as answer).*

48. Are the toilets clean?

Yes, very clean

Yes, mostly clean

No, somewhat unclean

No, very unclean

N/A

49. Is excreta visible outside the bowl/squat pan in one or more toilets?

Yes

No

Unable to check

50. Do the toilets provide privacy for the user?

Yes, all of them.

No

Some toilets do but not all

Unable to check

51. Do the toilets have inside locks?

Yes, all of them.

No

Some toilets do but not all

Unable to check

52. Is there enough light in the toilet/s during the day?

Yes

No

In some but not all

Unable to check

53. Is there at least one female toilet with a sanitary bin and a washing facility inside?

Yes

No

Unable to check

54. Is there at least one accessible toilet for children with disabilities?

Yes

- No
- Unable to check

## **OUTSIDE**

55. Is there any evidence of open defecation inside the school compound?

- Yes
- No
- Unable to check

56. Is there any evidence of open defecation in the immediate area surrounding the school compound?

- Yes
- No
- Unable to check

57. Is there flowing liquid waste/puddles of stagnant water on the ground inside the school compound?

- Yes
- No
- Unable to check



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