



Assessment of WASH and incontinence situation of people with disabilities and older people in Bangladesh

This project was funded with UK aid from the UK government



In partnership

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Research partners



ACKNOWLEDGEMENTS

This project was funded with UK aid from the UK government in partnership with LSHTM and PENDA. We gratefully acknowledge them for funding. We acknowledge with deep gratitude the study respondents and stakeholders who participated/provided suggestions during the study. We thank all the qualitative and quantitative field staff who collected and processed data. icddr,b is also grateful to the Governments of Bangladesh and the UK for providing core/unrestricted support. We would also like to thank Md Eayashen for the Cover Photo of a male with mobility limitations. This image depicts the respondent crawling towards the tubewell in order to take a bath.

Correspondence

Mahbub-Ul Alam

Associate Scientist

Environmental Health and WASH Research Group, Health Systems and Population Studies Division
International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b)

mahbubalam@icddr.org

© London School of Hygiene and Tropical Medicine & International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) 2023

Suggested citation

Alam, M. U., Tabassum, K. F., Shoaib D. M., Hasan, M., Upoma, T. A., Rahat, A., Nawaz, S., Neeher, N., Rahman, M., Eayashen, M., Hosna, A. U., Tidwell, B., Barrington, D., Mahbub, S., Mahmud, I., Kuper, H., Wilbur, J. (2023). Assessment of WASH and incontinence situation of people with disabilities and older people in Bangladesh. London School of Hygiene and Tropical Medicine.

RESEARCH TEAMS AND INSTITUTIONS

Institutional Collaboration

This study was conducted collaboratively among icddr,b (Bangladesh), B-SCAN (Bangladesh), World Vision (USA), and the University of Western Australia (Australia).

Research team

icddr,b (Bangladesh)

| | |
|---------------------------|--|
| Principal Investigator | Mahbub-UI Alam |
| Co-Principal Investigator | Mahbubur Rahman |
| Co-Investigator | Dewan Muhammad Shoaib |
| Quantitative Team | Kazy Farhat Tabassum Mehedi Hasan Nishantika Neeher Md Eayashen Asma-UI Hosna |
| Qualitative Team | Assaduzzaman Rahat Shahpara Nawaz Nazmul Hossen Tasnia Alam Upoma Bithy Podder Arka Goshami |
| Photography & Videography | Md Eayashen SK Shareyar |

B-SCAN, Bangladesh

| | |
|---------------------------|-----------------|
| Co-Principal Investigator | Salma Mahbub |
| Co-Investigator | Iftekhar Mahmud |

World Vision (USA)

| | |
|-----------------|-------------|
| Co-Investigator | Ben Tidwell |
|-----------------|-------------|

University of Western Australia (Australia)

| | |
|-----------------|-----------------|
| Co-Investigator | Dani Barrington |
|-----------------|-----------------|

International Centre for Evidence in Disability (ICED)

Hannah Kuper

Jane Wilbur

Shanquan Chen

Georgie Gaskell

Funder

“Assessment of WASH and incontinence situation of people with disabilities and older adults in Bangladesh” project was funded with UK aid from the UK government in partnership with the London School of Hygiene and Tropical Medicine (LSHTM) and PENDA.

TABLE OF CONTENTS

| | |
|---|----|
| ACKNOWLEDGEMENTS..... | 2 |
| RESEARCH TEAMS AND INSTITUTIONS..... | 3 |
| List of Tables | 7 |
| List of FIGURES..... | 9 |
| EXECUTIVE SUMMARY..... | 11 |
| ACRONYMS..... | 17 |
| 1 BACKGROUND..... | 18 |
| 2 RESEARCH AIM AND OBJECTIVES | 21 |
| 3 METHODOLOGY | 21 |
| 4 RESULT | 27 |
| 4.1 Response rate | 27 |
| 4.2 Disability prevalence in Bangladesh..... | 27 |
| 4.3 Benefit towards disability from Government (disability card and allowance)..... | 30 |
| 4.4 Socio-demographic profile of screening participants | 31 |
| 4.5 Socio-demographic profile of survey respondents..... | 31 |
| 4.6 Water..... | 32 |
| 4.6.1 Household-level Access to Water | 32 |
| 4.6.2 Access to drinking water (individual) | 34 |
| 4.7 Sanitation..... | 38 |
| 4.7.1 Access to Sanitation (Household-level) | 38 |
| 4.7.2 Access to sanitation facilities (individual) | 41 |
| 4.8 Hygiene | 50 |
| 4.8.1 Bathing facility | 50 |
| 4.8.2 Handwashing | 58 |
| 4.9 Menstrual Hygiene Management..... | 63 |
| 4.10 Incontinence | 70 |
| 4.10.1 Urinary Incontinence | 70 |
| 4.10.2 Fecal Incontinence | 72 |
| 4.11 Use of assistive devices among people with disabilities..... | 75 |
| 4.12 WASH Barriers and way forward | 77 |
| 5 DISCUSSION | 82 |
| 6 CONCLUSION | 85 |
| 7 RECOMMENDATIONS..... | 86 |
| 8 STRENGTHS, LIMITATIONS AND CHALLENGES | 88 |

| | | |
|------|----------------------------------|----|
| 9 | REFERENCE | 89 |
| 10 | ANNEX | 93 |
| 10.1 | ANNEX: Study Sites..... | 93 |
| 10.2 | ANNEX: WASH service ladder | 95 |
| 10.3 | ANNEX: ADDITIONAL TABLES | 98 |

LIST OF TABLES

| | |
|---|-----|
| Table 1: Quantitative Data Collection Methods and Sample Size | 24 |
| Table 2: Overview of the qualitative components and sample size | 25 |
| Table 3: Availability and response rate of the participants for the disability screening..... | 27 |
| Table 4: Disability prevalence by functional domain..... | 29 |
| Table 5: Government support provided for persons with disabilities..... | 30 |
| Table 6: Menstruation status by disability..... | 63 |
| Table 7: Sanitation practice during menstruation by disability and region..... | 68 |
| Table 8: Access to assistive devices among different types of disabilities..... | 75 |
| Table 9: Reasons for not using assistive devices by socio-demographics characteristics among person with disabilities | 76 |
| Table 10: Socio-demographic profile of the screening participants..... | 98 |
| Table 11: Socio-demographic profile of the screening participants..... | 99 |
| Table 12: Access to drinking water facility (Household) | 101 |
| Table 13: Access to water facility by disability | 102 |
| Table 14: Access to water facility by disability over age..... | 104 |
| Table 15: Access to water facility by socio-economic status and disability | 106 |
| Table 16: Access to water facility by types of disabilities..... | 107 |
| Table 17: Access to water facility by disability over region | 110 |
| Table 18: Access to water facility by disability over gender | 111 |
| Table 19: Factors associated with the water collection and accessibility among persons with disability | 112 |
| Table 20: Access to sanitation facility (Household) | 113 |
| Table 21: Household sanitation facility privacy/ safety..... | 114 |
| Table 22: Components available at the HH sanitation facility..... | 114 |
| Table 23: Access to sanitation facility by disability status (individual)..... | 116 |
| Table 24: Access to sanitation facility by ageing (individual) | 117 |
| Table 25: Access to sanitation facility by types of disability | 118 |
| Table 26: Sanitation facility safety by disability and gender lens (individual)..... | 119 |
| Table 27: Sanitation facility safety by ageing(individual)..... | 119 |
| Table 28: Factors associated with the accessibility of sanitation facility among persons with disability | 120 |
| Table 29: Factors associated with the satisfaction of using the toilet facility among persons with disability | 121 |
| Table 30: Satisfaction and future adaptation required by disability status..... | 122 |
| Table 31: Satisfaction and future adaptation required by ageing | 123 |
| Table 32: Components available at the bathing facility | 124 |
| Table 33: Access to bathing facility by disability..... | 125 |
| Table 34: Factors associated with the accessibility of bathing facility among persons with disability | 126 |
| Table 35: Access to bathing facility by disability over age | 127 |
| Table 36: Access to bathing facility of with and without disability over region type | 130 |
| Table 37: Access to bathing facility of with and without disability over gender..... | 130 |
| Table 38: Access to bathing facility by types of disabilities..... | 131 |
| Table 39: Household handwashing facility by region and disability..... | 132 |
| Table 40: Components available at the handwashing facility | 133 |
| Table 41: Access to handwashing facility by disability..... | 134 |
| Table 42: Access to handwashing facility by disability over age | 135 |
| Table 43: Factors associated with the accessibility of handwashing facility among persons with disability | 138 |
| Table 44: Access to handwashing facility by disability over region | 139 |
| Table 45: Access to handwashing facility of by disability over gender | 140 |
| Table 46: Access to handwashing facility by types of disabilities..... | 141 |

| | |
|---|-----|
| Table 47: Access to handwashing facility by socio-economic status by disability | 142 |
| Table 48: Menstrual product management at home by disability and region | 143 |
| Table 49: Menstrual product management at home by types of disability | 144 |
| Table 50: Hygiene practices during menstruation by disability status | 145 |
| Table 51: Challenges in maintaining menstrual hygiene practices | 146 |
| Table 52: Challenges in maintaining menstrual hygiene practices by types of disabilities | 146 |
| Table 53: Incontinence issues among different socio-demographic people | 147 |
| Table 54: Incontinence experience by Disability | 148 |
| Table 55: Incontinence management and its impact by Disability | 149 |
| Table 56: Incontinence management and its impact by Ageing | 150 |
| Table 57: Protection material use and cleaning practice by region | 151 |
| Table 58: Impact of incontinence on activities by Disability | 152 |
| Table 59: Impact of incontinence on activities by ageing | 153 |
| Table 60: Impact of incontinence on activities by gender and Disability | 153 |
| Table 61: Impact of incontinence on activities by types of disability..... | 154 |
| Table 62: Impact of incontinence on daily life and required future adaptations by Disability | 155 |
| Table 63: Impact of incontinence on daily life and required future adaptations by ageing..... | 155 |
| Table 64: Impact of incontinence on daily life and required future adaptations by types of disability | 156 |

LIST OF FIGURES

| | |
|--|----|
| Figure 1: Study sites in Bangladesh | 22 |
| Figure 2: Interviewing an older male in Gopalganj | 24 |
| Figure 3: Spot-checking of a toilet facility..... | 24 |
| Figure 4: Field enumerators training on data collection Munshiganj | 26 |
| Figure 5: Field monitoring during data collection..... | 26 |
| Figure 6: Disability prevalence..... | 28 |
| Figure 7: Disability prevalence among 70+ aged older adults by gender | 29 |
| Figure 8: Mental health status among persons with and without disabilities..... | 30 |
| Figure 9: An older person with mobility difficulties | 32 |
| Figure 10: Water sources (tubewell, and piped water) in rural and urban regions respectively | 33 |
| Figure 11: Household water sources by disability | 33 |
| Figure 12: Individual accessibility of drinking water | 34 |
| Figure 13: Individual accessibility of water by disability types..... | 35 |
| Figure 14: Water. PhotoVoice Caption: "It is difficult to take a meal without having water in front of me, cause there is a chance of food getting stuck in my throat anytime. The unfortunate fact is someone must always keep water in front me as that is not manageable by me and I feel horrible about this." Ranking: 4..... | 36 |
| Figure 15: Difficulties in collecting water from tubewell. PhotoVoice Caption: "I have less strength in my hands and the tubewell handle is hard enough. As a result, pressing the handle is difficult for me and I'm incapable of collecting water. So, my mother and sister assist me in collecting water, sometimes she reserves water for my future use." Ranking: 1. | 36 |
| Figure 16: PhotoVoice Caption- "The pain of not being able to collect water". Ranking: 3..... | 38 |
| Figure 17: Toilet facilities in rural (limited) and urban (safely managed) regions..... | 38 |
| Figure 18: PhotoVoice images demonstrating the non-inclusive entry path of the toilet. | 39 |
| Figure 19: PhotoVoice image of Ariful Islam, demonstrating his challenges in opening toilet door. Caption- "Toilet". | 40 |
| Figure 20: Household sanitation facility privacy..... | 41 |
| Figure 21: A toilet facility (basic) in rural area without proper privacy | 41 |
| Figure 22: Individual accessibility of sanitation facility | 42 |
| Figure 23: Access to sanitation facility by types of disability | 42 |
| Figure 24: PhotoVoice image of Forhad Reza, a person with mobility difficulties demonstrating his difficulties of coming into the contact of urine or faecal while using the toilet. Caption "Every time I use the toilet to defecate I need to take bath to get clean again". Ranking: 3. | 43 |
| Figure 25: An inaccessible toilet for persons with disabilities and older people in Chittagong..... | 44 |
| Figure 26: PhotoVoice caption-" Assistance from others". | 45 |
| Figure 27: PhotoVoice Caption: "Difficulties in using toilet". | 45 |
| Figure 28: PhotoVoice images of Faruque Sardar demonstrating his difficulties in accessing the toilet | 46 |
| Figure 29: Feel safe in using the sanitation facility by gender and disability | 47 |
| Figure 30: Customized sanitation facility | 48 |
| Figure 31: PhotoVoice image of Siddikur Rahman, a persons with mobility difficulties using customized toilet. Caption- "It is the most difficult to sit in the toilet"..... | 49 |
| Figure 32: PhotoVoice image of Chadni showing her problems regarding identifying the pan height. caption- "difficult to understand the height of the toilet pan in the toilet"..... | 49 |
| Figure 33: Household bathing place..... | 50 |
| Figure 34: Bathing places (tubewell and pond) in rural areas | 51 |
| Figure 35: PhotoVoice images of the non-inclusive entry path of the bathing place for persons with disabilities and older people | 52 |
| Figure 36: PhotoVoice images of female and male with mobility limitations showing their difficulties in accessing their bathing facility..... | 52 |
| Figure 37: Individual access to bathing facility | 53 |

| | |
|--|----|
| Figure 38: Accessibility of bathing place by types of disability | 54 |
| Figure 39: Person with mobility difficulties demonstrating their inability in taking bath independently. Caption- "Inability to bath without assistance"..... | 55 |
| Figure 40: A bathing place in rural area without proper privacy..... | 56 |
| Figure 41: Level of satisfaction with the bathing place by socio-economic status | 56 |
| Figure 42: Key future adaptations/ changes required by persons with disabilities for their bathing place | 57 |
| Figure 43: PhotoVoice images of Chadni, a female with vision limitation exhibiting her difficulties and expressing the need for future adaptations for easier use of the bathing place. Caption- "It is difficult for me to find the water tap and bucket in the bathroom" | 57 |
| Figure 44: Household with and without disabilities handwashing places by region..... | 58 |
| Figure 45: key handwashing times by disability and ageing..... | 59 |
| Figure 46: PhotoVoice images of an older female and male sharing their happy moments of being able to wash hands with soap. 1st image Caption- "Washing hands with soap", 2nd image caption- "Able to wash hands" | 60 |
| Figure 47: Accessibility of handwashing place by types of disability | 60 |
| Figure 48: PhotoVoice caption- "Washing hands is a challenging task" | 62 |
| Figure 49: Satisfaction with the handwashing place by disability and socio-economic status | 62 |
| Figure 50: Menstrual product use at home | 63 |
| Figure 51: PhotoVoice image of Nurjahan, expressing her happiness regarding in easy access of sanitary napkin. Caption-"Availability of menstrual products" | 64 |
| Figure 52: Wash and reuse menstrual materials during last menstruation | 65 |
| Figure 53: PhotoVoice image of Chadni exhibiting her difficulties in maintaining menstrual hygiene management at home. Caption- " While menstruating, if my clothes get stained with blood, I cannot recognize it, and then others see it." | 66 |
| Figure 54: Nurjahan expressing her difficulties in disposing the menstrual products. Caption- "Unhygienic"..... | 67 |
| Figure 55: PhotoVoice caption- "Benefits of menstrual pad for health"..... | 69 |
| Figure 56: Use of protection materials for urinary incontinence | 70 |
| Figure 57: Missing out activities due to urinary incontinence | 71 |
| Figure 58: Types of activities missing out due to urinary incontinence | 72 |
| Figure 59: Use of protection materials for fecal incontinence | 73 |
| Figure 60: Able to clean/ change faeces in privacy | 73 |
| Figure 61: Missing out activities due to faecal incontinence..... | 73 |
| Figure 62: Types of activities missing out due to faecal incontinence | 74 |

EXECUTIVE SUMMARY

Background

Sustainable Development Goals (SDG) 6 puts emphasis on accessible safe water and sanitation facilities for all [1]. However, approximately 16% of the global population with disabilities and 46% of the older population with disabilities has limited access to Water, Sanitation, and Hygiene (WASH) facilities [2, 3]. In low and middle-income countries (LMICs), people with disabilities frequently experience challenges in utilizing WASH facilities due to uneven terrain, inadequate infrastructure, or improper facilities [4, 5]. Similarly, Bangladesh faces significant challenges regarding WASH accessibility for people with disabilities and older adults where approximately 67% lack access to safely managed sanitation and 42% lack access to basic hygiene services [6]. For example, the presence of steps in the toilet door, uneven floors in the toilet facilities, and the limited space available for wheelchair access pose a significant challenge for people with mobility limitations [7]. The issue is further exacerbated for females during menstruation, as they require frequent access to toilets and an adequate water supply for maintaining personal hygiene and managing menstrual products [8]. Moreover, people with disabilities are three times more likely to experience incontinence compared to those without disabilities [9]. The physical issues of incontinence along with disability, encompass a spectrum of challenges, resulting in the experience of shame, embarrassment, and social isolation in various aspects of life [8]. Even in this dire situation, the existing studies in Bangladesh focusing on WASH and disability are less comprehensive as these have only covered the population of a specific locality instead of exploring the situation of the diverse geographical and socio-economic context at a national level [7, 9, 12, 61]. Additionally, the diverse experiences of WASH, MHM, and incontinence among both older persons and people with disabilities have rarely been explored.

Research Aim

Our nationwide study aimed to explore various aspects of the WASH experiences of people with disabilities and older persons at both household and individual levels with a gender lens, emphasizing diverse types of disabilities -specific challenges. Additionally, we aimed to identify the challenges related to incontinence and MHM, to develop disability and ageing-inclusive policies and reformations.

Research Objective

To conduct an in-depth population-based study in Bangladesh to compare WASH and MHM experiences between persons with/without disabilities through gender and ageing lenses.

Methods

We conducted a cross-sectional survey with a matched (age-sex) design, comparing people with and without disabilities. We conducted the study in 32 districts of all eight divisions of Bangladesh, using probability proportional to size sampling. We further selected five smallest administrative units from each district resulting in a total of 160 such areas (unions/wards). We then divided these units into clusters of 30 households, from which one cluster was randomly selected for data collection. Using the Washington Group Short Set on functioning- Enhanced questionnaire, data collectors screened all available household members to identify people with disabilities. People reported having "A lot of difficulty" or "Cannot do at all" in at least one category of the first 6 Washington group questionnaire questions [16] or reported both "daily" and "A lot" for any of the questions related to depression or anxiety were considered as people with disabilities. Following that the data collectors enrolled them for a comprehensive survey on their household WASH accessibility, including Menstrual Hygiene Management (MHM) and incontinence. Simultaneously, a spot-check of the WASH facilities was conducted. After interviewing a person with disabilities, the data collector enrolled a person without disabilities with matched gender and age (\pm five years). We analyzed the quantitative data by performing descriptive summary statistics and multilevel multivariate regression using STATA 14.1

software. For the qualitative insights, we conducted 20 IDIs with persons with disabilities, 13 IDIs with caregivers, and 8 KIIs with policymakers, representatives from NGOs, INGOs and DPOs, and researchers, and 12 Photovoice ranking exercise with people with diverse disabilities. For the qualitative data, we developed a codebook following the deductive and inductive approach, and performed thematic analysis.

Key Findings

Disability Prevalence

The all-age disability prevalence is 8% in Bangladesh and didn't vary much across divisions. Disability prevalence increased with age and females (9%), uneducated (32%) and unemployed (32%) were slightly more prevalent to have a disability than their counterparts. The most prevalent functional limitation was mobility (4%), followed by vision, cognition, self-care, and anxiety (all at 2%). Mental health conditions such as anxiety (12%) and depression (8%) were more prevalent among people with disabilities than those without disabilities.

Access to Drinking Water

People with disabilities and older people were 15-20% less likely to access drinking water at home and collect water personally compared to persons without disabilities and younger people. These challenges were more prevalent among people with mobility and self-care limitations. People with disabilities reported physical ability (90%) as the primary barrier followed by dependency on caregivers (20%). The lack of an inclusive entry path (uneven and slippery road, obstacles on the path) of the water point was the most predominant barrier in rural areas mentioned by IDI participants.

Nearly half of the people with and without disabilities required further modifications or changes to their water facilities for easy access. However, 15% of those with functional limitations in communication, self-care, and depression desired improved inclusive paths (availability of ramp, tactile markings or ropes) that were smooth, non-slippery and obstacle-free. Those with hearing (16%), mobility (10%), and self-care (16%) limitations needed improved seating facilities at the water point. On the other hand, during IDI, people with mobility and vision limitations also emphasized the need of their own tubewell nearer their household, to modify the facility according their specific needs.

"for people with disability like me, the near the water facility the better access... not only the water source, but if our household structure includes ramp, touch sensitive indicators (tactile marking), rope, disable friendly tiles in the floor it will be very easy for disable people..." - Male, Age: 62 years, Vision limitation.

Access to Sanitation facility

Half of the household sanitation facilities in urban and rural areas had smooth, non-slippery entry paths. Furthermore, less than 1% of facilities had easily accessible water and handwashing agents for wheelchair users or children, only 3% had height-adjustable pans/ commodes, and 1% had height-adjustable basins. 30% of people with disabilities and older people required assistance from others to use the toilet facilities compared to 15-20% of people without disabilities and younger people. People with communication, cognition, mobility and self-care limitations were 2-6 times significantly less likely to use the same sanitation facilities as other members of their household, required assistance to use the facility, and frequently came in contact with faeces and urine while toileting.

"I have a low pan in my toilet, but I can't sit without bending my legs, as a result I get filthy when I use the toilet and I'm unable to keep myself clean. Every time I use the toilet, I have to take bath. The most important difficulty is that I can't always use the toilet while wearing clothes since it gets filthy and disgusting." - PhotoVoice, Male, Mobility limitation.

Key informants from DPO and NGO mentioned that long distance of the toilet facility, water unavailability, and slippery pathways made it difficult to access the toilets for persons with disabilities

in rural areas. Furthermore, for people with disabilities, physical ability (around 90%) and dependency on caregivers (around 60%) were the most common barriers in accessing the sanitation facilities and around half of them required further modification, including improved material quality (39%), all time availability of running water (29%), improved seating facility (19%), toilet nearer home (17%) to enhance their accessibility in using the toilet. During in-depth interviews, people with mobility and self-care limitations mentioned that in order to use the toilet facility conveniently, they changed their regular commode to a high and chair-style commode.

"We have one toilet, a regular one with a slab and ring. But for my physical limitations, I can't use that toilet. I got a commode chair from an NGO named Handicap, and I use it. But to sit on the commode chair, I need help." - Male, Age: 56 years, Mobility & Self-care Limitations.

Access to the Hygiene facility

Bathing facility:

In households with and without disabilities, 80% of the bathing places had available water and one-third could be operated by one hand without twisting the wrist. People with mobility, communication and self-care limitations were 2-4 times less able to use the same bathing places as their household members and bathe as frequently as they want compared to people with other types of functional limitations. Half of the people with communication limitations could not use the same bathing facility due to dependency on the caregivers. During IDI, the older persons and people with disabilities also highlighted their challenges in maintaining daily wash activities due to their mobility issues, lack of assistance, fear of falling, fear of animals, bumpy roads, stairs, long distance, and use of sharing facility.

"I bathe on my bed, using a polythene. I can't lift water mug/buckets, so my mother helps..." - Male, Age: 20 years, Mobility & Self-care Limitations.

The likelihood of using the same toilet as other household members increased by 40% for people with disabilities who belonged to the middle and wealthiest socioeconomic categories. A fewer people with communication limitation (83%) and anxiety condition (81%) reported to feeling safe when going to their bathing place compared to other types of disabilities. Lack of sufficient privacy was a notable concern among female (63%), younger (68%), and urban (65%) people with disabilities.

Handwashing facility:

People with disabilities (88%) were less able to use the same handwashing facility as other household members; similarly, they were less likely to be able to wash hands without assistance and whenever needed compared to those without disabilities (100%). Rural (around 85%) and male (around 82%) with disabilities were less able to wash their hands independently and as frequently as required compared to urban (90%) and female with disabilities (90%). People who had self-caring (around 60%), communication (63%-74%), mobility (77%), and cognition (77%) limitations were significantly less likely to be able to use the same facility, wash their hands whenever they needed, and reach the cleaning materials without depending on others. During IDI, people with disabilities and older people reported having difficulties in accessing and reaching the hand washing stations and hygiene products due to mobility and self-care disabilities. They relied on their caregivers to get to where they could wash their hands, provide them with water and hygienic items like soap, and pour water for washing their hands.

Menstrual Hygiene Management

There were no significant differences in menstrual practices between women with and without disabilities. However, in urban areas, women with disabilities (96%) were more likely to wash and reuse their menstrual cloth compared to women without disabilities (88%). 12% of women with disabilities reported needing assistance in changing, washing or disposing of their menstrual materials. However, those with communication (41%) and self-care (50%) limitations were more likely to need assistance compared to those with other types of limitations (vision, hearing, mobility, and cognition). During

PhotoVoice, Chadni expressed that her visual limitation made it challenging to spot blood stains on her clothes during her menstrual cycle, often caused her embarrassment, especially if someone else spotted the stain first. IDI participants also mentioned about being restricted by their caregivers/ family members from roaming around and eating certain foods during menstruation. Furthermore, they didn't take any steps to alleviate their menstrual pain, although some mentioned using hot water.

During IDI, some women with disabilities said they feel safe changing their menstrual products in the bathroom because it has a lockable door, while others with mobility issues said they change them in the bedroom because it's easier to move but they're worried about being watched. Females with vision (51%), cognition (42%), and self-care (36%) limitations emphasized the need for affordable menstruation products and separate changing areas with privacy guarantees (25%). Furthermore, during menstruation all women with and without disabilities were able to use the same toilet as other times, and use the same facilities as other females to change their menstrual products.

Incontinence

People with disabilities were 3 times more likely to have urinary incontinence and 7 time more likely to have faecal incontinence compared to those without disabilities. People with mobility, communication and self-care limitations were significantly more likely to have incontinence issues and they had a 2-3 times higher likelihood of missing out on activities than other types of disabilities. People with mental health conditions such as anxiety (3 times) and depression (11 times) were more likely to miss out participating activities due to their faecal leakage. Family events were mostly missed by people with hearing limitations (around 50%). For both persons with disabilities and older people, the prevailing factors for missing out activities were reliance on caregivers for support and fear of accidental faecal leakage, followed by lack of incontinence products, inadequate privacy of cleaning/ washing the leakage and fear of embarrassment. Urinary or faecal leakage mostly interferes with the lives of people with communication limitations (average interference scores 6.5) compared to people with other types of limitations.

WASH Barriers: A Way Forward

Provide disability-inclusive WASH services was challenging due to limited government (social welfare ministry) funding for WASH and MHM services, especially for people with disabilities. The majority of KI's reported that there is limited disability-ageing segregated data available to understand the exact situation and diverse needs of persons with disabilities. Due to limited understanding of diverse types of disabilities, implementers are mostly focused on physical disabilities (e.g. wheelchair users). To ensure inclusivity, participation of a representative group of persons with disabilities and older people in program design and implementation, policy making decisions, and WASH focused research were needed, mentioned by key informants.

Discussion

Our study aimed to explore the WASH experiences of people with disabilities and older persons, emphasizing diverse disability types and ageing-specific challenges, shedding light on disparities faced by this marginalized group and thus contributing to the development of inclusive policies and tailored interventions.

Our study estimates the all-age disability prevalence was 8%, similar to the Bangladesh Household Income & Expenditure Survey 2016 [10], although higher than the 2021 National Survey on People with disabilities (2.8%) [11], depending on the measurement methods of disability. Disability rate significantly increases with age [12, 13] and older females [13-15], people with lower income and educational attainment, unemployment, and those living in rural areas also have a significantly higher rate of disability [15-18], which is also comparable with our study findings.

Our study findings revealed a high level of access to basic WASH services, which is in line with global targets outlined in the Sustainable Development Goals (SDGs), emphasizing universal access to clean and safe drinking water along with adequate sanitation services [19]. These findings were similar to

previous studies, which showed no significant variations in access to WASH across households with and without persons with disabilities [20, 21], indicating no associations or disparities between these two groups [18, 22]. At an individual level, people with disabilities and older adults have less access to WASH services than those without disabilities and younger ones. This finding aligns with a broader narrative in the context of disability and aging – that even when infrastructure is available, it may not be fully inclusive or considerate of specific needs such as un-adjustable height of the taps, presence of stairs, lack of railing, seating facility [4]. Lack of funding, high price of the disability-inclusive components (e.g. ramp, tactile marking, height-adjustable toilet, basin, support rails), lack of understanding towards diverse needs of these target groups, limited availability of disability segregated data was likely to be the main barriers to implementing disability-ageing inclusive WASH facilities.

Most persons with disabilities could use the same WASH facilities as other member of their households, but coming contact of urine or feces when using toilets and required assistance. Urine and feces contamination increase the risk of chronic diseases, urinary and bowel dysfunction, hygiene stigma, and diarrheal disease [42]. Furthermore, our data indicated a significant association between WASH accessibility and socioeconomic status, underscoring the disproportionate burden faced by people with disabilities and older people. This correlation has been identified in previous research, where socio-economic disparities influence inequalities in access to water and sanitation [43]. These findings emphasize the need of targeted intervention to reduce disparities in WASH access by providing government subsidies or designing disability-inclusive components at low cost.

People with mobility, communication, and self-care limitations tend to have more challenges in accessing the WASH facilities compared to those with other types of limitations. Older and rural people with disabilities were more likely to report diverse difficulties in reaching and using the WASH facilities [23] due to their physical inability and reliance on caregivers. Their dependency on caregivers often leads to delays in receiving WASH services which causes severe health complications (such as incontinence issues) [24], and might affect their self-dignity, independency and rights [25] and consequently community involvement. Environmental factors such as inaccessible entry paths and lack of space for wheelchair accommodation, were cited as impediments, especially for those with mobility, self-care and vision limitations. This dearth of inclusive infrastructure raises concerns about the ability of persons with disabilities to access and use WASH facilities, which can have profound implications for their overall health, well-being, and social life [26].

Even though government attempted to create disability-inclusive public toilets and handwashing facilities, they mainly prioritized wheelchair access overlooking other issues of inclusiveness such as accessible information or grab rails inside the toilet infrastructure. Service providers' limited knowledge of disability and ageing inclusive WASH components, funding, and resource constraints hindered universal accessibility for people with diverse disabilities. Meaningful participation of DPOs and OPOs in the design process of WASH facilities and project implementation and decision-making processes [27, 28], is essential to create an enabling environment for people with disabilities to ensure their equity, rights, and inclusion in the community [29]. Social barriers also encountered by people with communication limitation, and those have mental health conditions. The lack of inclusivity not only perpetuates physical barriers but also places emotional burdens on individuals with disabilities and older populations.

The study also highlighted that insufficient WASH access introduces another layer of burden for menstruating women and a person with incontinence. Incontinence disproportionately affects the lives of people with disabilities and older adults. Our study also highlighted the social, cultural, and religious exclusion of menstruating women or people with disabilities due to their urinary or faecal leakage. Lack of products (menstrual and incontinence), assistive technology and support from caregivers leads to social discrimination, social and cultural exclusions and has a negative impact on mental health [30, 31]. Other research has shown the complexity of incontinence management, where social factors, accessibility, and supportive environments are crucial, emphasizing the need for physical and psychosocial healthcare interventions.

In summary, our study shed light on the need for integrated, context-sensitive interventions that will fill in the accessibility gaps for WASH, which includes water, sanitation, hygiene, MHM, and incontinence. We can pave the path for a future where WASH equality is widely realized, leaving no one behind by combining policy initiatives, healthcare interventions, and societal awareness.

Recommendation

- Policy-making committees should include representatives from people with disabilities and older adults to address their issues and to develop inclusive policies.
- Budgets should be allocated for disability-inclusive WASH and MHM services, including accessible treatment facilities.
- Ensure disability-inclusive infrastructures by prioritizing all disabilities, not just mobility limitations.
- Collecting disability and ageing segregated data using standardized tools is needed to provide disability-inclusive services.
- Ensure DPOs and OPOs collaborate with the government to create sustainable, inclusive WASH work plans with technical and financial resources.

ACRONYMS

| | |
|---------|--|
| B-SCAN | Bangladesh Society for the Change and Advocacy Nexus |
| icddr,b | International Centre for Diarrhoeal Disease Research, Bangladesh |
| IDI | In-depth Interview |
| JMP | Joint Monitoring Programme |
| KII | Key Informant Interview |
| LMICs | Low- and Middle-Income countries |
| LSHTM | London School of Hygiene and Tropical Medicine |
| ODK | Open Data Kit |
| OPD/DPO | Organizations of people with disability |
| SDG | Sustainable Development Goal |
| SES | Socio-economic Status |
| PPS | Probability Proportional to Size |
| HH | Household |
| EA | Enumeration Area |
| UNICEF | United Nations International Children's Emergency Fund |
| WA | WaterAid |
| WASH | Water, Sanitation, and Hygiene |
| MHM | Menstrual Hygiene Management |
| SWOT | Strengths, Weaknesses, Opportunities and Threats |
| WHO | World Health Organization |
| NGO | Non-Governmental Organization |
| INGO | International Non-Governmental Organization |
| AOR | Adjusted Odds Ratio |
| 95% CI | 95% Confidence Interval |

1 BACKGROUND

Global & National scenario of disability and ageing regarding WASH

Sustainable Development Goals (SDG) 6 emphasizes that the provision of safe water and sanitation facilities should be accessible to all [1] as inadequate access to improved water and sanitation facilities accounts for 3.3% of global mortality and 4.6% of global disability-adjusted life years [32, 33]. People with disabilities and older adults are more susceptible to experiencing difficulties when attempting to access water, sanitation, and hygiene (WASH) facilities, facing WASH-related stigma irrespective of geographical settings [3, 34]. Approximately 16% of global population with some form of disability, and 46% of the older population over 65 years living with disability, experiences limited accessibility to WASH facilities [2, 35]. The circumstances are particularly challenging for people with disabilities and older adults who require assistance from a caregiver in collecting water and utilizing sanitation facilities for maintaining hygiene, compared to those who can independently manage their basic necessities [8]. Studies depicted that communication challenges, social barriers, including abuse and stigma, and technical barriers, including the inaccessible structure and distance of the WASH facility, are the potential obstacles to accessing WASH for people with disabilities [4, 5]. Technical barriers to accessing water facilities for people with physical disabilities in low- and middle-income countries (LMICs) include the inability to transport water long distances, difficulty reaching wells or water taps, and inability to carry enough water. People with disabilities and older adults with mobility or navigation issues have additional hurdles while using shared bathroom facilities away from home [3, 36]. To reduce toilet visits, people with disabilities may limit their food and water intake. Thus, dehydration and other complex health concerns or infections may arise. [4, 8]. Furthermore, the potential hazards associated with slippery or uneven routes, as well as the need for open defecation during nighttime, are frequently mentioned as significant issues among people with disabilities [4].

UN global report, 2014, revealed that a higher percentage of people with disabilities lived in households without indoor toilet facilities than those without disabilities, especially in developing countries [36]. Additionally, people with disabilities lack a bathing facility in their residences. The findings from the data from 34 European countries and Turkey revealed that people with disabilities had a higher average percentage (4.5%) of not having access to a bath or shower in their dwelling as compared to people without disabilities (2.8%) and it was predicted that this issue will be more severe in sub-Saharan Africa or Southeast Asia [36]. Moreover, people with disabilities often experience additional challenges in using WASH facilities in LMICs due to uneven terrain, poor infrastructure, or unsuitable facilities.

Access to water and sanitation for people with disabilities and older people

Bangladesh is an LMIC, and the WHO/UNICEF Joint Monitoring Programme found that 41% of the population lacked safe drinking water, 67% lacked clean sanitation, and 42% lacked basic hygiene services [37]. The proportion of the population of Bangladesh who do not have access to safely managed drinking water and sanitation also comprises of people with disabilities and older adults. National Survey on Persons with Disabilities (NSPD) 2021 assessed the status of people with disabilities in relation to their access to specialized sanitation facilities within their households. The data indicates that only 9.71 percent of people with disabilities had specialized sanitation facilities within their households, with nearly no difference found in the context of the urban and rural areas [38].

Limited accessibility to water and sanitation facilities for people with disabilities is a violation of their fundamental human rights, as this diminishes their dignity, self-respect and quality of life [8]. A cross-sectional survey conducted in 177 sub-districts of Bangladesh revealed that 21% people were capable of independently collecting water [21]. Mactaggart et al. (2018) found that the majority of the surveyed people with disabilities in Bangladesh were able to use the same sanitation facilities as their family

members. However, physical limitations were the most frequently cited reason for having difficulties in accessing water and sanitation facilities [21]. Wilbur's (2022) study found that people with disabilities couldn't transport enough water for bathing and laundry due to their dependence on caregivers or the lack of appropriate water sources and transportation devices [39]. The study conducted in rural areas of Bangladesh unequivocally demonstrated that individuals with disabilities using wheelchairs face significant obstacles accessing tube well water due to handle size and concrete steps. Transporting collected water is equally challenging due to container size and weight. Furthermore, presence of steps in toilet doors, uneven floors, and limited wheelchair space make it difficult for individuals with disabilities to use and clean themselves after using the toilet facilities [7].

Menstrual hygiene management for adolescent girls and women with disabilities

People with disabilities face challenges with Water, Sanitation, and Hygiene (WASH) facilities, which is especially true for females during menstruation. They need frequent access to toilets and adequate water supply for managing menstrual products. The lack of private spaces further threatens their right to privacy [8]. The findings of a systematic review revealed that individuals with intellectual impairments and their caregivers face barriers in menstrual hygiene management, including a lack of guidance, training, information, support, and affordable menstrual products, especially in LMIC [8, 34]. The Bangladeshi government established the Rights and Protection of Persons with Disabilities Act in 2013 to protect the rights and protection of disabled people [40, 41]. However, the Act only covers school students and does not address special support for disabled individuals. In 2021, the National Menstrual Hygiene Management Strategy emphasized the need for toilets to be accessible to persons with disabilities (PWDs) both inside and outside the slums [42].

A study in Dhaka slums found that only 20% of women with disabilities could manage their menstrual hygiene, compared to 69% of women without disabilities. Additionally, 60% of women with disabilities relied on their caregivers [43]. A participative SWOT analysis on WASH and MHM for women with disabilities in urban slums of Dhaka, Bangladesh found irregular water supply and discriminatory water collection, which impeded menstrual hygiene management [44]. A study conducted in Korail and Kallyanpur slums in Bangladesh recommended the establishment of healthcare centers and disabled-inclusive toilets to ease MHM maintenance [45]. However, societal discourse framed this responsibility as burdensome, bothersome, and stigmatizing, partly because of the lack of accessible and effective menstrual resources [46].

Incontinence

Incontinence is a medical condition characterized by the involuntary loss of urine or faeces, leading to an inability to manage or regulate one's bladder or bowel functions. Studies conducted in Bangladesh have shown that urinary incontinence is prevalent among women at midlife (23.7%) and is one of the most common health issues faced by older adults with disabilities (both men and women) aged 85 years or higher [47, 48]. Incontinence causes shame, embarrassment, and social isolation due to leakage, unpleasant odors, skin irritation, urinary tract infections and bladder complications [8]. People with disabilities and older adults tend to experience more severe physical and social challenges related to incontinence. [5, 8]. In LMICs, incontinence management products can be challenging to procure due to their unavailability and unaffordability [49]. Studies suggests that incontinence further increase WASH challenges as people are likely to have increase water requirements to maintain their hygiene as accessing toilet may not be a feasible for them [5]. Pelvic muscular exercise, daily living activities, proper training, and toilet assistance could be effective and cost-friendly treatments for incontinence [50]. Further research is needed to determine their structure and impact. A structured peer/group exercise program may help older women in rural areas control their condition, but the effectiveness and method of gathering individuals remain unclear [51].

Assistive device

Around 2-4% of the world's population requires assistive technology [52], , but only a small fraction of people (1 in 10 people) who need them have access to them [53] particularly in LMICs [54]. The dearth of access to assistive devices in LMICs is due to several factors, like high costs, limited choices, lack of awareness, insufficient training of employees, inadequate governance, and financing [55-57]. Following the 2006 mandate of UNCPRD regarding the access of people with disabilities to assistive technologies [58], Bangladesh formed policies and allocated funding in the sector of assistive technologies [59]. In Bangladesh, around 1% of the country's assistive device services are provided by the government; the rest are provided by NGOs, community organizations, and volunteer organizations [60].

Social protection towards disability

In Bangladesh, there have been efforts to implement social protection mechanisms (eg. disability allowance) aiming to support individuals with disabilities. These programs strive to enhance the socio-economic well-being of individuals with disabilities, especially those who are facing financial hardship. The government of Bangladesh dedicates a substantial portion of the national budget to address poverty and vulnerability in the population including elderly, widows, and individuals with disabilities [61]. In addition, there have been initiatives to create rehabilitation services within rural communities for children with cerebral palsy and adults with disabilities [62]. Moreover, the Rights and Protection of Persons with Disabilities Act, 2013, recognizes legally binding and provides a mechanism for filing complaints to seek redress. However, it primarily focuses on education and healthcare services for persons with disability but neglects broader health aspects like water and sanitation, which are crucial for the well-being and health of persons with disabilities [40].

Access to WASH for people with disabilities and older adults is a major issue in Bangladesh. Despite progress in overall WASH services, there is a notable research gap concerning these marginalized groups' unique experiences and needs. Although the WASH policies of Bangladesh focus on improving (WASH) services for people with disabilities, they do not address affordability, participation in decision-making, protection from harm, and high-quality WASH services [39]. The existing studies in Bangladesh focusing on persons with disabilities are less comprehensive as these have only covered the population of a specific locality instead of exploring the situation of the whole country with diverse geographical and socio-economic contexts [7, 21, 44, 63]. Additionally, very few studies focused on the WASH experiences of both the older persons and people with disabilities. A study conducted in Rangpur and Rajshahi of Bangladesh by IRC-BRAC explored the accessibility to adequate water, sanitation and hygiene (WASH) among people with disabilities at the household and individual levels [21]. However, this study did not incorporate the issues of MHM and incontinence, which exacerbates the difficulties for persons with disabilities in terms of WASH, specifically for women with disabilities. Additionally, the study assessed the overall WASH situation but did not explore the disability-specific difficulties faced by people with diverse types of disabilities in accessing the WASH infrastructure and the mitigation strategies for those difficulties. Recently, BBS conducted a national survey on people with disabilities, although the main focus was estimating the disability prevalence and education, employment and social development of those with disabilities [11]. Therefore, our nationwide comprehensive study aimed to explore in-depth aspects of WASH experiences of people with disabilities and older adults at both household and individual levels with a gender lens, including the diverse types of disabilities and ageing-specific challenges in accessing the facilities. Additionally, we also identified the difficulties faced by individuals with incontinence, the safety status of the existing WASH infrastructures in maintaining hygiene practices (including MHM) to develop future adaptation strategies for contributing to the formation and reformation of the disability and ageing-inclusive policies. This study's significance also lies in its potential to inform local, national and international organizations to develop interventions tailored to the unique needs of people with disabilities and older adults based on the evidence in Bangladesh, where such extensive studies are limited.

2 RESEARCH AIM AND OBJECTIVES

Conduct an in-depth population-based study in Bangladesh to compare WASH and menstrual hygiene management (MHM) experiences between persons with and without disabilities through gender and ageing lenses

Specific objectives:

- To estimate the prevalence of persons with disabilities in Bangladesh
- To understand the perceptions of policymakers, implementers, and society in considering or recognizing the issues faced by persons with disabilities
- Identify the challenges that persons with disabilities, and their caregivers face (focusing on WASH and MHM), compared to people without disabilities, exploring the diversity of the challenges based on disability type, socioeconomic status, age, and gender and the societal and policy level perceptions and activities that are exacerbating or addressing those challenges
- Compare the level of access and hygiene behaviour of persons with disabilities, older people, and their caregivers regarding water and hygiene services
- Understand how people (with/without disability), older people, and caregivers perceive vulnerability, what heightened risk perceptions or stigma exists

3 METHODOLOGY

We conducted a cross sectional survey with a matched design, following a mixed-method approach, comparing people with disabilities of different types and their age-sex matched people without disabilities from diversified geographical, social, and cultural orientations. This population-based mixed method study included a nested quantitative case control study and an in-depth qualitative component. The study was undertaken across 32 districts, representing all the eight administrative divisions of the country between March 23, 2023 to June 8, 2023.

Quantitative survey:

Study area selection

We conducted the study in all the eight divisions of Bangladesh to ensure nationwide representation. From all the divisions we selected a total of 32 district by using the probability proportional to size (PPS) sampling. Then from each of the selected districts, we further selected 5 smallest administrative units i.e. 3 unions from rural areas and 2 wards from urban areas (city) considering the PPS sampling. In total, 160 smallest administrative areas (union/ ward) were selected from 32 districts. We then divided each of the selected smallest administrative areas (both rural and urban areas) into clusters of 30 households with the support from local representatives or inhabitants and randomly selected one cluster of 30 households (Figure 1).

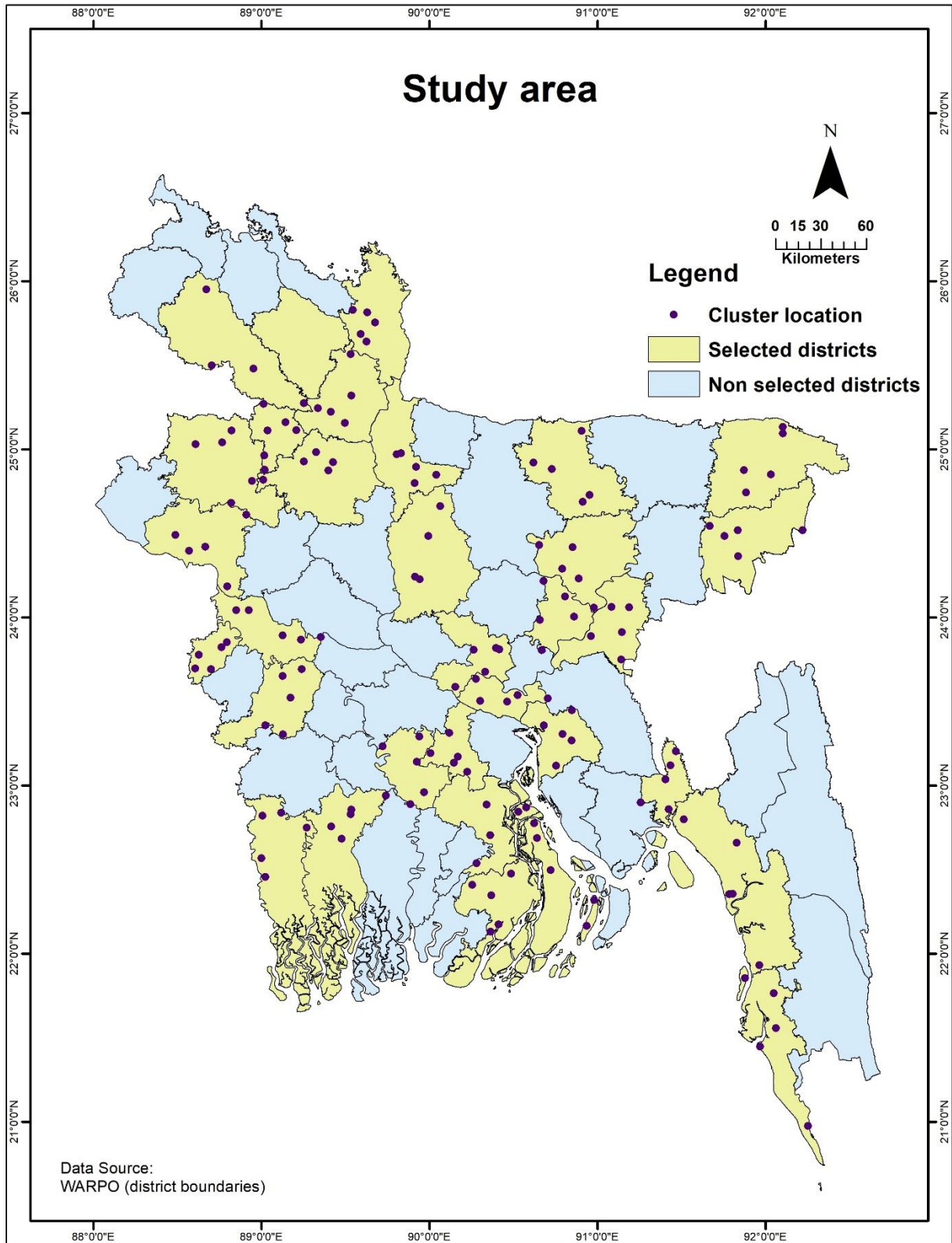


Figure 1: Study sites in Bangladesh

Study population

The study population were segregated into two major comparison groups/strata; persons with disabilities, and persons without disabilities. We included older and younger people as respondent in both the groups. We also included caregivers of persons with disabilities, policy-level authorities, researchers, NGO, INGO and DPO officials to understand a broad picture of access to WASH (including MHM and incontinence) services, key barriers faced, and both the individual- and systemic-level challenges faced.

Defining disability and ageing

Washington Group Short Set on functioning Enhance questionnaire (except questions on Upper body) [64] were used to identify the persons with disabilities. People was classified as persons with disabilities if they mentioned to have “a lot of difficulty” or “cannot do at all” in any one domain of the six short Washington group questionnaires set or if they reported to feel depression or anxiety ‘daily’ and ‘a lot’. For ageing, we followed definition provided by WHO [3]; a person was defined as older if their ages were 60 years or more. We considered self-recorded ages here.

Questionnaire validation and field testing

We translated the data collection tools/questionnaire (e.g. survey, IDI tools) into Bangla from English and the data collection teams conducted a pilot survey with the translated tool in 8 districts (different from the main study sites, but have similar socio-demographic context) for validation. The feedbacks of the pilot test were incorporated into the questionnaire, Kobo platform and interviewing techniques after reviewing. Regarding the translation of the Washington Group Set on functioning Enhance questionnaire, we sought assistance from the DPOs, and other organizations working on disability.

Screening the disability

To identify person with disability, first, we divided each of the selected 160 smallest administrative areas (rural and urban areas) into a cluster of 30 households and randomly selected one cluster from those. Then the data collectors visited all the households of that selected cluster and enrolled the household members upon their consent. From each household, all the available household members were interviewed using the Washington Group Short Set on functioning-Enhanced questionnaire to identify persons with disabilities. The data collectors additionally inquired about the age of the respondents. If any household members weren’t present at the home, then the data collectors would make two repeat visits to their houses to reach them. If they were unavailable after three visits, their screening information was collected from their available household members. Furthermore, during the household visit, if any household did not agree to participate, the data collector moved on to the next household.

Sample Size calculation for the survey

Based on the Bangladesh Sample Vital Statistics 2018 [65], the estimated all-age prevalence of disability in Bangladesh was around 8%. We assumed that “30% of the general population know about the various indicators of WASH and hygiene services and 10% of the person with disability know about the various indicators of WASH and hygiene services” and calculated our sample size considering a 95% confidence, 5% margin of error, a design effect of 1.2 and 10% non-response. We estimated that, to represent all the eight administrative divisions of Bangladesh, we require 82 respondents (person with disabilities) from each of the divisions. In total, we require 656 respondents (person with disabilities) from the entire country. We selected a comparison household for each selected respondent, therefore we surveyed another 656 respondents (age-sex matched person without disabilities). In total, the minimum required sample size was 1312 to detect a minimum of a 20% difference with 80% power. We reached a total of 2378 respondents from 32 districts in Bangladesh.

Table 1: Quantitative Data Collection Methods and Sample Size

| Data collection techniques | Type of respondents | Sample size |
|------------------------------|--|-------------|
| Screening | Cluster | 160 |
| | Households | 6457 |
| | Individuals | 17577 |
| Survey and Spot-check | Persons with disability | 1253 |
| | Persons without disability (age - sex matched) | 1125 |
| | Total | 2378 |

Survey and spot-check data collection

During the household visit (disability screening), whenever the data collectors identified persons with disabilities, s/he enrolled them for a more detailed survey with their consent. In all cases where a person with a disability older than 18 years old was unable to fully comprehend the consent process, we obtained both their consent and the consent of their caregiver and conducted a proxy interview with the caregiver who provided the interviewee's experiences. Following the interview with a person with disabilities, the data collector selected people without disabilities from the closest available household. The selection was based on criteria such as matching gender and age, with a permissible range of up to 5 years, either above or below the age of the interviewed person with disabilities. In the case of older people with disabilities, when a similar age match was not found, a convenient age among older people without disabilities was considered.

During the survey, we asked the respondents about their household WASH facilities, their experience and barriers in accessing those facilities, support from caregivers, their requirements to make those WASH facilities inclusive for them, and availability and use of assistive devices. We also spot-checked the accessibility of those household's water collection points, handwashing and sanitation facilities, presence of soap in the handwashing places, and accessibility of MHM (availability of MHM products and safe disposal system).



Figure 2: Interviewing an older male in Gopalganj



Figure 3: Spot-checking of a toilet facility

Quantitative data analysis

Disability prevalence was estimated and disaggregated by the types of disabilities, districts and various socio-demographic characteristics. A socio-economic index was computed using principal component

analysis (PCA) considering respondents' asset ownership, household building materials, number of rooms available in the households (excluding bathroom and kitchen), access to handwashing places, education, and employment of the respondents. The derived index was divided into 5 quintiles (poorest to richest).

Descriptive summary statistics (frequency, percentage, mean, standard deviation, median, IQR) were reported to show the distribution of the variables disaggregated by disability status and ageing. To assess the association among these groups, a chi-square test (Pearson/ Fisher exact test) for the categorical variables, t-test for continuous (normally distributed) variables, and Mann-Whitney test for skewed variables were used. Multilevel multivariate regression was conducted to compare different indicators between the people with and without disabilities, and older and younger people, controlling for the matching variables of age, and sex. All the individual level analyses were adjusted for the region, and socio-economic status. Models were also adjusted for the random effects of the division and district level. All the analyses were performed using STATA 14.1 software.

Qualitative components

In-depth Interviews (IDIs)

We conducted IDIs to understand the challenges that people with disabilities, older adults with disabilities and their caregivers face for maintaining hygiene through IDIs. A total of 20 IDIs with person with disability and 13 IDIs with caregivers were conducted from 11 districts of the country considering diversity in disability type, age and gender.

Key-informant interviews (KIIs)

We conducted 8 key-informant interviews with relevant authorities and policy makers, representatives from NGO, INGO and DPOs, researchers and other relevant stakeholders to understand perceptions towards disabilities, disability and ageing inclusion in policies programme design and implementation, and recommendations to assist policy level change. We purposively selected participants for KIIs, considering their diversified responsibilities at the national level.

Photovoice ranking

We selected 12 persons with disabilities (both older and younger) purposively for the Photovoice exercise from various socio-demographic backgrounds and functional limitations categories. We only enrolled adults (18 years or more) in the PhotoVoice exercise (no minor was enrolled), and maintained two consent processes for the participants. Also, we asked for consent from any third party captured in the images. We then asked the participants to capture 5 photos representing their daily challenges in accessing household WASH (including MHM) facilities or the WASH activities that they prefer to perform and 5 photos of their happy moments in terms of maintaining WASH activities. We also interviewed them to describe why they took each photo, followed by a ranking exercise. During the ranking exercise, participants were additionally asked to select and rank the pictures according to the challenges that they regard to be most severe (1 = most severe, 5 = least severe).

Table 2: Overview of the qualitative components and sample size

| Data collection tool | Type of respondents | Sample size |
|---------------------------------|--|-------------|
| In-depth Interviews | Persons with disabilities | 20 |
| | Caregivers of persons with disabilities | 13 |
| Key-Informant Interviews | Policy level authority (Government, National level Staff) | 2 |
| | Senior Level Staff of NGO/INGO | 2 |
| | Senior level Researcher (WASH and Disability focused) | 2 |
| | Staff of Disabled Person's Organization (Local & National) | 2 |
| PhotoVoice Ranking | People with disability | 12 |

Qualitative data analysis

For the KII and IDI narratives data, the team kept audio recordings of the interviews/notes of the observation. If the study respondent objected to an audio recording, the researcher made detailed notes and after returning from the field they expanded the data in detail as necessary. Audio recorded data from interviews were transcribed into Bengali language, and translated in English. All qualitative data were analyzed by using NVivo software. Qualitative researchers analyzed and coded the transcribed interview data under different themes deductively following priori codes and inductively for other emergent themes. A combined code list was prepared and an integrated final coding for analysis was developed. All data were then analyzed according to the final coding. During data analysis and interpretation, we conducted data triangulation by examining the data from the KIIs, IDIs, spot checks and PhotoVoice ranking to enhance credibility of the research and aligning multiple perspectives for a comprehensive understanding.

Research team, training and field management

21 quantitative field enumerators and 7 field supervisors were recruited from diverse geographical areas considering their fluency in local language and interaction with local community/ areas. Each team (one supervisor and 3 data collectors) collected data from 4-5 districts, and they covered the clusters within 2 days. Within the data collection team, we recruited 8 persons with disabilities to ensure the inclusivity of the data collection procedures.

To safeguard participants' rights, the research team members were trained on the research protocol and the ethical principles of human subjects' research. Before the commencement of data collection activities, the icddr,b team trained all the local data collectors regarding research ethics (especially while dealing with people with disability and older people), study design, and data collection tools and activities. icddr,b and B-SCAN led and implemented the data collection and monitoring activities in all the study sites.



Figure 4: Field enumerators training on data collection in Munshiganj



Figure 5: Field monitoring during data collection in Munshiganj

Informed consent and ethical approval

All the selected study participants were provided information about the study verbally and in writing, with opportunities to discuss concerns or refuse participation. Data collectors and researcher also provided consent according to the organizations policy. Informed consent was sought from every participant (family members or caregivers approved on behalf of participants where necessary), and two-staged consent was taken for conducting Photovoice. Before the data collection, the data collectors ensured that the participants fully understood the informed consent process, including the confidentiality of the data, and participants' right to withdraw the participation at anytime without giving any reason, and that the participants may not wish to answer any question. We strictly maintained the privacy of personal information, using collected personal information only for study purposes and not in data sharing or publishing results. All participants were given unique identifying numbers. Access of the data were restricted among the research team members. The recorded data (audio recordings) were stored securely until data analysis is complete, and then were erased. The study protocol received ethical approval from icddr,b ethical review board.

4 RESULTS

4.1 RESPONSE RATE

Data collector visited 6458 households to screen the participants across the urban and rural area of Bangladesh (Urban: 2695 HHs, Rural: 3763 HHs). During the HH screening, 4857 (75%) HHs were present and agreed to complete the screening, 1279 (19%) HHs were not available and 321(4.8%) HHs refused to participate. Among the selected and available HHs, 11346 (64%) people were present and thus were eligible to complete the screening directly, and 6254 (35%) were not available but had a household member who completed the screening as a proxy. Whereas 147 HH members weren't available during the data collection and no other HH members agreed to report on behalf of them. Among the available people for screening (directly or by proxy), 17577 persons (99.87%) agreed to participate in the screening whereas 23 (0.13%) refused. After the screening, the data collectors asked the eligible people (2386) if they consented to participate in the full survey, and 930 people (99.5%) from the urban areas and 1450 people (99.9%) from the rural areas agreed to participate (Table 3).

Table 3: Availability and response rate of the participants for the disability screening

| Categories | Urban n (%) | Rural n (%) | Total n (%) |
|--|----------------|----------------|----------------|
| Household availability status | N=2695 | N=3763 | N=6457 |
| Household available | 1919(71%) | 2939(78%) | 4857(75.2%) |
| Household unavailable | 580(21%) | 699(18%) | 1279(19%) |
| Household refused | 196(7%) | 125(3.2%) | 321(4.8%) |
| Participant's availability status | N=7061 | N=10686 | N=17747 |
| Available* | 4368(62%) | 6978(65%) | 11346(64%) |
| Not available (proxy to report) [†] | 2630(37%) | 3624(34%) | 6254(35%) |
| Not available (No HH members to report on behalf of them) [‡] | 63(1%) | 84(1%) | 147(1%) |
| Response rate for screening (initial household visit to identify disability) | N=6998 | N=10602 | N=17600 |
| Agreed to participate in screening (no of people screened) | 6987(99.84%) | 10590(99.89%) | 17577(99.87%) |
| Refused | 11(0.16%) | 12(0.11%) | 23(0.13) |
| Persons considered for the survey (people with disability and their comparisons)[§] | N=934 | N=1452 | N=2386 |
| Agreed to participate in survey | 930(99.5%) | 1450(99.9%) | 2380(99.8%) |
| Refused | 4(0.4%) | 2(0.1%) | 6(0.2%) |
| * Available after completing two repeated visits | | | |
| [†] Proxy was taken after ensuring two visits and/or determining that the persons will not be available during the data collection period. | | | |
| [‡] Determined after ensuring at least two visits | | | |
| [§] Considered based on the availability of people with disability, and identified comparison persons without disabilities (age and sex-matched). | | | |

4.2 DISABILITY PREVALENCE IN BANGLADESH

During the disability screening, we found the overall prevalence of disability in Bangladesh was 8%. It was found that disability prevalence increased with age and was significantly higher among older people (70+ years old) compared to the younger people (≤ 59 years old). Females (9%) were slightly more prevalent to have disability than males (7%). Among the participants, those who had no education or who were unemployed reported significantly higher rate of disability (32%) compared to those who had secondary and higher education (5%) and with other employment status. In all divisions, disability

prevalence varies from 7-10%, while a little higher prevalence is found in Rajshahi division (10%) compared to the other divisions (less than 10%) (Figure 6).

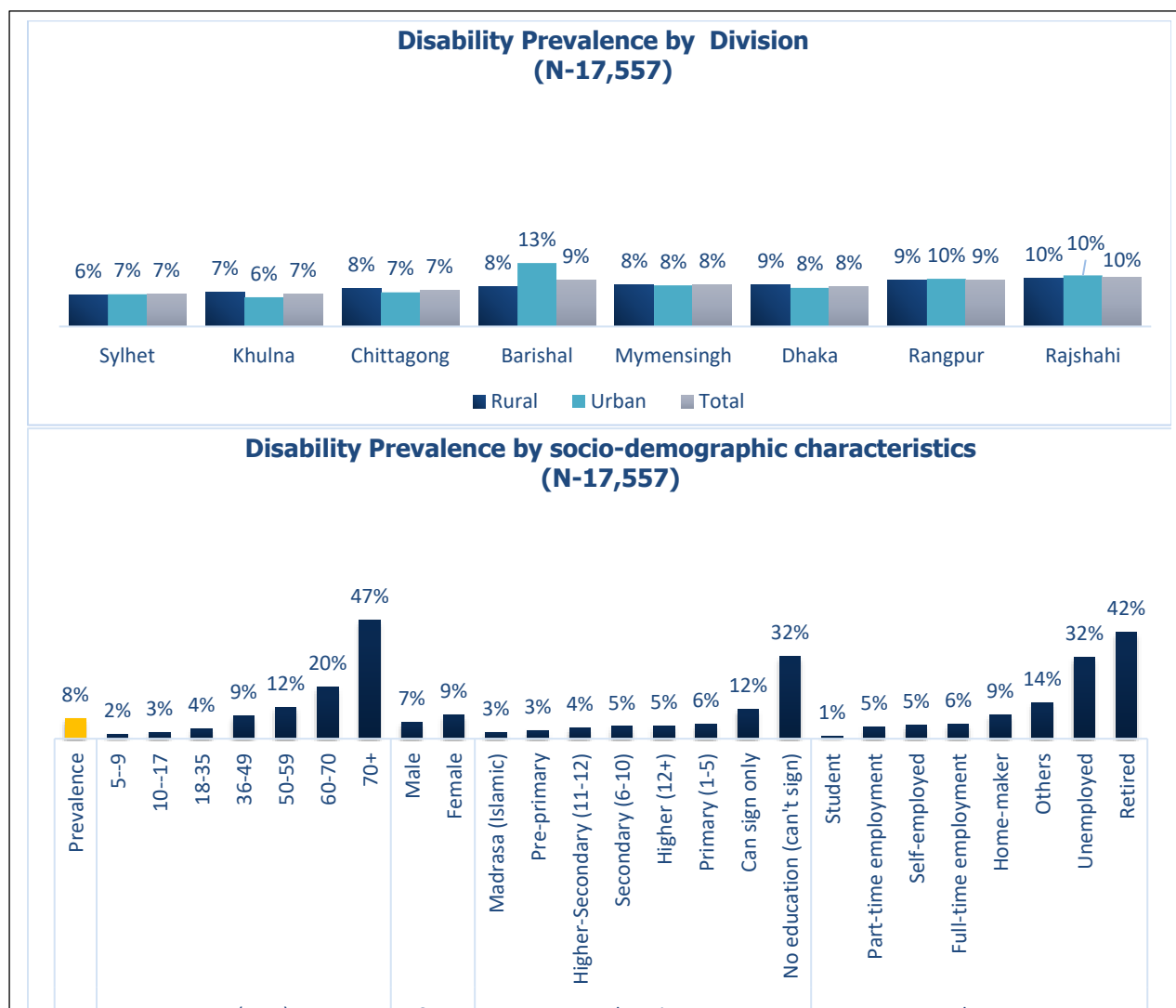


Figure 6: Disability prevalence

From the different diversities of disability, the most prevalent functional limitation was mobility (4%), followed by vision, cognition, selfcare, and anxiety (all at 2%). Hearing (1%), communication (1%) and depression (1%) were less frequently reported. Among the older people (age >= 60 years), 10% people have vision and self-care limitation, and 8% have cognition; while around 20% older adults have mobility limitations (Table 4). Older (aged above 70 years) females were twice as likely to have different types of functional limitations (mobility, self-care, cognition, anxiety, depression) compared to those with male older adults (age 70+ years) (Figure 7). However, the prevalence of depression and anxiety were slightly higher among urban (around 10%) older adults (age 70+ years) compared to the rural (1-4%) older adults (age 70+ years). Among the screened participants, 12% of the persons with disabilities reported of having anxiety whereas depression was reported from 8% of the persons with disabilities (Figure 8).

Table 4: Disability prevalence by functional domain*

| Prevalence | N | Vision | Hearing | Mobility | Communication | Cognition | Self-care | Anxiety | Depression |
|------------------------|-------|--------|---------|----------|---------------|-----------|-----------|---------|------------|
| Overall | 17577 | 2% | 1% | 4% | 1% | 2% | 2% | 2% | 1% |
| Age (in years) | | | | | | | | | |
| 5--9 | 1522 | 0% | 1% | 1% | 1% | 1% | 1% | 0% | 0% |
| 10--17 | 3004 | 0% | 0% | 1% | 1% | 1% | 1% | 0% | 1% |
| 18-35 | 6157 | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 0% |
| 36-49 | 2940 | 2% | 1% | 5% | 1% | 1% | 1% | 2% | 1% |
| 50-59 | 1748 | 5% | 1% | 6% | 1% | 2% | 2% | 3% | 2% |
| 60-70 | 1358 | 7% | 3% | 10% | 1% | 5% | 5% | 4% | 2% |
| 70+ | 848 | 16% | 11% | 33% | 6% | 12% | 17% | 7% | 4% |
| Age group | | | | | | | | | |
| Younger (<60 years) | 15371 | 1% | 1% | 2% | 1% | 1% | 1% | 1% | 1% |
| Older (>=60 years) | 2206 | 10% | 6% | 19% | 3% | 8% | 10% | 5% | 3% |
| Sex | | | | | | | | | |
| Male | 8359 | 2% | 1% | 3% | 1% | 2% | 2% | 1% | 1% |
| Female | 9214 | 3% | 1% | 5% | 1% | 2% | 2% | 2% | 1% |
| Types of region | | | | | | | | | |
| Urban | 6987 | 2% | 1% | 4% | 1% | 2% | 1% | 2% | 1% |
| Rural | 10590 | 2% | 1% | 4% | 1% | 2% | 2% | 1% | 1% |

* These functional domains are not-mutually exclusive binary variables; subjects may have more than one functional limitations

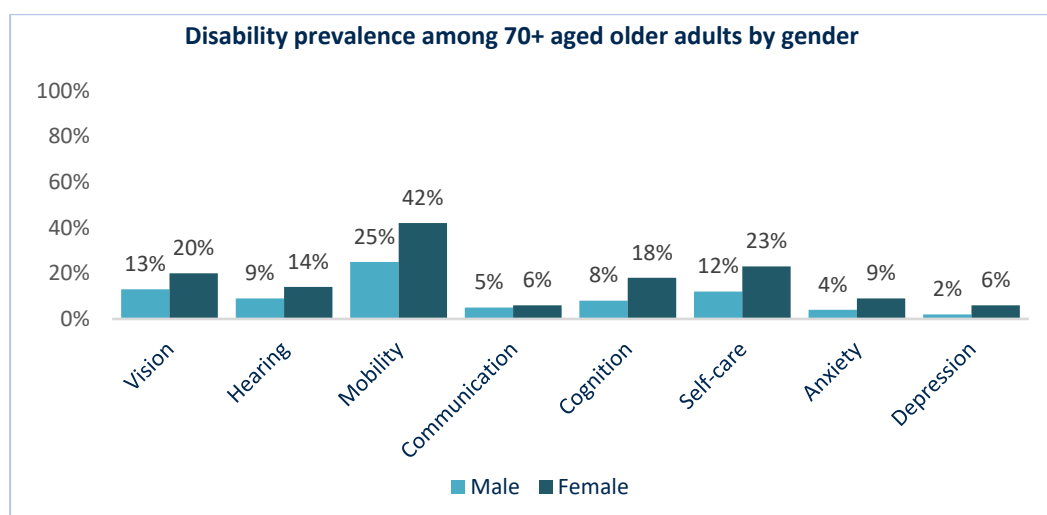


Figure 7: Disability prevalence among 70+ aged older adults by gender

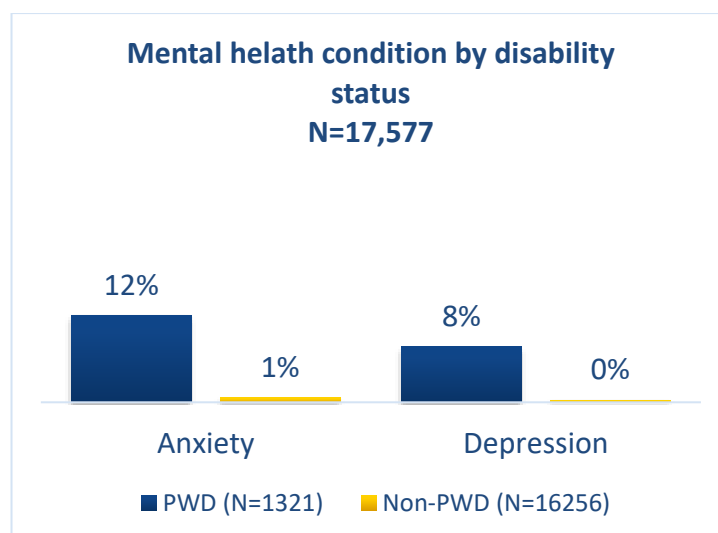


Figure 8: Mental health status among persons with and without disabilities.

4.3 BENEFIT TOWARDS DISABILITY FROM GOVERNMENT (DISABILITY CARD AND ALLOWANCE)

Around 16% of persons with functional limitations had a government issued disability card. A higher number of people from Khulna (24%), Rangpur (24%), and Sylhet (22%) divisions reported to have a disability card. There was a little variation observed by gender, and age-group in terms of the availability of the disability card. Male (24%), children (5-9 years) (32%) and teenagers (age 10-17 years) (42%) were most likely to have a disability card in comparison to female and older aged people with disabilities. People with communication (43%), cognition (24%) and self-care (28%) limitations were mostly reported to have a govt. issued disability card. Around half of the people with functional limitations who responded as can't do at all in the modules of the WG-Enhanced set of questions, reported to have a disability card in comparison to 14% of those with a lot of difficulties. Furthermore, only 18% of people who had functional limitations reported to receive disability allowance (cash support). Across different socio-demographic variables, the recipients of the disability allowance were reportedly higher among male, children, teenagers, and those with communication, self-care and cognition limitations with severe difficulties (Table 5).

Table 5: Government support provided for persons with disabilities

| Variables | N | Availability of disability card n (%) | Received cash support (disability allowance) from the govt. n (%) |
|-----------------------|------|--|--|
| Overall | 1404 | 218 (16%) | 246 (18%) |
| Division | | | |
| Barishal | 118 | 14 (12%) | 12 (11%) |
| Chattogram | 358 | 74 (21%) | 80 (22%) |
| Dhaka | 486 | 33 (7%) | 34 (7%) |
| Khulna | 126 | 30 (24%) | 30 (24%) |
| Mymensingh | 44 | 4 (8%) | 4 (11%) |
| Rajshahi | 99 | 21 (21%) | 27 (27%) |
| Rangpur | 137 | 33 (24%) | 48 (35%) |
| Sylhet | 36 | 8 (22%) | 9 (26%) |
| Age-group | | | |
| Older | 586 | 43 (7%) | 67 (11%) |
| Younger | 818 | 175 (21%) | 179 (22%) |
| Age (in Years) | | | |
| 5-9 | 30 | 10 (32%) | 9 (31%) |
| 10-17 | 77 | 32 (42%) | 32 (42%) |
| 18-35 | 243 | 63 (26%) | 66 (27%) |

| | | | |
|---|------|-----------|-----------|
| 36-49 | 268 | 44 (16%) | 42 (15%) |
| 50-59 | 200 | 26 (13%) | 30 (15%) |
| 60-69 | 245 | 27 (11%) | 32 (13%) |
| 70+ | 340 | 16 (5%) | 35 (10%) |
| Sex | | | |
| Male | 557 | 136 (24%) | 151 (27%) |
| Female | 847 | 82 (9.8%) | 95 (11%) |
| Types of functional limitation | | | |
| Vision | 379 | 50 (13%) | 50 (13%) |
| Hearing | 202 | 31 (16%) | 41 (21%) |
| Mobility | 726 | 108 (15%) | 128 (18%) |
| Communication | 189 | 81 (43%) | 90 (48%) |
| Cognition | 360 | 85 (24%) | 95 (26%) |
| Self-care | 316 | 89 (28%) | 96 (30%) |
| Anxiety | 250 | 38 (15%) | 47 (19%) |
| Depression | 136 | 18 (13%) | 25 (19%) |
| Severity level of functional limitation (excluding anxiety and depression) | | | |
| Can't do at all | 97 | 45 (46%) | 46 (47%) |
| Having a lot of difficulty | 1199 | 171 (14%) | 196 (16%) |

4.4 SOCIO-DEMOGRAPHIC PROFILE OF SCREENING PARTICIPANTS

A total of 17577 people was screened; among those 1434 were persons with disabilities and 16143 were persons without disabilities. We reached more people from rural areas (60%) compared to the urban areas (40%). The association between the socio-demographic characteristics of the people with and without disabilities showed that disabilities were strongly associated with age and were more common in the older age groups. Females were 1.45 times more likely to have a disability compared to males. Furthermore, persons with disabilities were significantly 8-15% less likely to have primary or secondary education compared to persons without disabilities. Among adults with disabilities, divorce/separation rates were 5 times higher in comparison to persons without disabilities. The average household size is slightly smaller for the households with persons with disabilities compared to those households without disabilities (Table 10).

4.5 SOCIO-DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS

A total of 2378 respondents were enrolled in our survey. The participants were presented into two comparison groups: persons with disabilities (1253) vs those without disabilities (1125), as well as older adults (997) vs younger individuals (1381). The survey participants were well matched on gender (58% females with disabilities and 59% females without disabilities) and age (mean age of 53 among persons with disabilities vs 48 among those without disabilities). There was a 60:40 ratio of rural vs urban, and female vs male among the people who were recruited in the survey. Half of the persons with disabilities were older (age, \geq 60 years), and disability is 1.84 times higher among older people compared to the younger people. However, no significant difference was observed in disability by sex. Persons with disabilities and older adults were significantly less likely to be the richest compared to their comparison groups. Similarly, persons with disabilities and older adults were significantly less likely to have access to education and employment compared to those without disabilities and younger adults (Table 11).



Figure 9: An older person with mobility difficulties. ©Hossen Ali

4.6 WATER

4.6.1 Household-level Access to Water

Overall, 99% of the households have access to basic drinking water sources. More than half of the households with and without disabilities (57%, 54%) used tube well / borehole as their primary drinking water source, while around 40% of the households used piped water either into their plot or dwelling. However, no significant differences were found in terms of using drinking water sources by households of people with and without disabilities. However, households with disabilities were 20% less likely to have access to improved water sources compared to unimproved water sources. 70% of the households with and without disabilities used water sources that were within 30 minutes of the round trip (Figure 11, Table 12).



Figure 10: Water sources (tubewell, and piped water) in rural and urban regions respectively

Around 18% of the households with and without members with disabilities treat their drinking water. However, 35% of urban households and only 3 percent of rural households treat their drinking water. Boiling (around 15%) and water filtering (ceramic/ sand) (7%) were the most commonly used water treatment measures taken by both households with and without disabilities. Although households with disabilities were significantly 0.2 times less likely to take any water purification measures compared to those without disabilities (Table 12).

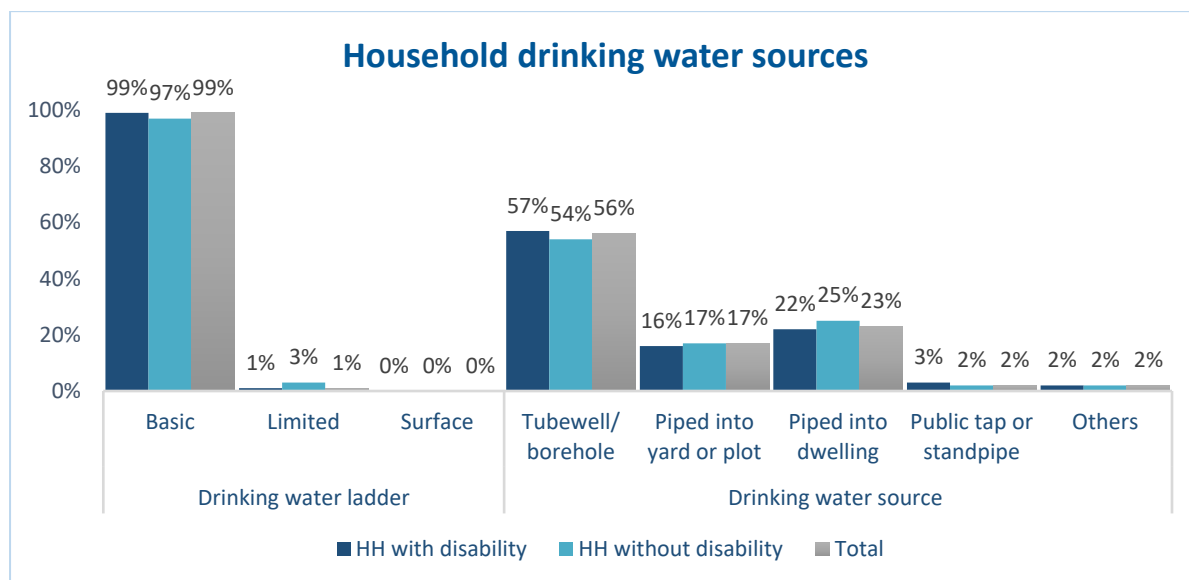


Figure 11: Household water sources by disability

From in-depth interviews, most of the households with person with disabilities reported that they are not able to afford the cost of tube well installation and they mostly (13 out of 33) collect drinking water from their neighbors.

"We use the tube well water for everything (drinking, bathing, and other uses), and we collect water from neighbors."- Male, Age: 43, Self-care limitation

4.6.2 Access to drinking water (individual)

Accessing and collecting water at home

Approximately 15% of people with disabilities and older people couldn't access drinking water at home whenever they needed it (Figure 12). People with self-care limitations (55%) were least likely to be able to access water at home when required compared to other types of disabilities, while people with vision limitations (88%) were more likely to access water at home. Among other types of disabilities, this accessibility varies from 70% to 88% (Figure 13). Among those who were unable to access drinking water at home, mostly (around 90%) were due to their lack of physical strength in lifting water containers or jugs, approximately 60% cited they have mobility difficulties due to which they couldn't grasp/ hold or balance the containers, while 20% of individuals with vision impairment reported difficulty in seeing or locating water containers which hindered their ability in accessing drinking water at home (Table 13, Table 16).

A significant association was observed between the accessibility of drinking water at home and persons with disabilities' socio-economic status. People's ability to access water at home has improved along with their socioeconomic status. The difference in accessing water at home was also slightly higher among persons with and without disabilities who belongs to the 1st quintile compared to other classes of people (Table 15).

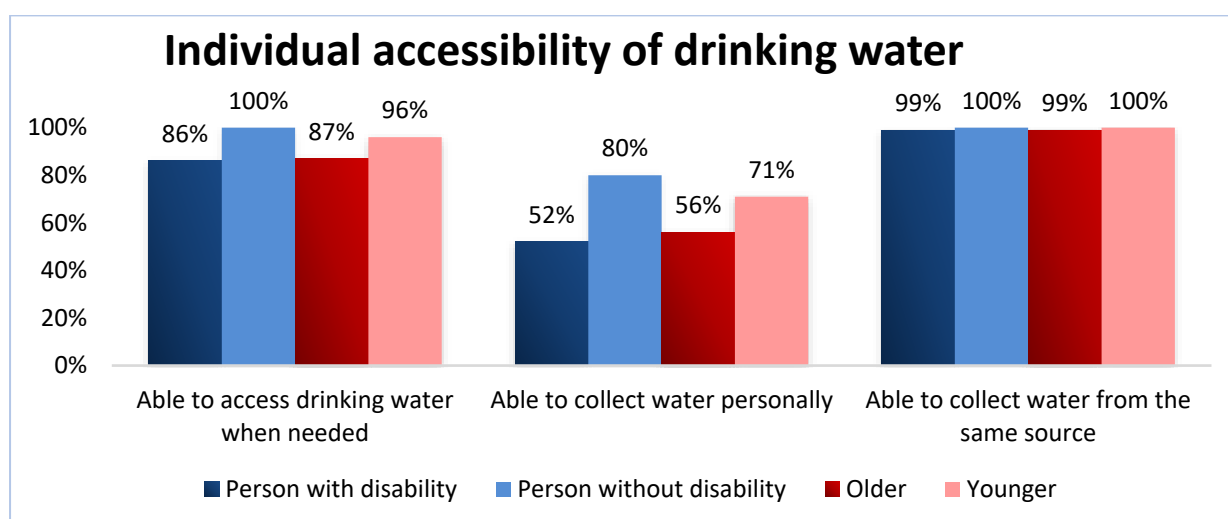


Figure 12: Individual accessibility of drinking water

Persons with disabilities and older people are less likely to collect water personally compared to persons without disabilities (52% vs 80%) and younger people (56% vs 71%). A significant difference was observed in collecting water among persons with and without disabilities by region and gender (Table 17, Table 18). Among persons with disabilities, only 17% of people with self-care limitations and 38% people with mobility limitations reported collecting water personally (Figure 13). Among those with disabilities who were unable to collect water personally, a majority (more than 90%) reported physical constraints as the primary barrier, while approximately 20% indicated dependence on caregivers. However, among people who were able to collect water by themselves, all of them could use the same water sources as their household members, irrespective of their disability and age.

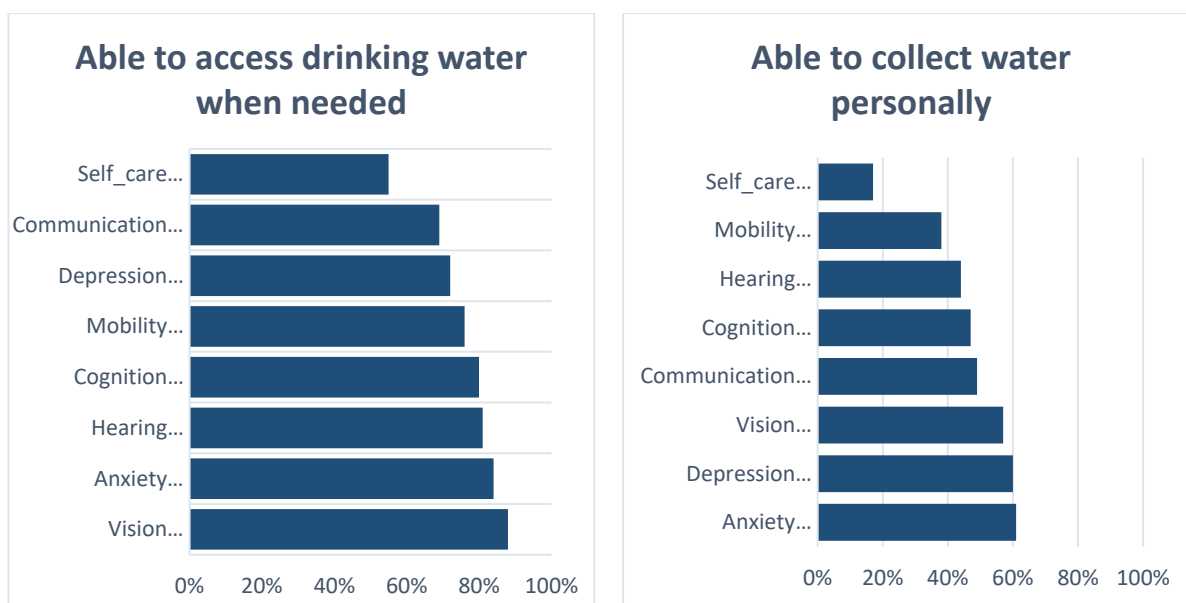


Figure 13: Individual accessibility of water by disability types

Moreover, people with mobility and self-care limitations were significantly less likely to be able to access water at their household whenever required. Similarly, people with communication, mobility, and self-care limitations had a significantly higher likelihood of not being able to collect water by themselves. No significant relationship between people with disability, gender, area of residence, and their ability to collect water independently was found (Table 19).

During the In-depth interviews, persons with disabilities also mentioned about their difficulties in collecting drinking water by themselves. 7 out of 20 persons with disabilities (mobility-4 and vision-3) mentioned that they face difficulties in reaching the water source due to the path of the water sources, the route was a little slippery and there were also obstacles lying there. Another 3 persons with disabilities reported facing challenges due to their vision limitations and lack of physical strength.

16 out of 20 people with disabilities required assistance in order to collect water from a tube well or deep tube wells with the help of a motor. 13 of them have mobility issues and the rest 3 have vision impairments. People with disabilities typically depend on family members like sons, daughters, mothers, wives, fathers, and so on for assistance.

"Considering my physical condition, I can't carry my water; My mother always assist me in accessing water. While my mother goes out, I have to occasionally stop people passing by and ask them to pour water for me. If I can't find somebody to help me, I have to go without water for a while." – Male, Age: 20, Mobility & Self-care limitation

On the other hand, only 6 out of 20 persons with mobility and vision limitations have mentioned about independently collecting water from nearby sources. They can collect and carry a small amount of water at a time. Four of them carry water with the help of their assistive sticks. Two of them have vision limitations and they are habituated to their environment, and the other 4 have mobility issues.

"There is a water source at my neighbor places, usually my wife and child collect water for me, however, sometimes I also collect water and being a blind from my childhood I got used to with the environment (Path, source) and the collection process." – Male, Age: 55, Vision limitation

"I can't push the tube well handle; I can only switch the water motor, but can't carry the water pot/ jar. My mother collect water for me. Collecting water is burdensome to me, my legs hurts as I am short." – Female, Age: 25, Self-care limitation

The difficulties in accessing and collecting water were also highlighted by participants who took part in PhotoVoice. Ariful, a male PhotoVoice participant with vision limitations demonstrated his challenges in drinking water while eating. Ariful expressed that he needs drinking water within his reach while having a meal, however he has to depend on others to do this small task because of his disability, which makes him feel degraded. Out of 5 challenges he ranked it as the 4th most challenging activity (Figure 14).



Figure 14: Water. PhotoVoice Caption: "It is difficult to take a meal without having water in front of me, cause there is a chance of food getting stuck in my throat anytime. The unfortunate fact is someone must always keep water in front me as that is not manageable by me and I feel horrible about this." Ranking: 4. ©Ariful Islam

Assadujjaman, a young male with mobility difficulties explained his difficulties collecting water from the tubewell since his body is too weak to press the tubewell handle and lift the water container. The photo depicts the tubewell handle, which required a firm grip and considerable strength to operate it. Consequently, he relied on his mother and sister to assist him in collecting water and storing some for his future needs (Figure 15).



Figure 15: Difficulties in collecting water from tubewell. PhotoVoice Caption: "I have less strength in my hands and the tubewell handle is hard enough. As a result, pressing the handle is difficult for me and I'm incapable of collecting water. So, my mother and sister assist me in collecting water, sometimes she reserves water for my future use." Ranking: 1. ©Assadujjaman

Safety in collecting water

More than 90% of people with and without disabilities felt safe when collecting water personally. No significant difference was observed in terms of feeling safe while collecting water by disability, ageing, gender and region. However, because of factors like distant location of the water point from home (44%), the feeling of insecurity during the dark time in collecting water (44%), the inaccessible location or path of the water collection point such as uneven or slippery road (23%), and the potentially slippery water point area/ stagnant water on the water point (21%), people with disabilities felt unsafe while collecting water. On the other hand, a majority (57%) of people without disabilities considered distance from the water source as the primary reason for not feeling safe during water collection. The feeling of insecurity during the dark time (38%), not having enough light at the water point (27%), risk of animal attacks (26%) and slippery area of the water point (22%) were also considered as the reasons for not feeling safe by people without disabilities (Table 13, Table 14, Table 17, Table 18).

During KII, one DPO official reported that persons with disabilities and older people face difficulties due to the lack of WASH facilities in their houses. In many cases, persons with disabilities living in rural areas need to rely on other people's tube wells that are outside and far from their home as they don't have their own water source. Due to the distance of the water points, females face security problems, while going to collect water.

"...a case where a woman with disability, who did not have a tube well in her own house, was raped while fetching water from another house which was far from her house" (KII_DPO)

Modification and future adaptation required for the customized water facility

Nearly half of both people with disabilities and people without disabilities said that they needed to make some changes or adaptations to their water facility in order to increase the accessibility of their drinking water. These changes/adaptations included moving the facility closer to the home (about 20%), and having access to running water throughout the day (25%) (Table 13). While 15% of those with functional limitations in communication (18%), self-care (15%), and depression (14%) needed improved paths that were smooth and obstacle-free, those with hearing (16%), mobility (10%), and self-care (16%) limitations needed improved seating facilities at the water point (Table 16).

During in-depth interviews, 8 out of 20 people with disabilities (5 have mobility and 3 have vision limitations) also mentioned that they need modifications or changes in their existing water facilities. One person with vision limitation emphasized that a disability-inclusive path at the water point, such as ramps, tactile markings, ropes, etc., will make reaching and accessing the water point easier. On the other hand, three respondents think it would be good for them if the tube well were near their household, where 2 of them has mobility and 1 has vision limitations. Some collect water from neighbor's tube wells, so it is impossible to change anything. So, if they had their own tube well, then they could modify the place.

"for people with disability like me, the near the water facility the better access... not only the water source, but if our household structure includes ramp, touch sensitive indicators (tactile marking), rope, disable friendly tiles in the floor it will be very easy for disable people..."- Male, Age: 62, Vision limitation

Eti, a PhotoVoice participant, who relied on a wheelchair for movement, expressed her difficulties in utilising the tubewell. Due to her lack of strength she relied on her family members (mother) to collect water from their household tubewell. She expressed that piped or tap water availability could make her independent water collection easier (Figure 16).



"I cannot press the tube well by myself, I need assistance, waiting for my family member to come and helping me is very common for me. Even if I feel thirsty, I didn't have the strength to drink a glass of water by using the tube well. The availability of piped water or tap water would be very much convenient for me to collect water by myself."

Figure 16: PhotoVoice Caption- "The pain of not being able to collect water". Ranking: 3. ©Eti Khatun

4.7 SANITATION

4.7.1 Access to Sanitation (Household-level)

Accessibility of the household sanitation facility

Overall, 77% of households with and without disabilities in urban and rural areas had access to basic sanitation facilities. However, no significant difference was observed at the household sanitation facilities by people with and without disabilities and regions. In urban areas, septic tank (35%, 38%) was the most commonly used facility, followed by piped-into sewer (29%, 23%) and offset pit latrine (23%, 26%) among households with and without disabilities. In contrast, offset pit latrine (49%) was the most prevalent sanitation facility among rural households with and without disabilities. Another half of the households with and without disabilities in rural areas used septic tanks (28%) and pit latrines with slabs (20%). Furthermore, around 80% of the households with and without disabilities used their own sanitation facilities, and no significant difference was found regarding the ownership of the sanitation facilities by disability (Table 20).

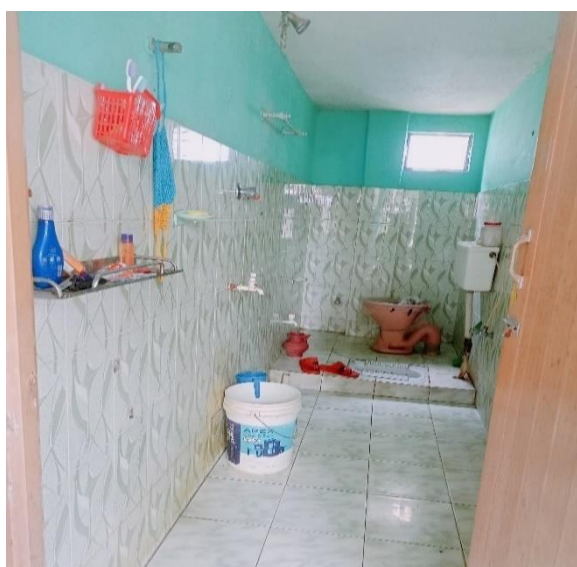
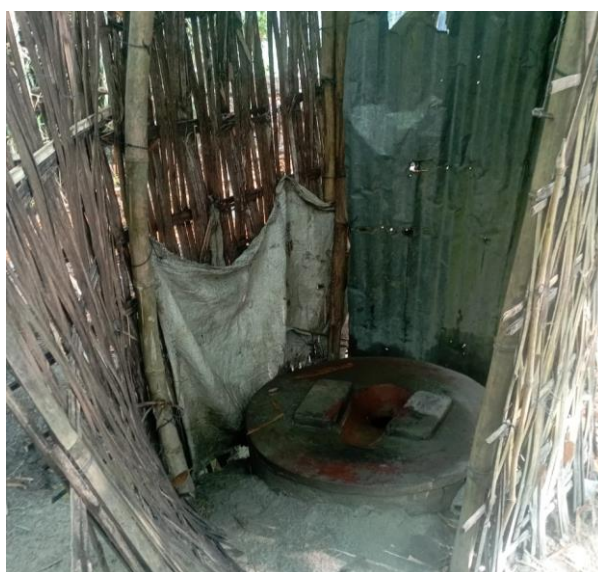


Figure 17: Toilet facilities in rural (limited) and urban (safely managed) regions

Most households (63%) had smooth, flat surfaces at the entry path of the toilet, while 50% were non-slippery. These entry path components didn't vary by households with and without disabilities. However, in urban areas 88% had smooth flat surfaces, while in rural areas, around half of the entry paths were smooth and uneven. It was also observed that almost 30% of door locks and around 15% of door handles can be operated with one hand to make it easily operable for people with disabilities and older people. Spot-check data from inside the toilet also demonstrated the availability of smooth surface (66%), non-slippery surface (68%), and obstacle free surface (17%) were more prevalent in urban areas compared to the rural areas. Additionally, 70% of urban toilets had water inside them, contrasting with 36% in rural settings. Moreover, more than 40% of water drawing mechanisms in urban areas were operable with one hand, in contrast to 15% in rural regions. However, less than 1% of household sanitation facilities had easily accessible water and handwashing agents for wheelchair users or children. In households with and without disabilities, only 3% of sanitation facilities had height adjustable pan/ commode, while in 1%, height adjustable basins were available for wheelchair users or children. Overall, 78% of the household's sanitation facility (both with and without disabilities) had available daylight or night light (Table 22).

During in-depth interviews, one caregiver explained that her daughter used a wheelchair for movement but they were unable to use the wheelchair in the toilet. The wheelchair cannot be accommodated in the toilet due to the lack of a ramp system and available space. So, they used chair toilet seat for toileting.

"...wheelchair cannot be brought to the toilet because there is a bar on the door and due to unavailability of the ramp when it was first constructed. So, we use a chair toilet seat."—Caregiver

Through PhotoVoice, two female respondents with mobility limitations demonstrated their difficulties in using the challenging (uneven and slippery) route to reach the toilet. Both of them were living in a rural village and the muddy path of the toilet becomes more slippery during the rainy days, causing them to fall several times. Eti (right photo) mentioned that a smooth path like a ramp road would be more convenient for her to use and go down from the wheelchair (Figure 18)



©Morsheda

"I have to go to the toilet using my knees and hands. The route to the toilet is not smooth and during the rainy season using the toilet becomes too difficult. When I go to toilet like that all the filth and dirt of toilet cover my hands and legs. It is very hard for me to stay clean then."



©Eti Khatun

"I find it difficult to use the toilet because of the challenging and uneven route; if the road were smooth, I would find it more convenient. Getting dirty while using that route is very common to me, wish the path were more like a ramp road since I have to hold something to get down of the wheelchair."

Figure 18: PhotoVoice images demonstrating the non-inclusive entry path of the toilet.

During KII, DPO officials also mentioned the accessibility of the entry path for persons with disabilities. They mentioned that not only in households but also in the case of public toilets persons with disabilities need to face problems due to unavailability of ramps. The public facilities and the schools mostly lack ramps at the entrance paths to their toilets. Due to this, the wheelchair users face difficulties while accessing the toilets. Moreover, providing ramp facilities will address mobility limitations. Facilities for ensuring access to all types of disabilities are also unavailable there. Hence, the infrastructure is not inclusive of all types of disabilities.

"You will see that primary schools have ramps but they do not have ramps in toilet. In fact, accessibility issues are not adequately introduced in many cases. We can't address it properly. Now, we are talking only about the ramps. But can ramps alone ensure all types of accessibility?"
(KII_DPO)

"During COVID, a platform was created for providing services, including hygiene materials and masks at the DC office. However, they didn't make any modifications in their infrastructure for wheelchair users. Now, If persons with disabilities come how can they access this facility. Persons without disability can receive it but persons with disability cannot." (KII_DPO)

Qualitative exploration also found that people with disabilities (6 out of 20 in-depth interviews) mostly could operate the toilet door without any difficulties. However, in most cases, persons with disabilities were dependent on their family members while using the toilet facility.

"The toilet facilities were not good previously. Now it has a plastic door, and the lock is now easy to operate. Beforehand the door was made of steel and tough to operate. It was troublesome". - Male, Age: 62, Older & Vision limitation

"I took her by the hand in the daytime and brought her to the toilet. Then I open the door for her. I help her go to the toilet and with water." - Caregiver

Through PhotoVoice, Ariful a male person with vision limitations, also explained his difficulties opening the toilet door. Ariful expressed that a delay in opening the door could lead to a distressing possibility – that the urgency of the moment might result in his clothes becoming soiled (Figure 19).

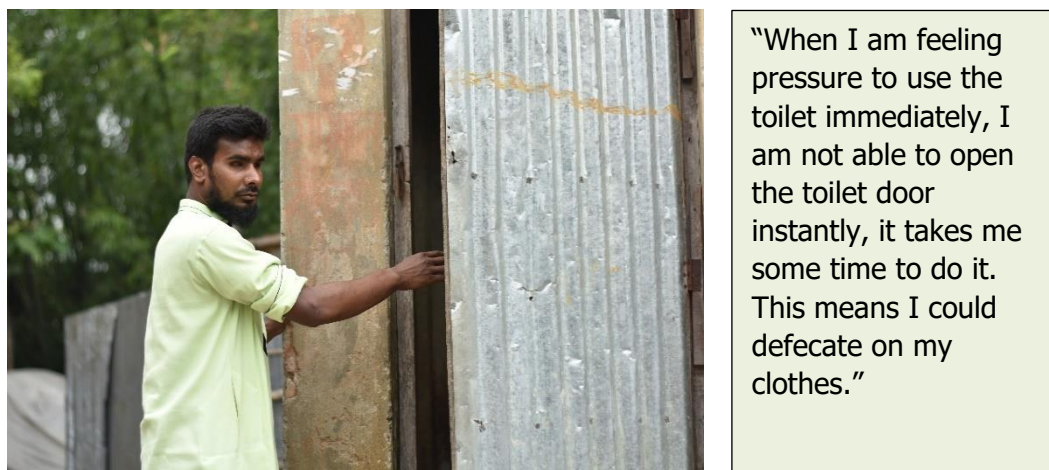


Figure 19: PhotoVoice image of @Ariful Islam, demonstrating his challenges in opening toilet door. Caption- "Toilet".

Safety in Household sanitation facility

89% of household members of persons with disabilities and older people feel safe and comfortable using their toilet facility. No difference was observed in the presence of lockable doors, both from the inside (around 80%) and outside (around 70%), between HH with and without disabilities and older and younger people. In addition, around 12% of the toilets of HH with and without disabilities and older and younger people had visible hole/broken areas in the door or wall (Figure 20, Table 21).

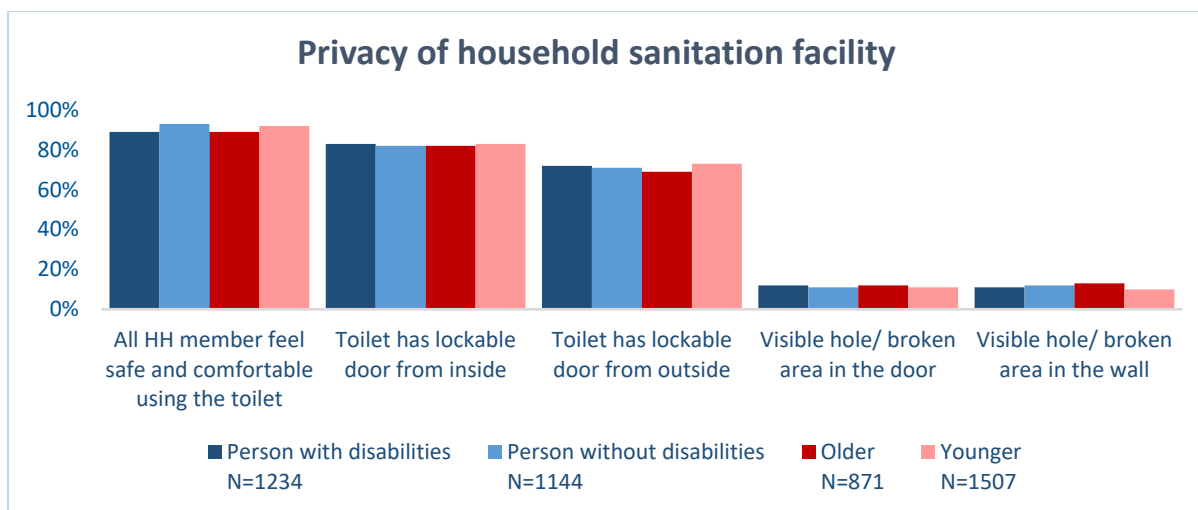


Figure 20: Household sanitation facility privacy

From the qualitative interviews, respondents reported feeling secure and comfortable when there was light and a door in the toilet. However, they felt unsafe because the toilets were slippery.

"When I need to go toilet at mid night, I try to go by myself. But I don't feel safe to go alone due to the slippery toilet. A few months ago, I fell into the toilet because of the slippery floor and injured my leg and head". - Male, Age: 26, Mobility limitation

"Light is available all time (day and night), and am comfortable using the toilet. We lock the door which prevents animal attacks". - Female, Age: 70, Mobility limitation



Figure 21: A toilet facility (basic) in rural area without proper privacy

4.7.2 Access to sanitation facilities (individual)

Individual accessibility of the sanitation facility

Around 90% of people with disabilities and older people were able to use the same sanitation facility as other members of the household (91% and 92% respectively). They were able to use the facility as frequently as they needed (88%, and 90%) and could reach the cleaning materials without taking assistance from others (94%, 94%). However, almost 10-12% more people without disabilities and younger people had better access compared to people with disabilities and older people. Around 30% of people with disabilities and older people required assistance from others to use the toilet facilities,

compared to 15-20% of people without disabilities and younger people (Figure 22). A quarter of people with disabilities (24%) and older people (21%) faced difficulties in using the toilet without coming into contact with faeces or urine (Table 23).

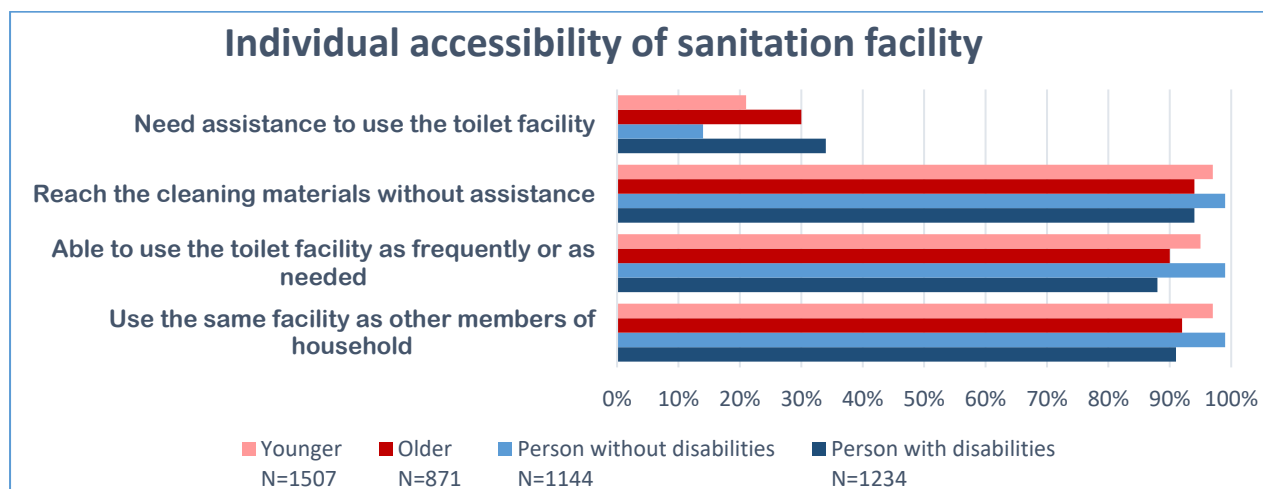


Figure 22: Individual accessibility of sanitation facility

The accessibility of sanitation also varied by the types of disabilities. People with hearing, mobility, communication, cognition and self-caring limitations were 2-6 times significantly more likely not to be able to use the same sanitation facilities as other household members. Among persons with disabilities, those who were the richest (5th quintile) were significantly more likely to be able to use their toilet facility as often as they required compared to those belonging to the poorest quintile. However, people with difficulties with vision, mobility, self-caring, anxiety, and mental health conditions significantly had lower odds of being the least able to use the toilet facility as often as required. Around 62% of people with self-care limitations and half with communication and mobility difficulties reported needing assistance in using the toilet facility. The need for toilet assistance is also significantly associated with the age of persons with disabilities. People with mobility, communication, cognition, and self-caring limitations were twice more likely to face difficulties in using the toilet without coming into contact with faeces or urine (Figure 23, Table 28).

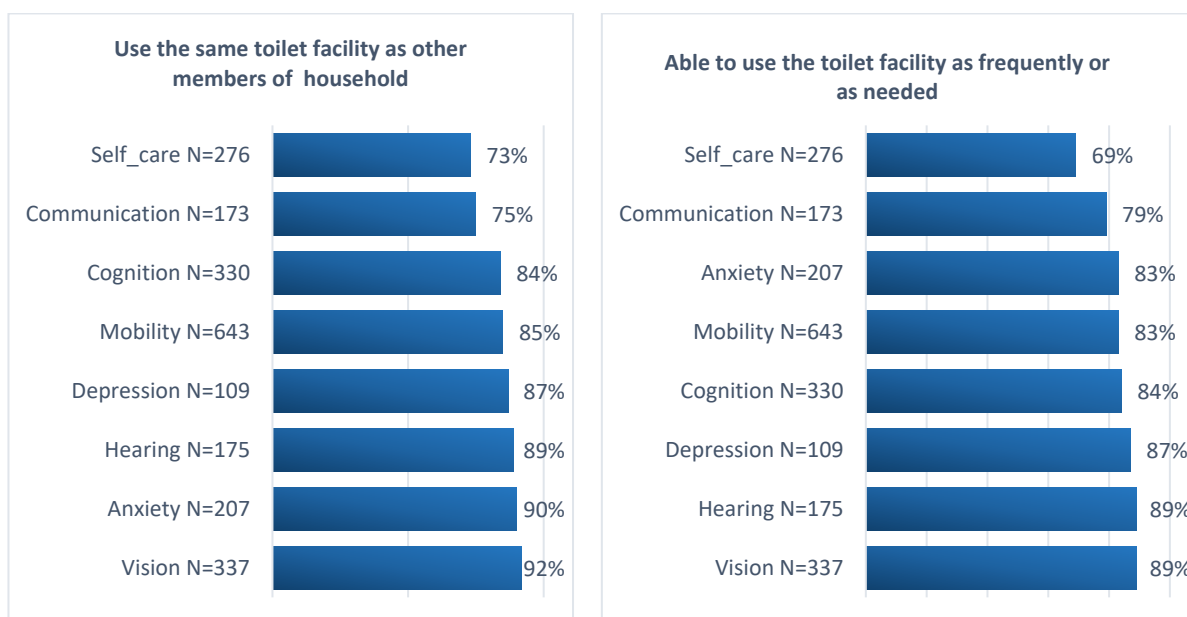


Figure 23: Access to sanitation facility by types of disability

During PhotoVoice, Reza, a male person with mobility difficulties also emphasized his challenges (ranked 3 out of 5) in using a lower toilet pan. This photo demonstrates his inability to comfortably bend his leg, which leads to an unfortunate outcome: he ended up coming into contact with urine or faeces when using the toilet. Due to which he needs to take frequent baths (Figure 24).



"I have a low pan in my toilet, but I desire a high commode because I can't sit without bending my legs, as a result I get filthy when I use the toilet and I'm unable to keep myself clean. Every time I use the toilet, I have to take bath. The most important difficulty is that I can't always use the toilet while wearing clothes since it gets filthy and disgusting."

Figure 24: PhotoVoice image of ©Forhad Reza, a person with mobility difficulties demonstrating his difficulties of coming into the contact of urine or faecal while using the toilet. Caption "Every time I use the toilet to defecate I need to take bath to get clean again". Ranking: 3.

Barriers in using the sanitation facility

Among persons with disabilities and older people, most commonly reported barriers in accessing sanitation facilities were their physical ability (difficult/ impossible for them) (94% and 89% respectively) and dependency on the caregivers (57% and 47%). Furthermore, additional challenges to facility access were also highlighted by persons with disabilities and older people, which include inadequate water availability for toilet use (19% and 23%), difficulties reaching an inaccessible toilet (16% and 19%), distance of toilet from their home (13% and 19%), feelings of insecurity while using the facility (18% and 15%), and a lack of timely assistance (6% and 12%) (Table 23, Table 24). However, among persons who had functional limitations with communication (64%), cognition (58%), self-care (51%), and vision (48%), reported that their foremost difficulty lies in the frequency of toilet facility use, as they find it challenging for caregivers to assist them adequately (Table 25).



Figure 25: An inaccessible toilet for persons with disabilities and older people in Chittagong

During in-depth interviews, 18 out of the 33 people with disabilities and their caregivers said they have to rely on their relatives in order to use the sanitation facility. Most of these people with disabilities suffer from mobility and self-care limitations, which prevent them from moving around freely and caring for themselves. They were taken to the toilet and cleansed by caregivers or family members.

"My wife carries me to the toilet on her shoulder and I urinate and defecate in a commode toilet chair." - Male, Age: 43, Mobility limitation

Twelve out of thirteen caregivers who participated in our qualitative interviews said that the people they were caring for needed help urinating and defecating. One-fourth of the caregiver said that if they were out of the house and the persons they were taking care of did not get assistance on time, they defecated on their pants or in the bed. Due to their limitations (Mobility, communication), these people with disabilities and older people could not use the toilet and would defecate in the bed due to a lack of timely assistance.

"...need to cut grasses for my cow and feed it. And when I go to cut grass, if she needs to go to toilet, she cannot find me and defecates there. I clean the mess and her as well, like this after returning home". - Caregiver

During PhotoVoice, Eti demonstrated her reliance on her caregiver to support her in going to the toilet. She also explained that carrying water is a difficult task for her, due to which she required assistance from others. She took 5 photos of her challenging moments, and she ranked it as her greatest challenges (Figure 26).



Figure 26: PhotoVoice caption- " Assistance from others". ©Eti Khatun

"When I feel the urge to go to the toilet, I must have to go because that is an emergency for me. Also, going to the toilet without carrying water for use is impossible for me to do; otherwise, I won't be able to clean myself afterward and that's why assistance is needed for me in this regard." – Eti, Female, Mobility limitation

Acharun Begum, another PhotoVoice respondent also highlighted her difficulties using the toilet. She demonstrated that due to her mobility difficulties, she couldn't sit on the lower pan commode and used the toilet in a standing position (Figure 27).

"I am unable to go to the toilet without the assistance of others and unable to use the toilet in a sitting position, instead I need to use the toilet in a standing posture because of my physical limitation." -Acharun begum, Female, Mobility limitation



Figure 27: PhotoVoice Caption: "Difficulties in using toilet". ©Acharun Begum

In PhotoVoice, Faruque Sarder, an older male with mobility difficulties living in a slum, explained his difficulties accessing the toilet which is far from his home. Due to the challenging and long route of the path, he starts early as it takes a long time to reach the toilet. However, even upon reaching the toilet, he had to wait a longer time to use the toilet since it was a shared toilet and a queue of other people would also be waiting there. While waiting, sometimes for quite a while, his clothes become unintentionally soiled. Among the 5 challenges, he ranked it as the 3rd most challenging moment in terms of accessing WASH facilities. Furthermore, he faced difficulty entering the toilet as it was situated slightly higher from the ground. Because he is unable to lift his leg or bend it to sit on the toilet, he

was compelled to defecate while in a standing position, which is both unpleasant and problematic for him (Figure 28).



Caption- "Challenging route to the toilet from home"



Caption- "Difficulty in accessing and sitting on the toilet"

Figure 28: PhotoVoice images of @Faruque Sardar demonstrating his difficulties in accessing the toilet

Two key informants, including DPO and NGO officials, indicated the problems regarding toilet accessibility, including long distances, water unavailability, and slippery pathways. The DPO official added that there is a lack of public toilets in rural areas and the toilets are very far away. The path to those toilets is not safe as the roads remain slippery due to mud. So, for a visually impaired person, it becomes difficult to access the toilets in rural areas. Moreover, there are no water sources in the toilet for using the toilet. So, the water must be collected from the tube well and it becomes difficult for a visually impaired person to access the toilet in these areas.

"there are also places to be seen where water from the tube well has to be taken to use the washroom. It's a bit difficult for the visually impaired people. Also, the toilets are very far away and people need to cross muddy paths to use those - such toilets are very difficult for visually impaired people to use." (KII_DPO)

Safety issues in using the sanitation facility

Persons with disabilities (85%) and older people (86%) were slightly less likely to feel safe in using their toilet facility compared to the persons without disabilities (94%) and younger people (91%). There was a little gender difference by ageing, with older females (83%) feeling somewhat less unsafe than older males (90%). However, no significant gender difference was observed among individuals with disabilities (Figure 29).

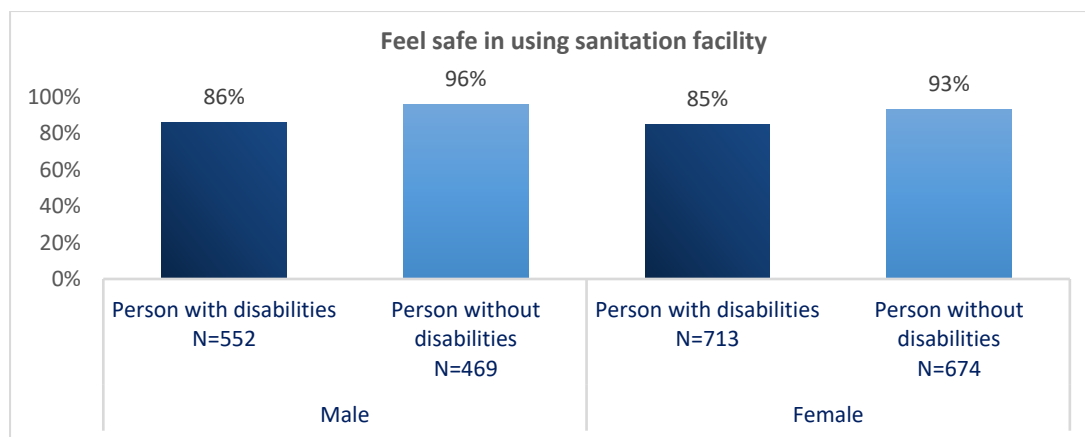


Figure 29: Feel safe in using the sanitation facility by gender and disability

Among persons with disabilities, a significant association was observed between their feeling of safety and their socio-economic status. People who belonged to the poorest quintile felt substantially less safe using the toilet (66%) compared to people who belonged to the richest quintiles (4th quintile: 91%; 5th quintile: 96%) (Table 28). When considering the underlying causes, both male and female people with disabilities were most concerned about poor lighting (40% and 32%) and slippery surfaces (34% and 32%). Poor facility infrastructure (26% and 27%) and distance from home (28% each) also had a role. Particularly among female persons with disabilities (27%) and older women (28%), a lack of privacy was a major worry. Insufficient lighting facility (42%), distance to the toilet (41%), poor infrastructure (34%), slippery surfaces (31%), and the potential for coming into contact with harmful animals or insects (23%) were the most prominently reported barriers among older males (Table 26, Table 27).

Of the 20 IDI (persons with disabilities and older adults) participants, 13 reported feeling scared when using the toilet at night. Most of the time (8 participants), users were terrified of slipping in the toilet due to the slippery surfaces and inadequate lighting at night. Other causes of fear included being far from the toilets, being scared of animals or insects, and ghosts.

"Yes. I am a disabled man. I cannot walk and run like a normal man. So, I cannot run if a dog or other animals attack me. This made me afraid..." - Male, Age: 26, Mobility limitation

Modification and key future adaptations required for the sanitation facility

Around 10% of persons with disabilities and older people have toilet facilities based on their needs, compared to 6% of people without disabilities and younger people. The most commonly taken adaptations or changes were building the facility closer to their home (around 30%), improving material quality (29%), availability of running water (around 20%), improving the seating facility (15%), and using a height adjustable commode/ pan (around 15%) (Figure 30).

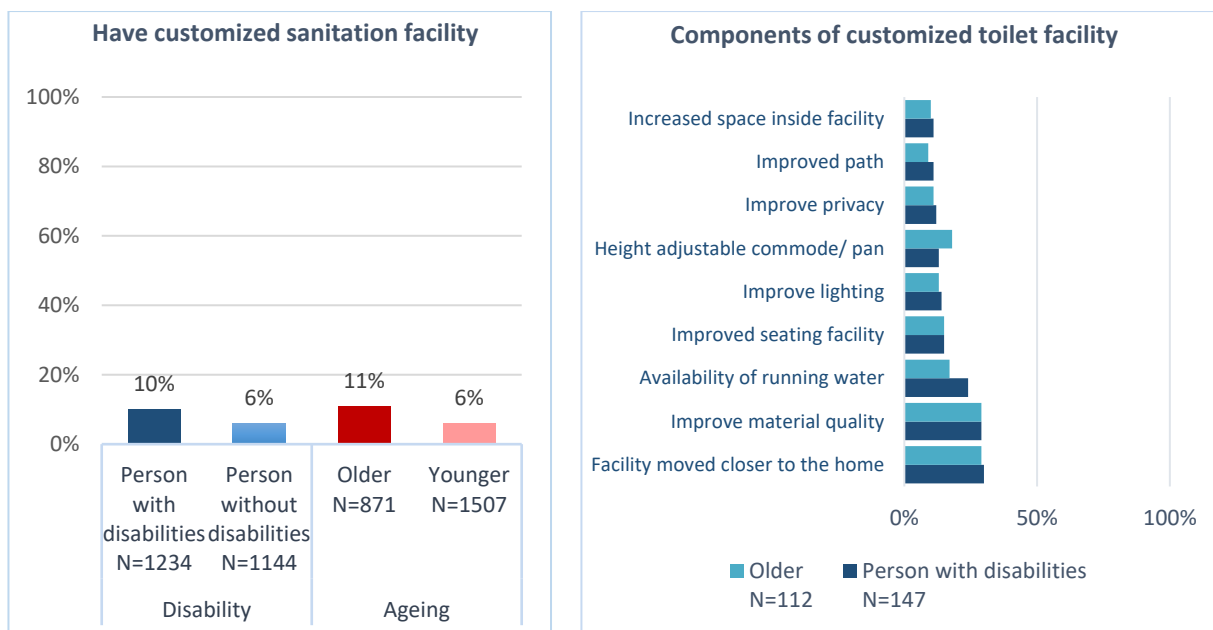


Figure 30: Customized sanitation facility

However, around half of the persons with disabilities and older people required further adaptations or changes to customize their toilet facility based on their specific needs. Among these requirements, the improved material quality of the toilet facility (39%), availability of running water during the day (29%), improved seating facility (19%), and facility moved closer to the home (17%) were most commonly reported. No significant difference was observed between future adaptation requirements by types of disabilities (Table 30, Table 31).

During in-depth interviews, 4 out of 20 persons with disabilities said they made changes in the toilet facilities for convenience and one respondent got a commode chair from a local NGO. They have mobility and selfcare limitations and faced difficulties while using the conventional commode. In order to use the toilet facility conveniently, they made changes from their regular commode to a high commode and chair-style commode.

"We have one toilet, a regular one with a slab and ring. But for my physical limitations, I can't use that toilet. I got a commode chair from an NGO named Handicap, and I use it. But to sit on the commode chair, I need help." -Male, Age: 56, Mobility & Self-care limitation

Siddikur Rahman, an older male with mobility limitations, also demonstrated his modifications in the toilet facility for easier access. Due to his mobility issues he explained that he couldn't move without crutches and couldn't use the regular toilet. For his convenience, he was relying on a chair commode for toileting. However, when trying to stand up from the sitting position, it causes excruciating pain, this emphasizes the need for accessible facilities to provide dignity and comfort for people with disabilities (Figure 31).



"I need the help of the stick to stand and move to the toilet because I don't have leg. I use the chair commode for toileting. I am unable to stand without the stick. When I attempted to stand up from sitting, I experienced so much pain."

Figure 31: PhotoVoice image of ©Siddikur Rahman, a persons with mobility difficulties using customized toilet. Caption- "It is the most difficult to sit in the toilet".

Chadni, a female with vision limitations, also focused on her recurring challenges while using the toilet. In the photo, she depicted her high commode toilet and highlighted her struggles to figure out the height of the toilet pan. The lack of clarity regarding the commode's height often leads to difficulties and, on occasion, even accidents due to an inability to gauge the height accurately. She expressed that if there could be a system that could make it easier for people with vision limitations to recognize these elements effortlessly, it could significantly reduce the risk of accidents as well as pave the way for a safer and more inclusive future in toilets (Figure 32).

"Sometimes It's tough for us who have vision limitations to figure out the height of the toilet pan in the toilet. That is why we face the trouble of using the bathroom. Even there is a high possibility of getting injured if we stumble on the toilet due to failing to identify the height of the commode. So, it would be a great help if there is any system to recognize these things, which may simultaneously reduce the chances of accidents." - Chadni, Female, Vision limitation



Figure 32: PhotoVoice image of © Chadni showing her problems regarding identifying the pan height. cation- "difficult to understand the height of the toilet pan in the toilet".

During the KII, two researchers also mentioned that designing disabled-inclusive infrastructure, including toilets and water sources, is required to ensure that persons with disabilities can access those without any difficulties. One researcher added that persons with mobility limitations and older people require a high commode while using the toilet due to their mobility limitations. However, the sanitation infrastructures available to them in rural areas contain mostly low commodes because people are not yet aware of the importance of high commodes in making accessibility easier.

"Persons with mobility limitations and older people need high commodes to ensure easy access. But in rural areas, most people have low commodes in their houses. It has not been possible yet to provide high commodes because the awareness and the importance of high commodes have not yet developed among people of those areas." (KII_Researcher)

One NGO officer reported that they provided disability-inclusive WASH facilities at schools under their WASH program activities. They provided three chambered toilets, of which one chamber was for persons with disabilities. They constructed the toilets based on the disability needs. Toilets were designed with ramps, hand railings, and high commodes for enhanced accessibility.

"...ramps in toilets to ensure accessibility at the toilet. Usually, toilets are constructed two-chambered, but we construct three-chambered toilets. One is for males, one for females, and a common one for persons with disabilities. This is designed according to the requirements of persons with disabilities. High commode, handle, and other basic needs were considered "(KII_NGO)

4.8 HYGIENE

4.8.1 Bathing facility

4.8.1.1 Access to the Bathing facility

Household bathing facility

Around half of the urban people with and without disabilities bathed using piped or stored water within their dwellings. In contrast, tube wells appeared as the main bathing place for rural households, where around 40% of rural households (with disabilities: 44%, without disabilities: 38%) were heavily reliant on them compared to 21% in urban regions. Furthermore, surface water sources such as ponds, rivers, and canals were mostly common in rural areas (29%) in contrast to urban regions (9%) (Figure 33). However, no difference was observed in terms of using different types of bathing places by disability and ageing. Females with disabilities mostly used piped or stored water in their homes (36%), whereas tube wells were more prevalent among males with disabilities (41%).

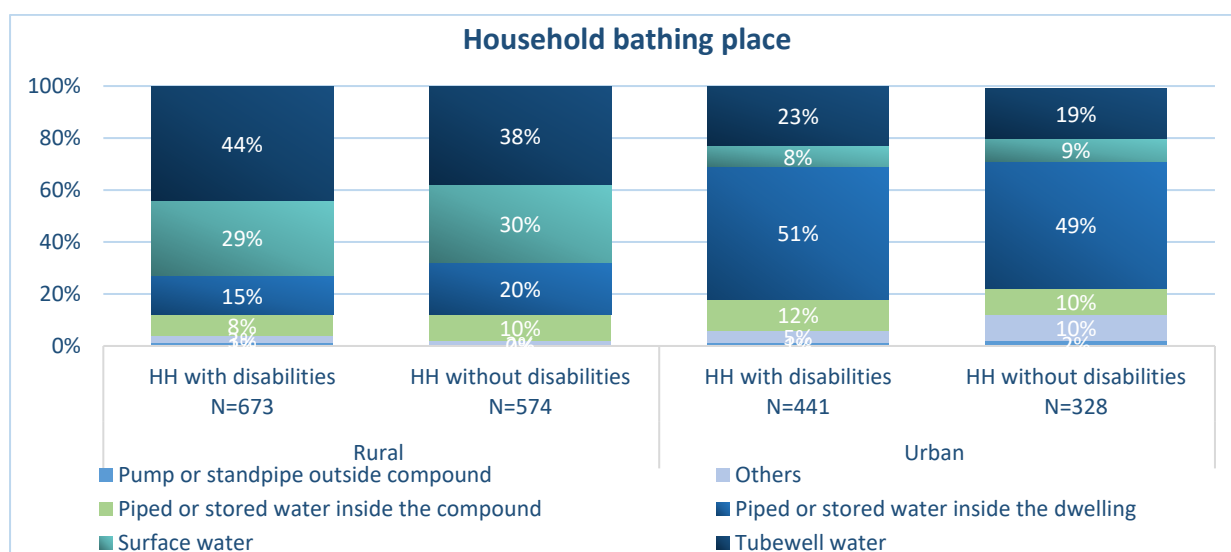


Figure 33: Household bathing place

Most households (around 60%) had smooth and non-slippery surfaces irrespective of region and person's disability status. About 14% of the bathing places had stairs and only 9% had enough space for wheelchair users in households with and without disabilities. It was observed that 38% of the door lock and only 21% of the door handle at households with disabilities bathing places could be easily operated with one hand. In comparison, 6-10% more households without disabilities had easily operable door lock and handle at their bathing place. However, only 2% of the bathing doors at the households with disabilities had enough space for wheelchair access. Non-slippery and visibly clean surroundings inside the bathing place were spot-checked in almost 70% of the households with and without disabilities. 80% of the bathing places had available water, and 54% had cleaning agents in both types of households. One-third of the water drawing mechanism in the bathing places of households with and without disabilities could be operated by one hand. Around 30% of the households (with disabilities: 31%; and without disabilities 27%) bathing places had sitting arrangements. Overall, 71% of the households with disabilities had bathing facilities, and 75% of those with disabilities had available daylight or night light (Table 32).



Figure 34: Bathing places (tubewell and pond) in rural areas

Many people with disabilities (14 out of 33) involved in the qualitative study mentioned the difficulties they faced in going and using their bathing places due to their mobility issues, lack of assistance, fear of falling, fear of animals, bumpy roads etc.

"As a disabled person, it is difficult for me to take water from a tubewell by hand. Sometimes I called my mother or brother to collect water for me. I use the pond, our mosque pond. But the stairs of the pond are very slippery." – Male, Age: 26, Mobility limitations

However, for some persons with disabilities, it was difficult to go to a distant place to take a bath, and some also relied on others to carry their bathing water. One of the people with mobility limitations also mentioned the availability of a sitting place while taking a bath. And most people with disabilities also reported having water and soap available during their bathing time.

"I take a bath sitting on a tool in the yard. My daughter & daughter-in-law bring me water in a bucket. I can't do it by myself. However, rest of the family bathe in the pond." - Female, Age: 55, Mobility limitation

"I can take a bath with assistance and Alhamdulillah (expression of satisfaction) water & soap are always available." - Male, Age: 62, Vision limitation

One of the IDI respondents with vision limitations mentioned that he could easily operate his household bathing place door and lock without taking help from others.

"My toilet and bathing facility are the same... Now it has a plastic door, and the lock is now easy to operate" - Male, Age: 62, Older & Vision limitation

During PhotoVoice, people with various types of disabilities and older people also demonstrated their difficulties in accessing their bathing facility due to the lack of inclusive entry path (uneven route, obstacles on the surface, stairs etc.) (Figure 35).



Figure 35: PhotoVoice images of the non-inclusive entry path of the bathing place for persons with disabilities and older people

Figure 36 includes two PhotoVoice images of Morsheda and Faruque, highlighting their diverse struggles in reaching and using their bathing places. Morsheda, a female with mobility limitations, explained her difficulties in using their village pond for bathing. The stairs on the pond side are steep, narrow, and uneven, making it challenging for her to come up or go down. Additionally, she became filthy while dragging herself up from the pond and needed to clean herself afterwards upon returning to the house.

"It is very difficult for me to go down or come up through the stairs of the pond side when I go for bathing. Even after the bath, I become filthy again by dragging myself up from the pond and I need to get myself clean returning to the house again." - Morsheda, Female, Mobility limitation

Faruque, an older person living in a slum, also demonstrated his experience of reaching the distant bathing place. Due to his mobility difficulties he couldn't walk properly and it was physically strenuous and exhausting for him to drag his leg along the entire path, which exacerbated his limited mobility.

"The bathing place is quite far from my house, I have to drag my leg the whole path to reach the bathroom and I suffer for this." - Faruque, Male, Older & Mobility limitation



Figure 36: PhotoVoice images of female and male with mobility limitations showing their difficulties in accessing their bathing facility

Individual accessibility of the bathing place

Nearly 10-15% of people with disabilities and older people couldn't use the same bathing place as other members of their household (Figure 37). Older people with disabilities (80%) were 4 times less likely to use the same bathing place as compared to younger persons with disabilities (96%). Among people with disabilities, those who had limitations with mobility, communication and self-caring were 2-4 times less able to use the same bathing places compared to people with other types of functional limitations. A significant association was observed between people with disabilities ability to use the same bathing place and their socio-economic status. People with disabilities who belonged to the 3rd and 5th quintiles were more likely to use the same bathing place as other members of their households (Table 33, Table 34, Table 35).

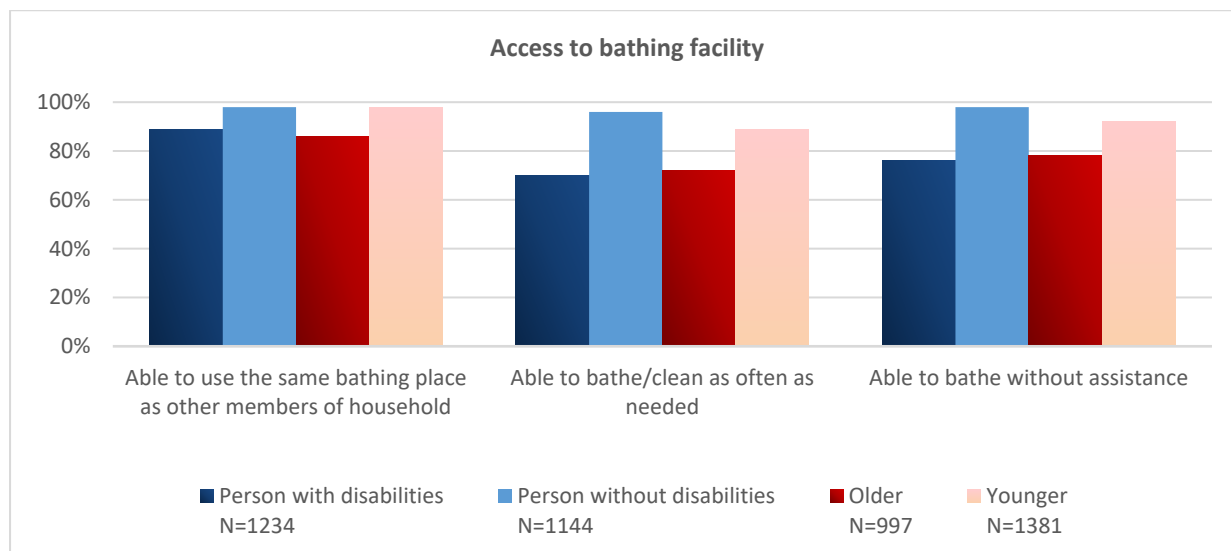


Figure 37: Individual access to bathing facility

People with disabilities (72%) and older people (around 75%) were less able to bathe without assistance and as frequently as they needed compared to people without disabilities (100%) and younger people (90%). In comparison to other types of disabilities, people with self-care (around 33%) and communication (around 50%) limitations could bathe independently and as often as they needed. People with visual limitations were more likely to be able bathe without assistance and whenever they required in contrast to people who do not have vision limitations. Younger people with disabilities were significantly less likely to require assistance for bathing and were more able to bath/ clean themselves as often as they needed. No significant association was observed with their ability to bathe/clean without taking assistance by their gender, types of living area, and socio-economic conditions (Table 34, Figure 38).

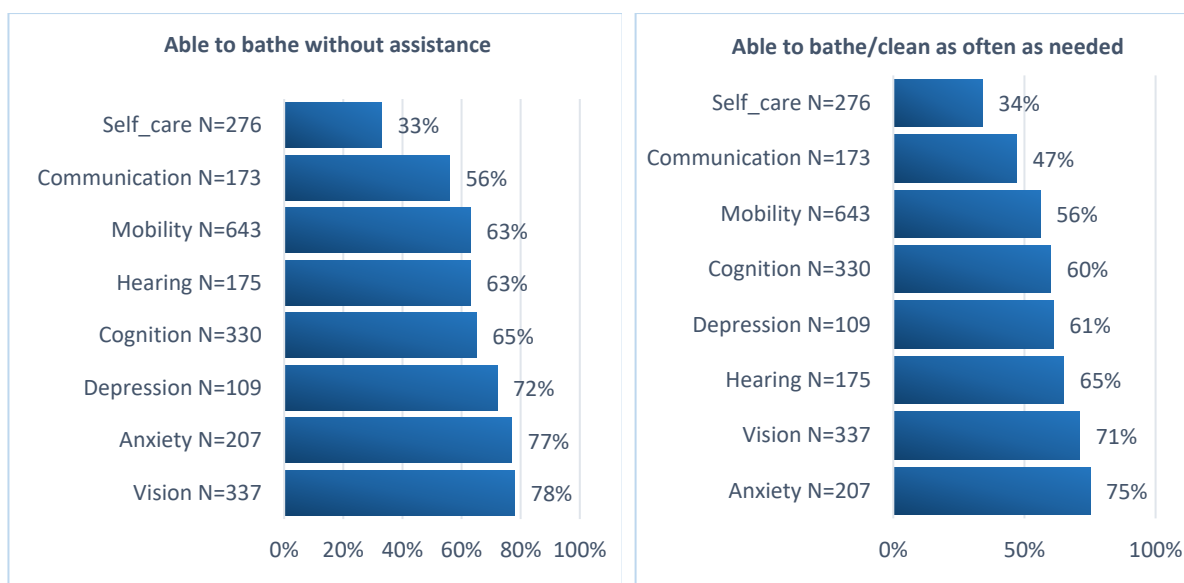


Figure 38: Accessibility of bathing place by types of disability

Barriers in using the same bathing facility as household members

Among people with disabilities, the most common barriers for not using the same facilities were people's physical abilities (93%) and the difficulties felt by their caregivers (31%). Around 50% of the people with communication difficulties relied on their caregivers, enabling them to use the same bathing facility. Inaccessible locations or paths also other barriers for older people (13%) for not using the same facility. Lack of physical strength (92%), difficulties for caregivers (33%), and existing health conditions (25%) were the prominent reported barriers among people with disabilities and older adults for not being able to bathe/clean as often as they required (Table 33, Table 35). Around half of the people who had depression (50%) and communication limitations (42%) were mostly unable to bathe as often as they needed due to their health conditions (Table 38).

During in-depth interviews, the older persons and people with disabilities also highlighted their challenges in maintaining daily wash activities due to their several kinds of physical constraints. Due to their joint pain, dizziness, hand pain, lack of strength in their arms, crooked fingers, mobility issues, and other difficulties, most (13 out of 20) of the people with disability and older adults required some level of assistance from family members to complete their bathing activities.

"I can't change my clothes and clean myself. I can't do anything on my own. They comb my hair, and oiled it. They wash my clothes always. Hmm, I have pain in all joint of my finger. My fingers are crooked". Female, Age: 55, Older & Mobility limitation

"I bathe on my bed, using a polythene. I can't lift water mug/buckets, so my mother helps..." - Male, Age: 20, Mobility & Self-care limitation

Some reported dependence on family members for various tasks, including fetching and pouring water, assisting in taking to the bathing place, washing bodies with soap, wiping bodies, laundering cloth, dressing them and bringing them back to the home. Furthermore, some people with disabilities also mentioned that when their caregivers were absent due to work, they had no choice but to wait for them, or sometimes they tried to take a bath on their own, no matter how challenging it may be.

"I put my dependence on her shoulder, and she helps me to go to the tubewell. After going there, she filled the bucket with water. Using the mug, she pours my body with water and soap. That is how she helps me to complete my bath". - Male, Age: 26, Mobility limitation

During PhotoVoice, Israil, a male with mobility limitations, focused on the formidable challenges he faced during bathing. Due to his health condition (high blood pressure), he had to take bathe every

day. But he couldn't walk alone to the tubewell, and pressing the tubewell handle and pouring water on him was arduous. His photo demonstrated his reliance on caregivers for taking baths (Figure 39).



Figure 39: Person with mobility difficulties demonstrating their inability in taking bath independently. Caption- "Inability to bath without assistance". ©Israil Pramanik

Two males with disabilities also mentioned their difficulties using the shared bathing place, since many people used the same bathing place, they had to wait in a queue to bathe.

"I am going to the bathroom, but someone else is already there. Then I returned to my room and had to wait. After they came back, then I went to the bathroom". -Female, Age: 72, Older & Vision limitation

Another people with disability said that he often takes a bath after two or three days because he feels that his caregiver takes a lot of trouble to do this which he does not want to give her.

"I can't take a bath without hot water. I need an assistant with me. I thought no need to give trouble to somebody; After the bypass, my sister from the heart foundation told me to take a shower every day. But I don't do it every day; I take a shower in every 2/3 days". - Male, Age: 62, Mobility limitation

Safety issues in bathing place

88% of the people with disabilities and older adults reported feeling safe when going to the bathing place. No significant difference was observed between people's feelings of safety and their gender, age, and region. Among people with disabilities, a slightly higher percentage of people with communication limitations (17%) and anxiety conditions (19%) reported feeling unsafe when going to their bathing place compared to other types of disabilities. More than half (55%) of the people with disabilities mentioned the lack of enough privacy at the bathing place as the primary reason for them feeling unsafe. However, insufficient privacy was a notable concern among female (63%), younger (68%), and urban (65%) people with disabilities. Among male (49%, 34%, 32%, 26%) and rural (52%, 24%, 21%, 33%) people with disabilities, the inaccessible path of the bathing place (e.g. Uneven and slippery road), water clogged or muddy area, inaccessible area of the bathing place (e.g. Lack of wheelchair access, uneven surface), and distance of the bathing place were also collectively influenced their feeling of insecurity in going to the bathing place. However, lack of adequate privacy (57% and 79%) and distance of the bathing place (around 50%) made those individuals with anxiety and depression feel uncomfortable the most (Table 33, Table 35, Table 36, Table 37, Table 38).



Figure 40: A bathing place in rural area without proper privacy ©Faisal Rahman

From the qualitative interviews, 12 out of 20 people with disabilities mentioned safety issues regarding their bathing place. 7 IDI participants felt unsafe due to the slipperiness of the bathing place, and another 2 mentioned the stairs and fear of being chased by stray animals. Furthermore, 2 of the female respondents feared being watched by others while bathing or changing.

"I love to bathe in the pond. I have to go there with someone because I can't swim. Nevertheless, in the presence of any male person at the pond, my family members (mother, sister or sister-in-law) brings water from the pond, and I bathe inside household." - Female, Age: 27, Mobility limitation

"I take bathe on the tube well, and it's a common place. There are fences around the tube well, but no roof. As there are tall buildings around the tube well, I fear that anyone can see me from their balcony." - Female, Age: 40, Vision limitation

Satisfaction with the bathing place

Around 65% persons with disabilities (63%) and older people (67%) were satisfied with their bathing place compared to a 76% of those without disabilities and 71% of younger people (Table 33, Table 35). Urban people with disabilities (67%) expressed slightly more satisfaction level than their rural comparisons (60%) (Table 36). Noticeably, bathing place satisfaction also showed significant variations based on people's socio-economic status. People from the richest socio-economic groups (79%) showed nearly doubled satisfaction compared to those from the poorest quintile (48%) (Figure 41).

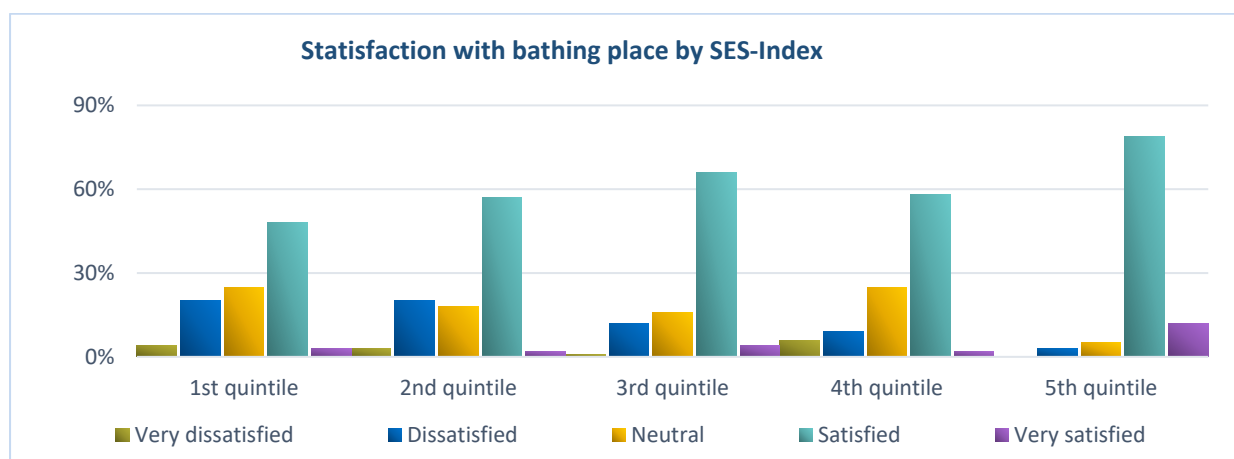


Figure 41: Level of satisfaction with the bathing place by socio-economic status

Modification or key future adaptation required for the customized bathing facility

To improve their bathing place accessibility people with disabilities from both urban and rural regions required improve material quality of the bathing place, availability of the water, improved privacy of the infrastructure, improved seating facility, increased space inside the bathing place and improved path. However, these key adaptations or changes were more likely required by rural people with disabilities compared to the urban people with disabilities (Figure 42).

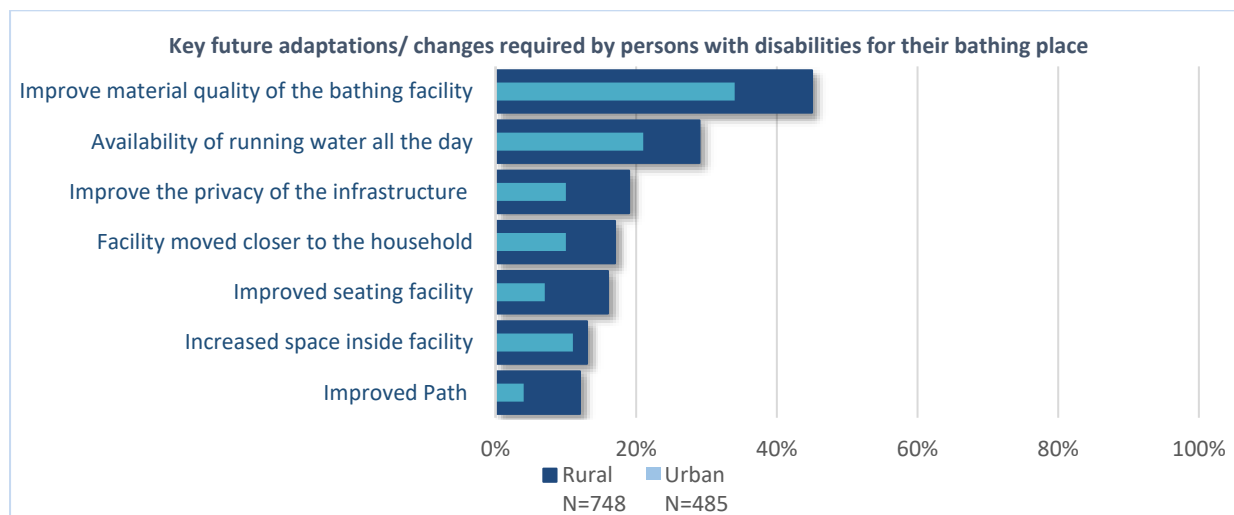


Figure 42: Key future adaptations/ changes required by persons with disabilities for their bathing place

Qualitative interviews also found the need of similar structural improvements, along with availability of water, soap and adequate safety as found in the quantitative surveys.

"If I had a washroom with a bar and ramp system, I could take her in a wheelchair, which would have been convenient. But the system is not available. And for that I can't enter the wheelchair into the washroom." - Female, Age: 27, Mobility limitation

Chadni, demonstrated in her photograph how challenging it may be for someone with visual limitation to perform basic tasks like finding the bathroom's hand shower, mug, water tap and bucket while taking shower. She further expressed that if there could be an available device or system to locate such items, it would be a tremendous assistance for people with vision limitations, and would save them from the difficulty they presently go through just to use the bathroom comfortably (Figure 43).



"Often it is challenging for me to identify the hand shower, mug, water tap, and bucket in the bathroom. If there is any system to spot these things in the toilet, it would be helpful."

Figure 43: PhotoVoice images of @Chadni, a female with vision limitation exhibiting her difficulties and expressing the need for future adaptations for easier use of the bathing place. Caption- "It is difficult for me to find the water tap and bucket in the bathroom".

4.8.2 Handwashing

4.8.2.1 Access to the handwashing facility

Types of handwashing places

More than 60% of households with and without disabilities had access to JMP defined limited handwashing facilities, and this rate is slightly higher in urban areas (85%) compared to rural areas (80%). In rural areas, most people in households with and without disabilities washed their hands beside the tubewell/ tap in their yard (with disabilities 68%, without disabilities 63%). Two-thirds of rural households used it as one of the prevalent handwashing places compared to 44% in urban households (both with and without disabilities). However, a significant number of urban households with and without disabilities (70%, 76% respectively) mostly washed their hands inside their household (either in toilet, kitchen or basin). Around 40-47% households were observed to have handpump/ tubewell, water bucket, regular tap as their water sources at the handwashing place irrespective of region and disability (Figure 44, Table 39).

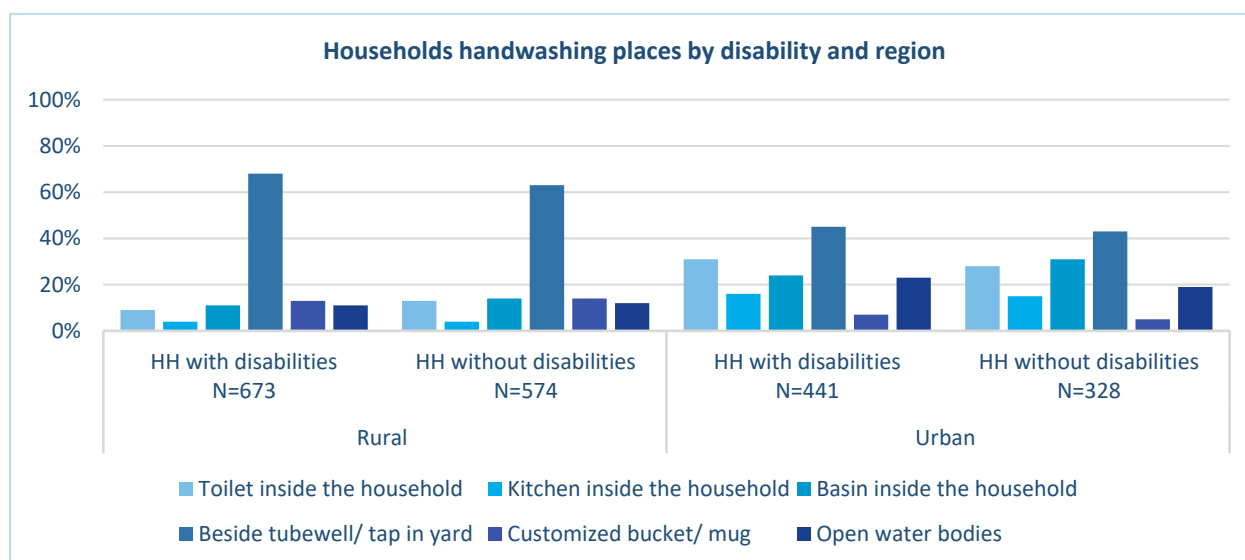


Figure 44: Household with and without disabilities handwashing places by region

Handwashing practice

More than 90% of people practiced washing hands after defecation regardless of disability and ageing. Approximately two-thirds of people with disabilities and nearly 90% of those without disabilities wash their hands after handling garbage. However, fewer people with disabilities (25%) and people without disabilities (34%) wash their hands before preparing meals; older people (16%) are much less likely to do this than younger people (38%). Similarly, approximately a quarter of people with disabilities and roughly a third of those without disabilities practice hand cleanliness during and after the preparation of meals. After feeding, handwashing rates were noticeably lower; only 14% of people with disabilities and 10% of older people opt for handwashing compared to about 25% of people without disabilities and younger people (Figure 45). 80% of people wash their hands with soap, although people with disabilities (79%) were slightly less likely to wash hands with soap than those without disabilities (87%).

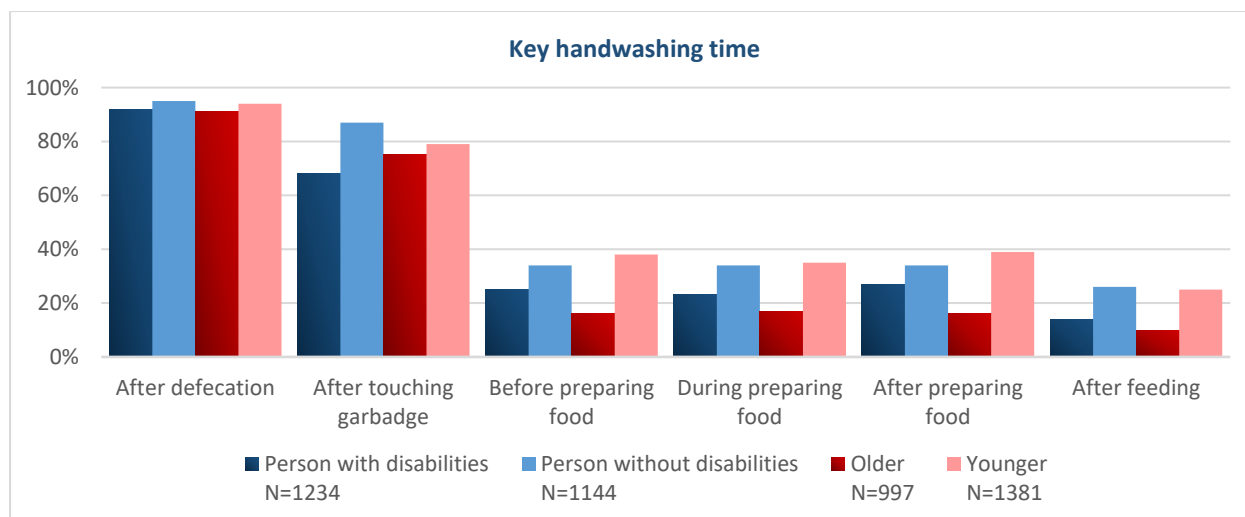


Figure 45: key handwashing times by disability and ageing

According to the in-depth interviews, the majority of participants (14 out of 20) said they use soap or detergent powder after using the toilet, while only 2 respondents said they use ashes. Some of them claimed to wash their hands with soap, but when soap was unavailable, they merely cleaned their hands with water.

"Soap and tissues are available. After defecating, I can clean myself with the soap that she (His wife) puts inside the toilet." -Male, Age: 78, Older & Mobility limitation

"...can wash my hands on my own. I wash my hands in front of the door using soap. If soap is not available, I wash my hands only by water." - Female, Age: 55, Mobility limitation

Our qualitative research revealed (in-depth interviews) that 17 out of 20 individuals use soap to wash their hands while maintaining personal hygiene. However, most of the time people with disabilities relied on their family members for purchasing soap, and the economic situation occasionally made it difficult for them to acquire hygiene products.

"Soap and detergents are not available, I bring those occasionally from others (neighbors) ...do not have enough money to purchase them." - Male, Age: 65, Mobility limitation

One DPO official reported that under their SRHR project, they provided handwashing materials (soaps and sanitizers) to people with disabilities.

"We gave them soaps, hand sanitizer along with contraceptives under our SRHR project." (KII_DPO)

An older female and male also exhibited their happiness of being able to wash their hands with soap during the PhotoVoice demonstration (Figure 46).



©Anjali Debi

©Hossen Ali

Figure 46: PhotoVoice images of an older female and male sharing their happy moments of being able to wash hands with soap. 1st image Caption- “Washing hands with soap”, 2nd image caption- “Able to wash hands”

Individual accessibility of the handwashing facility

People with disabilities (88%) could not use the same handwashing facility as other household members. Similarly, they were less likely to be able to wash their hands without assistance and whenever needed compared to those without disabilities (100%). Among persons with disabilities, people who belong to the middle and highest economic groups were more likely to be able to use the same handwashing facilities as other members of their households. Around 13% fewer persons with disabilities (86%) could reach their handwashing agents without taking assistance from others than those without disabilities (99%). Younger (36-59 years) with disabilities were significantly 85% less likely to take assistance while washing hands than older people with disabilities. Similarly, older people have less access to the handwashing facility compared to their counterparts (younger people). Rural (around 85%) and males (around 82%) with disabilities were less able to wash their hands independently and as frequently as required compared to the urban (90%) and females with disabilities (90%). Among persons with disabilities who had functional limitations with self-caring (around 60%), communication (63%-74%), mobility (77%) and cognition (77%), were significantly less likely to be able to use the same facility, wash their hands whenever they needed and reach the cleaning materials without depending on others (Figure 47, Table 41, Table 42, Table 43, Table 44, Table 45, Table 46).

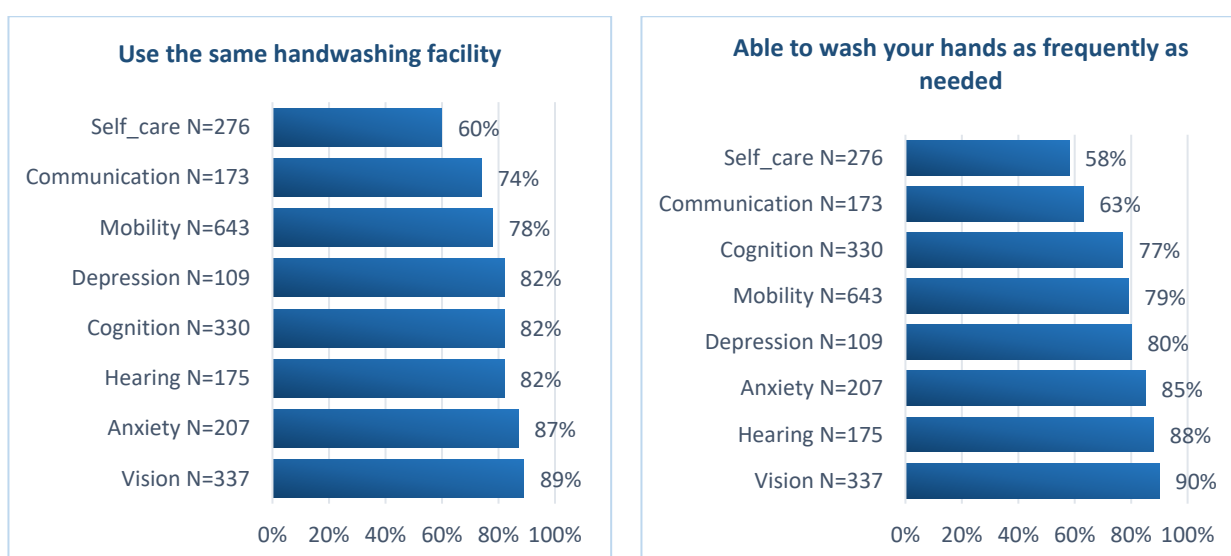


Figure 47: Accessibility of handwashing place by types of disability

While delving into the underlying causes, lack of physical strength (96%) and difficulties posed by the unavailability of caregivers (around 55%) were the most prominent barriers reported by persons with disabilities and older people, closely followed by inaccessible handwashing locations (22%), lack of safety and comfort (22%), and the inability to use it whenever required (12%). However, people with disabilities (68%) were slightly less satisfied with their handwashing places than those without disabilities (82%) (Table 41, Table 42).

Twenty-one persons with disabilities and older adults reported needing the caregiver's assistance to wash their hands, whereas 12 participants could do it on their own using water and soap, according to 33 IDI respondents. People with disabilities and older people mostly relied on their caregivers to get to where they could wash their hands, provide them with water and hygienic items like soap, and pour water for washing hands. They were assisted by family members in cleaning their hands after eating and defecating.

"I cannot go outside... cannot use the tube well. My son collect water from the nearby tube well and store inside my room. using the water and soap I wash my hands after eating and defecation" - Male, Age: 56, Older People

"My wife assists me while washing my hands, faces, and bathing.... She had to apply both soap and pour water for washing." - Male, Age: 43, Mobility & Self-care limitation

There were 33 participants in the qualitative interviews, and 20 of them reported having difficulties in accessing and reaching the hand washing stations and hygiene products due to mobility and self-care disabilities. They required help to move toward the handwashing stations because of their physical limitations. In most of the cases, their family members provided them water and cleaning supplies.

"I can't do anything (Cleaning hands, Face) on my own. Family members especially my wife brings water in a mug and wash my hands, face inside the household. However, previously when I was in good health, I used to use the same handwashing place as others (family members)" - Male, Age: 56, Self-care limitation

20 out of 33 respondents (people with disabilities and older adults) stated that the paths of the handwashing places posed barriers to reaching the place. One person with vision limitation mentioned that the route to their handwashing place was challenging (uneven and narrower) for him, and no convenient spot was available at the handwashing place to keep the hygiene materials. In such a situation, he required assistance from others to get to the place and wash his hands.

"My handwashing and bathing place are same. I face difficulties as the road is not flat, and sometimes, I stumbled. The place is too narrow...no place to keep the soap." - Male, Age: 55, Vision limitation

In PhotoVoice, an older adult with mobility difficulties also expressed his difficulties in washing hands after taking meals (Figure 48).

"I have to wash my hands after finishing my meals. I sat on my bed, unable to move for the purpose of washing my hands and face. That is indeed an obstacle since I can't go to the washroom to do these things." Siddikur Rahman, Older & Mobility limitation



Figure 48: PhotoVoice caption- "Washing hands is a challenging task". ©Siddikur Rahman

One NGO official from key informant interviews reported that they provided customized safe drinking water sources and handwashing point in schools under their WASH and MHM program focusing on people with disabilities. Under this intervention they provided three basins for washing hands and collecting water. Among these three basins, two basins are of 3 feet height and the another one is designed with low height specially for persons with disabilities who have physical limitations.

"We installed three basins of which two basins are 3 feet, and one basin is of low height for people with disabilities as they can be small in height or may not stand still for physical limitation, so they can use this." (KII_NGO)

Satisfaction with the handwashing facility

Among people with disabilities, people who had vision limitations (78%) were comparatively more satisfied with their handwashing places rather than other types of disabilities. People with communication limitations (54%) were less likely to be satisfied with their handwashing place compared to people who had other types of functional limitations. Furthermore, a significant positive association was also revealed between individual's satisfaction level and their socio-economic status. The poorest group of people expressed lowest satisfaction (45% and 57%) with their handwashing places, which gradually increased as their socio-economic status increased irrespective of their disability. Persons with disabilities from the richest quintile (91%) showed nearly twice as much satisfaction as those from the poorest quintile (45%) (Figure 49).

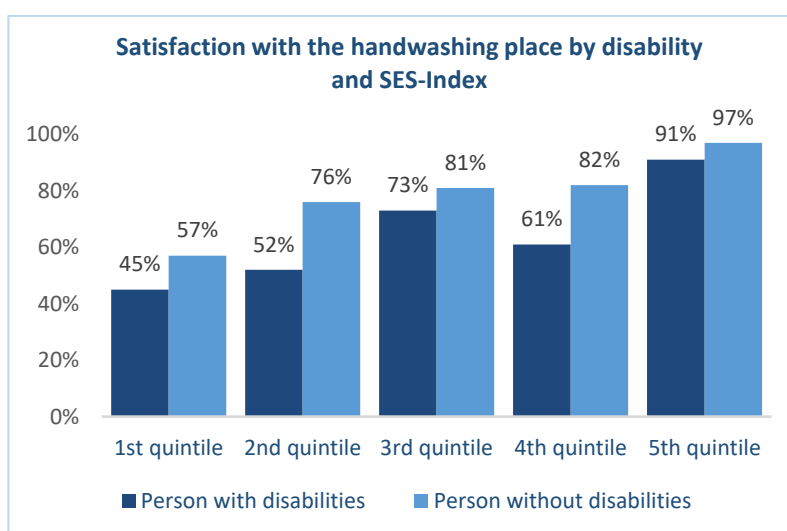


Figure 49: Satisfaction with the handwashing place by disability and socio-economic status

4.9 MENSTRUAL HYGIENE MANAGEMENT

38% of persons with disabilities and 41% persons without disabilities reported to have menstruation (either in days ago/ weeks ago or months ago) (Table 6).

Table 6: Menstruation status by disability

| Current menstruation status | Person with disabilities | | Person without disabilities | | Total | |
|------------------------------------|--------------------------|----|-----------------------------|----|--------|----|
| | N=694 | | N=661 | | N=1355 | |
| | n | % | n | % | n | % |
| Months ago | 55 | 8 | 42 | 6 | 97 | 7 |
| Years ago | 26 | 4 | 23 | 4 | 49 | 4 |
| In Menopause/ Has had hysterectomy | 403 | 58 | 288 | 44 | 692 | 51 |
| Before the birth of my child | 0 | 0 | 6 | 1 | 6 | 0 |
| Never Menstruated | 3 | 0 | 3 | 1 | 7 | 1 |
| Days ago | 136 | 20 | 210 | 32 | 346 | 26 |
| Weeks ago | 70 | 10 | 89 | 13 | 159 | 12 |

Menstrual product uses at home

During their last menstruation, 94% (people with disabilities: 92%, and people without disabilities: 96%) reported using menstrual products at home. Among those, more than 50% of females (58% with disabilities and 55% without disabilities) reported using cloth/towels at home during their last menstruation. Furthermore, cloth/ towel was the most prevalent choice among rural females with disabilities (71%) and without disabilities (54%). Similarly, half of the urban females also preferred to use cloth/towels while staying at home, and around 38% opted for disposable sanitary pads irrespective of disability status. Use of period underwear was more prominent, particularly in urban regions (20%) compared to rural areas (around 5%) (Figure 50).

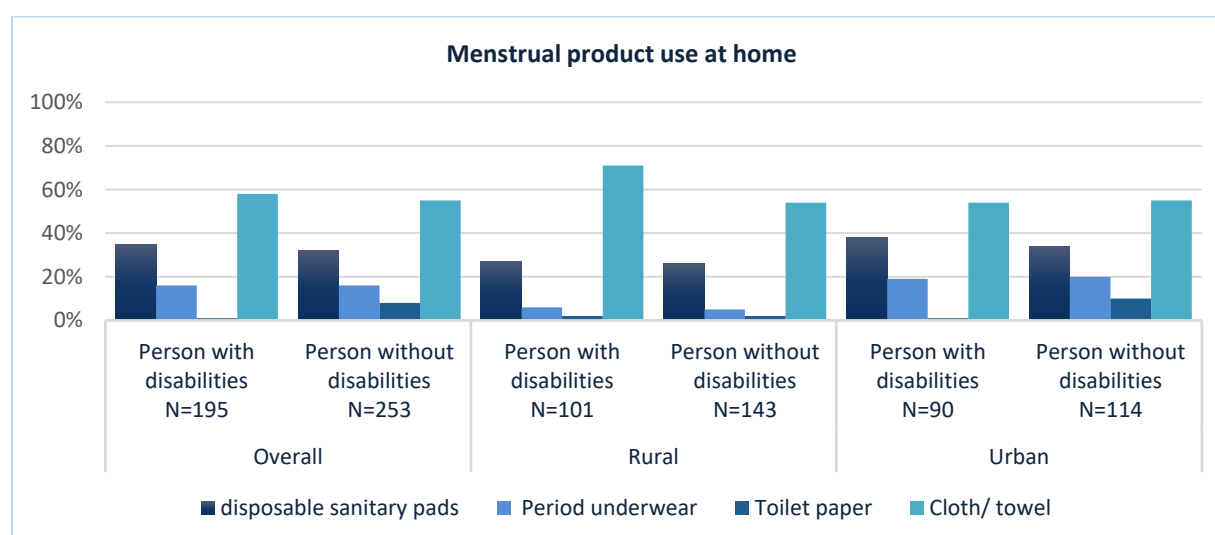


Figure 50: Menstrual product use at home

Among the five IDI participants regarding menstrual hygiene management, 3 reported to use cloths and 2 reported using sanitary napkins as their menstrual products. Easy to prepare, availability, and cost effectiveness were the most considered factors for cloth users, as most of the cloth pads were made of used old cloths and often prepared by the users at home.

"your aunt (indicating her mother) made enough clothe to use as pads...while the used pads are being washed and left drying, there still remain more to use... She made these clothes by cutting maxis (Old used clothing)."- Female, Age: 25, Mobility & Self-care limitation

Two of the IDI participants mentioned financial constraints that limit them from using sanitary napkins; instead they use self-made cloth pads.

"I only use cloth, (sister)... actually... I don't have money to buy a pad"- Female, Age: 40, Vision limitation

One of the participants mentioned that her elder sister taught her to use the sanitary napkins, as this is more hygienic and user friendly.

"Initially, I used cloths, ... My sister had attended a meeting in the adolescent center. She told me to use pads ... I started using sanitary pads afterward." - Female, Vision limitation

Through PhotoVoice, Nurjahan, an urban resident with mobility issues also emphasized the significance of using disposable sanitary napkins for effective menstrual management. She noted that she had easy access to these hygiene goods because she lived in an urban location. During her period, she could easily purchase these hygiene goods on her own or with assistance from her supportive family, particularly through her brother. Her menstrual period was easy and comfortable because of this privilege and supportive environment (Figure 51).



"Sanitary napkins are very important items for menstruation management. As I reside in an urban area, I have easy access to napkins whenever I need them, and since my family setting is welcoming, I can also buy sanitary napkins through my brother as well."

Figure 51: PhotoVOICE image of ©Nurjahan, expressing her happiness regarding in easy access of sanitary napkin. Caption- "Availability of menstrual products"

One DPO official reported that women with disabilities were more vulnerable during COVID-19 regarding menstrual hygiene maintenance. So, they provided sanitary pads to them free of charge through agencies.

"During COVID time, they (women with disabilities) were not much active regarding MHM. We provided pads through agency. We gave that directly for free to the persons with disabilities".
(KII_DPO)

One of the researchers from the key informant interviews also reported that using cloths as menstrual hygiene products without maintaining proper hygiene is prevalent in rural areas of Bangladesh. The reasons behind this were lack of awareness, and proper knowledge regarding MHM. In rural and hard-to-reach areas, both the people with disabilities and people without disabilities face many difficulties

due to the unavailability of menstrual products. Moreover, due to poor socio-economic status, it was hardly possible for many women to buy and use sanitary pads.

"Using clothes is not bad...but in our country, it is used without proper hygiene maintenance. those who live in urban areas can access facilities or they are receiving... but those who are at hard to reach areas or haor areas...or those who live in char areas or the mountain areas. They can hardly access menstrual pads as the availability is low there ...and it is very difficult to afford pads in villages, in coastal areas." (KII_Researcher)

Menstrual product (reusable and disposable) management at home

A significant proportion (91%) of females also showed the practice of washing and reusing menstrual materials during menstruation. Urban persons with disabilities (96%) were more likely to wash and reuse their menstrual hygiene products compared to rural persons with disabilities (72%). However, no noticeable difference was observed among persons without disabilities across regions (rural: 83%, urban: 88%) (Figure 52).

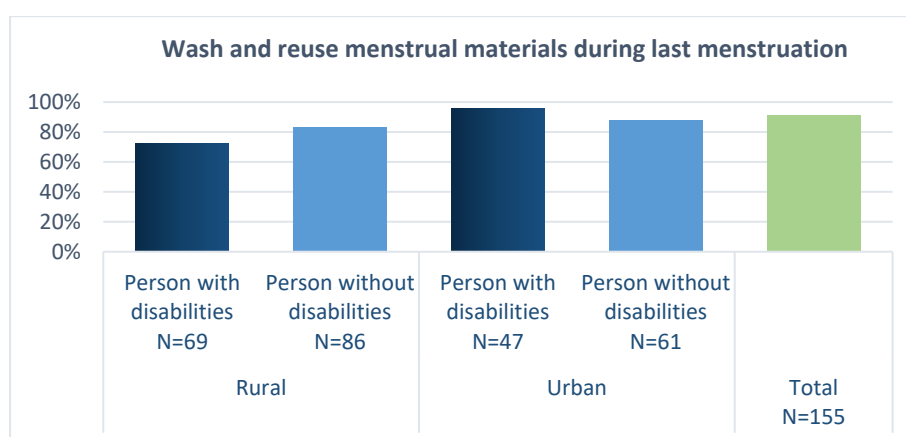


Figure 52: Wash and reuse menstrual materials during last menstruation

Across all groups (by disability and region), changing menstrual products 2-3 times on the heaviest period day was the most common (26-48%) practice. Among rural individuals, 3 times (around 40%) was the predominant choice of product change, followed by 2 times (around 28%), irrespective of their disability status. In urban areas, half of the females with disabilities changed their menstrual products twice on their heaviest period day, while one-third females with disabilities changed it 3 times. In urban regions, those without disabilities also showed similar trends. Besides, women mostly (83%) used their latrine to change their menstrual materials while staying at home. This choice of changing place was similarly the most prevalent across all groups, irrespective of disability and regions. However, all (100%) urban females without disabilities changed their menstrual materials at the household latrine, while 83% of urban females with disabilities considered the latrine as their primary changing room, followed by the bedroom (13%) while staying at home. Although household latrine (65%) emerges as the primary changing location for rural females with disabilities, around 33% used either a bedroom or bathroom (separate from the toilet) as their product changing room. However, latrines (41%) or bedrooms (33%) were the preferred changing place among those with self-care limitations.

Urban females with disabilities (89%) were more likely to soak their reusable menstrual materials while washing compared to rural persons with disabilities (64%). All of them (100%) used soap or detergent to wash or soak their menstrual products in both urban and rural regions, while half of the urban and one-third of the rural persons with disabilities hung these materials inside their household hiddenly. In urban areas, those who used non-reusable materials, half of the them disposed those with the household rubbish (bin not in latrine) and others took those to community rubbish, some buried/ bushed their used products. While in rural areas, females with disabilities mostly disposed of their used products in the community rubbish (36%), followed by burying/ bushing them (22%) (Table 48, Table 49).

Participants from IDIs (PWDs and Caregivers) mentioned that they usually wash themselves/the dependents and their reusable cloth pads using soap and water.

"I change the cloth, and my mother take care of the rest. She washes the cloths, dries, and brings them back after drying." – Female, Age: 24, Mobility & Self-care limitation

One participant with vision limitations also mentioned the difficulties of washing the used cloths by herself.

"It is difficult for me to clean it (cloth). I clean it (cloth) with water and wheel powder (detergent)...I rub the clothes on the floor with my feet ... sometimes the smell (odor) still remains and I soak this in soapy water and rub this with my hands...since I can't see it, I face difficulty...." - Female, Age: 40, Vision limitation

During PhotoVoice, Chadni, a female with vision limitations, also highlighted her difficulties regarding menstrual products management while staying at home. She noted that for people with vision limitations, menstruation posed additional challenges. During her menstrual cycle she couldn't easily recognize blood stains on her clothes, as she couldn't see it. This often led to an embarrassing moment and made her uncomfortable, especially if someone else pointed out the stain before she noticed it (Figure 53).



Figure 53: PhotoVoice image of @Chadni exhibiting her difficulties in maintaining menstrual hygiene management at home. Caption- " While menstruating, if my clothes get stained with blood, I cannot recognize it, and then others see it."

From the qualitative interviews (IDIs), 2 females with disabilities mentioned bathrooms as preferred places for changing menstrual products, while two used bedrooms to change their menstrual products. Their preferences were shaped by their convenience and feelings of safety and security. Some of them mentioned the bathroom has a lockable door and they feel safe there, while respondents with mobility problems find it convenient to change their menstrual cloth in the bedroom as it is hard for them to move to any other places. On the other hand, some mentioned a lack of privacy in their bedrooms, as they feared being watched while changing their menstrual products.

"I feel scared in the room; what if someone enters my room, usually, no one comes. I have a small brother; if someone gets in, I go to the bathroom, lock the door, and change the pad. I keep the used pads in a polythene bag and later throw it in the pond at night." - Female, Mobility Limitations

Nurjahan, a PhotoVoice participant with mobility limitations, highlighted her struggles with discarding used commercial sanitary pads during her menstruation. She explained that she was unable to properly dispose the used pads because of her mobility difficulties. She was left no choice but to keep those used pads hidden in her room corner or the bathroom till her menstruation period was over. She disposed of all those stored pads that were accumulated when the period was over. However, she felt unhealthy and unhygienic because of these circumstances. Her experience highlights the need for

accessible and dignified solutions for females with mobility limitations, ensuring hygiene and comfort in their daily routines (Figure 54).



Figure 54: ©Nurjahan expressing her difficulties in disposing the menstrual products. Caption-"Unhygienic"

Challenges in maintaining sanitation and hygiene practices during menstruation at home

During menstruation, all persons with and without disabilities could use the same sanitation place for urination as other times and use the same latrine as men/ boys. In both urban and rural areas, persons with disabilities (urban: 90%; rural: 99%) could use the same facilities as other females to change their menstrual products (Table 7). However, 12% of persons with disabilities reported needing assistance in changing, washing or disposing of their menstrual materials, and most of them (92%) were assisted by adult females. Among persons with disabilities, people with communication (41%) and self-care (50%) limitations were more likely to need assistance in maintaining their menstrual hygiene management (changing, washing or disposing of materials) compared to people with other types of limitations (vision, hearing, mobility, and cognition) (Table 51, Table 52). Over 80% of people with and without disabilities generally wash their hands after changing menstruation products, although fewer people with disabilities (58%) than those without disabilities (80%) practice hand washing prior to changing menstrual products. Half of those with and without disabilities used soap to wash their genitalia during menstruation (Table 48, Table 49, Table 50).

Table 7: Sanitation practice during menstruation by disability and region

| Indicators | Rural | | | | Urban | | | |
|---|--------------------------|-----|-----------------------------|----|--------------------------|----|-----------------------------|-----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | |
| | N=101 | | N=143 | | N=90 | | N=114 | |
| During menstruation, | n | % | n | % | n | % | n | % |
| Use the same toilet for urination as other time | | | | | | | | |
| Never | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 0 |
| Sometimes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Every time | 99 | 99 | 140 | 98 | 90 | 99 | 114 | 100 |
| Being able to use the same toilet as men/ boys | 100 | 100 | 140 | 99 | 83 | 91 | 115 | 100 |
| | N=95 | | N=129 | | N=81 | | N=110 | |
| Use the same facilities as other female at home to change menstrual products | 93 | 99 | 126 | 98 | 74 | 90 | 111 | 100 |

Three out of five IDI participants mentioned being restricted by their caregivers/ family members from roaming around and eating certain foods during menstruation. One participant said that she was strongly forbidden to visit cemeteries, particularly areas with long trees, whereas the other mentioned not eating any food without a shower. Similarly, one respondent with vision impairments also mentioned that her mother restricted her from eating sour food during menstruation. Her mother explained that these types of food might exacerbate the menstrual symptoms such as pain.

"They (Indicating family members/ caregivers) don't allow me to go anywhere. For example, they don't allow me to see any dead person, or visiting any graveyard...they forbid me to pass under long trees. They just tell me not to do those and I will be safe. I always lie down at home...." - Female
Age: 25, Mobility limitation

One IDI participant mentioned that during menstruation her mother forbade her from taking any medication to alleviate menstrual discomfort. Instead, her mother advised her to use hot water as an alternative treatment. 2 females with mobility limitations stated that they did nothing to alleviate their pain, presuming that it would subside on its own after some time.

"To reduce the menstrual pain, I want to take medicine but my mother doesn't allow it because I might get used to it later. So, I use hot water." - Female, Vision limitation

Modification or key future adaptation regarding menstrual hygiene maintenance

Approximately half of the female with disabilities reported not requiring any future adaptations/ changes to make their menstrual maintenance easier at home, in contrast with 38% of those without disabilities. However, over 20% of females with disabilities emphasized the need for affordable menstrual products and separate changing areas with privacy guarantees (25%). Similarly, a group of them (15%) focused on accessible disposal systems and changing room safety. Need for a separate changing room/toilet were more commonly required by female with vision (51%), cognition (42%) and self-care (36%) limitations. Notably, females with anxiety (71%) and depression (80%) were less likely to look for such adaptations. Conversely, those with vision limitations (71%) expressed a greater need for future adaptations/ changes for their easier menstrual hygiene management. On the other hand, females without disabilities generally desired (35–45%) affordable menstruation products, separate changing room ensuring privacy, and designated drying areas for menstrual products (Table 51, Table 52).

In PhotoVoice, Eti, a female with mobility difficulties also expressed her challenges in maintaining (wearing, changing, and washing menstrual materials) traditional clothes during her menstruation due to her dependency on her caregiver. In contrast, she noted that she was comfortable using menstrual pads as she could conveniently use and dispose of them independently without others' help. She emphasized the importance of affordable, available, and accessible menstrual pads in rural areas to support women's comfort and independence during their menstrual period (Figure 55).

"Using cloth during my period is challenging for me since I have to rely on my family members to wash the dirty cloth, that's stressful for them. While I can use and dispose of menstruation pads anytime I need and also without any assistance, I am at ease with this."- Eti, Female, Mobility limitation



Figure 55: PhotoVoice caption- "Benefits of menstrual pad for health". ©Eti Khatun

Regarding the adaptations for making menstrual hygiene management easier, one researcher from the KII stated that the situation during menstruation is exacerbated in cases of women with disabilities as they need to depend on their assistance for accessing MHM products. Women with disabilities can be provided with disability specialized napkins, which need to be brought to their doorstep so that they can easily find those available. Moreover, the organizations should focus on making MHM products and extend their activities to make them more available and affordable among women from all socio-economic statuses.

"In the case of the specialized sanitary napkins...if these could reach the doorstep, it would be good. Many people are doing this. I know that there have been many works regarding this so that different kinds of sanitary pads can be produced...this needs to be taken to the ground. need to let people know how they can access these. Or talk to those who are the producers."-(KII_Researcher)

4.10 INCONTINENCE

4.10.1 Urinary Incontinence

Urinary incontinence experience and protection materials management

Overall, 21% of participants reported having urine leakage issues, with a higher prevalence among those with disabilities (29%) compared to those without (12%). Females (23%), individuals between the ages of 5 and 17 (25%), and those over the age of 50 (28%) revealed more significant urinary incontinence issues in contrast to men (17%) and people between the ages of 18 and 49 (9.8%), respectively. Notably, among people with disabilities, 50% of those with difficulties with self-care had urinary incontinence, compared to 30% to 40% of those with difficulties with other functional limitations (vision, hearing, communication, cognition, mobility) and mental health conditions (anxiety, depression) (Table 53). Older adults (48%) and those with disabilities (39%) experienced urine incontinence problems for 1 to 5 years mostly due to their medical or health issues (80%). 15–30% of individuals believed that urine leakage was common or natural (Table 54). Additionally, more than 70% of respondents reported not using any protective materials when they urinated, despite the fact that 4–7% more people with disabilities (28%) and older people (28%) did so while urinating than did those without disabilities (21%) and younger (24%). 20% of those with disabilities and older people use cloth as their primary protection materials in comparison to 15% of people without disabilities and younger. No significant regional variation in the use of materials was found (Figure 56). In addition, older adults and people with disabilities were considerably less (15–25%) able to clean or change in private at home while experiencing urine leakage compared to those without disabilities and younger people. Among people with disabilities, those who lived in urban areas (73%) had a somewhat greater ability to undertake urinary leakage cleaning or changing in privacy as opposed to those who lived in rural regions (72%). Regardless of disability, age, or region, half of them dumped their old incontinence protection products in a trash can with regular waste after usage. Additionally, 20% of the older persons and individuals with disabilities disposed their used materials in an open area; however, this behaviour was more prominent among the rural inhabitants (28%) compared to the urban residents (6%) (Figure 56, Table 55, Table 56, Table 57).

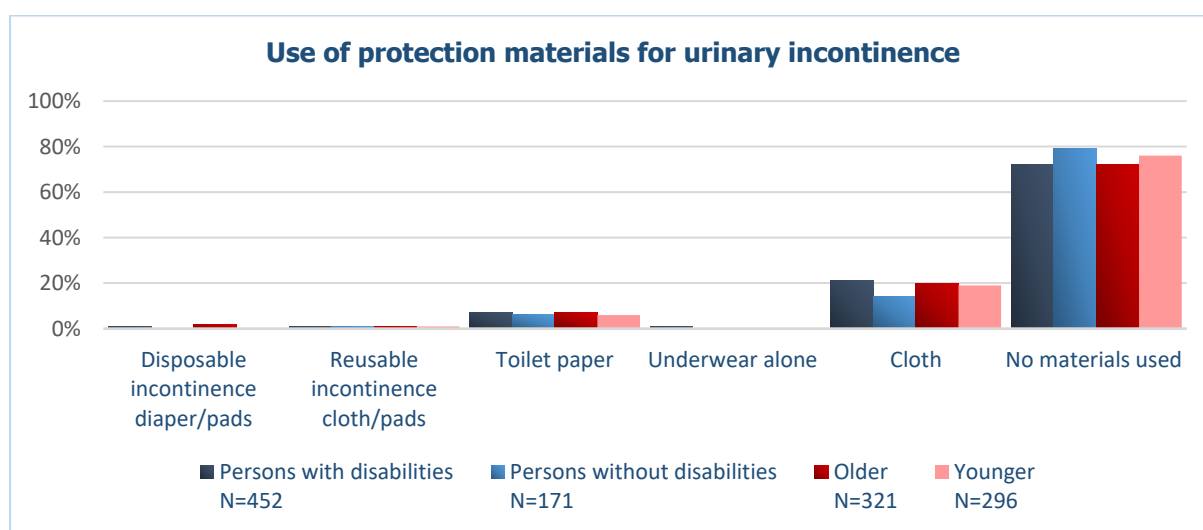


Figure 56: Use of protection materials for urinary incontinence

Impact of urinary incontinence on activities

Persons with disabilities (33%) who experienced urinary leakage were twice as likely to miss out on participating in activities compared to those without disabilities (16%). While a quarter of the male persons with disabilities reported missing out activities due to urinary leakage, this figure rose to half

among females with disabilities. Additionally, 31% of people with disabilities reported being limited in their ability to participate in any activity in urban areas owing to urinary incontinence, compared to just 7% of people without disabilities. Among persons with disabilities, more than 50% of those with communication limitations or depression reported missing activities because of their urinary leakage. Among other types of disabilities, people with hearing (25%) and mobility (33%) limitations were less likely to skip activities than people with other types of limitations (Figure 57). However, among people with disabilities and those older individuals who missed out on activities, most (around 60%) reported missing out on social activities, followed by religious (50%) activities. Furthermore, a significantly higher proportion of persons with disabilities (28%) reported missing out on attending family-related activities, whereas merely 8% of those without disabilities reported such exclusions. Among female and male persons with disabilities, no notable difference was observed in terms of attending activities; however, females without disabilities were mostly missing out on social activities (86%), while males without disabilities mostly encountered missing out on religious activities (90%) (Figure 58). Notably, more than 50% of people with hearing limitations miss family activities compared to one-third of those with other functional limitations (vision, mobility, communication, cognition, self-care and depression). For both persons with disabilities and older adults, fear of accidental urinate leakage (around 50%) and dependency on caregivers (around 45%) emerged as the predominant barriers in missing out on different activities, followed by lack of adequate privacy for cleaning/ washing the urinate leakage (around 30%) and fear of embarrassment or others making fun of them (23%). Furthermore, lack of urinary incontinence products, smell of the urine and not being allowed to participate also hindered persons with disabilities (15%) participating in various activities. The issue of not being allowed to participate in the activities emerged as a significant concern primarily for the people with hearing limitations (42%) compared to people with other types of limitations (Table 58, Table 59, Table 60, Table 61).

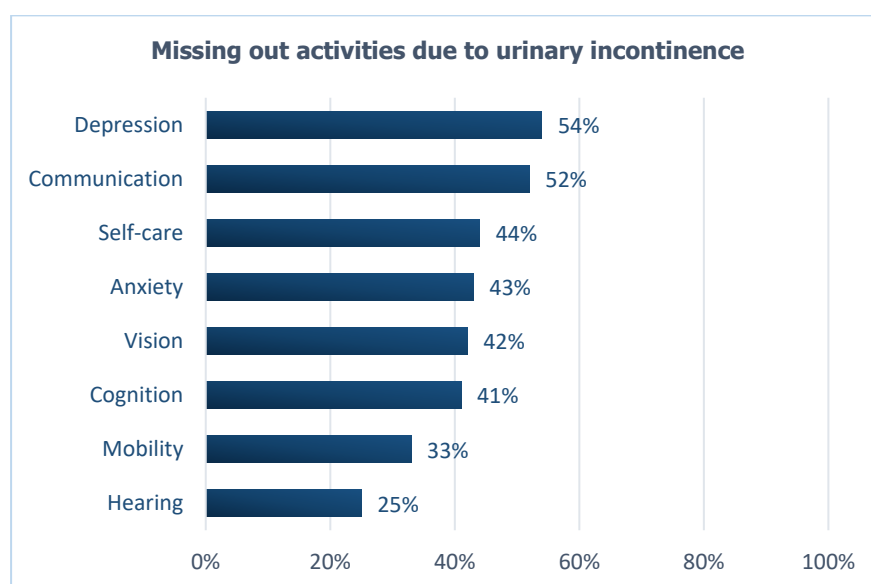


Figure 57: Missing out activities due to urinary incontinence

People with disabilities and older people who have urinary incontinence reported a slightly higher (avg 5.5 and 5.3 score on a scale of 0 to 10) level of interference with their lives in contrast to the those without disabilities (3.9) and younger people (4.8). Urinary leakage was more likely to cause life-interference for people with communication (6.5) limitations compared to people with other types of limitations. Urban and rural persons with disabilities reported to have a medium (5.5) level of interference with their daily life activities due to urinary leakage issues. However, persons with disabilities and older adults needed improved accessibility of incontinence-related treatments the most for better maintenance of urine incontinence management (around 65%), followed by access to medical

information on how to manage urinary incontinence (41%). Although these key adaptations were more prevalently required by rural persons with disabilities (72%, and 48%) compared to those lived in urban regions (55%, and 31%) (Table 62, Table 63, Table 64).

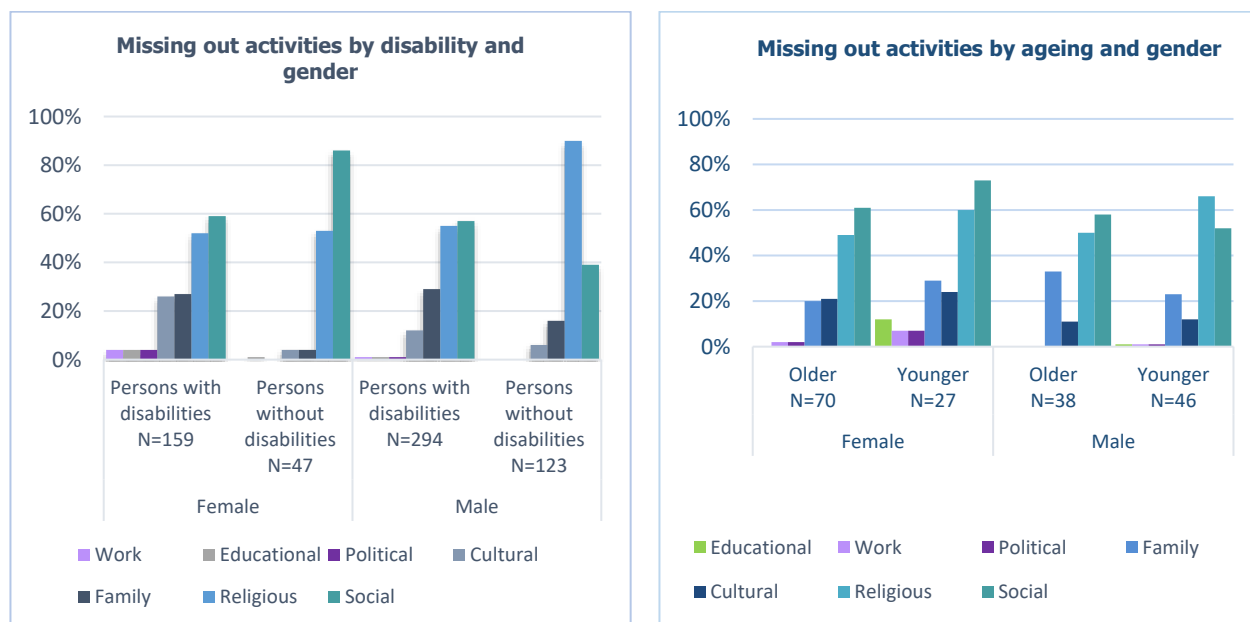


Figure 58: Types of activities missing out due to urinary incontinence

4.10.2 Fecal Incontinence

Fecal incontinence experience and protection materials management

Around 8% of the individuals experienced faecal incontinence, however faecal incontinence was more prevalent among people with disabilities (13%) compared to those without disabilities (2%). Children aged 5-17 years (18%), and older adults (70+) (16%) were more likely to experience faecal incontinence compared to people in other age groups. No significant gender or regional-based difference was observed with the issue of faeces leakage. However, people with self-care (32%) and communication (28%) limitations were slightly (10-20%) more likely to experience faecal incontinence compared to people with other types of limitations (Table 53). Most of the persons with disabilities (31%) and older adults (36%) experienced faecal incontinence for 1-5 years, and the most predominant cause was their medical/ health conditions (around 80%). However, 15% of those without disabilities and younger also believed that they did not have any particular cause for faecal leakage. However, a majority (76%) of people without disabilities experienced faecal incontinence due to their health/ medical condition (Table 54). Use of protection materials for faecal leakage was higher among persons with disabilities (31%) compared to those without disabilities (10%). Although no such significant differences were observed by ageing. Among persons with disabilities, the most prevalent choice of protection material was the cloth (28%), while toilet paper (14%) was the secondary choice. However, cloth was most frequently used by younger people (30%) than the older adults (21%). Younger people and those who lived in urban areas also preferred to use toilet paper (21%, and 25%) when they leaked faeces, whereas merely 5% of older and rural people reported using them (Figure 59). Furthermore, only half of the persons with disabilities and older people who experienced faecal leakage were able to clean or change in privacy while staying at home in contrast to 90% of people without disabilities and 70% of younger people (Figure 60). In addition to this, urban people (65%) also exhibited a little higher ability in cleaning/ changing faecal materials with privacy than those who lived in rural regions (53%). Around 60% of people with disabilities who used any types of protection materials, disposed those in

a bin with other waste after usage. Younger (74%) and urban (79%) people more frequently (35-40%) used a bin of regular waste to dispose of their faecal protection materials than older people (42%) and rural inhabitants (40%) (Table 55, Table 56, Table 57).

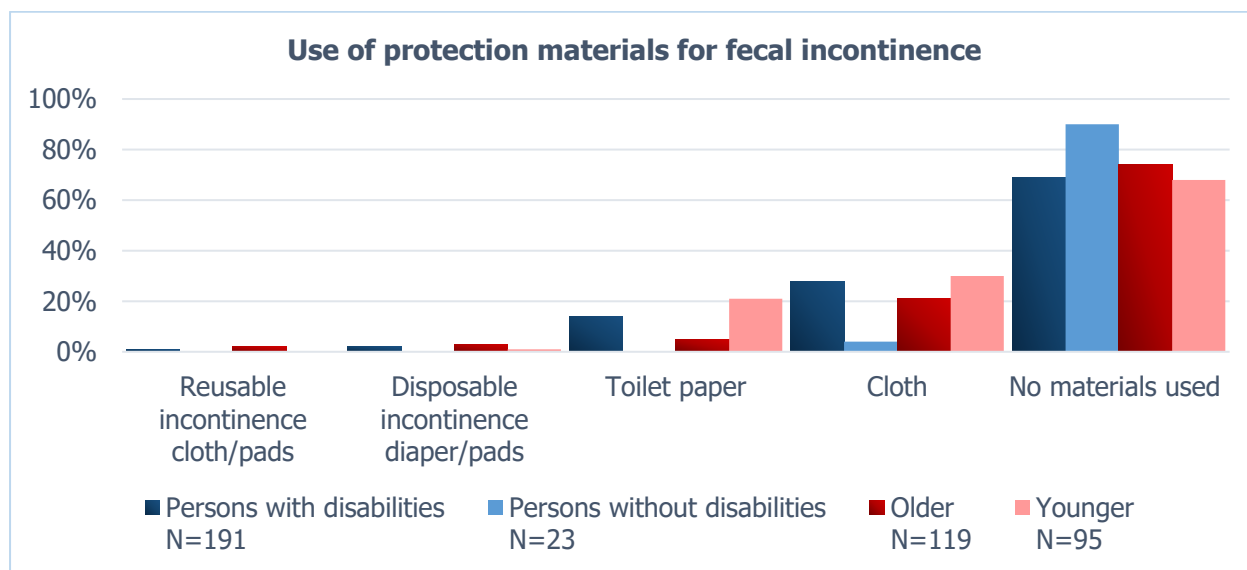


Figure 59: Use of protection materials for fecal incontinence

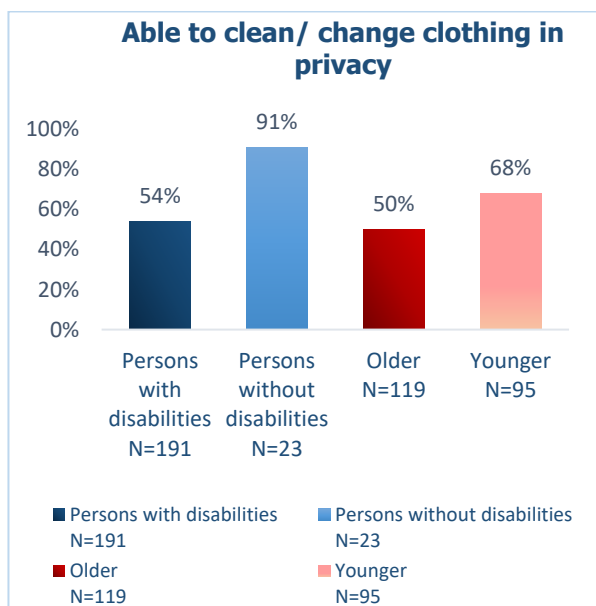


Figure 60: Able to clean/ change faeces in privacy

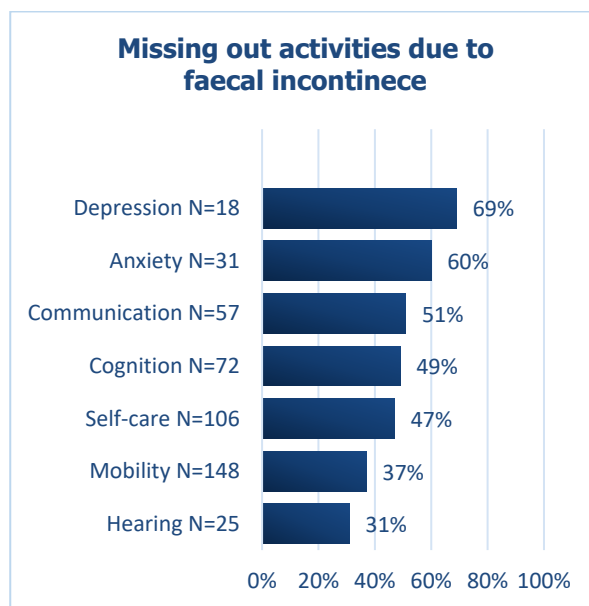


Figure 61: Missing out activities due to faecal incontinence

Impact of faecal incontinence on activities

Persons with disabilities (34%) were two times more likely to be deprived of participating in activities due to their faecal incontinence than persons without disabilities (17%). In comparison, 11% more older adults were also likely to miss out on activities than their comparison group (younger: 26%). Females with disabilities (52%) who have faecal incontinence were also 30% more prevalent in missing-out activities as opposed to male persons with disabilities. People who have mental health conditions

such as anxiety (60%) and depression (69%) were more likely to miss out on participation in different activities due to their faecal leakage. However, people with vision (28%) and hearing (31%) limitations were less frequently limited in their participation in different activities compared to people with other types of functional limitations (communication, cognition, and self-care) (Figure 61). Around half of the persons with disabilities reported missing out on social activities, while around 30% couldn't join religious activities due to their faecal leakage. Over 80% of the younger adults couldn't participate in social activities, whereas half of these (38%) older adults reported the same limitation (Figure 62). Family events were mostly missed by people with hearing limitations (57%) compared to people with other types of limitations (mobility, communication, self-care, and cognition). Among people with disabilities and older individuals, the prevailing factors in missing out activities were their reliance on caregivers for support (60%) and their fear of accidental faecal leakage (50%). Furthermore, around 25% of those with disabilities highlighted the lack of incontinence products as one of the barriers of participating in activities. Lack of permission to participate, feelings of embarrassment, fear of verbal or physical abuse, lack of privacy for cleaning, and lack of disposal systems also hindered 20% of people with disabilities participation in various activities. People with communication, self-care and cognition limitations (70%) mostly missed out on activities due to their dependency on caregivers compared to people with other types of limitations (Table 58, Table 59, Table 60, Table 61).

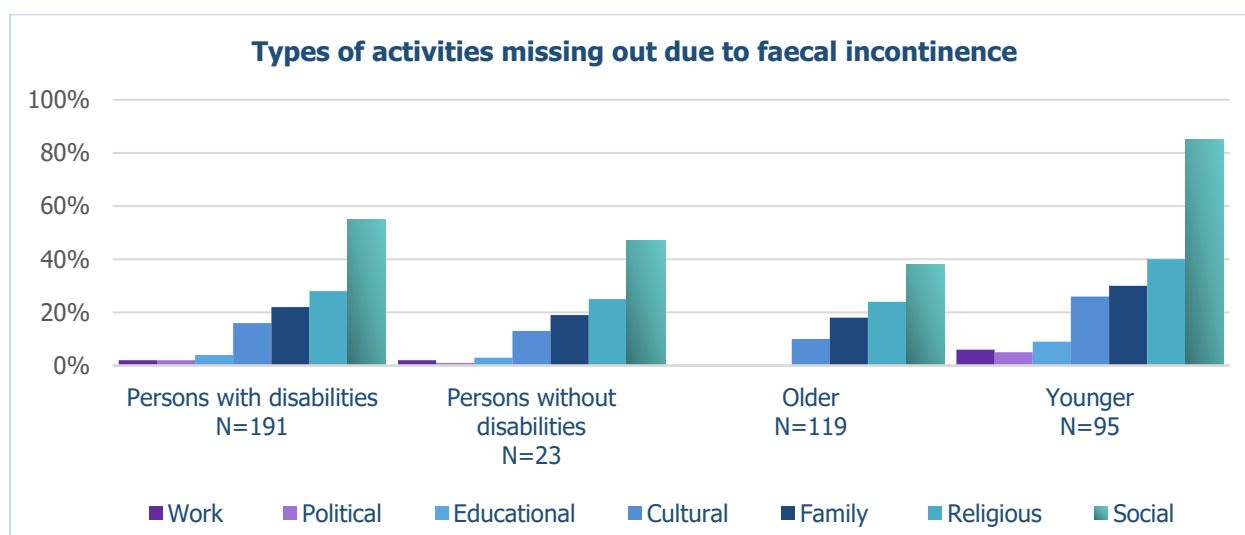


Figure 62: Types of activities missing out due to faecal incontinence

Faecal incontinence affects persons with disabilities life slightly more (avg score: 5.5) as compared to those without disabilities (3.04). Although, younger people (5.64) with faecal incontinence reported to have a higher level of disruptions in their everyday life in comparison to older people (4.94). The level of interference due to faecal leakage with people with communication (6.68) limitations appears slightly higher compared to people with other types of limitations. However, persons with disabilities and older adults needed improved accessibility of incontinence-related treatments the most for better maintenance of faecal incontinence management (around 50%), followed by access to medical information on how to manage faecal incontinence (30%). Around half of the people without disabilities and younger people didn't require any further adaptations/ changes for better maintenance of their faecal incontinence. No notable differences were observed in terms of key adaptations requirements by types of disabilities (Table 62, Table 63, Table 64).

4.11 USE OF ASSISTIVE DEVICES AMONG PEOPLE WITH DISABILITIES

Approximately half of the persons with disabilities reported needing assistive devices, while 60% of them had access to any type of assistive device. More than 60% of the people with vision (66%), hearing (57%), self-care (57%), and mobility (53%) limitations reported needing assistive devices. Of them, people who had mobility (71%), self-care (65%), vision (49%), and cognition (46%) limitations had higher access to assistive devices compared to people who had hearing (30%) or communication (29%) limitations. Eyewear (52%) and white cane (22%) were the most commonly used assistive devices by persons with disabilities (Table 8).

Table 8: Access to assistive devices among different types of disabilities*

| Indicators | Vision | | Hearing | | Mobility | | Commu- nication | | Cognition | | Self- care | | Total | |
|---|--------|----|---------|----|----------|----|--------------------|----|-----------|----|---------------|----|-------|----|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Need assistive devices | | | | | | | | | | | 15 | | | |
| | 223 | 66 | 99 | 57 | 342 | 53 | 64 | 37 | 116 | 35 | 8 | 57 | 590 | 48 |
| Currently using assistive device | | | | | | | | | | | | | | |
| | 100 | 49 | 27 | 30 | 222 | 71 | 17 | 29 | 49 | 46 | 93 | 65 | 311 | 58 |
| Types of assistive devices used | | | | | | | | | | | | | | |
| White Cane | 16 | 17 | 13 | 50 | 58 | 28 | 7 | 41 | 19 | 42 | 39 | 44 | 62 | 22 |
| Wheelchair | 1 | 1 | 0 | 2 | 24 | 12 | 6 | 40 | 7 | 14 | 9 | 11 | 24 | 8 |
| Crutch/Elbow | | | | | | | | | | | | | | |
| Crutch/Stick/Walker | 3 | 3 | 4 | 14 | 35 | 17 | 0 | 1 | 8 | 18 | 21 | 24 | 38 | 13 |
| Communication aids | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 5 | 0 | 0 | 1 | 1 | 1 | 1 |
| Hearing aid device | 1 | 1 | 1 | 3 | 0 | 0 | 1 | 5 | 1 | 2 | 0 | 0 | 2 | 1 |
| Eyewear | 65 | 70 | 7 | 27 | 77 | 37 | 5 | 29 | 11 | 24 | 16 | 18 | 150 | 52 |
| Orthotic device | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

* Types of disabilities are Non-mutually exclusive binary variables: subjects may have more than one significant functional limitation.

Access to assistive devices was higher among females (66%), those who reside in urban areas (54%), the wealthy (44%) and marginally higher among older individuals (52%) among people with disabilities who express their need for assistive devices. On the other hand, unmet demand for assistive technology is more pronounced among females (66%), those in rural settings (61%), and the older adults (54%) within the persons with disabilities. Despite their expressed need, the majority of females (61%, 48%, and 53%, respectively), rural residents (73%, 83%, and 53%, respectively), and older people (55%, 64%, and 48%, respectively) were prevented from using the services due to barriers like cost, inadequate understanding about service accessibility, and service unavailability. Furthermore, the distance of the services also posed significant challenges for a higher percentage of females (57%) and individuals in rural regions (73%) to access the necessary assistive devices (Table 9).

Table 9: Reasons for not using assistive devices by socio-demographics characteristics among person with disabilities

| Indicators | Reasons for not using assistive device | | | | | | | | | | | | | |
|------------------------|--|----|----------------------|----|--------------------------|----|---------------|----|---------|----|-------------------------------|----|-----------------------|----|
| | Need assistive device | | Use assistive device | | Need but not used device | | Too expensive | | Too far | | Does not know where to access | | Service not available | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Sex | | | | | | | | | | | | | | |
| Male | 203 | 34 | 108 | 34 | 86 | 34 | 72 | 39 | 24 | 43 | 11 | 52 | 12 | 47 |
| Female | 397 | 66 | 213 | 66 | 166 | 66 | 114 | 61 | 32 | 57 | 10 | 48 | 13 | 53 |
| Type of region | | | | | | | | | | | | | | |
| Urban | 287 | 48 | 174 | 54 | 99 | 39 | 50 | 27 | 15 | 27 | 3 | 17 | 12 | 47 |
| Rural | 312 | 52 | 147 | 46 | 153 | 61 | 136 | 73 | 41 | 73 | 17 | 83 | 13 | 53 |
| Age group | | | | | | | | | | | | | | |
| Younger | 280 | 47 | 153 | 48 | 115 | 46 | 84 | 45 | 27 | 48 | 7 | 36 | 13 | 52 |
| Older | 319 | 53 | 168 | 52 | 137 | 54 | 102 | 55 | 29 | 52 | 13 | 64 | 12 | 48 |
| SES_Index | | | | | | | | | | | | | | |
| 1st quintile (poorest) | 98 | 16 | 41 | 13 | 53 | 21 | 50 | 27 | 13 | 24 | 3 | 13 | 5 | 21 |
| 2nd quintile | 88 | 15 | 33 | 10 | 53 | 21 | 50 | 27 | 16 | 29 | 8 | 41 | 8 | 33 |
| 3rd quintile | 100 | 17 | 54 | 17 | 41 | 16 | 31 | 17 | 5 | 9 | 3 | 17 | 0 | 2 |
| 4th quintile | 115 | 19 | 50 | 16 | 61 | 24 | 41 | 22 | 15 | 26 | 5 | 24 | 10 | 39 |
| 5th quintile (richest) | 199 | 33 | 142 | 44 | 45 | 18 | 15 | 8 | 7 | 12 | 1 | 5 | 1 | 5 |

Eleven older person and people with disability wo participated in the IDI mentioned the current uses of assistive equipment's. Eight of these eleven respondents depend on sticks. Five PWDs reported receiving assistive devices as gifts from social workers and relatives/ neighbors.

"I use a wheelchair. Wherever I go, I go with the help of wheelchair. Without this, I cannot move. Even if I need to go a small distance, I need the wheelchair"- Male, Age:20, Mobility & Self-care limitation

Eight out of 11 persons with disabilities reported that the assistive devices have improved their accessibility and overall life experiences. Stick users can walk with more ease, avoid falling, gain confidence, and require less assistance. On the other hand, wheelchair users can go to school, collage, hospital and markets for their daily needs.

"Doctor instructed me to walk, as I am a diabetic patient. I Have a stick, so I try to walk with the help of that stick. Without the stick, I cannot walk"- Male, Age: 78, Mobility & Self-care limitation

"Using a wheelchair, I can go to college, the market, and from one to another room of the household, even one house to another...."- Male, Age: 20, Mobility & Self-care limitation

Participants from qualitative interviews, mentioned that the uses of assistive devices have their own limitations. Three of our respondents indicated that they have encountered a lot of difficulties with the assistive/ supportive device that they use. An in-depth interviewee stated that she cannot sit still in the wheelchair for long periods because her back hurts. So, she uses a stick instead of a wheelchair. One

of our respondents mentioned that he doesn't use crutches as it's too heavy. For this reason, he designed and made a bat (thick stick-like) that is smaller and lighter than the crutches.

"I used a wheelchair... I could not sit into it for a long, as it hurts my back. I use a stick instead." - Female, Age: 20, Mobility limitation

"It was big and heavy. When I used it and went outside, everyone stared at me. I felt ashamed. But my bat (self-made stick like) is small and light. I can use this everywhere. I am less interested in using the crutches anymore." - Male, Age: 26, Mobility limitation

4.12 WASH BARRIERS AND WAY FORWARD

Funding constraints:

Government funding

Two key informants (researcher and DPO official), out of eight stated that there is a limited allocation of funds from the government (social welfare ministry) for people with disabilities in terms of WASH and MHM services although government provide a general disability and old age allowance.

"There is not enough allocation in terms of WASH. For example, the allocations are provided for day-to-day life activities such as disability or aged allowance. However, for persons with disabilities and older people, there is no allocation in water and sanitation." (KII_Researcher)

The DPO officials also highlighted the need for separate budgets from other ministries, like the Ministry of Health, to support providing disability-inclusive WASH (such as ramps) and MHM services, including accessible treatment facilities.

"The Ministry of Health needs to allocate a budget for people with disabilities because the Ministry of Health branch offices need ramps and wash facilities, and their beds and treatment facilities need accessibility for people with disabilities. That is why it is necessary to have budget from separate ministry. They don't give that. They say the Ministry of Social Welfare will give the budget" (KII_INGO)

Funding from donor/external funding

One INGO official informed that they provided disability-inclusive WASH services based on the supports and funds received from the donor agencies. However, with these inadequate funds it is difficult to ensure the inclusivity of diverse types of disabilities, as it will make the operational cost higher.

"We cannot address different types of disability because all our activities are project-based. We don't have enough budget or funding from the project. When we have to ensure inclusivity, the operational cost increases very high. So, we need to make some compromises because we don't have enough resources."(KII_INGO)

Lack of awareness of the people with disabilities regarding the existing inclusive facilities:

According to one policy-level staff from the key informant interviews, there are some facilities (e.g. footpath for people with vision limitation and inclusive toilet) that exist for persons with disabilities in Bangladesh. However, persons with disabilities don't use this due to their lack of knowledge regarding the existence of such inclusive facilities. Persons with disabilities need to be made aware of those facilities so that they can receive the benefits of them.

"The footpaths have been designed for people with vision limitation. People with disabilities don't know about this. Even we also don't know. That means the first thing is awareness needs to be

raised. The people with vision limitation needs to know that these toilets are vision-disability friendly.”
(KII_Policy level staff)

Limited knowledge related to disability among service providers:

Two KII (policy-level staff, INGO officials) mentioned the lack of knowledge of the program implementers regarding the diverse types of disabilities, and they don't have proper understanding of the components required to make the existing toilets inclusive for diverse types of disabilities.

"We have done 1 or 2 public toilets which are inclusive. But most of the toilets are not constructed in an inclusive way. That's what we need. But the thing is... we don't know what is required to make the other toilets inclusive... The missing link is here. The knowledge is required.” (KII_Policy level staff)

Disability training of the project staff:

Three key informants (DPO, NGO, INGO) out of eight, emphasized the importance of disability training to sensitize the field and front-line staff on effective communication with people with disabilities, build their capacity and develop awareness on this sector. Both the NGO and DPO provided training to their staff covering gender and disability inclusion, their diverse needs from the WASH perspective, and ensuring the participation of persons with disabilities in the programs. While the efforts of INGO officials were hindered by budget constraints, preventing dedicated disability training.

"The thing is that people who will work at the field level...who will work with people such as persons with disabilities and their caregivers directly, need to know what will be their approach, what will be their language, and what will be their thought...to shape this we are not able to make enough investments to build their capacity, change their mindset and develop adequate awareness”
(KII_INGO)

"At one point, I tried to train these people, tried that they also could learn about disabilities, could get empathetic towards them, then they could do their job correctly. But it was seen that for training budget is cut. Then what we do is to minimize the cost of training; we keep only foundation training. These relevant things sometimes are skipped.” (KII_INGO)

Lack of improved technology to make disabled inclusive structure:

Two key informants (the researcher and policy level staff) out of eight reported that it is mentioned in the government action plan and policies that the WASH infrastructures need to be made disabled-inclusive. However, due to the unavailability of the required technology to make the inclusive infrastructures, the implementations of the plans and policies were hindered.

"The challenge is that the way it is written in the action plan to make the infrastructure disabled friendly, in reality, that kind of technology has not been developed yet in Bangladesh. The technology is not available, so maybe the infrastructures could not be made disabled friendly.”
(KII_policy level officer)

Unavailability of disability segregated data:

Four key informants (the researcher, DPO, and NGO officials), out of eight reported that there is limited data available to understand the exact situation and diverse needs of persons with disabilities. For estimating the disability prevalence, surveys and disability screening using Washington group questionnaires are required. One NGO official also added that after baseline research, the findings need to be reviewed from time to time, and the number needs to be updated in a neutral dashboard, which will also contribute to ensuring the inclusivity of the programs run by the NGOs.

"The baseline data should be reviewed... if there is a neutral dashboard from the government, that shows the correct data on disabilities, it will be helpful. Then, following the data, I think NGOs can work for the persons with disabilities. My point is that a dashboard is required where there will be correct information, and it will be updated.” (KII_INGO)

Multi-stakeholder and government engagement in WASH and MHM research:

According to one researcher, the existing WASH and MHM research needs to be more comprehensive as multi-stakeholder policy-level engagement are not ensured. Involving the policy makers in the research is required to ensure the provision of enough budget for conducting research.

"The research and collection of data needs to be continued by engaging policymakers. This is very much necessary. Because we need to discuss the budget, engaging policymakers is important as we do not have the budget."(KII_Researcher)

DPOs and OPOs engagement in WASH and MHM research:

Two researchers out of eight participants from the key informant interviews reported that the DPOs and OPOs are not fully engaged in disability focused research, which is a drawback of the current research activities. The active participation of these organizations is essential in all levels of research, from the project formulation and proposal development stage to the data collection and analysis phase. The opinions and the feedback from the DPOs and the OPOs can be significant sources of data regarding disabilities considering their specialization and exposure to this community.

"People who are on the research project planning team should involve and consult with DPOs and OPOs in the research. They need to talk with these (DPOs, OPOs) organizations and seek their opinion on the research activities. And when there is a stakeholder workshop for sharing project output, the organizations must be invited there."(KII_Researcher)

Focusing on diverse vulnerable communities in WASH and MHM research:

One DPO official reported that the research needs to focus on women with disabilities of diverse communities, including Bihari, Harizan, and transgender communities in Bangladesh, as these communities are neglected, and there is a lack of research regarding the difficulties these communities face in accessing WASH facilities and their requirements.

"If it could be known what kind of problems are faced by the women with disabilities of, Bihari, Sweeper, Harijan, or Hijra communities regarding wash facilities, it would be good. This is my suggestion. Because there is a lack of data regarding these people. We do not know their condition. So, it would be good if their problems can be addressed through research."(KII_DPO)

Limited participation from disability and aging organizations in policies:

One researcher from the key informant interviews mentioned limited participation of a representative group of persons with disabilities and older people in policy-making. Participation of persons with disabilities is crucial as it is hardly possible for people without disabilities to depict the problems faced by people with disabilities with proper consideration.

"We do not realize something until we don't face that by ourselves. So, in policy-making, there should be people in support of the person with disabilities and older people to describe their problems. If no one is present on their behalf, then who will talk about them? This is a barrier that there is no one to from the persons with disabilities community"- (KII_Researcher)

Improving the national program or policies focusing on WASH and MHM:

According to one of the DPOs from the key informant interviews, fund allocation from the WASH sector budget is required for forming a committee of persons with disabilities to ensure the participation of persons with disabilities in the WASH programs, which will lead to more fruitful outcomes. Another DPO also added that the programs run by the government need to be implemented countrywide, focusing on both local and level, instead of focusing only on a national level. So, the participation of national authorities is required to implement the programs effectively.

Additionally, one of the INGO officials from the key informants suggested that the government can form a task force or working committee involving various sectors and government organizations like

DPHE, INGOs, and consultants. They can contribute to the policy by reviewing and providing feedback on disability issues critically. Regarding the policy, he also suggested that there should be an audit system included in the policy level. An audit should be conducted to explore the current condition of WASH facilities' accessibility and identify what modifications are required to minimize the barriers.

"the government can form a task force or working committee. They can take people on this committee from relevant sectors including NGOs, INGOs. Then they can contribute to these policies. when the task force is formed ...the responsibility of the committee will be to review this critically and provide feedback"- (KII_INGO)

Lack of awareness among policymakers and project implementers regarding disabilities

Four key informants (two NGO officials and two researcher) out of eight, reported a lack of awareness regarding disabilities among people from all levels. From the policy to the implementation level, people need to have proper perception and be sensitized to their own level regarding disabilities. If the people at the administrative level are sensitized and have a disability-inclusive mindset, the junior and the field level people will also have a disability-inclusive mindset leading to a successful implementation of inclusive programs. According to one NGO official, there should be a massive countrywide awareness program to sensitize people about disability, leading to a mindset change.

"The thing is that from top-level decision-makers to grassroots people...all the stakeholders in each level need to be sensitized according to their levels. If they become sensitized and aware of disabilities, the outcome will be more fruitful. That means huge awareness needs to be created regarding disabilities. If awareness is created, then it will turn into implementation automatically."
(KII_Researcher)

Existing Social stigma:

Two key informants (NGO official, and DPO official) out of eight participants reported that persons with disabilities in Bangladesh face difficulties due to social barriers and stigma. At the community level, people have a negative perception of disability, leading to less acceptance and a lack of respect toward persons with disabilities. So, persons with disabilities also feel neglected and don't want to reveal their disability to the community. Due to lack of social awareness and education, the community people stigmatize persons with disabilities, which hinders their active participation in WASH and MHM program activities run by the NGOs.

"... it is a lack of education of the community people. We couldn't spread enough awareness among people. It can be seen that there might be people with disabilities, but they don't want to expose them, Due to some barriers from society ...I think they can not reveal this. This is more existent in villages rather than cities. We face difficulties in involving them in our activities."(KII_NGO official)

Lack of Holistic approach

From the key informant interviews two informants (INGO and DPO official) reported that in the schools of Bangladesh, ramps are being constructed for making the infrastructure disability inclusive. However, provision of ramps will only address one types of disability. The implementers are focusing on only specific types of disability rather than considering the diverse types. They need to take a holistic approach to make the infrastructures inclusive.

"You will see, there are ramps nowadays in almost every school in the city or village. But it is not necessary that she/he will come in wheelchairs... she/he might be blind ...so is there any rail system for his/her? No... then how will she/he come? So, we don't have any holistic thinking, we are just moving forward with one/two parameters just." (KII_INGO)

Challenges in collaboration among DPO, OPO and government

One key informant (researcher) added that the organizations working for people with disabilities need to enhance their exposure, collaborate with the government, and develop massive action plans together.

"Those working with disabilities need to come more into the limelight. Here mostly, NGO sectors... small NGOs work. So, if the government has any branch or division that works with people with disabilities, they need to collaborate with the NGOs and develop a huge action plan. For that, they need to ensure funding from the government and outside." (KII_Researcher)

Three key informants (DPO and INGO official) reported about the coordination among Government and the DPO, OPOs regarding the WASH activities for person with disabilities. Lack of financial and technical resources of the organizations make it difficult for them to coordinate with the government.

The DPO official also added that the government is considering to collaborate with the organizations from their end. But there remains some gap in the communication between the different ministries of governments and the organizations due to institutional complexities. Hence, the organizations are also facing challenges in ensuring coordination in their work.

"Due to insufficient financial and technical support, we are not able to coordinate with the government...also there is no coordination within the government's ministries. Due to their lack of coordination, we also do not have any coordination in our work." (KII_DPO)

Lack of awareness among women with disabilities:

Three key informants (DPOs and INGO officials) out of eight reported that women with disabilities lack awareness regarding their human rights, needs and requirements, and the existing laws and policies for protecting their rights. Due to this, they become victims of social discrimination and are deprived of their basic human rights.

"Women with disabilities are deprived of basic human rights because they are not aware of their rights. They don't know about disability rights protection laws, various policies, new policies, or old policies. We must let them know what they need and how they can get it. ...we need to make them aware that they have some human rights, and they must get these rights" (KII_DPO)

Lack of space for constructing disability-friendly infrastructures:

Two informants (INGO and policy level officials) out of eight reported inadequate space as a substantial barrier to constructing disability-inclusive infrastructure. A standard measure needs to be followed for constructing inclusive infrastructure, including ramps, requiring adequate space. Hence, due to a lack of sufficient space, infrastructure like ramps cannot be constructed.

"We try to install disability-friendly infrastructures, but we often face challenges in that we don't find enough space. In the case of space, there is a standard way in which technical design is developed for example, if we say that the ramp needs to be designed in 1:12 measurement so that a person with disabilities can access the facilities by himself or herself that becomes a very challenging part as we don't have that much space" (KII_Policy level Authority)

5 DISCUSSION

It is widely recognized that people with disabilities and older adults have poorer access to water, sanitation, and hygiene (WASH) facilities across low-income and middle-income countries, however there is limited study in the context of Bangladesh [4, 7, 44, 66, 67]. This study provides a nationwide in-depth assessment of the complex intersection between disability, ageing and WASH (including MHM and incontinence) accessibility across 8 divisions in Bangladesh. We delve into the multi-dimensional barriers of WASH encountered by people with disabilities and the older persons at the household and individual level, including the poignant challenges of MHM and incontinence, which have an adverse impact on their health, well-being and social inclusion. The findings of this study shed light on the factors to be considered for developing disability and ageing-inclusive policies, and tailored programs or interventions focusing on diverse types of disabilities.

Our study estimated the all-age disability prevalence was 8% which is similar to the disability prevalence estimates of the Household Income & Expenditure Survey 2016 [10] and a previous study conducted in rural area of Bangladesh [68], although it is higher than the recently reported estimates (2.8%) of the 2021 National Survey on people with disabilities [11]. In Bangladesh, disability prevalence varies from 5.6% to 16.2% [12] depending on the diverse methods of measuring the disability. There are some socio-demographical factors which contributes to the distribution of the estimated prevalence. Disability rate significantly increase with the age, older individuals [12, 13], older females [13-15], people with lower income and educational attainment, unemployed and those living in the rural areas have significantly higher rates of disability [15-18], which is also comparable with our study findings. These factors highlight the need for targeted policies and interventions to address disability-related inequities in Bangladesh.

Around 98% of the households in the study, regardless of disability status, had access to basic water sources, and 77% had access to basic sanitation services. This high level of accessibility is in line with global targets outlined in the Sustainable Development Goals (SDGs), emphasizing universal access to clean and safe drinking water along with adequate sanitation services [19]. These findings were also reflected in the prior National Hygiene Survey of Bangladesh, 2018 [69] as well as in another national-level WASH assessment [70] which suggested universally high access to the basic WASH services among the Bangladeshi population. These findings are broadly in line with the body of research that has either not shown significant variations in access to WASH across households with and without persons with disabilities [20, 21], meaning that there were no associations or did not indicate significant disparities between these two groups [18, 22].

Individual access to WASH services is a concern, particularly for persons with disabilities and older individuals. While access to household WASH facilities may be similar, the quality of access and specific challenges faced by people with disabilities highlight the individual needs and inclusivity issues of people with diverse disabilities. People with disabilities and older adults have less access to WASH services than those without disabilities and younger ones. This finding aligns with a broader narrative in the context of disability and aging – that even when infrastructure is available, it may not be fully inclusive or considerate of specific needs such as un-adjustable height of the taps, presence of stairs, lack of railing, seating facility [4]. These disparities found in this study also aligned with the existing literature [20, 21, 23, 34, 71], which also showed individual level differences in accessing the household WASH facilities compared to their comparison groups. Lack of funding, high price of the disability-inclusive components (eg. ramp, tactile marking, height-adjustable toilet, basin, support rails), lack of understanding towards diverse needs of these target groups, and limited availability of disability segregated data was likely to be the main barriers in implementing disability-ageing inclusive WASH facilities.

People with disability and older adults were less likely than those without disability and younger people to collect and access water at home whenever they needed. Although, a majority of persons with disabilities could use the same WASH facilities as other member of their households, they mostly come

in contacts with urine or faeces while using toilets, and required assistance for ease access. This elevates the likelihood of chronic illnesses associated with dehydration and contamination from feces, exacerbating urinary and bowel dysfunction, promoting social stigma connected to hygiene, and potentially heightening the chance of diarrheal disease [72]. The findings of this study further revealed that the persons with disabilities have limited access to education, employment, and most likely belonged to the poor socio-economic groups. Our data indicated a significant association between WASH accessibility and socioeconomic status, further underscoring the disproportionate burden faced by people with disabilities and older people. This correlation has been identified in previous research, where socio-economic disparities influence inequalities in access to water and sanitation [73]. Poorer socioeconomic status may increase vulnerability to disability, reduce their ability to pay for WASH services, and consequently decrease functioning levels which may make obtaining WASH accessibility more difficult [21, 74]. These findings emphasize the need for target intervention to reduce disparities in WASH access by providing government subsidies or designing disability-inclusive components at low cost.

Our study findings highlighted unequal access to WASH facilities by diverse types of disabilities. People with mobility, communication, and self-care limitations tend to have more challenges in accessing the WASH facilities compared to those with other types of limitations due to their physical ability and reliance on caregivers. This is a poignant demonstration of the challenges these populations face in the context of accessing basic necessities in their everyday life. Their dependency on caregivers often leads to delay in receiving WASH services which causes severe health complications (such as incontinence issue due to unable to get into the toilet in time) [24], psychological distress, suicidal ideation, deaths by suicide [75]. While their reliance on caregivers might be crucial, but it also show a lack of independency to use the WASH facilities as frequently as needed which might affect their self-dignity, independency and rights mentioned in the international conventions [25] and consequently their participation in community life. Furthermore, caregivers encounter several difficulties when providing care for individuals with disabilities or older adults. These problems include disruptions to their daily routines, disregarding their own well-being, experiencing emotional distress, and frequently requiring financial and social assistance [76]. Providing care and rehabilitation services either at home or in care centers is essential for integrating individuals with disabilities into society.

Environmental factors emerged as prominent barriers in accessing WASH facilities for people with disabilities and older adults. Slippery and uneven routes to WASH facilities and inaccessible entry paths, especially for those with mobility, self-care and vision limitations, were cited as impediments. Our data also reveals the lack of universally designed features, such as door locks and handles, water drawing mechanism that is operable with one hand, which could hinder the accessibility of WASH facilities. Due to the lack of ramp at the entry path of WASH facilities, wheelchair users were unable to use those facilities, showing a glaring example of how the absence of disability-inclusive features renders essential facilities useless for a part of the population. Disparities were also observed by regions when delving into the nuances of this access. Moreover, while the majority of urban toilets had water available inside them, height-adjustable features for people with different needs were lacking. Additionally, the long distance of the WASH facilities from the home mostly in rural areas or urban slums also create further burden for people with physical disabilities and older adults. This dearth of inclusive infrastructure raises concerns about the ability of persons with disabilities to access and use WASH facilities, which can have profound impact on their overall health, well-being, and social life [26].

However, government and NGO officials have put efforts into install some disability-inclusive facilities at schools and public places. However, many of the WASH facilities mainly focused on wheel chair accommodation and overlooked, or gave less emphasis to, other issues of inclusiveness such as accessible information or grab rails inside the toilet infrastructure. Age, gender, and disability-specific statistics are crucial for eradicating discrimination in the provision of interventions. Limited knowledge of the service providers regarding the diverse needs of disability and ageing inclusive WASH components posed challenges to ensure universal accessibility for people with diverse types of disabilities. While there are numerous existing guidelines for designing inclusive WASH services [77-

80], the implementation of disability and ageing inclusive services was impeded by a lack of funding, resources, and space as well as a lack of coordination between the government and service providers, guidance and training on inclusive WASH development. Meaningful participation of DPO and OPOs in the design process of WASH facilities and projects, as well as in the implementation and policy level decision-making processes is essential to create an enabling environment for people with disabilities by ensuring their equity, rights, and inclusion in the community [29].

People with disabilities encounter not only environmental obstacles to accessing WASH facilities, but also social barriers that raise concerns of safety. Fear of embarrassment, physical or verbal abuse, fear of animals, and feeling insecurity in using WASH facilities at night-time posed additional barriers for people with disabilities especially for those with communication limitations, or mental health conditions. This aspect of accessibility had received limited attention, and it unveils a less-explored dimension of WASH accessibility in the context of Bangladesh. It emphasizes that accessibility is not solely about proximity but also about ensuring safety and security during essential activities. Among people with disabilities, a majority suffered from mental health conditions such as anxiety, or depression. Furthermore, the study emphasized the challenges experienced by individuals with depression, communication limitations, and anxiety in accessing WASH facilities. A lack of inclusivity not only perpetuates physical barriers but also places emotional burdens on individuals with disabilities and older populations, resulting the feelings of embarrassment and discomfort. Additionally, the fear of accidents or slips, fear of being stigmatized, or simply the frustration of dependency on others can negatively impact the mental health of people with disabilities. Prior literatures also shown an association between mental health with a decrease in WASH accessibility [81, 82]. These findings underscore the necessity of adapting interventions to address the mental health aspects of WASH accessibility. Therefore, it is important to include mental health assessment in WASH surveys to better understand and address the barriers faced by individuals with anxiety and depression in accessing WASH facilities [83].

The study also highlighted that poor access to WASH facilities introduces another layer of complexity for people who menstruate. Furthermore, it showed the intersection between menstrual hygiene management and disability, unveiling significant insights. The study reveals no significant discrepancies between women with and without disabilities in terms of their MHM practices. It suggests a certain level of inclusion in the realm of MHM practices, potentially as a result of awareness campaigns and improvements in menstrual product accessibility. However, a noticeable discrepancy in urban and rural regions was observed, regarding the utilization of menstruation products, awareness, and the overall experience of managing menstrual hygiene. This study findings is comparable with the existing literatures, which also revealed that regional context play a significant role in terms of MHM [84, 85]. Affordability and availability of the products, proper knowledge about menstruation, lack of assistive technology and support from caregivers accentuate the vulnerabilities of people with vision, communications, self-care limitations and those with anxiety and depression. Lack of privacy in cleaning and changing products also crucial to maintain mental health, dignity, privacy, and safety. Relying on caregivers for changing and managing menstruation leads to an uncomfortable journey, especially for people with intellectual, communication, vision and self-care limitation. Similar findings also highlighted in prior research, where females with disabilities felt ashamed for relying on their caregiver for menstrual hygiene management [31, 86]. The study's revelations on MHM call for an inclusive approach that ensures access to appropriate menstrual products, education, and supportive environments for all individuals, irrespective of their disability status. Our study also shed light on how the social taboos and stigma surrounding menstruation have magnified adverse consequences for those with and without disabilities. Female with disabilities face restrictions during menstruation, including limitations on movement outside the house, visiting certain places like cemeteries, and dietary restrictions. These restrictions stem from deeply rooted cultural and social norms, transcending the disability divide.

While this study predominantly delves into WASH accessibility among individuals with and without disabilities, it's vital to acknowledge that WASH intersects with other facets of personal hygiene, such as incontinence, particularly among older individuals and those with disabilities. Our study findings revealed that incontinence disproportionately affects the lives of people with disabilities, adolescents

and older adults, which is reflected in the existing literatures [9]. Their underlying health/ medical condition and accessibility issues further led to unique obstacles that limit their ability to prevent, diagnose, and access treatment, which may contribute to higher incidences of incontinence [87]. Our study also highlighted social, cultural, and religious exclusion of people with disabilities due to their urinary or faecal leakage. People with communication limitations, and those with depression status are most likely to miss out activities due to fear of accidental leakage, dependency on caregivers, and lack of proper privacy for cleaning or changing leakage. While people with hearing limitations were most likely uninvited during family invitations or discussions. This causes social discrimination, shame, embarrassment and have a negative impact of mental health and well-being [30, 31]. These difficulties are consistent with other research showing the complexity of incontinence management concerns, where social factors, accessibility, and supportive environments play critical roles, underscoring the need for healthcare interventions that cover both physical and psychosocial dimensions.

In summary, our study sheds light for an integrated, context-sensitive interventions that fill in the accessibility gaps for WASH, which includes water, sanitation, hygiene, MHM, and incontinence. To ensure inclusivity, rights, dignity, equality, and well-being, translating policies into actions is crucial. We can pave the path for a future in which WASH equality is widely realized, leaving no one behind by combining policy initiatives, healthcare interventions, and societal awareness.

6 CONCLUSION

In low- and middle-income countries, access to household WASH services is unevenly distributed between people with disabilities and older adults compared to people without disabilities and younger people. Thus, in order to inform evidence-based policies and interventions suited to the specific needs of people with disabilities and older adults in the context of Bangladesh, our nationwide comprehensive study sought to conduct an in-depth exploration of different forms of disabilities and ageing specific WASH (including MHM and incontinence) experiences at both household and individual levels in comparison to people without disabilities and younger adults.

Our study findings highlighted people with disabilities and older adults have less access to WASH services compared to people without disabilities and younger ones. The lack of accessible infrastructure such as improved entry paths including access wheelchair entry, availability of ramp, tactile marking, rope, railing, height-adjustable water points, toilet pans, basins, and easily accessible places of hygiene commodities for wheelchair users or children, along with the long distance of the facilities create barriers for people with physical disabilities and older adults. Furthermore, the availability and affordability of hygiene products, assistive technology, support from caregivers and supportive environments play critical roles in ensuring inclusivity and accessibility. Resource and funding constraints, along with limited knowledge of the service providers regarding the diverse needs of disability and ageing inclusive WASH components, posed challenges to ensure universal accessibility. Meaningful participation of DPOs and OPOs in the design process of WASH projects and in the implementation and policy-making processes is essential to create an inclusive environment for people with disabilities. These findings highlighted the need for targeted policies and interventions to address disability-related inequities in Bangladesh.

7 RECOMMENDATIONS

A comprehensive list of recommendations has been detailed out in this section based on the lessons learned from different groups study participants in order to enhance the disability and ageing inclusion across the WASH sectors in Bangladesh.

Govt officials

- Program implementers should have adequate knowledge regarding the diverse types of disabilities and their specific needs to provide inclusive facilities.
- The availability of the required technology at an affordable price for building disability-inclusive infrastructure is a must.
- Awareness needs to be raised among people with disabilities in terms of using existing disability-inclusive facilities. For instance, footpaths were designed for people with vision limitations and there were some disability-inclusive public toilets available, but people with disabilities sufficiently don't use those facilities sufficiently due to their limited knowledge regarding the existence of these.

Service providers (NGO, DPO)

- Separate budgets need to be allocated for people with disabilities to provide disability inclusive WASH (such as ramps) and MHM services, including accessible treatment facilities.
- Collecting disability and ageing segregated data is needed to understand the exact situation and diverse needs of persons with disabilities to provide disability-inclusive services. A neutral dashboard from the government could be helpful in having the correct estimates regarding diverse types of disabilities.
- Frontline staff, program implementers and other stakeholders involved in the different stages of the project implementation should receive training on disability for their better understanding regarding diverse types of disabilities, building their capacity to implement inclusive-services and effectively communicate with different types of people with disabilities.
- To further improve the national programs or policies focusing on inclusive WASH and MHM, an audit system could be included in the policy level to explore the current condition of WASH facilities' accessibility and identify what modifications are required to minimize the barriers.
- Meaningful collaboration of DPOs and OPOs with the government needs to be ensured to develop sustainable inclusive work plans regarding WASH sectors by providing technical and financial resources. And coordinating with different ministries of government to develop an integrated system is essential to implement the projects successfully.
- Improving social awareness and providing education related to disability at the community level might help to reduce the social stigma faced by people with disabilities and will increase their active participation in all the community level WASH and MHM programs.
- To ensure disability inclusive infrastructures, focus needs to be given to all types of disabilities rather than focusing on those with mobility limitations.
- While building the inclusive WASH infrastructures, the focus should be placed on developing adjustable heights for the facilities (put in low or high levels to use toilet commode, basin and reach water and soap), the use of disability-inclusive water sources (e.g., tap with sensors, foot paddles, elbow or forearm operated tap), inclusive entry paths, the availability of ramps, tactile marking/ landmark/ guidance rope, and adequate space for wheelchair accommodation, considering diversities in disability.

Researchers

- Involving policy makers in the disability focused research is required to ensure the provision of enough budget for conducting research.

- DPOs and OPOs should actively participate in disability focused research from the project formulation and proposal development stage to the data collection and analysis phase. Their opinion and feedback would significantly enhance the inclusivity of the program.
- Representation from people with disabilities and older adults need to be considered in policy making committees to describe their problems and to make appropriate policies for considering disability and ageing inclusion.
- To create an inclusive environment, awareness needs to be raised from the policy makers to the implementers and field-level regarding disabilities.
- Disability specialized menstrual or incontinence products targeted at diverse types of disabilities needs to be made readily accessible by delivering them directly to the doorsteps of women with disabilities. This approach ensures the accessibility and affordability of the tailored MHM/incontinence products addressing their specific needs and enhancing their overall well-being.

Target groups (people with disabilities and older adults)

- WASH facilities need to be built closer to the households of the people with disabilities to improve their accessibility.
- Emphasis on people with communication limitations and those with mental health conditions (anxiety, and depression) should be given while forming WASH policies.
- School WASH programs should outreach for children out of school since educational attainment is lower among persons with disabilities. Most of the children with disabilities didn't complete primary/secondary level.
- To ensure WASH services accessibility, WASH actors should pay more subsidies considering the poor economic conditions of people with disabilities.
- People with disabilities and older adults mostly faced barriers in accessing the WASH services due to their dependency on others. So, it is important to support them by providing the necessary assistive devices (walking sticks, bicycles, etc) to enable them to independently access the WASH services.
- A sensory system or device should be developed for people with vision limitations to locate the components (eg. commode, tap, water mug, soap etc.) at the WASH facilities for their better accessibility as well as paving the way for safer and more inclusive future in using the WASH facilities.
- WASH facilities need to be provided with door lock and handle that could be operated with one hand without tight grasping, twisting the wrist.
- Allocate funds for providing WASH materials (such as soap, handwashing materials, menstrual and incontinence products) to the economically vulnerable people with disabilities, older adults and their caregivers. Ensure the sustainability of these practices by supplying low-cost hygiene products to make them accessible to all.
- Increasing the accessibility of incontinence-related therapies and medical information on managing incontinence will significantly improve the capacity of individuals with disabilities to manage their incontinence problems.

8 STRENGTHS, LIMITATIONS AND CHALLENGES

Strengths

- Washington Group Short Set- Enhanced Questionnaire (including questions on anxiety and depression) was used to screen and identify people with disabilities.
- We covered diverse types of people with disabilities, different age-groups, geographical locations in our study at a national level.
- We included DPOs at all stages of the project from proposal development to data collection, analysis and interpretation.
- We also recruited people with diverse types of disabilities (different age-groups and gender) at the field level for monitoring and collecting data from the participants.
- Disability and ageing segregated findings were presented to understand the context and barriers of diverse types of disabilities.

Limitations and Challenges

- We did not perform any clinical assessments to identify people with disability; we rather relied on the respondent's responses against the Washington group short set of questionnaires.
- While assessing the accessibility of the WASH facilities, we relied on the data collector's observation rather than specifically measuring the WASH facilities. Nonetheless, the data collectors were intensively trained on when to consider a WASH facility accessible.
- During in-depth interview of people with communication limitations, we interviewed their caregivers to explore about their WASH barriers. Since we didn't directly interview them so it may cause potential bias in the findings.
- There is no specific word in Bangla to describe incontinence, and hence we used descriptive terms and examples to explain people which might be a limitation in exploring incontinence.

9 REFERENCE

1. Nations, U., *Transforming our world: the 2030 agenda for sustainable development General Assembly UN. 70th Session*, ed A/RES/70/1 Geneva, Switzerland, 2015.
2. UN. *Ageing and disability*. Disability; Available from: <https://www.un.org/development/desa/disabilities/disability-and-ageing.html>.
3. WHO, *World report on ageing and health: World Health Organization*. 2015, Figures.
4. Groce, N., et al., *Water and sanitation issues for persons with disabilities in low-and middle-income countries: a literature review and discussion of implications for global health and international development*. *Journal of Water and Health*, 2011. **9**(4): p. 617-627.
5. White, S., et al., *A Qualitative Study of Barriers to Accessing Water, Sanitation and Hygiene for Disabled People in Malawi*. *PLOS ONE*, 2016. **11**(5): p. e0155043.
6. Organization, W.H., *World Health Organization (WHO) and United Nations Children's Fund (UNICEF) release first ever" state of the world vaccines" report*, in *World Health Organization (WHO) and United Nations Children's Fund (UNICEF) release first ever" state of the world vaccines" report*. 1996.
7. Alam, M.J. and W. Bryant, *Access to water and sanitation for people with paraplegia living in rural communities in Bangladesh*. *Cogent Medicine*, 2016. **3**(1): p. 1233686.
8. Enfield, S., *Mainstreaming Disability and Making WASH Programmes Inclusive*, in *K4D Helpdesk Report*. 2018: Brighton, UK. p. 17.
9. Wilbur, J., et al., *"I'm scared to talk about it": exploring experiences of incontinence for people with and without disabilities in Vanuatu, using mixed methods*. *The Lancet Regional Health—Western Pacific*, 2021. **14**.
10. BBS, *Preliminary Report on Household Income and Expenditure Survey (HIES) 2016*. 2016.
11. Bangladesh Bureau of Statistics (BBS), *National Survey on Persons with Disabilities (NSPD)-2021 Preliminary Report*. 2022a.
12. Uddin, T., et al., *Disability and rehabilitation medicine in Bangladesh: current scenario and future perspectives*. *Journal of the International Society of Physical and Rehabilitation Medicine*, 2019. **2**(4): p. 168-177.
13. Rahman, M., A.M. Guntupalli, and J.E. Byles, *Socio-demographic differences of disability prevalence among the population aged 60 years and over in Bangladesh*. *Asian Population Studies*, 2018. **14**(1): p. 77-95.
14. Islam, F.M.A., et al., *Factors associated with disability in rural Bangladesh: Bangladesh Population-based Diabetes and Eye Study (BPDES)*. *PloS one*, 2016. **11**(12): p. e0165625.
15. Tareque, M.I., et al., *Gender differences in functional disability and self-care among seniors in Bangladesh*. *BMC geriatrics*, 2017. **17**: p. 1-12.
16. Sultana, A. and J. Gulshan, *Extent and background factors of physical and mental disability in Bangladesh*. *The Dhaka University Journal of Science*, 2014. **62**(1): p. 55-58.
17. Tareque, M.I., S. Begum, and Y. Saito, *Inequality in disability in Bangladesh*. *PLoS One*, 2014. **9**(7): p. e103681.
18. Marella, M., et al., *Prevalence and correlates of disability in Bogra district of Bangladesh using the rapid assessment of disability survey*. *BMC public health*, 2015. **15**: p. 1-9.
19. Cf, O., *Transforming our world: the 2030 Agenda for Sustainable Development*. United Nations: New York, NY, USA, 2015.
20. Kuper, H., et al., *Exploring the links between water, sanitation and hygiene and disability; Results from a case-control study in Guatemala*. *PloS one*, 2018. **13**(6): p. e0197360.
21. Mactaggart, I., et al., *Access to water and sanitation among people with disabilities: results from cross-sectional surveys in Bangladesh, Cameroon, India and Malawi*. *BMJ open*, 2018. **8**(6): p. e020077.
22. Bernabe-Ortiz, A., et al., *Inclusion of persons with disabilities in systems of social protection: a population-based survey and case-control study in Peru*. *BMJ open*, 2016. **6**(8): p. e011300.

23. Ahuma-Smith, C., B. Samson, and G. Dokyi, *Access to Public Toilets Facilities Amongst Physically Challenged People*. International Journal of Engineering and Technology, 2020. **9**: p. 1353-1357.
24. Barnhart, W.R., et al., *Implementing living independent from tobacco with dyads of people with disabilities and their caregivers: successes and lessons learned*. Intellectual and Developmental Disabilities, 2020. **58**(3): p. 241-250.
25. UN, *Convention on the Rights of Persons with Disabilities and Optional Protocol*. 2006.
26. Houben, F., et al., *Barriers and facilitators to infection prevention and control in Dutch psychiatric institutions: a theory-informed qualitative study*. BMC Infectious Diseases, 2022. **22**(1): p. 1-15.
27. Kamban, N. and W. Norman, *Inclusive WASH development: technology adaptations for persons with disabilities*. 2013.
28. Wilbur, J., et al., *A qualitative cross-sectional study exploring the implementation of disability-inclusive WASH policy commitments in Svay Reing and Kampong Chhnang Provinces, Cambodia*. Frontiers in Water, 2022. **4**: p. 963405.
29. Mvere, C., et al., *Creating environments to support participation of people with disabilities in public service delivery*.
30. Kuper, H., *Disability, mental health, stigma and discrimination and neglected tropical diseases*. Transactions of The Royal Society of Tropical Medicine and Hygiene, 2021. **115**(2): p. 145-146.
31. Wilbur, J., et al., *"The weather is not good": exploring the menstrual health experiences of menstruators with and without disabilities in Vanuatu*. The Lancet Regional Health—Western Pacific, 2022. **18**.
32. UNICEF, W., *WHO (2015) Progress on sanitation and drinking water: 2015 update and MDG assessment*. World Health Organization, Geneva, 2016.
33. WHO. *WHO Publishes Global Review of WASH and Health Links*. 2020 [cited 2022 21 October]; Available from: <https://sdg.iisd.org/news/who-publishes-global-review-of-wash-and-health-links/>.
34. Mactaggart, I., et al., *Water, women and disability: Using mixed-methods to support inclusive WASH programme design in Vanuatu*. The Lancet Regional Health - Western Pacific, 2021. **8**: p. 100109.
35. Organization, W.H., *World report on disability*. Geneva: World Health Organization; 2011. 2016.
36. United Nations, *Disability and Development Report- Realizing the Sustainable Development Goals by, for and with persons with disabilities* 2018, Department of Economic and Social Affairs Social Inclusion: New York. p. 365.
37. World Health Organization (WHO) and United Nations Children's Fund (UNICEF), *Progress on household drinking water, sanitation and hygiene 2000-2020: Five years into the SDGs*. 2021: Geneva. p. 164.
38. Bangladesh Bureau of Statistics (BBS), *National Survey on Persons with Disabilities (NSPD) 2019 Project*, Statistics and Informatics Division (SID), Editor. 2022, Bangladesh Bureau of Statistics (BBS), Ministry of Planning, Government of the People's Republic of Bangladesh: Bangladesh. p. 85.
39. Wilbur, J., *Translating disability-inclusive WASH policies into practice: lessons learned from Bangladesh*. Translating disability-inclusive WASH policies into practice: lessons learned from Bangladesh, 2022.
40. Bangladesh, G.o.t.P.s.R.o., *Rights and Protection of Persons with Disabilities Act 2013*. 2013.
41. Nuri, R.P., et al., *The Bangladeshi Rights and Protection of Persons with Disability Act of 2013: a policy analysis*. Journal of Disability Policy Studies, 2022. **33**(3): p. 178-187.
42. Ministry of Local Government, R.D.C.-o., *National Menstrual Hygiene Management Strategy 2021*. 2021.

43. Chowdhury, M.A., et al., *WASH and MHM experiences of disabled females living in Dhaka slums of Bangladesh*. Journal of Water, Sanitation and Hygiene for Development, 2022. **12**(10): p. 683-697.
44. Nowreen, S., et al., *A participatory SWOT analysis on water, sanitation, and hygiene management of disabled females in Dhaka slums of Bangladesh*. Journal of Water, Sanitation and Hygiene for Development, 2022. **12**(7): p. 542-554.
45. Frankel FD, M.R.R.o.C.F.T.P.o.-d.-.
46. Power, R., et al., *'Flower of the body': menstrual experiences and needs of young adolescent women with cerebral palsy in Bangladesh, and their mothers providing menstrual support*. BMC Women's Health, 2020. **20**(1): p. 160.
47. Islam, R.M., et al., *Types of urinary incontinence in Bangladeshi women at midlife: Prevalence and risk factors*. Maturitas, 2018. **116**: p. 18-23.
48. Cherry, N., et al., *Disability among elderly rural villagers: report of a survey from Gonoshasthaya Kendra, Bangladesh*. BMC Public Health, 2012. **12**(1): p. 379.
49. Hafskjold, B., et al., *Taking Stock: Incompetent at incontinence — why are we ignoring the needs of incontinence sufferers?* Waterlines, 2016. **35**(3): p. 219-227.
50. Stenzelius K, M.U., Odeberg J, et al. The effect of conservative treatment of urinary incontinence among older and frail older people: A systematic review. Age Ageing. 2015;44(5):736-744. doi:10.1093/ageing/afv070.
51. Wagg A, C.Z., Galarneau JM, et al. Exercise intervention in the management of urinary incontinence in older women in villages in Bangladesh: a cluster randomised trial. Lancet Glob Heal. 2019;7(7):e923-e931. doi:10.1016/S2214-109X(19)30205-0.
52. WHO, W., World report on disability. Geneva: WHO, 2011.
53. WHO, A.t.F.s.
54. Organization, W.h., Assistive technology, Key facts. Geneva, May, 2018.
55. Rohwerder, B., Assistive technologies in developing countries. 2018.
56. Tangcharoensathien, V., et al., Improving access to assistive technologies: challenges, a.s.i.l.-a.m.-i.c.W.S.-E.A.j. of, and p. public health.
57. Thapaliya, M.P., A report on disability in Nepal. Australian Himalayan Foundation: and A. Sydney, 2016.
58. Tebbutt E, B.R., Borg J, et al. Assistive products and the sustainable development goals. Global Health. 2016;12(1):79. and P. [Crossref], [Google Scholar].
59. Processes of assistive technology service delivery in Bangladesh, I.a.N.a.c.r.
60. Borg, J.a.P.-O.Ö., Users' perspectives on the provision of assistive, p. technologies in Bangladesh: awareness, costs and barriers. Disability and, and p.-. Rehabilitation: Assistive Technology.
61. Sharmin, S., *Impact of Social Safety Net Program:: A Case Study of Kadirpur Union of Shibchar Upazila, Madaripur District*. Bangladesh Journal of Public Administration, 2022. **30**(4): p. 69-88.
62. Al Imam, M.H., et al., *A social business model of early intervention and rehabilitation for people with disability in rural Bangladesh*. Brain Sciences, 2022. **12**(2): p. 264.
63. Snel, M., K. Bostoen, and A. Biran, *Strengthening the role of WASH and disabilities in Bangladesh*. 2015.
64. Statistics, W.G.o.D. *The Washington Group Short Set on Functioning – Enhanced (WG-SS Enhanced)*. 2022; Available from: <https://www.washingtongroup-disability.com/question-sets/wg-short-set-on-functioning-enhanced-wg-ss-enhanced/>.
65. Bangladesh Bureau of Statistics (BBS); Statistics and Informatics Division (SID), M.o.P., *Report on Bangladesh Sample Vital Statistics 2018*. 2019.
66. Jones, H., *WASH, disability and ageing-a continuum framework to monitor progress on mainstreaming*. 2013.

67. Cherry, N., et al., *Disability among elderly rural villagers: report of a survey from Gonoshasthaya Kendra, Bangladesh*. BMC Public Health, 2012. **12**(1): p. 1-11.
68. Hosain, G., *Disability problem in a rural area of Bangladesh*. Bangladesh Medical Research Council Bulletin, 1995. **21**(1): p. 24-31.
69. Bangladesh Bureau of Statistics (BBS), *National Hygiene Survey 2020*. 2020.
70. Ahmed, M.S., et al., *Mapping and situation analysis of basic WASH facilities at households in Bangladesh: Evidence from a nationally representative survey*. Plos one, 2021. **16**(11): p. e0259635.
71. Cavill, S., et al., *WASH and older people*. 2022.
72. Murray, C.J. and A.D. Lopez, *Global mortality, disability, and the contribution of risk factors: Global Burden of Disease Study*. The lancet, 1997. **349**(9063): p. 1436-1442.
73. Oskam, M.J., et al., *Socio-economic inequalities in access to drinking water among inhabitants of informal settlements in South Africa*. International Journal of Environmental Research and Public Health, 2021. **18**(19): p. 10528.
74. Banks, L.M., et al., *Are current approaches for measuring access to clean water and sanitation inclusive of people with disabilities? Comparison of individual-and household-level access between people with and without disabilities in the Tanahun district of Nepal*. PLoS one, 2019. **14**(10): p. e0223557.
75. O'Dwyer, S.T., et al., *Suicidality in family caregivers of people with long-term illnesses and disabilities: A scoping review*. Comprehensive psychiatry, 2021. **110**: p. 152261.
76. SK Wijesiri, H.M., et al., *Experiences of family caregivers of the older people with limitations in activities: A qualitative study*. Health & Social Care in the Community, 2022. **30**(6): p. e6511-e6520.
77. Imrie, R. and P. Hall, *Inclusive design: designing and developing accessible environments*. 2003: Taylor & Francis.
78. UNRWA, *Disability Inclusion Guidelines*. 2017.
79. Development, M.o.R., *NATIONAL GUIDELINES ON WASH FOR PERSONS WITH DISABILITIES AND OLDER PEOPLE*. 2017.
80. Societies, I.F.o.R.C.a.R.C., *Inclusive WASH Menstrual Hygiene Management Friendly and Accessible WASH Facilities for Emergencies Manual for Template Designs*. 2022.
81. Slekiene, J. and H.-J. Mosler, *The link between mental health and safe drinking water behaviors in a vulnerable population in rural Malawi*. BMC psychology, 2019. **7**: p. 1-14.
82. Slekiene, J. and H.-J. Mosler, *Does poor mental health change the influence of interventions on handwashing in a vulnerable population of rural Malawi? The key role of emotions*. Journal of Water, Sanitation and Hygiene for Development, 2021. **11**(3): p. 350-361.
83. Mikulincer, M., U. Lifshin, and P.R. Shaver, *Towards an anxiety-buffer disruption approach to depression: Attachment anxiety and worldview threat heighten death-thought accessibility and depression-related feelings*. Journal of Social and Clinical Psychology, 2020. **39**(4): p. 238-273.
84. Ha, M.A.T. and M.Z. Alam, *Menstrual hygiene management practice among adolescent girls: an urban–rural comparative study in Rajshahi division, Bangladesh*. BMC Women's Health, 2022. **22**(1): p. 86.
85. Shibeshi, B.Y., A.A. Emiru, and M.B. Asresie, *Disparities in menstrual hygiene management between urban and rural schoolgirls in Northeast, Ethiopia*. PLoS One, 2021. **16**(9): p. e0257853.
86. Wilbur, J., et al., *Qualitative study exploring the barriers to menstrual hygiene management faced by adolescents and young people with a disability, and their carers in the Kavrepalanchok district, Nepal*. BMC Public Health, 2021. **21**(1): p. 1-15.
87. Nazarko, L., *Continence series 4: the importance of assessment*. British Journal of Healthcare Assistants, 2013. **7**(3): p. 118-124.

10 ANNEX

10.1 ANNEX: STUDY SITES

Bangladesh is constituted by eight administrative divisions: Barishal, Chattogram, Dhaka, Mymensingh, Khulna, Rajshahi, Rangpur, and Sylhet. Each division is further subdivided into zilas and upazilas. The urban areas of an upazila are divided into wards, which are then subdivided into smaller administrative units, "mohallas." The rural areas of an upazila are divided into union parishads (UPs), and "mouzas" are the smallest administrative units within UPs.

The study samples were stratified by divisions, and a three-stage Probability Proportional to Size sampling (PPS) and Simple Random Sampling (SRS) techniques were employed to designate the study area. The primary and secondary sampling units were chosen using the PPS method, while the cluster selection was done using the SRS method.

In the first stage, a total of 32 districts were selected from eight divisions of Bangladesh using probability proportional to division size sampling with independent selection in each division. In the 2nd stage, the Population and Housing Census data, 2011, of Bangladesh was used for enlisting the complete enumeration areas (EAs) in the selected districts, serving as a sampling frame. The sampling frame includes data on the geographic location of enumeration areas (EAs), the classification of regions as either urban or rural, and an estimate of the total number of households in that area. Three rural and two urban EAs were randomly selected from each of the 32 districts using the PPS sampling method. The size of each EA was determined by the number of households within its boundaries. In the 3rd stage of the HHs selection, each EA was divided into clusters consisting of 30 households. Subsequently, one cluster, including 30 households, was chosen at random as the sample cluster. In total, 160 clusters were chosen from 32 districts.

Table A1: Selected study area list

| Division | District | Smallest Administrative Areas |
|------------|-------------------|--|
| Barisal | Barisal Zila | Natun Char Jahapur, Sat Hazar Bigha, Uttar Char Ekkuria, Rangasree Paschim, Oxford Mission Road (Part) |
| | Bhola Zila | Char Ananda Part-1, Andhirpar, Uttar Rahmanpur, Bazar, Dakshin Char Noabad |
| | Patuakhali Zila | Ruzna, Naluabagi, Kalagachhia, Pirtala, Natun Bazar |
| Chittagong | Khagrachhari Zila | Uttar Milonpur, Dattaram Para, Joy Kumer Karbari Para, Perachhara (Part), Lalchhari Para |

| | | |
|-------------------|------------------|---|
| | Chandpur Zila | Nayakandi (Part), Kapaikap, Dakshin Gazipur, Barali (paschim), Matain |
| | Chittagong Zila | Sailkopa, Shannagar, Dakshin Sarta, Ticket Printing Press, Sarai Para (Part) |
| | Cox's Bazar Zila | PurbaLeda, Lemsikhali, Sahargona, Paschim Natun Baharchara, Talipara (Bazar Para) |
| | Feni Zila | Sharifpur, Uttar Sreepur, Dakshin Sahapur, Sultanpur, Uttar Gutuma Mauza |
| Dhaka | Dhaka Zila | Baghasur, Jhanki, Taraf Rajaghat, Kalachandpur, Matikata |
| | Gopalganj Zila | Deopura, Paikdia, Uttarpara, Ghoپردanga part, Kashiani |
| | Kishoreganj Zila | Bade Dhulir Char, Ganergaon, Kathalia, Dhulihar (part), Kamalpur (Pashim) |
| | Madaripur Zila | Satpar, Paschim Kakair, Naohata, Char Khagdi (Part-2), Uttar Rajdi |
| | Munshiganj Zila | Haria, Baram, Chashi Char, Ranchha, Nagarkandi |
| | Narsingdi Zila | Shiberkandi, Lebutala, Dolirpar, Khanepur Bazar, Tulatuli |
| | Tangail Zila | Bahrampur, Narunda, Chapaid, Thanapara, Joynabari |
| Khulna | Jhenaidah Zila | Jitarpur, Ghop Para, Char Para, Kazi Para, Chhota Kamarkunda |
| | Khulna Zila | Madhya Kamarol, Maloth, Khalsibunia, Chorabati, Khalishpur H.E (Paschim Block) |
| | Kushtia Zila | Dangi Para, Kaipal, Patuakandi, Udoy Bishnupur, Housing Estate (Block-A) |
| | Meherpur Zila | Tangi, Parandarpur, Shola Taka, Halder Para, Purba Malshadah |
| | Satkhira Zila | Kripa Rampur, Kamar Bayesa, Chakla, Rahimabad, Shitalpur |
| Mymensingh | Jamalpur Zila | Pramanik Para, Kashtasinga, Dari Hamidpur, Purba Nager Para, Tentulia |

| | | |
|-----------------|------------------|---|
| | Netrakona Zila | Nala Para, Nasibpur, Durgasram, Dakshin Sukhari (Part), Nagar Uttar |
| Rajshahi | Bogra Zila | Nisu Para, Damgara, Paschim Singra, Kalamgari, Khamarkandi(Part) |
| | Joypurhat Zila | Joypur, Shirati, Naojore, Bamonpur Part, Hastabasantapur(Part)(Purba) |
| | Naogaon Zila | Abid Para, Doas, Chaitanyapur, Post Office Para, Chakjoyram |
| | Rajshahi Zila | Haidarhat, Jot Kadirpur, Kuda Para, Tilahari, Haragram Colony |
| Rangpur | Dinajpur Zila | Khairul, Barahat, Patalsa, Chakchaka, Dakshin Basudebpur |
| | Gaibandha Zila | Atgharia, Daldalia, Bahadurpur, Ramdaukua, Jot Kalika Prasad |
| | Kurigram Zila | Ruhirpar, Chhatrajit, Bepari Para, Jola Para, Purba Naodanga |
| | Rangpur Zila | Gausa Para, Amrulbari, Bander Para, Babukhan, Ershad Nagar |
| Sylhet | Maulvibazar Zila | Naria, Parchakra, Nalapunji, Kandigaon, Barkapan |
| | Sylhet Zila | Kukurali, Matargram, Charigram, Mominkhola (Part), Uttar Rankeli |

10.2 ANNEX: WASH SERVICE LADDER

The WHO/ UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) service ladders used to measure and evaluate drinking water, sanitation, and hygiene service levels across Bangladesh. Household WASH is allowed to be categorized as below by the standardized questions about water and sanitation facilities, and ownership of the facilities. However, we didn't collect data on the quality of the water or chemical contamination, or disposal of faecal excreta. Therefore, our drinking water and sanitation ladder didn't include "safely managed" service level.

Improved drinking water source: These have the potential to deliver safe water by nature of their design and construction. Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water.

Unimproved drinking water source: These included those water sources which by nature of their design and construction, are unlikely to deliver safe water. Unimproved sources include: unprotected dug wells, unprotected springs, and surface water.

Improved sanitation facilities: These are designed to hygienically separate human excreta from human contact. These include wet sanitation technologies such as flush and pour flush toilets connected to sewers, septic tanks, or pit latrines, and dry sanitation technologies such as dry pit latrines with slabs and composting toilets.

Unimproved sanitation facilities: These include Flush/ pour flush to elsewhere (eg. open drain), pit latrine without slab/ open pit, bucket, hanging toilet/ hanging latrine, no facility/ bush/ field.

Excreta flow diagrams can be used to represent the categorization of the level of these services.

Drinking Water Ladder

| | |
|--|---|
| | Safely Managed: Drinking water from an improved water source that is located on premises, available when needed and free from fecal and priority chemical contamination. |
| | Basic: Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing. |
| | Limited: Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing. |
| | Unimproved: Drinking water from an unprotected dug well or unprotected spring. |
| | Surface Water: Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal. |

Source of definition: <https://washdata.org/monitoring/drinking-water>

Sanitation Ladder

| | |
|--|--|
| | Safely Managed: Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite. |
| | Basic: Use of improved facilities that are not shared with other households |
| | Limited: Use of improved facilities shared between two or more household |
| | Unimproved: Use of pit latrines without a slab or platform, hanging latrines or bucket latrines |
| | Open Defecation: Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste |

Source of definition: <https://washdata.org/monitoring/sanitation>

Handwashing Ladder

| | |
|--|--|
| | Basic: Availability of a handwashing facility on premises with soap and water. |
| | Limited: Availability of handwashing facility on premises without soap and water. |
| | No Facility: No handwashing facility on premises. |

Source of definition: <https://washdata.org/monitoring/hygiene>

10.3 ANNEX: ADDITIONAL TABLES

Table 10: Socio-demographic profile of the screening participants

| Indicators | Person with disabilities | Person without disabilities | AOR (95% CI) | Total |
|--------------------------------|--------------------------|-----------------------------|------------------------------|---------------|
| N | 1434 | 16143 | | 17577 |
| Division | | | | |
| Barishal | 165 (12%) | 1405 (8.7%) | ref. | 1570 (8.9%) |
| Chattogram | 203 (14%) | 2716 (17%) | 0.73 (0.36 - 1.49) | 2919 (16.6%) |
| Dhaka | 316 (22%) | 3462 (21%) | 0.86 (0.41 - 1.77) | 3778 (21.5%) |
| Khulna | 197 (14%) | 2734 (17%) | 0.62 (0.30 - 1.29) | 2931 (16.7%) |
| Mymensingh | 81 (5.6%) | 961 (6.0%) | 0.79 (0.38 - 1.63) | 1042 (5.9%) |
| Rajshahi | 202 (14%) | 1709 (11%) | 1.06 (0.49 - 2.28) | 1911 (10.9%) |
| Rangpur | 185 (13%) | 1929 (12%) | 0.85 (0.39 - 1.80) | 2114 (12.0%) |
| Sylhet | 85 (5.9%) | 1227 (7.6%) | 0.72 (0.35 - 1.46) | 1312 (7.5%) |
| Type of region | | | | |
| Urban | 579 (40%) | 6402 (40%) | ref. | 6981 (40%) |
| Rural | 855 (60%) | 9741 (60%) | 0.92 (0.79 - 1.07) | 10596 (60%) |
| Age (in Years) | | | | |
| 5-9 | 34 (2.4%) | 1488 (9.2%) | ref. | 1522 (8.7%) |
| 10-17 | 71 (5.0%) | 2933 (18%) | 1.08 (0.81 - 1.46) | 3004 (17.1%) |
| 18-35 | 221 (15%) | 5936 (37%) | 1.57 (1.08 - 2.26) | 6157 (35.0%) |
| 36-49 | 217 (15%) | 2723 (17%) | 3.45 (2.38 - 5.01) | 2940 (16.7%) |
| 50-59 | 217 (15%) | 1531 (9.5%) | 6.19 (4.34 - 8.84) | 1748 (9.9%) |
| 60-69 | 284 (20%) | 1074 (6.7%) | 11.97 (8.52 - 16.84) | 1358 (7.7%) |
| 70+ | 390 (27%) | 458 (2.8%) | 42.25 (28.57 - 62.47) | 848 (4.8%) |
| Age category | | | | |
| Younger | 760 (53%) | 14611 (91%) | ref. | 15371 (87.4%) |
| Older | 674 (47%) | 1532 (9.5%) | 9.12 (7.96 - 10.45) | 2206 (12.6%) |
| Sex | | | | |
| Male | 619 (43%) | 7740 (48%) | ref. | 8359 (47.6%) |
| Female | 815 (57%) | 8399 (52%) | 1.45 (1.25 - 1.69) | 9214 (52.4%) |
| Other | 0 (0.0%) | 1 (<1%) | - | 1 (<1%) |
| 3rd gender | 0 (0.0%) | 3 (<1%) | - | 3 (<1%) |
| Education | | | | |
| No education (can't even sign) | 491 (34%) | 1109 (6.9%) | ref. | 1600 (9.1%) |
| Can sign only | 307 (21%) | 2081 (13%) | 0.44 (0.36 - 0.53) | 2388 (13.6%) |
| Pre-primary education | 53 (3.7%) | 1189 (7.4%) | 0.41 (0.27 - 0.63) | 1242 (7.1%) |
| Primary education | 241 (17%) | 4001 (25%) | 0.39 (0.32 - 0.49) | 4242 (24.1%) |
| Secondary education | 248 (17%) | 5102 (32%) | 0.34 (0.26 - 0.43) | 5350 (30.4%) |
| Higher-Secondary education | 46 (3.2%) | 1297 (8.0%) | 0.25 (0.19 - 0.33) | 1343 (7.6%) |

| Indicators | Person with disabilities | Person without disabilities | AOR (95% CI) | Total |
|---------------------------------------|--------------------------|-----------------------------|-----------------------------|--------------------|
| N | 1434 | 16143 | | 17577 |
| Higher education | 37 (2.6%) | 876 (5.4%) | 0.23 (0.14 - 0.37) | 913 (5.2%) |
| Madrassa | 11 (0.8%) | 488 (3.0%) | 0.36 (0.18 - 0.71) | 499 (2.8%) |
| Employment status | | | | |
| Full time employment | 37 (2.6%) | 969 (6.0%) | ref. | 1006 (5.7%) |
| Part-time employment | 54 (3.8%) | 992 (6.1%) | 1.36 (0.73 - 2.52) | 1046 (6.0%) |
| Self-employed | 186 (13%) | 3035 (19%) | 1.27 (0.79 - 2.03) | 3221 (18.3%) |
| Home-maker | 496 (35%) | 5343 (33%) | 1.49 (0.88 - 2.55) | 5839 (33.2%) |
| Student | 73 (5.1%) | 4817 (30%) | 1.05 (0.56 - 1.99) | 4890 (27.8%) |
| Retired | 173 (12%) | 211 (1.3%) | 5.23 (2.93 - 9.31) | 384 (2.2%) |
| Unemployed | 400 (28%) | 693 (4.3%) | 10.58 (6.28 - 17.84) | 1093 (6.2%) |
| Other (please specify) | 15 (1.0%) | 83 (0.5%) | 3.84 (1.41 - 10.45) | 98 (0.6%) |
| Marital status | | | | |
| Married/living together | 845 (59%) | 9704 (60%) | ref. | 10549 (60.0%) |
| Divorced/separated | 36 (2.5%) | 108 (0.7%) | 4.92 (3.29 - 7.35) | 144 (0.8%) |
| Widowed | 346 (24%) | 637 (3.9%) | 1.54 (1.31 - 1.81) | 983 (5.6%) |
| Never married | 207 (14%) | 5694 (35%) | 3.66 (2.72 - 4.95) | 5901 (33.6%) |
| Household Size (mean \pm sd) | 4.41 (\pm 1.95) | 4.71 (\pm 1.84) | 0.97 (0.93 - 1.0)* | 4.68 (\pm 1.85) |

Table 11: Socio-demographic profile of the screening participants

| Indicators | Person with disabilities | Person without disabilities | AOR (95% CI) | Older (60+) | Younger (5-59y) | AOR (95% CI) | Total |
|------------------------------|--------------------------|-----------------------------|---------------------------|-------------|-----------------|---------------------------|------------|
| N | 1253 | 1125 | | 997 | 1381 | | 2378 |
| | n (%) | n (%) | | n (%) | n (%) | | n (%) |
| Disability status | | | | | | | |
| Persons with disabilities | - | - | - | 604 (61%) | 649 (47%) | 1.84 (1.60 - 2.11) | |
| Persons without disabilities | - | - | - | 393 (39%) | 732 (53%) | Ref. | |
| Types of region | | | | | | | |
| Urban | 503 (40%) | 435 (39%) | ref. | 357 (36%) | 581 (42%) | ref. | 938 (39%) |
| Rural | 750 (60%) | 690 (61%) | 0.85 (0.76 - 0.94) | 640 (64%) | 800 (58%) | 1.29 (0.97 - 1.74)* | 1440 (61%) |
| Age group | | | | | | | |
| Younger (<60 years) | 649 (52%) | 732 (65%) | ref. | - | - | | 1381 (58%) |
| Older (\geq 60 years) | 604 (48%) | 393 (35%) | 1.34 (1.08 - 1.66) | - | - | | 997 (42%) |
| Sex | | | | | | | |

| Indicators | Person with disabilities | Person without disabilities | AOR (95% CI) | Older (60+) | Younger (5-59y) | AOR (95% CI) | Total |
|--------------------------------|--------------------------|-----------------------------|----------------------------|-------------|-----------------|----------------------------|------------|
| N | 1253 | 1125 | | 997 | 1381 | | 2378 |
| | n (%) | n (%) | | n (%) | n (%) | | n (%) |
| Male | 527 (42%) | 464 (41%) | ref. | 479 (48%) | 512 (37%) | ref. | 991 (42%) |
| Female | 726 (58%) | 661 (59%) | 0.98 (0.92 - 1.03) | 518 (52%) | 869 (63%) | 0.62 (0.49 - 0.77) | 1387 (58%) |
| SES Index | | | | | | | |
| Poorest | 266 (21%) | 210 (19%) | ref. | 226 (23%) | 250 (18%) | ref. | 476 (20%) |
| Second | 247 (20%) | 229 (20%) | 0.82 (0.61 - 1.10) | 187 (19%) | 289 (21%) | 0.67 (0.52 - 0.86) | 476 (20%) |
| Middle | 269 (21%) | 206 (18%) | 1.03 (0.73 - 1.45) | 201 (20%) | 274 (20%) | 0.83 (0.65 - 1.05) | 475 (20%) |
| Fourth | 238 (19%) | 238 (21%) | 0.74 (0.55 - 0.99) | 202 (20%) | 274 (20%) | 0.91 (0.68 - 1.23) | 476 (20%) |
| Wealthiest | 233 (19%) | 242 (22%) | 0.67 (0.52 - 0.87) | 181 (18%) | 294 (21%) | 0.69 (0.50 - 0.96) | 475 (20%) |
| Education | | | | | | | |
| No education (can't even sign) | 446 (36%) | 209 (19%) | ref. | 446 (45%) | 209 (15%) | ref. | 655 (28%) |
| Can sign only | 266 (21%) | 282 (25%) | 0.45 (0.35 - 0.57) | 252 (25%) | 296 (21%) | 0.36 (0.28 - 0.47) | 548 (23%) |
| Pre-primary education | 49 (3.9%) | 49 (4.4%) | 0.58 (0.37 - 0.91) | 25 (2.5%) | 73 (5.3%) | 0.13 (0.08 - 0.21) | 98 (4.1%) |
| Primary education | 214 (17%) | 240 (21%) | 0.43 (0.31 - 0.59) | 125 (13%) | 329 (24%) | 0.14 (0.10 - 0.19) | 454 (19%) |
| Secondary education | 206 (16%) | 246 (22%) | 0.43 (0.32 - 0.59) | 99 (9.9%) | 353 (26%) | 0.09 (0.06 - 0.13) | 452 (19%) |
| Higher-Secondary education | 33 (2.6%) | 68 (6.0%) | 0.23 (0.14 - 0.40) | 31 (3.1%) | 70 (5.1%) | 0.13 (0.08 - 0.24) | 101 (4.2%) |
| Higher education | 30 (2.4%) | 22 (2.0%) | 0.62 (0.29 - 1.29) | 18 (1.8%) | 34 (2.5%) | 0.14 (0.08 - 0.26) | 52 (2.2%) |
| Madrassa | 9 (0.7%) | 9 (0.8%) | 0.82 (0.25 - 2.77) | 1 (0.1%) | 17 (1.2%) | 0.04 (0.003 - 0.39) | 18 (0.8%) |
| Employment status | | | | | | | |
| Full-time employment | 24 (1.9%) | 33 (2.9%) | ref. | 12 (1.2%) | 45 (3.3%) | ref. | 57 (2.4%) |
| Part-time employment | 45 (3.6%) | 58 (5.2%) | 0.87 (0.25 - 3.07) | 25 (2.5%) | 78 (5.6%) | 0.84 (0.39 - 1.81) | 103 (4.3%) |
| Self-employed | 143 (11%) | 234 (21%) | 0.75 (0.28 - 2.01) | 162 (16%) | 215 (16%) | 2.45 (1.12 - 5.37) | 377 (16%) |
| Home-maker | 436 (35%) | 538 (48%) | 0.65 (0.25 - 1.69) | 299 (30%) | 675 (49%) | 1.41 (0.64 - 3.13) | 974 (41%) |
| Student | 64 (5.1%) | 105 (9.3%) | 0.78 (0.26 - 2.29) | 0 (0.0%) | 169 (12%) | - | 169 (7.1%) |
| Retired | 156 (13%) | 45 (4.0%) | 3.51 (1.35 - 9.13) | 191 (19%) | 10 (0.7%) | - | 201 (8.5%) |
| Unemployed | 371 (30%) | 100 (8.9%) | 4.79 (1.61 - 14.27) | 289 (29%) | 182 (13%) | 4.91 (2.13 - 11.30) | 471 (20%) |
| Others | 14 (1.1%) | 12 (1.1%) | 1.38 (0.31 - 6.18) | 19 (1.9%) | 7 (0.5%) | 8.47 (2.78 - 25.83) | 26 (1.1%) |
| Marital status | | | | | | | |
| Married/living together | 720 (58%) | 816 (73%) | ref. | 597 (60%) | 939 (68%) | ref. | 1536 (65%) |

| Indicators | Person with disabilities | Person without disabilities | AOR (95% CI) | Older (60+) | Younger (5-59y) | AOR (95% CI) | Total |
|---------------------|--------------------------|-----------------------------|---------------------------|-------------|-----------------|-----------------------------|-----------|
| N | 1253 | 1125 | | 997 | 1381 | | 2378 |
| | n (%) | n (%) | | n (%) | n (%) | | n (%) |
| Divorced/ separated | 33 (2.6%) | 13 (1.2%) | 3.87 (2.15 - 6.96) | 15 (1.5%) | 31 (2.2%) | 0.70 (0.29 - 1.68) | 46 (1.9%) |
| Widowed | 315 (25%) | 168 (15%) | 1.39 (1.04 - 1.84) | 382 (38%) | 101 (7.3%) | 12.86 (8.92 - 18.51) | 483 (20%) |
| Never married | 185 (15%) | 128 (11%) | 5.36 (4.01 - 7.18) | 3 (0.3%) | 310 (22%) | - | 313 (13%) |

Table 12: Access to drinking water facility (Household)

| Indicators | Rural | | | | Urban | | | | Overall | | | | AOR (95% CI) |
|--|-----------------------------|----|--------------------------------|----|-----------------------------|-----|--------------------------------|----|-----------------------------|----|--------------------------------|----|------------------------|
| | Household with disabilities | | Household without disabilities | | Household with disabilities | | Household without disabilities | | Household with disabilities | | Household without disabilities | | |
| | n | % | n | % | N | % | n | % | n | % | n | % | |
| N | 673 | | 575 | | 441 | | 328 | | N=1120 | | N=897 | | |
| Drinking water source types | | | | | | | | | | | | | |
| Piped into dwelling | 35 | 5 | 70 | 12 | 168 | 38 | 130 | 40 | 241 | 22 | 223 | 25 | ref. |
| Piped into yard or plot | 88 | 13 | 78 | 14 | 87 | 20 | 70 | 21 | 183 | 16 | 154 | 17 | 1.1 (0.8 - 1.5) |
| Public tap/ standpipe | 29 | 4 | 15 | 3 | 2 | 1 | 7 | 2 | 27 | 2 | 22 | 2 | 1.6 (1.1 - 2.3) |
| Tubewell/ Borehole | 503 | 75 | 405 | 70 | 173 | 39 | 115 | 35 | 640 | 57 | 484 | 54 | 1.3 (1.0 - 1.7) |
| Pre-Bottled water | 7 | 1 | 0 | 0 | 8 | 2 | 2 | 1 | 16 | 1 | 2 | 0 | 2.3 (0.5 - 10.5) |
| Surface water (River, dam, lake, pond, stream, Canal, irrigation channels) | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0.2 (0.01 - 5.1) |
| Other | 8 | 1 | 2 | 0 | 3 | 1 | 3 | 1 | 10 | 1 | 5 | 1 | 0.9 (0.5 - 1.9) |
| Drinking water source | | | | | | | | | | | | | |
| Unimproved | 503 | 75 | 407 | 71 | 173 | 39 | 116 | 35 | 640 | 57 | 487 | 54 | 0.8 (0.7 - 0.9) |
| Improved | 169 | 25 | 168 | 29 | 268 | 61 | 213 | 65 | 480 | 43 | 410 | 46 | ref. |
| Drinking water ladder | N=146 | | N=147 | | N=173 | | N=138 | | | | | | |
| Basic | 145 | 99 | 139 | 95 | 172 | 100 | 132 | 96 | 323 | 99 | 267 | 96 | ref. |
| Limited | 1 | 0 | 6 | 4 | 1 | 0 | 5 | 4 | 1 | 0 | 10 | 4 | 0.6 (0.1 - 3.0) |
| Surface water | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 0.2 (0.01 - 3.2) |

| Indicators | Rural | | | | Urban | | | | Overall | | | | AOR (95% CI) |
|--|-----------------------------|----|--------------------------------|----|-----------------------------|----|--------------------------------|----|-----------------------------|-----|--------------------------------|-----|-------------------------|
| | Household with disabilities | | Household without disabilities | | Household with disabilities | | Household without disabilities | | Household with disabilities | | Household without disabilities | | |
| | n | % | n | % | N | % | n | % | n | % | n | % | |
| N | 673 | | 575 | | 441 | | 328 | | N=1120 | | N=897 | | |
| Water purification measures taken by HH | N=20 | | N=15 | | N=47 | | N=34 | | | | | | |
| Boil | 6 | 32 | 11 | 70 | 37 | 80 | 31 | 90 | 162 | 14 | 138 | 15 | 0.3 (0.1 - 0.9) |
| Add bleach/chlorine/aqua tablets | 1 | 7 | 2 | 15 | 1 | 1 | 0 | 1 | 4 | 0.3 | 3 | 0.3 | 0.2 (0.08 - 0.8) |
| Strain it through a cloth | 1 | 5 | 0 | 2 | 1 | 2 | 0 | 1 | 5 | 0.5 | 2 | 0.2 | 0.8 (0.1 - 4.6) |
| Use water filter (ceramic/sand) | 11 | 54 | 13 | 88 | 14 | 30 | 13 | 38 | 69 | 6 | 67 | 7 | |

Table 13: Access to water facility by disability

| Indicators | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
|---|--------------------------|----|-----------------------------|-----|-----------------------------|--------|----|
| | n | % | n | % | | n | % |
| | N=1234 | | N=1144 | | | N=2378 | |
| Able to access drinking water when needed | 1,061 | 86 | 1,144 | 100 | 0.005 (0.001 - 0.04) | 2,205 | 93 |
| Reasons for unable to access | N=170 | | | | | N=170 | |
| I do not have the physical strength (e.g. the container is too heavy to lift) | 156 | 92 | - | - | - | 156 | 92 |
| I am visually impaired/blind and cannot see/find it | 9 | 5 | - | - | - | 9 | 5 |
| I have mobility difficulties and cannot grasp/hold or balance the container. | 112 | 66 | - | - | - | 112 | 66 |
| The container is out of reach/ too far | 13 | 8 | - | - | - | 13 | 8 |
| There is no one at home to assist me | 4 | 3 | - | - | - | 4 | 3 |
| Other | 28 | 16 | - | - | - | 28 | 16 |
| Able to collect water personally | 643 | 52 | 914 | 80 | 0.11 (0.08 - 0.16) | 1,557 | 65 |
| Reasons for unable to collect water | N=462 | | N=88 | | | N=550 | |
| It would be physically difficult/impossible for me | 426 | 92 | 37 | 42 | 18.86 (6.91 - 51.47) | 463 | 84 |
| It is difficult for my caregiver eg. Lack of time, physically difficult | 74 | 16 | 0 | 0 | - | 74 | 13 |
| I am not allowed | 14 | 3 | 2 | 2 | - | 15 | 3 |

| Indicators | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
|--|--------------------------|----|-----------------------------|-----|---------------------------|--------|-----|
| | n | % | n | % | | n | % |
| | N=1234 | | N=1144 | | | N=2378 | |
| It is not my job/responsibility | 54 | 12 | 61 | 69 | 0.09 (0.04 - 0.19) | 115 | 21 |
| Water source is not accessible to me | 33 | 7 | 6 | 7 | 3.95 (0.59 - 26.52) | 39 | 7 |
| Other | 52 | 11 | 11 | 12 | 0.53 (0.20 - 1.41) | 63 | 11 |
| | N=694 | | N=985 | | | N=1679 | |
| Collecting water from the same source as other members of the household | 688 | 99 | 984 | 100 | - | 1672 | 100 |
| | N=694 | | N=985 | | | N=1679 | |
| Feeling safe in water collection | 636 | 92 | 946 | 96 | 0.33 (0.19 - 0.54) | 1582 | 94 |
| Reasons for not feeling safe | N=51 | | N=35 | | | N=86 | |
| Water point is far away from my home | 23 | 44 | 20 | 57 | - | 43 | 50 |
| People would abuse me verbally or physically | 7 | 13 | 0 | 0 | - | 7 | 8 |
| I don't feel secured when it is dark (eg. Night time, early morning) | 22 | 44 | 13 | 38 | - | 36 | 41 |
| Not enough light | 3 | 5 | 9 | 27 | - | 12 | 14 |
| Risk of animal attacks | 2 | 5 | 9 | 26 | - | 12 | 14 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 12 | 23 | 2 | 5 | - | 13 | 16 |
| Inaccessible water point (eg. no wheelchair access, non-adjustable height, difficult to operate the water point) | 6 | 11 | 6 | 16 | - | 11 | 13 |
| Water point area is muddy/ water clog/ slippery area | 11 | 21 | 8 | 22 | - | 18 | 21 |
| Poor infrastructure (Eg. Broken platform, Broken slab) | 4 | 7 | 3 | 7 | - | 6 | 7 |
| Have Customized water facility | 70 | 6 | 67 | 6 | 1.01 (0.70 - 1.45) | 136 | 6 |
| Key future adaptations require for the Water facility | | | | | | | |
| Improved Path (e.g. straightened/obstacles removed/smoothened/less slippery/widened) | 101 | 8 | 73 | 6 | 1.08 (0.78 - 1.50) | 174 | 7 |
| Facility moved closer to the household | 247 | 20 | 243 | 21 | 1.11 (0.90 - 1.38) | 490 | 21 |
| Improved seating facility (eg. seat/slab) | 106 | 9 | 67 | 6 | 1.68 (1.32 - 2.14) | 172 | 7 |
| Increased space inside facility | 108 | 9 | 79 | 7 | 1.19 (0.75 - 1.89) | 187 | 8 |
| Improve lighting | 55 | 4 | 37 | 3 | 1.07 (0.68 - 1.68) | 92 | 4 |
| Availability of additional water sources (bottled water, stored water) | 93 | 8 | 55 | 5 | 1.95 (1.09 - 3.51) | 148 | 6 |
| Height-adjustable water point | 12 | 1 | 18 | 2 | 0.92 (0.48 - 1.78) | 31 | 1 |

| Indicators | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
|---|--------------------------|----|-----------------------------|----|---------------------------|--------|----|
| | n | % | n | % | | n | % |
| | N=1234 | | N=1144 | | | N=2378 | |
| Availability of running water during all the day | 312 | 25 | 263 | 23 | 1.20 (0.98 - 1.47)* | 575 | 24 |
| Protected from outside contamination (use fence, cover or lid, constructed concrete platform) | 21 | 2 | 20 | 2 | 1.12 (0.74 - 1.68) | 41 | 2 |
| Add filtration (eg. Sand filtration, cloth filtration, rock filtration) | 93 | 8 | 71 | 6 | 1.14 (0.81 - 1.61) | 164 | 7 |
| Constructed steps/ stairs/path at the water point (eg. Pond, river) | 11 | 1 | 14 | 1 | - | 25 | 1 |
| I don't want any changes | 652 | 53 | 644 | 56 | 0.79 (0.65 - 0.97) | 1,295 | 54 |
| Other | 86 | 7 | 73 | 6 | 1.01 (0.69 - 1.46) | 158 | 7 |

Table 14: Access to water facility by disability over age

| Indicators | Older | | | | Younger | | | | Overall | | | | AOR (95% CI) |
|---|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|---------|----|---------|----|----------------------------|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Older | | Younger | | |
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| Able to access drinking water when needed | N=596 | | N=401 | | N=654 | | N= 727 | | N=997 | | N=1381 | | |
| | 466 | 78 | 401 | 100 | 599 | 92 | 727 | 100 | 867 | 87 | 1,327 | 96 | 0.35 (0.23 - 0.55) |
| Reasons for unable to access | N=109 | | | | N=61 | | | | N=109 | | N=61 | | |
| I do not have the physical strength (e.g. the container is too heavy to lift) | 100 | 92 | - | - | 56 | 92 | - | - | 100 | 92 | 56 | 92 | 2.74 (0.38 - 20.03) |
| I have mobility difficulties and cannot grasp/hold or balance the container. | 72 | 66 | - | - | 40 | 65 | - | - | 72 | 66 | 40 | 65 | 1.32 (0.52 - 3.38) |
| The container is out of reach/ too far | 8 | 8 | - | - | 5 | 8 | - | - | 8 | 8 | 5 | 8 | 0.28 (0.01 - 7.75) |
| Other | 5 | 4 | - | - | 24 | 39 | - | - | 5 | 4 | 24 | 39 | 0.03 (0.004 - 0.28) |
| Able to collect water personally | 241 | 40 | 316 | 79 | 397 | 61 | 584 | 80 | 557 | 56 | 981 | 71 | 0.35 (0.27 - 0.44) |
| Reasons for unable to collect water | N=283 | | N=58 | | 179 | | 30 | | N=341 | | 209 | | |
| It would be physically difficult/impossible for me | 270 | 95 | 33 | 57 | 156 | 87 | 5 | 16 | 303 | 89 | 161 | 77 | 3.63 (1.71 - 7.73) |
| It is difficult for my caregiver eg. Lack of time, physically difficult | 42 | 15 | 0 | 0 | 32 | 18 | 0 | 0 | 42 | 12 | 32 | 15 | 1.09 (0.59 - 2.02) |
| I am not allowed | 10 | 3 | 1 | 1 | 4 | 2 | 1 | 3 | 10 | 3 | 5 | 2 | - |
| It is not my job/responsibility | 38 | 13 | 37 | 64 | 16 | 9 | 24 | 79 | 75 | 22 | 40 | 19 | 0.56 (0.28 - 1.13) |
| Water source is not accessible to me | 22 | 8 | 6 | 10 | 11 | 6 | 0 | 0 | 28 | 8 | 11 | 5 | 1.08 (0.29 - 4.06) |
| Other | 22 | 8 | 5 | 8 | 29 | 16 | 6 | 19 | 27 | 8 | 35 | 17 | 0.66 (0.37 - 1.19) |
| | N=261 | | N=343 | | N=435 | | N=640 | | N=604 | | N=1075 | | |
| Feeling safe in water collection | 236 | 90 | 316 | 92 | 401 | 92 | 625 | 98 | 552 | 91 | 1,027 | 96 | 0.73 (0.48 - 1.13) |
| Reasons for not feeling safe | N=17 | | N=19 | | N=34 | | N=16 | | N=36 | | N=50 | | |

| Indicators | Older | | | | Younger | | | | Overall | | | | AOR (95% CI) |
|---|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|---------|----|---------|----|--------------------------|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Older | | Younger | | |
| | n | % | n | % | n | % | n | % | n | % | n | % | |
| | N=596 | | N=401 | | N=654 | | N= 727 | | N=997 | | N=1381 | | |
| Water point is far away from my home | 5 | 29 | 9 | 47 | 18 | 54 | 11 | 72 | 14 | 38 | 30 | 59 | - |
| People would abuse me verbally or physically | - | - | - | - | 7 | 21 | 0 | 0 | - | - | 7 | 15 | - |
| I don't feel secured when it is dark (eg. Night time, early morning) | 6 | 35 | 6 | 34 | 17 | 49 | 7 | 45 | 12 | 34 | 24 | 48 | - |
| Not enough light | 1 | 4 | 7 | 36 | 2 | 6 | 2 | 14 | 7 | 21 | 4 | 8 | - |
| Risk of animal attacks | 1 | 5 | 6 | 30 | 2 | 5 | 3 | 21 | 6 | 18 | 5 | 10 | - |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 3 | 18 | 0 | 0 | 9 | 25 | 2 | 13 | 3 | 9 | 11 | 22 | - |
| Inaccessible water point (eg. no wheelchair access, non-adjustable height, difficult to operate water point) | 1 | 7 | 5 | 27 | 5 | 14 | 0 | 0 | 6 | 17 | 5 | 10 | - |
| Water point area is muddy/ water clog/ slippery area | 4 | 25 | 4 | 19 | 6 | 19 | 4 | 26 | 8 | 22 | 10 | 21 | - |
| Poor infrastructure (Eg. Broken platform, Broken slab) | 1 | 8 | 2 | 10 | 3 | 7 | 1 | 4 | 3 | 9 | 3 | 6 | - |
| Key future adaptations require for the Water facility | | | | | | | | | | | | | |
| Improved Path (e.g. straightened/obstacles removed/smoothened/less slippery/widened) | 57 | 10 | 33 | 8 | 47 | 7 | 41 | 6 | 90 | 9 | 87 | 6 | 1.12 (0.76 -1.64) |
| Facility moved closer to the household | 133 | 22 | 71 | 18 | 120 | 18 | 166 | 23 | 204 | 21 | 285 | 21 | 0.86 (0.69 - 1.05) |
| Improved seating facility (eg. seat/slab) | 74 | 12 | 23 | 6 | 38 | 6 | 43 | 6 | 97 | 10 | 80 | 6 | 1.15 (0.78 - 1.69) |
| Increased space inside facility | 62 | 10 | 29 | 7 | 49 | 8 | 49 | 7 | 91 | 9 | 99 | 7 | 0.81 (0.56 - 1.18) |
| Improve lighting | 42 | 7 | 18 | 5 | 17 | 3 | 19 | 3 | 61 | 6 | 36 | 3 | 0.93 (0.57 - 1.51) |
| Availability of additional water sources (bottled water, stored water) | 64 | 11 | 26 | 6 | 34 | 5 | 30 | 4 | 89 | 9 | 64 | 5 | 1.55 (0.96 - 2.49)* |
| Height-adjustable water point | 5 | 1 | 2 | 1 | 7 | 1 | 15 | 2 | 7 | 1 | 23 | 2 | 0.73 (0.27 - 1.94) |
| Availability of running water during all the day | 155 | 26 | 84 | 21 | 162 | 25 | 173 | 24 | 239 | 24 | 336 | 24 | 0.82 (0.64 - 1.04) |
| Protected from outside contamination (use fence, cover or lid, constructed concrete platform) | 11 | 2 | 6 | 2 | 11 | 2 | 13 | 2 | 17 | 2 | 24 | 2 | 0.67 (0.39 - 1.16) |
| Add filtration (eg. Sand filtration, cloth filtration, rock filtration) | 21 | 4 | 35 | 9 | 68 | 10 | 37 | 5 | 56 | 6 | 105 | 8 | 0.77 (0.52 - 1.16) |
| I don't want any changes | 294 | 49 | 231 | 57 | 361 | 55 | 405 | 56 | 525 | 53 | 767 | 56 | 1.22 (1.02 -1.45) |
| Other | 51 | 9 | 40 | 10 | 38 | 6 | 35 | 5 | 91 | 9 | 73 | 5 | 0.99 (0.65 - 1.52) |

Table 15: Access to water facility by socio-economic status and disability

| Indicators | SES 1 | | | | SES 2 | | | | SES 3 | | | | SES 4 | | | | SES 5 | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------------------|----|--------------------------------------|-----|-----------------------------------|----|--------------------------------------|-----|-----------------------------------|----|--------------------------------------|-----|-----------------------------------|----|--------------------------------------|-----|-----------------------------------|----|--------------------------------------|-----|------|--|--|--|------|--|--|--|------|--|--|--|------|--|--|--|------|--|--|--|
| | Person with disabilities N=252 | | Person without disabilities N=224 | | Person with disabilities N=246 | | Person without disabilities N=230 | | Person with disabilities N=267 | | Person without disabilities N=208 | | Person with disabilities N=242 | | Person without disabilities N=234 | | Person with disabilities N=238 | | Person without disabilities N=237 | | | | | | | | | | | | | | | | | | | | | |
| | n | % | n | % | N | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | | | | | | | | | | | | | | | | | | | | |
| Able to access drinking water when needed | 197 | 78 | 224 | 100 | 203 | 83 | 230 | 100 | 246 | 92 | 208 | 100 | 212 | 88 | 234 | 100 | 206 | 87 | 236 | 100 | | | | | | | | | | | | | | | | | | | | |
| Reasons for unable to access | N=52 | | | | N=32 | | | | N=24 | | | | N=28 | | | | N=34 | | | | N=0 | | | | | | | | | | | | | | | | | | | |
| I do not have the physical strength (e.g. the container is too heavy to lift) | 47 | 90 | - | - | 28 | 87 | - | - | 19 | 81 | - | - | 27 | 98 | - | - | 33 | 97 | 0 | 100 | | | | | | | | | | | | | | | | | | | | |
| I am visually impaired/blind and cannot see/find it | 2 | 3 | - | - | 4 | 13 | - | - | 4 | 16 | - | - | 0 | 0 | - | - | 1 | 2 | 0 | 0 | | | | | | | | | | | | | | | | | | | | |
| I have mobility difficulties and cannot grasp/hold or balance the container. | 32 | 61 | - | - | 19 | 59 | - | - | 16 | 67 | - | - | 20 | 73 | - | - | 23 | 69 | 0 | 0 | | | | | | | | | | | | | | | | | | | | |
| The container is out of reach/ too far | 3 | 5 | - | - | 7 | 21 | - | - | 1 | 3 | - | - | 3 | 11 | - | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | |
| Other | 9 | 17 | - | - | 1 | 3 | - | - | 4 | 18 | - | - | 1 | 5 | - | - | 11 | 33 | 0 | 0 | | | | | | | | | | | | | | | | | | | | |
| Able to collect water personally | 140 | 56 | 208 | 93 | 123 | 50 | 191 | 83 | 150 | 56 | 190 | 91 | 117 | 48 | 175 | 75 | 124 | 52 | 169 | 71 | | | | | | | | | | | | | | | | | | | | |
| Reasons for unable to collect water | N=104 | | | | N=12 | | | | N=93 | | | | N=28 | | | | N=107 | | | | N=14 | | | | N=94 | | | | N=14 | | | | N=66 | | | | N=18 | | | |
| It would be physically difficult/impossible for me | 101 | 97 | 10 | 83 | 90 | 97 | 7 | 25 | 90 | 83 | 5 | 38 | 85 | 91 | 6 | 41 | 61 | 93 | 10 | 53 | | | | | | | | | | | | | | | | | | | | |
| It is difficult for my caregiver eg. Lack of time, physically difficult | 16 | 15 | 0 | 0 | 13 | 14 | 0 | 0 | 13 | 12 | 0 | 0 | 12 | 13 | 0 | 0 | 21 | 31 | 0 | 0 | | | | | | | | | | | | | | | | | | | | |
| I am not allowed | 6 | 6 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 0 | 0 | 4 | 4 | 0 | 1 | 0 | 1 | 1 | 4 | | | | | | | | | | | | | | | | | | | | |
| It is not my job/responsibility | 5 | 5 | 9 | 76 | 7 | 8 | 24 | 85 | 19 | 18 | 9 | 65 | 13 | 13 | 11 | 74 | 9 | 13 | 7 | 39 | | | | | | | | | | | | | | | | | | | | |
| Water source is not accessible to me | 4 | 4 | 0 | 0 | 17 | 19 | 5 | 20 | 4 | 3 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | |
| I don't feel secured when it is dark (eg. Night time, early morning) | 2 | 2 | 0 | 0 | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | | | | |
| Water point is far away from my home | 3 | 3 | 0 | 0 | 4 | 4 | 1 | 3 | 5 | 5 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | | | | | | | | | | | | | | | | | | | | |

| Indicators | SES 1 | | | | SES 2 | | | | SES 3 | | | | SES 4 | | | | SES 5 | | | |
|---|-----------------------------------|----|--------------------------------------|----|-----------------------------------|----|--------------------------------------|----|-----------------------------------|----|--------------------------------------|----|-----------------------------------|----|--------------------------------------|-----|-----------------------------------|-----|--------------------------------------|----|
| | Person with disabilities N=252 | | Person without disabilities N=224 | | Person with disabilities N=246 | | Person without disabilities N=230 | | Person with disabilities N=267 | | Person without disabilities N=208 | | Person with disabilities N=242 | | Person without disabilities N=234 | | Person with disabilities N=238 | | Person without disabilities N=237 | |
| | n | % | n | % | N | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Other | 13 | 12 | 1 | 7 | 5 | 6 | 2 | 8 | 11 | 10 | 3 | 19 | 4 | 5 | 3 | 18 | 20 | 31 | 2 | 12 |
| | N=143 | | N=211 | | N=138 | | N=215 | | N=152 | | N=192 | | N=134 | | N=201 | | N=124 | | N=169 | |
| Feeling safe in water collection | 128 | 90 | 185 | 88 | 120 | 87 | 205 | 95 | 134 | 88 | 181 | 94 | 122 | 91 | 200 | 100 | 121 | 98 | 168 | 99 |
| Reasons for not feeling safe | N=104 | | N=17 | | N=14 | | N=7 | | N=13 | | N=8 | | N=12 | | N=1 | | N=3 | | N=1 | |
| Water point is far away from my home | 5 | 51 | 9 | 52 | 11 | 78 | 5 | 73 | 6 | 49 | 4 | 47 | 2 | 15 | 1 | 100 | 0 | 0 | 1 | 81 |
| I don't feel secured when it is dark (eg. Night time, early morning) | 7 | 70 | 9 | 50 | 4 | 29 | 4 | 47 | 8 | 60 | 0 | 0 | 4 | 31 | 0 | 0 | 0 | 0 | 1 | 81 |
| Not enough light | 1 | 12 | 6 | 32 | 0 | 2 | 2 | 26 | 1 | 6 | 1 | 9 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 81 |
| Risk of animal attacks | 1 | 13 | 6 | 32 | 0 | 2 | 3 | 41 | 1 | 7 | 1 | 11 | - | - | - | - | - | - | - | - |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 4 | 43 | 0 | 0 | 2 | 13 | 2 | 30 | 5 | 37 | 0 | 0 | 1 | 7 | 0 | 0 | - | - | - | - |
| Inaccessible water point to operate | 1 | 13 | 5 | 30 | 2 | 13 | 0 | 3 | - | - | - | - | 3 | 24 | 0 | 0 | - | - | - | - |
| Water point area is muddy/ water clog/ slippery area | 2 | 19 | 4 | 25 | 3 | 21 | 1 | 11 | 2 | 13 | 2 | 27 | 4 | 37 | 0 | 0 | 0 | 0 | 0 | 19 |
| Poor infrastructure (eg. Broken platform, Broken slab) | 1 | 15 | 0 | 2 | 0 | 3 | 0 | 4 | 1 | 9 | 2 | 25 | 1 | 7 | 0 | 0 | | | | |
| Others | 1 | 11 | 0 | 0 | 3 | 20 | 0 | 0 | 3 | 26 | 2 | 25 | 3 | 28 | 0 | 0 | 3 | 100 | 0 | 0 |

- *SES- Socio-economic Status*

Table 16: Access to water facility by types of disabilities

| Indicators | Vision | | hearing | | mobility | | communication | | cognition | | self_care | | anxiety | | depression | |
|---|--------|----|---------|----|----------|----|---------------|----|-----------|----|-----------|----|---------|----|------------|----|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=337 | | N=175 | | N=643 | | N=173 | | N=330 | | N=276 | | N=207 | | N=109 | |
| Able to access drinking water when needed | 295 | 88 | 142 | 81 | 487 | 76 | 120 | 69 | 264 | 80 | 151 | 55 | 173 | 84 | 79 | 72 |
| Reasons for unable to access | N=41 | | N=32 | | N=154 | | N=52 | | N=65 | | N=122 | | N=34 | | N=30 | |
| I do not have the physical strength (e.g. the container is too heavy to lift) | 34 | 84 | 32 | 98 | 148 | 96 | 49 | 94 | 59 | 91 | 114 | 93 | 28 | 85 | 28 | 95 |
| I am visually impaired/blind and cannot see/find it | 8 | 20 | 1 | 2 | 5 | 3 | 1 | 2 | 2 | 3 | 4 | 3 | 4 | 11 | 0 | 0 |
| I have mobility difficulties and cannot grasp/hold or balance the container. | 20 | 49 | 20 | 62 | 108 | 71 | 38 | 74 | 45 | 70 | 79 | 64 | 26 | 76 | 24 | 79 |
| The container is out of reach/ too far | 1 | 3 | 1 | 3 | 12 | 8 | 9 | 18 | 10 | 16 | 12 | 10 | 2 | 6 | 2 | 6 |
| Able to collect water personally | 193 | 57 | 77 | 44 | 243 | 38 | 84 | 49 | 156 | 47 | 47 | 17 | 126 | 61 | 66 | 60 |
| Reasons for unable to collect water | N=114 | | N=85 | | N=340 | | N=86 | | N=140 | | N=209 | | N=65 | | N=33 | |
| It would be physically difficult/impossible for me | 108 | 95 | 79 | 94 | 328 | 97 | 74 | 86 | 128 | 91 | 205 | 98 | 63 | 97 | 32 | 98 |
| It is difficult for my caregiver eg. Lack of time, physically difficult | 8 | 7 | 19 | 22 | 65 | 19 | 17 | 20 | 19 | 13 | 41 | 20 | 12 | 19 | 8 | 23 |
| It is not my job/responsibility | 15 | 14 | 14 | 17 | 23 | 7 | 3 | 4 | 13 | 9 | 10 | 5 | 2 | 3 | 3 | 9 |
| Unavailability of running water (e.g. shortage of water supply) | 0 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 6 | 4 | 0 | 0 | 6 | 9 | 0 | 0 |
| Water source is not accessible to me | 5 | 4 | 13 | 15 | 28 | 8 | 4 | 5 | 9 | 6 | 18 | 8 | 10 | 15 | 0 | 0 |
| Other | 6 | 5 | 5 | 6 | 36 | 11 | 18 | 20 | 25 | 18 | 16 | 8 | 3 | 5 | 1 | 2 |
| | N=208 | | N=83 | | N=263 | | N=91 | | N=168 | | N=51 | | N=136 | | N=71 | |
| Feeling safe in water collection | 187 | 90 | 80 | 96 | 244 | 93 | 81 | 89 | 145 | 86 | 46 | 91 | 126 | 92 | 69 | 97 |
| Reasons for not feeling safe | N=19 | | N=3 | | N=17 | | N=9 | | N=21 | | N=4 | | N=9 | | N=2 | |
| Water point is far away from my home | 6 | 29 | 2 | 60 | 6 | 37 | 5 | 59 | 11 | 54 | 1 | 35 | 7 | 74 | 1 | 55 |
| I don't feel secured when it is dark (eg. Night time, early morning) | 15 | 78 | 2 | 66 | 9 | 52 | 2 | 20 | 2 | 12 | 2 | 57 | 4 | 42 | 2 | 92 |
| Risk of animal attacks | 1 | 4 | 1 | 26 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 5 | 28 | 1 | 27 | 5 | 30 | 1 | 13 | 3 | 16 | 1 | 36 | 4 | 37 | 0 | 0 |

| Indicators | Vision | | hearing | | mobility | | communication | | cognition | | self_care | | anxiety | | depression | |
|---|--------|----|---------|----|----------|----|---------------|----|-----------|----|-----------|----|---------|----|------------|----|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=337 | | N=175 | | N=643 | | N=173 | | N=330 | | N=276 | | N=207 | | N=109 | |
| Inaccessible water point (eg. no wheelchair access, non- adjustable height, difficult to operate water point) | 3 | 16 | 1 | 27 | 1 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 |
| Water point area is muddy/ water clog/ slippery area | 1 | 5 | 0 | 0 | 5 | 31 | 1 | 13 | 7 | 31 | 2 | 45 | 0 | 5 | 0 | 0 |
| Poor infrastructure (Eg. Broken platform, Broken slab) | 1 | 8 | 0 | 0 | 1 | 9 | 2 | 22 | 2 | 11 | 2 | 45 | 1 | 9 | 0 | 0 |
| Others | 5 | 25 | 0 | 0 | 7 | 42 | 1 | 12 | 3 | 15 | 0 | 8 | 2 | 23 | 0 | 0 |
| Key future adaptations require for the Water facility | | | | | | | | | | | | | | | | |
| Improved Path (e.g. straightened/obstacles removed/smoothened/less slippery/widened) | 26 | 8 | 18 | 10 | 50 | 8 | 31 | 18 | 32 | 10 | 41 | 15 | 17 | 8 | 15 | 14 |
| Facility moved closer to the household | 64 | 19 | 41 | 24 | 125 | 19 | 44 | 26 | 73 | 22 | 64 | 23 | 44 | 21 | 19 | 17 |
| Improved seating facility (eg. seat/slab) | 41 | 12 | 28 | 16 | 64 | 10 | 14 | 8 | 30 | 9 | 43 | 16 | 9 | 4 | 5 | 5 |
| Increased space inside facility | 40 | 12 | 27 | 16 | 55 | 9 | 23 | 13 | 32 | 10 | 36 | 13 | 9 | 5 | 2 | 2 |
| Improve lighting | 27 | 8 | 10 | 6 | 30 | 5 | 9 | 5 | 23 | 7 | 20 | 7 | 6 | 3 | 2 | 2 |
| Availability of additional water sources (bottled water, stored water) | 26 | 8 | 14 | 8 | 59 | 9 | 12 | 7 | 13 | 4 | 30 | 11 | 10 | 5 | 2 | 2 |
| Availability of running water during all the day | 77 | 23 | 58 | 33 | 178 | 28 | 52 | 30 | 97 | 29 | 85 | 31 | 51 | 24 | 14 | 13 |
| Protected from outside contamination (use fence, cover or lid, constructed concrete platform) | 6 | 2 | 4 | 2 | 13 | 2 | 3 | 1 | 3 | 1 | 8 | 3 | 4 | 2 | 3 | 3 |
| Add filtration (eg. Sand filtration, cloth filtration, rock filtration) | 21 | 6 | 13 | 7 | 42 | 6 | 8 | 4 | 31 | 9 | 10 | 4 | 20 | 10 | 4 | 4 |
| I don't want any changes | 177 | 53 | 68 | 39 | 339 | 53 | 76 | 44 | 166 | 50 | 122 | 44 | 103 | 50 | 64 | 58 |
| Other | 22 | 6 | 9 | 5 | 47 | 7 | 12 | 7 | 22 | 7 | 22 | 8 | 21 | 10 | 7 | 6 |

Table 17: Access to water facility by disability over region

| Indicators | Urban | | | | Rural | | | | Overall | | | |
|---|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|---------|----|--------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Urban | | Rural | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N= 485 | | N= 444 | | N=748 | | N=701 | | N= 929 | | N=1449 | |
| Able to access drinking water when needed | 432 | 89 | 444 | 100 | 621 | 83 | 701 | 100 | 876 | 94 | 1,322 | 91 |
| Reasons for unable to access | 55 | | | | N=115 | | | | 55 | | N=115 | |
| I do not have the physical strength (e.g. the container is too heavy to lift) | 51 | 94 | - | - | 105 | 91 | - | - | 51 | 94 | 105 | 91 |
| I am visually impaired/blind and cannot see/find it | 2 | 3 | - | - | 8 | 7 | - | - | 2 | 3 | 8 | 7 |
| I have mobility difficulties and cannot grasp/hold or balance the container. | 41 | 76 | - | - | 69 | 60 | - | - | 41 | 75 | 69 | 60 |
| The container is out of reach/ too far | 4 | 8 | - | - | 9 | 8 | - | - | 4 | 8 | 9 | 8 |
| Other | 16 | 29 | - | - | 10 | 9 | - | - | 16 | 28 | 10 | 9 |
| Able to collect water personally | 267 | 55 | 343 | 77 | 368 | 49 | 578 | 82 | 610 | 66 | 946 | 65 |
| Reasons for unable to collect water | N=165 | | N=19 | | N=297 | | N=69 | | N=184 | | N=366 | |
| It would be physically difficult/impossible for me | 153 | 93 | 7 | 38 | 273 | 92 | 30 | 43 | 160 | 87 | 303 | 83 |
| It is difficult for my caregiver eg. Lack of time, physically difficult | 36 | 22 | 0 | 0 | 38 | 13 | 0 | 0 | 36 | 20 | 38 | 10 |
| I am not allowed | 3 | 2 | 1 | 6 | 11 | 4 | 0 | 0 | 4 | 2 | 11 | 3 |
| It is not my job/responsibility | 12 | 7 | 11 | 56 | 41 | 14 | 50 | 72 | 23 | 12 | 91 | 25 |
| Water point is far away from my home | 3 | 2 | 0 | 0 | 9 | 3 | 1 | 1 | 3 | 2 | 10 | 3 |
| Other | 27 | 16 | 3 | 15 | 26 | 9 | 8 | 11 | 30 | 16 | 34 | 9 |
| | N=288 | | N=369 | | N=398 | | N=624 | | N=657 | | N=1022 | |
| Feeling safe in water collection | 269 | 93 | 357 | 97 | 358 | 90 | 596 | 96 | 625 | 95 | 954 | 93 |
| Reasons for not feeling safe | N=21 | | N=14 | | N=30 | | N=21 | | N=35 | | N=51 | |
| Water point is far away from my home | 8 | 41 | 12 | 84 | 14 | 47 | 8 | 39 | 20 | 58 | 22 | 43 |
| I don't feel secured when it is dark (eg. Night time, early morning) | 9 | 43 | 6 | 43 | 13 | 44 | 7 | 35 | 15 | 43 | 20 | 40 |
| Not enough light | 0 | 2 | 6 | 42 | 2 | 7 | 3 | 17 | 6 | 18 | 6 | 11 |
| Risk of animal attacks | 1 | 4 | 3 | 25 | 1 | 5 | 6 | 28 | 4 | 12 | 7 | 14 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 6 | 31 | 0 | 0 | 5 | 17 | 2 | 9 | 6 | 18 | 7 | 14 |

| | | | | | | | | | | | | |
|--|---|----|---|----|---|----|---|----|---|----|----|----|
| Inaccessible water point (eg. no wheelchair access, non-adjustable height, difficult to operate water point) | 4 | 21 | 0 | 0 | 1 | 4 | 6 | 27 | 4 | 12 | 7 | 13 |
| Water point area is muddy/ water clog/ slippery area | 2 | 10 | 1 | 4 | 9 | 29 | 7 | 35 | 3 | 7 | 16 | 31 |
| Poor infrastructure (Eg. Broken platform, Broken slab) | 0 | 0 | 2 | 14 | 4 | 13 | 1 | 3 | 2 | 6 | 4 | 9 |
| Others | 6 | 29 | 2 | 14 | 8 | 26 | 0 | 0 | 8 | 23 | 8 | 15 |

Table 18: Access to water facility by disability over gender

| Indicators | Female | | | | Male | | | | Overall | | | |
|---|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|---------|----|-------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Female | | Male | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=712 | | N=675 | | N=523 | | N=468 | | N=1387 | | N=991 | |
| Able to access drinking water when needed | 629 | 88 | 675 | 100 | 430 | 82 | 467 | 100 | 1,304 | 94 | 897 | 91 |
| Reasons for unable to access | N=87 | | | | N=83 | | | | N=87 | | N=83 | |
| I do not have the physical strength (e.g. the container is too heavy to lift) | 85 | 98 | - | - | 70 | 85 | - | - | 85 | 98 | 71 | 85 |
| I am visually impaired/blind and cannot see/find it | 3 | 4 | - | - | 6 | 7 | - | - | 3 | 4 | 6 | 7 |
| I have mobility difficulties and cannot grasp/hold or balance the container. | 61 | 70 | - | - | 51 | 62 | - | - | 61 | 70 | 51 | 61 |
| The container is out of reach/ too far | 3 | 3 | - | - | 10 | 13 | - | - | 3 | 3 | 10 | 13 |
| Other | 19 | 22 | - | - | 8 | 10 | - | - | 19 | 22 | 8 | 10 |
| Able to collect water personally | 401 | 56 | 552 | 82 | 237 | 45 | 358 | 77 | 952 | 69 | 595 | 60 |
| Reasons for unable to collect water | N=237 | | N=35 | | N=224 | | N=54 | | N=272 | | N=278 | |
| It would be physically difficult/impossible for me | 233 | 98 | 25 | 73 | 191 | 85 | 11 | 20 | 258 | 95 | 202 | 73 |
| It is difficult for my caregiver eg. Lack of time, physically difficult | 43 | 18 | 0 | 0 | 30 | 13 | 0 | 0 | 43 | 16 | 30 | 11 |
| I am not allowed | 6 | 2 | 0 | 0 | 8 | 4 | 2 | 3 | 6 | 2 | 10 | 3 |
| It is not my job/responsibility | 14 | 6 | 19 | 55 | 41 | 18 | 43 | 79 | 33 | 12 | 84 | 30 |
| Water source is not accessible to me | 20 | 8 | 0 | 0 | 12 | 5 | 6 | 11 | 20 | 7 | 18 | 7 |
| Water point is far away from my home | 5 | 2 | 0 | 1 | 8 | 4 | 1 | 1 | 5 | 2 | 9 | 3 |
| Other | 29 | 12 | 6 | 16 | 23 | 10 | 5 | 9 | 35 | 13 | 28 | 10 |
| | N=425 | | N=586 | | N=266 | | N=402 | | N=1011 | | N=668 | |
| Feeling safe in water collection | 390 | 92 | 555 | 95 | 244 | 92 | 395 | 98 | 945 | 94 | 639 | 96 |
| Reasons for not feeling safe | N=34 | | N=30 | | N=17 | | N=5 | | N=64 | | N=22 | |
| Water point is far away from my home | 13 | 38 | 15 | 51 | 9 | 56 | 5 | 94 | 28 | 44 | 14 | 65 |
| People would abuse me verbally or physically | 1 | 4 | 0 | 0 | 5 | 31 | 0 | 0 | 1 | 2 | 5 | 24 |
| I don't feel secured when it is dark (eg. Night time, early morning) | 16 | 47 | 10 | 34 | 6 | 36 | 3 | 63 | 26 | 41 | 9 | 42 |
| Not enough light | 1 | 4 | 7 | 23 | 1 | 8 | 3 | 51 | 8 | 13 | 4 | 18 |
| Risk of animal attacks | 1 | 4 | 7 | 22 | 1 | 5 | 3 | 50 | 8 | 13 | 3 | 16 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 8 | 23 | 2 | 6 | 4 | 22 | 0 | 0 | 10 | 15 | 4 | 17 |

| | | | | | | | | | | | | |
|--|----|----|---|----|---|----|---|---|----|----|---|----|
| Inaccessible water point (eg. no wheelchair access, non-adjustable height, difficult to operate water point) | 4 | 11 | 5 | 18 | 2 | 12 | 0 | 3 | 9 | 14 | 2 | 10 |
| Water point area is muddy/ water clog/ slippery area | 10 | 30 | 7 | 24 | 1 | 4 | 0 | 9 | 17 | 27 | 1 | 5 |
| Poor infrastructure (Eg. Broken platform, Broken slab) | 2 | 7 | 3 | 9 | 1 | 9 | 0 | 0 | 5 | 8 | 1 | 7 |
| Others | 11 | 32 | 2 | 7 | 3 | 19 | 0 | 0 | 13 | 20 | 3 | 14 |

Table 19: Factors associated with the water collection and accessibility among persons with disability

| Indicators | Don't collect water by themselves | | | Can't access water at home when needed | | |
|----------------------------|-----------------------------------|----|-----------------------------|--|----|-----------------------------|
| | N | % | AOR (95% CI) | n | % | AOR (95% CI) |
| Age (in years) | | | | | | |
| 5--9 | 13 | 49 | ref. | 21 | 78 | ref. |
| 10--17 | 25 | 36 | 0.64 (0.25 - 1.67) | 40 | 57 | 0.27 (0.09 - 0.78) |
| 18-35 | 7 | 3 | 0.17 (0.06 - 0.44) | 31 | 15 | 0.08 (0.03 - 0.19) |
| 36-49 | 5 | 2 | 0.12 (0.03 - 0.41) | 43 | 18 | 0.08 (0.03 - 0.24) |
| 50-59 | 9 | 5 | 0.11 (0.04 - 0.29) | 44 | 25 | 0.09 (0.03 - 0.28) |
| 60-70 | 25 | 11 | 0.19 (0.08 - 0.48) | 80 | 35 | 0.17 (0.07 - 0.46) |
| 70+ | 90 | 30 | 0.47 (0.23 - 0.97) | 185 | 61 | 0.44 (0.17 - 1.10)* |
| Sex | | | | | | |
| Male | 84 | 18 | ref. | 204 | 43 | ref. |
| Female | 91 | 12 | 0.86 (0.61 - 1.23) | 240 | 31 | 0.76 (0.52 - 1.12) |
| Types of region | | | | | | |
| Urban | 67 | 11 | ref. | 151 | 24 | ref. |
| Rural | 108 | 17 | 1.12 (0.71 - 1.76) | 293 | 46 | 0.97 (0.64 - 1.47) |
| SES Index | | | | | | |
| 1st quintile | 41 | 22 | ref. | 80 | 43 | ref. |
| 2nd quintile | 33 | 17 | 0.55 (0.28 - 1.06)* | 96 | 50 | 0.95 (0.57 - 1.58) |
| 3rd quintile | 17 | 8 | 0.39 (0.16 - 0.97) | 89 | 41 | 1.06 (0.71 - 1.58) |
| 4th quintile | 36 | 12 | 0.64 (0.33 - 1.24) | 112 | 38 | 1.14 (0.63 - 2.06) |
| 5th quintile | 48 | 13 | 0.73 (0.37 - 1.44) | 67 | 19 | 1.02 (0.54 - 1.92) |
| Types of disability | | | | | | |
| Vision | 42 | 12 | 1.37 (0.78 - 2.39) | 109 | 32 | 1.63 (0.98 - 2.72)* |
| Hearing | 33 | 19 | 1.59 (0.88 - 2.87) | 82 | 46 | 1.56 (0.94 - 2.56)* |
| Mobility | 159 | 24 | 5.55 (2.49 - 12.33) | 327 | 50 | 3.27 (2.05 - 5.20) |
| Communication | 54 | 31 | 2.24 (1.17 - 4.29) | 83 | 47 | 1.26 (0.69 - 2.28) |
| Remembering | 67 | 20 | 1.27 (0.79 - 2.04) | 134 | 40 | 1.25 (0.82 - 1.91) |
| Self_care | 126 | 45 | 10.74 (7.22 - 15.98) | 201 | 72 | 12.62 (7.84 - 20.33) |
| Anxiety | 35 | 16 | 1.28 (0.55 - 2.93) | 62 | 30 | 1.27 (0.83 - 1.95) |
| Depression | 31 | 28 | 1.74 (0.63 - 4.78) | 32 | 29 | 0.83 (0.45 - 1.55) |

Table 20: Access to sanitation facility (Household)

| | Rural | | | | Urban | | | | Overall | | | | AOR (95% CI) |
|--|---|----|--|----|---|-----|--|-----|--|-----|--|-----|------------------------|
| | Household with person with disabilities | | Household without person with disabilities | | Household with person with disabilities | | Household without person with disabilities | | Household with person with disabilities N=1135 | | Household without person with disabilities N=882 | | |
| | N | % | n | % | n | % | n | % | n | % | n | % | |
| N | 673 | | 575 | | 441 | | 328 | | | | | | |
| Sanitation facility types | | | | | | | | | | | | | |
| Piped sewer system | | | | | 128 | 29 | 74 | 23 | 162 | 15 | 94 | 10 | ref. |
| Septic tank | 183 | 27 | 169 | 29 | 154 | 35 | 126 | 38 | 348 | 31 | 300 | 34 | 0.67(0.47-0.97) |
| Pit (latrine) | 331 | 49 | 279 | 48 | 103 | 23 | 84 | 26 | 407 | 36 | 340 | 38 | 0.72(0.54-0.95) |
| Ventilated improved pit latrine (VIP) | 6 | 1 | 10 | 2 | 15 | 3 | 13 | 4 | 24 | 2.2 | 25 | 2.8 | 0.45(0.24-0.83) |
| Pit latrine with slab | 143 | 21 | 110 | 19 | 39 | 9 | 29 | 9 | 168 | 15 | 129 | 14 | 0.77(0.56-1.07) |
| Pit latrine without slab / open pit | 6 | 1 | 8 | 1 | 0 | 0 | 1 | 0 | 5 | 0.5 | 8 | 0.9 | 0.47(0.2-1.15) |
| Composting toilet | 1 | 0 | 0 | 0 | | | | | 1 | 0.1 | 0 | 0 | - |
| Bucket or bedpan | | | | | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | 0 | - |
| Hanging toilet / Hanging latrine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| No facility, bush, field | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0.2 | 1 | 0.1 | 0.9(0.37-2.18) |
| Other | 2 | 0 | 0 | 0 | | | | | 1 | 0.1 | 0 | 0 | - |
| Sanitation facility | | | | | | | | | | | | | |
| Unimproved toilet | 9 | 1 | 9 | 2 | 1 | 0 | 1 | 0 | 1,111 | 99 | 887 | 99 | 1.02(0.61-1.7) |
| Improved toilet | 664 | 99 | 566 | 98 | 439 | 100 | 327 | 100 | 10 | 0.9 | 9 | 1 | |
| Sanitation ladder | | | | | N=440 | | N=327 | | | | | | |
| Basic | 512 | 76 | 454 | 79 | 338 | 77 | 258 | 79 | 855 | 76 | 706 | 79 | ref. |
| Limited | 152 | 23 | 112 | 20 | 101 | 23 | 68 | 21 | 255 | 23 | 180 | 20 | 1.08(0.85-1.36) |
| Unimproved | 8 | 1 | 8 | 1 | 1 | 0 | 1 | 0 | 8 | 0.7 | 8 | 0.9 | 0.84(0.35-2.01) |
| Open defecation | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0.2 | 1 | 0.1 | 0.95(0.5-1.82) |
| Ownership of sanitation facility | | | | | | | | | | | | | |
| No, used by only my household | 519 | 77 | 460 | 80 | 338 | 77 | 258 | 79 | 862 | 77 | 711 | 79 | ref. |
| Yes, shared with other households | 154 | 23 | 114 | 20 | 101 | 23 | 69 | 21 | 256 | 23 | 182 | 20 | 1.13(0.9-1.43) |
| Yes, Public/ Communal/ Community Latrine | | | | | 2 | 0 | 2 | 0 | 2 | 0.2 | 2 | 0.2 | 0.84(0.72-0.98) |
| Don't Know | 1 | 0 | 1 | 0 | | | | | 1 | 0 | 1 | 0.1 | 0.64(0.25-1.64) |

Table 21: Household sanitation facility privacy/ safety

| Indicators | Household with disabilities N=1135 | | Household without disabilities N=882 | | Rural HH N=1035 | | Urban HH N=982 | | Total HH N=2017 | |
|--|---------------------------------------|----|---|----|--------------------|----|-------------------|----|--------------------|----|
| | n | % | n | % | n | % | n | % | n | % |
| Toilet have separate chamber for females | 18 | 2 | 12 | 1 | 20 | 2 | 10 | 1 | 30 | 1 |
| Visible hole/ broken area in the wall | 125 | 11 | 108 | 12 | 158 | 16 | 75 | 8 | 233 | 12 |
| Visible hole/ broken area in the roof | 47 | 5 | 28 | 4 | 51 | 6 | 24 | 3 | 75 | 4 |
| Visible hole/ broken area in the door | 131 | 12 | 102 | 12 | 144 | 15 | 89 | 9 | 233 | 12 |
| Toilet has lockable door from inside | 874 | 82 | 707 | 82 | 742 | 76 | 839 | 88 | 1,581 | 82 |
| Toilet has lockable door from outside | 762 | 71 | 615 | 71 | 631 | 65 | 746 | 78 | 1,377 | 71 |
| All HH member able to access and use the toilet at all times day and night | 1,096 | 98 | 880 | 98 | 1,003 | 97 | 972 | 99 | 1,976 | 98 |
| All HH member feel safe and comfortable using the toilet | 990 | 88 | 828 | 92 | 910 | 88 | 909 | 93 | 1,818 | 90 |

Table 22: Components available at the HH sanitation facility

| Indicators | HH with disabilities | | HH without disabilities | | Urban | | Rural | | Total | |
|---|----------------------|----|-------------------------|----|--------|----|--------|----|--------|----|
| | n | % | n | % | n | % | n | % | n | % |
| | N=1120 | | N=897 | | 1,163 | | 1,215 | | N=2017 | |
| Components available at the entry path | | | | | | | | | | |
| Smooth flat surface | 709 | 63 | 569 | 63 | 901 | 77 | 617 | 51 | 1,278 | 63 |
| Uneven flat surface | 402 | 36 | 326 | 36 | 255 | 22 | 586 | 48 | 727 | 36 |
| Surface is not slippery | 629 | 56 | 505 | 56 | 787 | 68 | 540 | 44 | 1,134 | 56 |
| Stairs | 166 | 15 | 111 | 12 | 148 | 13 | 191 | 16 | 277 | 14 |
| Adequate space for wheel chair accommodation | 75 | 7 | 76 | 8 | 155 | 13 | 41 | 3 | 151 | 7 |
| No barrier for wheel chair entry | 14 | 1 | 30 | 3 | 41 | 4 | 8 | 1 | 44 | 2 |
| Available signage to direct the path | 7 | 1 | 6 | 1 | 9 | 1 | 4 | 0 | 12 | 1 |
| Components available at the door | | | | | N=1130 | | N=1148 | | | |
| Appropriate door width for wheelchair access | 6 | 1 | 7 | 1 | 9 | 1 | 9 | 1 | 13 | 1 |
| Door lock can be operated with one hand | 318 | 30 | 273 | 32 | 493 | 44 | 226 | 20 | 590 | 31 |
| Door operator/ handle can be operated with one hand | 173 | 16 | 162 | 19 | 213 | 19 | 172 | 15 | 335 | 17 |
| Components available inside the toilet | | | | | | | | | | |

| Indicators | HH with disabilities | | HH without disabilities | | Urban | | Rural | | Total | |
|--|----------------------|----|-------------------------|----|-------|----|-------|----|--------|----|
| | n | % | n | % | n | % | n | % | n | % |
| | N=1120 | | N=897 | | 1,163 | | 1,215 | | N=2017 | |
| Adequate space for wheelchair accommodation | 32 | 3 | 14 | 2 | 48 | 4 | 17 | 1 | 45 | 2 |
| Support rails | 3 | 0 | 16 | 2 | 18 | 2 | 2 | 0 | 19 | 1 |
| Flat surface | 710 | 63 | 586 | 65 | 769 | 66 | 763 | 63 | 1,297 | 64 |
| No obstacle/partitions/ objects on the surface | 217 | 19 | 181 | 20 | 195 | 17 | 250 | 21 | 398 | 20 |
| Surface is not slippery | 697 | 62 | 597 | 67 | 795 | 68 | 707 | 58 | 1,294 | 64 |
| Hight adjustable basins | 9 | 1 | 10 | 1 | 16 | 1 | 7 | 1 | 19 | 1 |
| Height adjustable pan/ commode | 31 | 3 | 29 | 3 | 43 | 4 | 32 | 3 | 60 | 3 |
| Handrail/ support rails besides the pan/ commode | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 0 |
| Availability of water | 559 | 50 | 505 | 56 | 819 | 70 | 442 | 36 | 1,064 | 53 |
| Water is available in such area that wheel chair user or children can easily acc | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 2 | 0 |
| Water drawing mechanism can be operated with one hand | 293 | 26 | 255 | 28 | 494 | 42 | 179 | 15 | 548 | 27 |
| Availability of anal cleansing materials (e.g. water) | 366 | 33 | 255 | 28 | 490 | 42 | 270 | 22 | 622 | 31 |
| Anal cleansing materials are available in such area that wheel chair user or chi | 3 | 0 | 3 | 0 | 3 | 0 | 6 | 1 | 6 | 0 |
| Washroom accessories (handwashing agents) | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 3 | 0 |
| Disposal bin | 47 | 4 | 29 | 3 | 54 | 5 | 32 | 3 | 76 | 4 |
| Available lighting facility (e.g. sun light) | 869 | 78 | 702 | 78 | 969 | 83 | 876 | 72 | 1,571 | 78 |

Table 23: Access to sanitation facility by disability status (individual)

| Indicators | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
|---|--------------------------|----|-----------------------------|----|---------------------------|--------|----|
| | n | % | n | % | | n | % |
| | N=1234 | | N=1144 | | | N=2378 | |
| Able to use the same toilet facility as other members of household | 1,123 | 91 | 1,136 | 99 | 0.07(0.02-0.24) | 2,259 | 95 |
| Reasons for not being able to use the same facility | | | | | | | |
| It would be physically difficult/impossible for me to reach there | 98 | 94 | 1 | 10 | 97.87(1.6-5996.74) | 99 | 89 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 59 | 57 | 0 | 0 | - | 59 | 53 |
| I am not allowed to use it | 1 | 1 | 1 | 10 | 0.14(0.02-1.18)* | 2 | 1 |
| I don't feel safe and comfortable | 7 | 7 | 3 | 44 | 0.23(0.01-9.35) | 11 | 10 |
| Unable to access the toilet | 16 | 16 | 3 | 36 | 1.8(0.1-31.98) | 19 | 17 |
| I couldn't use it whenever I want | 12 | 11 | 1 | 9 | 0.26(0.02-3.64) | 12 | 11 |
| Entry restriction | 6 | 6 | 1 | 10 | 0.05(0.01-0.39) | 7 | 6 |
| I don't feel safe when it is dark (eg. Night time, early morning) | 6 | 6 | 0 | 0 | - | 6 | 5 |
| Toilet is far away from my home | 7 | 7 | 0 | 0 | - | 7 | 6 |
| Poor infrastructure (eg. Broken slab) | 5 | 5 | 0 | 0 | - | 5 | 5 |
| Need assistance to use the toilet facility | 418 | 34 | 155 | 14 | 2.67(1.87-3.83) | 573 | 24 |
| Able to use the toilet facility as frequently or as needed | 1,090 | 88 | 1,130 | 99 | 0.1(0.06-0.15) | 2,220 | 93 |
| Reasons for not being able to use the facility as frequently as needed | | | | | | | |
| It would be difficult/impossible for me | 140 | 91 | 2 | 10 | 58.16(8.2-413.89) | 142 | 84 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 64 | 41 | 1 | 4 | 22.6(3.16-161.63) | 64 | 38 |
| I don't feel safe | 28 | 18 | 6 | 37 | 0.18(0.03-1.11)* | 33 | 20 |
| Lack of enough water | 30 | 19 | 1 | 7 | 1.24(0.29-5.34) | 31 | 18 |
| Lack of enough lighting facility throughout the day | 7 | 5 | 0 | 2 | - | 8 | 5 |
| Couldn't get assistance whenever I need it | 9 | 6 | 6 | 40 | 0.58(0.01-23.06) | 15 | 9 |
| Toilet facility is far away from home | 21 | 13 | 4 | 25 | 0.16(0.04-0.66) | 25 | 15 |
| Risk of animal attacks | 3 | 2 | 2 | 10 | - | 4 | 3 |
| Difficult to use toilet without coming into contact with faeces or urine | | | | | 5.01(3.07-8.19) | | |
| Have customized toilet facility | | | | | 1.65(1.07-2.55) | | |
| Have adequate water supply | 684 | 55 | 703 | 61 | 0.82(0.64-1.04) | 1,387 | 58 |
| Availability of cleaning materials | 848 | 69 | 820 | 72 | 0.73(0.63-0.86) | 1,669 | 70 |
| | N=778 | | N=752 | | | N=1530 | |
| Reach the cleaning materials without assistance | 728 | 94 | 745 | 99 | 0.09(0.05-0.17) | 1,473 | 96 |

Table 24: Access to sanitation facility by ageing (individual)

| Indicators | Older people | | Younger people | | AOR (95% CI) | Total | |
|---|--------------|----|----------------|----|------------------------|--------|----|
| | n | % | n | % | | n | % |
| | N=871 | | N=1507 | | | N=2378 | |
| Able to use the same toilet facility as other members of household | 803 | 92 | 1,456 | 97 | 0.52(0.33-0.82) | 2,259 | 95 |
| Reasons for not being able to use the same facility | | | | | | | |
| It would be physically difficult/impossible for me to reach there | 56 | 89 | 42 | 88 | 2.72(0.54-13.69) | 99 | 89 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 30 | 47 | 29 | 61 | 0.65(0.08-5.59) | 59 | 53 |
| I am not allowed to use it | 1 | 1 | 1 | 2 | 0.32(0.05-2.26) | 2 | 1 |
| I don't feel safe and comfortable | 9 | 14 | 2 | 4 | 1.21(0.4-3.66) | 11 | 10 |
| Unable to access the toilet | 12 | 19 | 7 | 15 | 1.13(0.48-2.71) | 19 | 17 |
| I couldn't use it whenever I want | 6 | 10 | 6 | 13 | 0.85(0.35-2.03) | 12 | 11 |
| Entry restriction | 7 | 10 | 0 | 0 | - | 7 | 6 |
| I don't feel safe when it is dark (eg. Night time, early morning) | 3 | 5 | 3 | 6 | 1.65(0.3-9.01) | 6 | 5 |
| Toilet is far away from my home | 1 | 2 | 6 | 12 | 0.39(0.02-6.28) | 7 | 6 |
| Poor infrastructure (eg. Broken slab) | 5 | 7 | 1 | 1 | 3.21(0.09-113.77) | 5 | 5 |
| Need assistance to use the toilet facility | 258 | 30 | 315 | 21 | 1.69(1.33-2.14) | 573 | 24 |
| Able to use the toilet facility as frequently or as needed | 783 | 90 | 1,436 | 95 | 0.49(0.39-0.61) | 2,220 | 93 |
| Reasons for not being able to use the facility as frequently as needed | | | | | | | |
| It would be difficult/impossible for me | 82 | 88 | 59 | 78 | 2.55(1.46-4.46) | 142 | 84 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 40 | 43 | 24 | 32 | 1.23(0.58-2.61) | 64 | 38 |
| I don't feel safe | 14 | 15 | 19 | 25 | 0.73(0.25-2.15) | 33 | 20 |
| Lack of enough water | 22 | 23 | 9 | 12 | 2.28(1.09-4.76) | 31 | 18 |
| Lack of enough lighting facility throughout the day | 3 | 4 | 4 | 6 | - | 8 | 5 |
| Couldn't get assistance whenever I need it | 11 | 12 | 3 | 4 | 1.49(0.21-10.67) | 15 | 9 |
| Toilet facility is far away from home | 17 | 19 | 7 | 10 | 1.17(0.54-2.51) | 25 | 15 |
| Risk of animal attacks | 1 | 1 | 3 | 4 | 0.57(0.21-1.57) | 4 | 3 |
| Difficult to use toilet without coming into contact with faeces or urine | | | | | 1.8(1.11-2.91) | | |
| Have customized toilet facility | | | | | 1(0.72-1) | | |
| Have adequate water supply | 455 | 52 | 933 | 62 | 1.14(0.86-1.52) | 1,387 | 58 |
| Availability of cleaning materials | 574 | 66 | 1,095 | 73 | 1.25(1.07-1.47) | 1,669 | 70 |
| | N=526 | | N=1004 | | | N=1530 | |
| Reach the cleaning materials without assistance | 495 | 94 | 978 | 97 | 0.43(0.2-0.93) | 1,473 | 96 |

Table 25: Access to sanitation facility by types of disability

| Indicators | Vision | | Hearing | | Mobility | | Communication | | Cognition | | Self_care | | Anxiety | | Depression | |
|---|--------|----|---------|----|----------|----|---------------|----|-----------|----|-----------|-----|---------|----|------------|----|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=337 | | N=175 | | N=643 | | N=173 | | N=330 | | N=276 | | N=207 | | N=109 | |
| Able to use the same toilet facility as other members of household | 310 | 92 | 155 | 89 | 548 | 85 | 130 | 75 | 278 | 84 | 200 | 73 | 187 | 90 | 96 | 87 |
| Reasons for not being able to use the same facility | | | | | | | | | | | | | | | | |
| It would be physically difficult/impossible for me to reach there | 21 | 86 | 17 | 92 | 85 | 97 | 38 | 94 | 47 | 96 | 70 | 100 | 18 | 99 | 13 | 99 |
| It is difficult for my caregiver (Eg. Lack of time/physically difficult) | 13 | 51 | 13 | 71 | 56 | 63 | 24 | 60 | 27 | 54 | 40 | 57 | 13 | 72 | 8 | 64 |
| I am not allowed to use it | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| I don't feel safe and comfortable | 2 | 6 | 1 | 8 | 3 | 4 | 3 | 6 | 5 | 11 | 3 | 4 | 0 | 2 | 0 | 0 |
| Unable to access the toilet | 3 | 12 | 2 | 11 | 16 | 18 | 8 | 19 | 7 | 14 | 13 | 18 | 8 | 41 | 2 | 17 |
| I couldn't use it whenever I want | 0 | 0 | 3 | 14 | 11 | 12 | 5 | 12 | 5 | 10 | 11 | 15 | 4 | 20 | 2 | 13 |
| Entry restriction | 2 | 8 | 0 | 0 | 5 | 5 | 2 | 6 | 0 | 1 | 3 | 5 | 3 | 18 | 0 | 0 |
| I don't feel safe when it is dark (eg. Night time, early morning) | 3 | 12 | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 3 | 4 | 3 | 15 | 0 | 0 |
| Toilet is far away from my home | 1 | 5 | 2 | 13 | 7 | 8 | 4 | 9 | 4 | 8 | 7 | 10 | 0 | 0 | 2 | 13 |
| Poor infrastructure (eg. Broken slab) | 0 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 5 | 9 | 1 | 1 | 1 | 5 | 0 | 0 |
| Need assistance to use the toilet facility | 84 | 25 | 77 | 44 | 286 | 45 | 84 | 49 | 129 | 39 | 172 | 62 | 64 | 31 | 40 | 36 |
| Able to use the toilet facility as frequently or as needed | 298 | 89 | 156 | 89 | 533 | 83 | 137 | 79 | 278 | 84 | 189 | 69 | 172 | 83 | 95 | 87 |
| Reasons for not being able to use the facility as frequently as needed | | | | | | | | | | | | | | | | |
| It would be difficult/impossible for me | 39 | 96 | 19 | 92 | 107 | 92 | 37 | 97 | 46 | 82 | 90 | 97 | 29 | 79 | 14 | 88 |
| It is difficult for my caregiver (Eg. Lack of time/physically difficult) | 20 | 48 | 8 | 37 | 50 | 43 | 25 | 64 | 32 | 58 | 47 | 51 | 17 | 45 | 5 | 35 |
| I don't feel safe | 10 | 25 | 1 | 5 | 20 | 17 | 2 | 6 | 11 | 20 | 6 | 7 | 14 | 38 | 0 | 2 |
| Lack of enough water | 7 | 16 | 7 | 33 | 28 | 24 | 4 | 10 | 7 | 13 | 15 | 17 | 12 | 32 | 3 | 16 |
| Lack of enough lighting facility throughout the day | 4 | 9 | 0 | 0 | 4 | 4 | 1 | 3 | 0 | 0 | 3 | 3 | 1 | 4 | 0 | 0 |
| Couldn't get assistance whenever I need it | 2 | 5 | 0 | 0 | 7 | 6 | 1 | 4 | 5 | 9 | 7 | 8 | 3 | 8 | 1 | 8 |
| Toilet facility is far away from home | 5 | 13 | 8 | 39 | 18 | 15 | 5 | 12 | 5 | 10 | 15 | 17 | 5 | 12 | 0 | 2 |
| Risk of animal attacks | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 4 | 0 | 0 | 1 | 2 | 0 | 1 |
| | N=207 | | N=82 | | N=395 | | N=82 | | N=189 | | N=131 | | N=124 | | N=70 | |
| Reach the cleaning materials without assistance | 191 | 93 | 79 | 96 | 353 | 89 | 73 | 89 | 181 | 96 | 108 | 82 | 116 | 93 | 62 | 89 |

Table 26: Sanitation facility safety by disability and gender lens (individual)

| Indicators | Male | | | | Female | | | |
|--|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | |
| | n | % | n | % | n | % | n | % |
| | N=552 | | N=469 | | N=713 | | N=674 | |
| Feel safe in using sanitation facility | 449 | 86 | 448 | 96 | 606 | 85 | 625 | 93 |
| Reasons for not feeling safe | | | | | | | | |
| Slippery place | 30 | 34 | 1 | 3 | 43 | 32 | 10 | 16 |
| Not enough light | 34 | 40 | 7 | 29 | 43 | 32 | 38 | 60 |
| Risk of harmful animals/ insects | 13 | 15 | 6 | 26 | 11 | 8 | 10 | 15 |
| Not have enough privacy | 11 | 12 | 15 | 63 | 36 | 27 | 14 | 23 |
| Remote location | 12 | 14 | 5 | 19 | 12 | 9 | 10 | 16 |
| Toilet is inaccessible (eg difficult to reach and/or use) | 7 | 8 | 2 | 8 | 1 | 1 | 1 | 2 |
| Toilet is far away from my home | 25 | 28 | 6 | 26 | 38 | 28 | 13 | 20 |
| I would be embarrassed / People would laugh at me | 0 | 0 | 0 | 2 | 4 | 3 | 1 | 1 |
| Inaccessible location and/or path (eg roads are uneven slippery) | 1 | 2 | 0 | 0 | 2 | 2 | 1 | 1 |
| Poor infrastructure (eg. Broken slab) | 23 | 26 | 4 | 16 | 36 | 27 | 12 | 19 |
| Toilet area is muddy/ water clogging | 17 | 20 | 0 | 0 | 18 | 13 | 10 | 15 |

Table 27: Sanitation facility safety by ageing(individual)

| Indicators | Older people | | Younger people | |
|--|--------------|----|----------------|----|
| | n | % | n | % |
| | N=871 | | N=1507 | |
| Feel safe in using sanitation facility | 751 | 86 | 1,375 | 91 |
| Reasons for not feeling safe | | | | |
| Slippery place | 37 | 25 | 47 | 29 |
| Not enough light | 53 | 36 | 69 | 43 |
| Risk of harmful animals/ insects | 19 | 13 | 20 | 12 |
| Not have enough privacy | 35 | 24 | 41 | 26 |
| Remote location | 22 | 15 | 17 | 10 |
| Toilet is inaccessible (eg difficult to reach and/or use) | 4 | 3 | 7 | 5 |
| Toilet is far away from my home | 45 | 31 | 36 | 22 |
| I would be embarrassed / People would laugh at me | 2 | 1 | 3 | 2 |
| Inaccessible location and/or path (eg roads are uneven slippery) | 2 | 1 | 3 | 2 |
| Poor infrastructure (eg. Broken slab) | 39 | 27 | 36 | 22 |
| Toilet area is muddy/ water clogging | 25 | 17 | 20 | 12 |

Table 28: Factors associated with the accessibility of sanitation facility among persons with disability

| Indicators | Can't able to use the same sanitation place as other HH members | | | Can't able to use toilet facility as often as needed | | | Need assistance in using the toilet | | | Difficult to use the toilet without coming into contact of faecal or urine | | |
|----------------------------|---|----|----------------------------|--|----|---------------------------|-------------------------------------|----|---------------------------|--|----|---------------------------|
| | n | % | AOR (95% CI) | n | % | AOR (95% CI) | n | % | AOR (95% CI) | n | % | AOR (95% CI) |
| Age (in years) | | | | | | | | | | | | |
| 5–9 | 6 | 21 | ref. | 8 | 29 | ref. | 20 | 74 | ref. | 9 | 35 | ref. |
| 10–17 | 22 | 31 | 1.09 (0.27 - 4.46) | 8 | 12 | 0.81 (0.12 - 5.44) | 37 | 53 | 0.24 (0.13 - 0.47) | 31 | 45 | 1.46 (0.54 - 3.98) |
| 18-35 | 4 | 2 | 0.49 (0.16 - 1.46) | 17 | 8 | 0.93 (0.19 - 4.63) | 55 | 26 | 0.17 (0.06 - 0.48) | 36 | 17 | 1.13 (0.41 - 3.16) |
| 36-49 | 9 | 4 | 0.99 (0.26 - 3.72) | 10 | 4 | 0.83 (0.17 - 4.17) | 69 | 28 | 0.15 (0.06 - 0.40) | 32 | 13 | 0.66 (0.27 - 1.62) |
| 50-59 | 9 | 5 | 0.94 (0.26 - 3.38) | 22 | 13 | 0.79 (0.17 - 3.71) | 42 | 25 | 0.15 (0.05 - 0.44) | 31 | 18 | 1.09 (0.38 - 3.12) |
| 60-70 | 12 | 5 | 0.59 (0.16 - 2.21) | 24 | 11 | 0.69 (0.17 - 2.71) | 71 | 32 | 0.23 (0.08 - 0.67) | 48 | 21 | 1.35 (0.48 - 3.83) |
| 70+ | 51 | 17 | 1.26 (0.47 - 3.37) | 57 | 19 | 1.42 (0.32 - 6.42) | 130 | 43 | 0.29 (0.11 - 0.83) | 113 | 37 | 2.06 (0.79 - 5.34) |
| Sex | | | | | | | | | | | | |
| Male | 54 | 11 | ref. | 58 | 12 | ref. | 187 | 39 | ref. | 122 | 26 | ref. |
| Female | 59 | 8 | 0.73 (0.46 - 1.17) | 89 | 11 | 1.45 (0.94 - 2.25)* | 237 | 30 | 0.83 (0.63 - 1.09) | 179 | 23 | 1.03 (0.74 - 1.43) |
| Types of region | | | | | | | | | | | | |
| Urban | 44 | 7 | ref. | 40 | 6 | ref. | 190 | 31 | ref. | 130 | 21 | ref. |
| Rural | 69 | 11 | 1.02 (0.59 - 1.76) | 107 | 17 | 1.08 (0.79 - 1.50) | 234 | 37 | 0.89 (0.68 - 1.18) | 171 | 27 | 0.95 (0.69 - 1.32) |
| SES Index | | | | | | | | | | | | |
| 1st quintile | 24 | 13 | ref. | 35 | 19 | ref. | 81 | 43 | ref. | 64 | 34 | ref. |
| 2nd quintile | 27 | 14 | 0.90 (0.39 - 2.07) | 45 | 24 | 0.59 (0.32 - 1.11)* | 75 | 39 | 0.68 (0.40 - 1.18) | 57 | 30 | 0.69 (0.47 - 1.01)* |
| 3rd quintile | 14 | 6 | 0.55 (0.29 - 1.04)* | 28 | 13 | 0.57 (0.31 - 1.04)* | 61 | 28 | 0.58 (0.36 - 0.93) | 43 | 20 | 0.59 (0.33 - 1.07)* |
| 4th quintile | 17 | 6 | 0.47 (0.22 - 1.02)* | 24 | 8 | 0.56 (0.26 - 1.19) | 97 | 33 | 0.77 (0.45 - 1.31) | 84 | 28 | 0.88 (0.51 - 1.53) |
| 5th quintile | 30 | 8 | 0.65 (0.19 - 2.21) | 14 | 4 | 0.39 (0.19 - 0.82) | 111 | 31 | 0.93 (0.58 - 1.48) | 52 | 15 | 0.56 (0.31 - 1.01)* |
| Types of disability | | | | | | | | | | | | |
| Vision | 27 | 8 | 1.57 (0.79 - 3.08) | 39 | 11 | 1.96 (1.08 - 3.57) | 86 | 25 | 0.95 (0.74 - 1.23) | 66 | 19 | 1.10 (0.75 - 1.61) |
| Hearing | 20 | 11 | 1.12 (0.53 - 2.39) | 20 | 11 | 0.97 (0.48 - 1.94) | 78 | 44 | 1.08 (0.64 - 1.85) | 46 | 26 | 0.66 (0.39 - 1.11) |
| Mobility | 96 | 15 | 3.44 (1.59 - 7.40) | 111 | 17 | 2.93 (1.87 - 4.58) | 291 | 45 | 1.75 (1.21 - 2.53) | 216 | 33 | 1.87 (1.17 - 2.99) |
| Communication | 44 | 25 | 3.18 (1.87 - 5.42) | 37 | 21 | 1.17 (0.57 - 2.39) | 86 | 49 | 1.52 (1.03 - 2.26) | 70 | 40 | 1.86 (1.33 - 2.62) |
| Remembering | 53 | 16 | 2.33 (1.34 - 4.05) | 53 | 16 | 1.66 (0.89 - 3.07) | 131 | 39 | 1.05 (0.68 - 1.63) | 111 | 33 | 1.75 (1.07 - 2.86) |
| Self_care | 77 | 27 | 5.86 (3.07 - 11.18) | 88 | 31 | 5.28 (3.22 - 8.65) | 175 | 62 | 3.57 (2.48 - 5.14) | 130 | 47 | 2.73 (2.04 - 3.65) |
| Anxiety | 20 | 10 | 1.49 (0.61 - 3.68) | 35 | 17 | 2.27 (1.45 - 3.57) | 65 | 31 | 0.98 (0.68 - 1.43) | 46 | 22 | 0.76 (0.46 - 1.26) |
| Depression | 14 | 13 | 1.07 (0.31 - 3.68) | 15 | 13 | 0.73 (0.42 - 1.26) | 40 | 36 | 1.06 (0.64 - 1.77) | 33 | 30 | 1.31 (0.84 - 2.04) |

Table 29: Factors associated with the satisfaction of using the toilet facility among persons with disability

| Indicators | Level of satisfaction with the toilet facility | | | | | | | | | | AOR (95% CI) |
|--|--|----|--------------|----|---------|----|-----------|----|----------------|---|---------------------------|
| | Very dissatisfied | | Dissatisfied | | Neutral | | Satisfied | | Very satisfied | | |
| | n | % | n | % | n | % | n | % | n | % | |
| Age group | | | | | | | | | | | |
| Younger | 21 | 3 | 109 | 15 | 105 | 14 | 455 | 63 | 34 | 5 | ref. |
| Older | 8 | 1 | 115 | 22 | 103 | 19 | 285 | 54 | 17 | 3 | 1.38 (0.97 - 1.95)* |
| Sex | | | | | | | | | | | |
| Male | 10 | 2 | 74 | 16 | 85 | 18 | 287 | 61 | 17 | 4 | ref. |
| Female | 19 | 2 | 150 | 19 | 123 | 16 | 453 | 58 | 35 | 4 | 0.85 (0.65 - 1.10) |
| Types of region | | | | | | | | | | | |
| Urban | 6 | 1 | 83 | 13 | 86 | 14 | 416 | 67 | 28 | 5 | ref. |
| Rural | 24 | 4 | 141 | 22 | 122 | 19 | 325 | 51 | 24 | 4 | 1.25 (0.84 - 1.86) |
| SES Index | | | | | | | | | | | |
| 1st quintile | 11 | 6 | 54 | 29 | 67 | 36 | 54 | 29 | 2 | 1 | ref. |
| 2nd quintile | 7 | 4 | 64 | 34 | 37 | 19 | 81 | 42 | 2 | 1 | 1.27 (0.66 - 2.44) |
| 3rd quintile | 9 | 4 | 41 | 19 | 41 | 19 | 119 | 55 | 6 | 3 | 1.69 (0.86 - 3.33) |
| 4th quintile | 1 | 0 | 53 | 18 | 51 | 17 | 185 | 62 | 7 | 2 | 1.96 (1.11 - 3.47) |
| 5th quintile | 1 | 0 | 12 | 3 | 12 | 3 | 302 | 84 | 34 | 9 | 3.55 (1.33 - 9.48) |
| Types of disability | | | | | | | | | | | |
| Vision | 9 | 3 | 48 | 14 | 57 | 17 | 210 | 61 | 19 | 5 | 0.76 (0.45 - 1.29) |
| Hearing | 3 | 2 | 42 | 24 | 30 | 17 | 101 | 57 | 2 | 1 | 0.80 (0.46 - 1.40) |
| Mobility | 16 | 3 | 136 | 21 | 117 | 18 | 364 | 56 | 20 | 3 | 0.46 (0.28 - 0.73) |
| Communication | 8 | 5 | 53 | 30 | 26 | 15 | 87 | 50 | 1 | 1 | 0.65 (0.37 - 1.16) |
| Remembering | 10 | 3 | 85 | 25 | 43 | 13 | 183 | 54 | 14 | 4 | 0.69 (0.45 - 1.06)* |
| Self_care | 15 | 5 | 71 | 25 | 50 | 18 | 139 | 50 | 4 | 1 | 1.02 (0.60 - 1.73) |
| Anxiety | 9 | 4 | 37 | 18 | 44 | 21 | 108 | 51 | 12 | 6 | 0.53 (0.26 - 1.07)* |
| Depression | 4 | 3 | 19 | 17 | 17 | 16 | 61 | 55 | 10 | 9 | 2.09 (0.99 - 4.41)* |
| Toilet Characteristics | | | | | | | | | | | |
| Sanitation ladder | | | | | | | | | | | |
| Basic | 19 | 2 | 148 | 15 | 136 | 14 | 624 | 64 | 44 | 4 | ref. |
| Limited | 8 | 3 | 70 | 26 | 67 | 25 | 117 | 43 | 8 | 3 | 0.79 (0.47 - 1.33) |
| Unimproved | 1 | 12 | 2 | 28 | 5 | 55 | 0 | 6 | 0 | 0 | 0.83 (0.24 - 2.86) |
| Open defecation | 0 | 17 | 2 | 71 | 0 | 12 | 0 | 0 | 0 | 0 | 0.06 (0.001 - 2.54) |
| Time to go to the facility | | | | | | | | | | | |
| < 30 min | 25 | 3 | 187 | 21 | 187 | 21 | 462 | 52 | 30 | 3 | ref. |
| >= 30 min | 3 | 18 | 2 | 13 | 4 | 25 | 6 | 38 | 1 | 6 | 0.43 (0.09 - 2.03) |
| Toilet has solid door | 7 | 5 | 62 | 44 | 40 | 28 | 31 | 22 | 2 | 1 | 0.58 (0.26 - 1.31) |
| Toilet has solid roof | 3 | 6 | 16 | 33 | 18 | 35 | 12 | 24 | 1 | 2 | 0.51 (0.18 - 1.44) |
| Toilet has solid wall | 9 | 6 | 51 | 38 | 48 | 36 | 25 | 18 | 1 | 1 | 1.01 (0.48 - 2.13) |
| Materials are available to clean self | 5 | 1 | 106 | 12 | 117 | 14 | 584 | 68 | 50 | 6 | - |
| Adequate water supply | 6 | 1 | 57 | 8 | 60 | 9 | 524 | 75 | 46 | 7 | 3.12 (1.98 - 4.93) |

| Indicators | Level of satisfaction with the toilet facility | | | | | | | | | | |
|--|--|---|--------------|----|---------|----|-----------|----|----------------|---|----------------------------|
| | Very dissatisfied | | Dissatisfied | | Neutral | | Satisfied | | Very satisfied | | AOR (95% CI) |
| | n | % | n | % | n | % | n | % | n | % | |
| Toilet access | | | | | | | | | | | |
| Able to use same toilet as other hh members | 23 | 2 | 187 | 16 | 191 | 17 | 689 | 60 | 51 | 5 | 0.72 (0.28 - 1.89) |
| Feeling safe in using the toilet | 11 | 1 | 130 | 12 | 165 | 15 | 713 | 67 | 51 | 5 | 7.28 (2.56 - 20.72) |
| Able to use toilet as frequently as required | 18 | 2 | 161 | 15 | 170 | 15 | 707 | 64 | 51 | 5 | 0.91 (0.38 - 2.21) |
| Difficult to use the toilet without coming into contact of faeces or urine | 16 | 5 | 85 | 28 | 58 | 19 | 138 | 46 | 4 | 1 | 0.89 (0.65 - 1.22) |
| Need assistance in using toilet | 14 | 3 | 90 | 21 | 74 | 17 | 234 | 55 | 12 | 3 | 0.82 (0.56 - 1.19) |
| Reach the cleaning materials without assistance | 2 | 0 | 79 | 11 | 99 | 14 | 498 | 69 | 45 | 6 | 1.86 (0.76 - 4.57) |

Table 30: Satisfaction and future adaptation required by disability status

| Indicators | Person with disabilities | | Person without disabilities | |
|--|--------------------------|----|-----------------------------|----|
| | n | % | n | % |
| | N=1234 | | N=1144 | |
| Have customized sanitation facility | 119 | 10 | 68 | 6 |
| Level of satisfaction with toilet facility | | | | |
| Very dissatisfied | 29 | 2 | 16 | 1 |
| Dissatisfied | 221 | 18 | 150 | 13 |
| Neither dissatisfied nor satisfied | 204 | 17 | 183 | 16 |
| Satisfied | 729 | 59 | 700 | 61 |
| Very satisfied | 51 | 4 | 95 | 8 |
| Key future adaptations required | | | | |
| Improved Path (e.g. straightened/obstacles removed/smoothened/less slippery/widened) | 90 | 7 | 42 | 4 |
| Ramp to the toilet facility | 9 | 1 | 0 | 0 |
| Handrails/support rails/grab bars | 8 | 1 | 0 | 0 |
| Facility moved closer to the household | 170 | 14 | 142 | 12 |
| Improved seating facility (eg. seat/slab) | 239 | 19 | 161 | 14 |
| Increased space inside facility | 161 | 13 | 127 | 11 |
| Improve lighting | 87 | 7 | 79 | 7 |
| Add a lock on the door | 9 | 1 | 9 | 1 |
| Availability of additional water sources (eg. Stored water) | 60 | 5 | 41 | 4 |
| Availability of hygiene facilities (eg. Soap, sanitizer and soapy water) | 58 | 5 | 51 | 4 |
| Wider doors for the toilet | 40 | 3 | 29 | 3 |
| Height adjustable commode/ pan | 118 | 10 | 73 | 6 |
| Improve the privacy of the facility | 98 | 8 | 83 | 7 |

| Indicators | Person with disabilities | | Person without disabilities | |
|--|--------------------------|----|-----------------------------|----|
| | n | % | n | % |
| | N=1234 | | N=1144 | |
| Improved infrastructure for easy access/ reducing risk | 27 | 2 | 14 | 1 |
| Availability of running water during all the day | 359 | 29 | 311 | 27 |
| Constructed steps/ stairs/ path to the toilet facility | 21 | 2 | 11 | 1 |
| Improve material quality of the toilet facility | 487 | 39 | 435 | 38 |
| I don't want any changes | 559 | 45 | 579 | 51 |

Table 31: Satisfaction and future adaptation required by ageing

| Indicators | Older people | | Younger people | |
|--|--------------|----|----------------|----|
| | n | % | n | % |
| | N=871 | | N=1507 | |
| Have customized sanitation facility | 94 | 11 | 93 | 6 |
| Level of satisfaction with toilet facility | | | | |
| Very dissatisfied | 9 | 1 | 36 | 2 |
| Dissatisfied | 162 | 19 | 208 | 14 |
| Neither dissatisfied nor satisfied | 159 | 18 | 229 | 15 |
| Satisfied | 504 | 58 | 925 | 61 |
| Very satisfied | 37 | 4 | 109 | 7 |
| Key future adaptations required | | | | |
| Improved Path (e.g. straightened/obstacles removed/smoothened/less slippery/widened) | 65 | 7 | 67 | 4 |
| Ramp to the toilet facility | 2 | 0 | 7 | 0 |
| Handrails/support rails/grab bars | 4 | 0 | 4 | 0 |
| Facility moved closer to the household | 151 | 17 | 161 | 11 |
| Improved seating facility (eg. seat/slab) | 169 | 19 | 230 | 15 |
| Increased space inside facility | 107 | 12 | 181 | 12 |
| Improve lighting | 56 | 6 | 110 | 7 |
| Add a lock on the door | 2 | 0 | 16 | 1 |
| Availability of additional water sources (eg. Stored water) | 63 | 7 | 37 | 2 |
| Availability of hygiene facilities (eg. Soap, sanitizer and soapy water) | 49 | 6 | 60 | 4 |
| Wider doors for the toilet | 26 | 3 | 43 | 3 |
| Height adjustable commode/ pan | 91 | 10 | 100 | 7 |
| Improve the privacy of the facility | 80 | 9 | 101 | 7 |
| Improved infrastructure for easy access/ reducing risk | 23 | 3 | 18 | 1 |
| Availability of running water during all the day | 248 | 29 | 422 | 28 |
| Constructed steps/ stairs/ path to the toilet facility | 20 | 2 | 11 | 1 |
| Improve material quality of the toilet facility | 340 | 39 | 581 | 39 |
| I don't want any changes | 388 | 45 | 750 | 50 |

Table 32: Components available at the bathing facility

| Indicators | Household with person with disabilities | | Household without person with disabilities | |
|--|---|----|--|----|
| | n | % | n | % |
| | N=1056 | | N=862 | |
| Components available at the entry path | | | | |
| Smooth flat surface | 669 | 63 | 526 | 61 |
| Uneven flat surface | 370 | 35 | 329 | 38 |
| Surface is not slippery | 623 | 59 | 505 | 59 |
| Stairs | 156 | 15 | 118 | 14 |
| Adequate space for wheel chair accommodation | 91 | 9 | 83 | 10 |
| No barrier for wheel chair entry | 5 | 1 | 32 | 4 |
| Available signage to direct the path | 9 | 1 | 3 | 0 |
| Components available at door | N=508 | | N=418 | |
| Appropriate door width for wheelchair access | 12 | 2 | 21 | 5 |
| Door lock can be operated with one hand | 192 | 38 | 185 | 44 |
| Door operator/ handle can be operated with one hand | 108 | 21 | 129 | 31 |
| Components available inside the bathing area | | | | |
| Bathing area is not slippery | 749 | 71 | 602 | 70 |
| Surface inside the Bathing area is flat | 629 | 60 | 492 | 57 |
| Surface inside the bathing area is bumpy | 123 | 12 | 110 | 13 |
| Bathing area is visibly clean | 723 | 68 | 558 | 65 |
| No obstacle/ partitions/ objects on the surface | 123 | 12 | 124 | 14 |
| Sitting arrangement available during bathing | 323 | 31 | 236 | 27 |
| Adequate space for wheel chair accommodation | 36 | 3 | 30 | 3 |
| Availability of multiple taps and basin facility | 165 | 16 | 143 | 17 |
| Availability of water | 836 | 79 | 676 | 78 |
| Water is available in such area that wheel chair user or children can easily access | 2 | 0 | 0 | 0 |
| Water drawing mechanism can be operated with one hand | 352 | 33 | 295 | 34 |
| Availability of cleaning agent | 574 | 54 | 460 | 53 |
| Cleaning agent is available in such area that wheel chair user or children can easily access | 3 | 0 | 6 | 1 |
| Accessories within the bathing facility are in color contrast with their background color | 5 | 0 | 7 | 1 |
| Available lighting facility (e.g. sunlight, electric bulb) | 746 | 71 | 644 | 75 |

Table 33: Access to bathing facility by disability

| Indicators | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
|--|--------------------------|----------|-----------------------------|-----------|----------------------------|---------------|-----------|
| | n | % | n | % | | n | % |
| | N=1234 | | N=1144 | | | N=2378 | |
| Able to use the same place to bathe as other members of the household | 1,104 | 89 | 1,119 | 98 | 0.21 (0.12 - 0.37) | 2,223 | 93 |
| Reasons for not using the same facility | N=136 | | N=27 | | | N=163 | |
| It would be physically difficult/impossible for me to reach there | 126 | 93 | 1 | 4 | - | 128 | 78 |
| It is difficult for my caregiver (Lack of time, physically difficult) | 42 | 31 | 0 | 0 | - | 42 | 26 |
| I am not allowed to use it | 2 | 2 | 3 | 11 | - | 6 | 3 |
| Shortage of enough water | 1 | 1 | 6 | 23 | - | 7 | 4 |
| Because of restricted time period to take bath (e.g. the person is not available during that time) | 1 | 1 | 6 | 22 | - | 7 | 4 |
| Bathing place is far away from home | 5 | 4 | 1 | 3 | - | 6 | 4 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 11 | 8 | 6 | 24 | 0.29 (0.03 - 3.46) | 17 | 11 |
| Lack of proper privacy | 7 | 5 | 2 | 9 | - | 9 | 6 |
| Bathing facility area is not clean (eg. Debris/ Rubbish, bad odor) | 1 | 1 | 2 | 6 | - | 3 | 2 |
| Bathing place is muddy/ water clog | 7 | 5 | 7 | 25 | - | 13 | 8 |
| Others | 18 | 13 | 15 | 57 | 0.03 (0.004 - 0.16) | 33 | 20 |
| Feel safe when going to the bathing place | 1,082 | 88 | 1,057 | 92 | 0.48 (0.35 - 0.66) | 2,139 | 90 |
| Reason for not feeling safe when going to the bathing place | N=143 | | N=82 | | | N=225 | |
| Not have enough privacy | 78 | 55 | 67 | 81 | 0.28 (0.09 - 0.84) | 145 | 64 |
| People would abuse me verbally or physically | 8 | 5 | 0 | 0 | - | 8 | 3 |
| Risk of harmful animals | 4 | 3 | 7 | 8 | - | 10 | 5 |
| Inaccessible location and/or bathing place path (eg No wheelchair access / roads are uneven/ slippery road near bathing place) | 24 | 17 | 5 | 6 | 3.39 (1.02 - 11.22) | 29 | 13 |
| Bathing place is far away from my home | 43 | 30 | 18 | 21 | 1.08 (0.52 - 2.26) | 60 | 27 |
| Remote location | 0 | 0 | 0 | 1 | - | 0 | 0 |
| Poor infrastructure (eg. Broken platform, broken slab) | 8 | 6 | 3 | 4 | - | 11 | 5 |
| Bathing place area is muddy/ water clogging/ slippery area | 25 | 18 | 17 | 21 | 0.61 (0.23 - 1.59) | 42 | 19 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 48 | 34 | 27 | 33 | 2.96 (1.68 - 5.21) | 75 | 33 |
| Others | 40 | 28 | 9 | 11 | 2.65 (0.85 - 8.32)* | 49 | 22 |
| Bathing time (mean ± sd) | 1253 | 5.8(±11) | 1125 | 4.8(±7.8) | - | 2378 | 5.3(±9.6) |
| Able to bathe without assistance | 938 | 76 | 1,125 | 98 | 0.06 (0.04 - 0.11) | 2,062 | 87 |
| Able to bathe/clean yourself as often as needed | 860 | 70 | 1,102 | 96 | 0.07 (0.04 - 0.13) | 1,962 | 83 |
| Reason for not being able to bathe/clean as often as needed | N=349 | | N=39 | | | N=388 | |
| It would be physically difficult/impossible for me | 319 | 92 | 34 | 88 | 9.36 (1.61 - 54.19) | 354 | 91 |
| It is difficult for my caregiver (Lack of time, physically difficult) | 116 | 33 | 0 | 0 | - | 116 | 30 |

| Indicators | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
|--|--------------------------|----|-----------------------------|----|----------------------------|---------------|----|
| | n | % | n | % | | n | % |
| | N=1234 | | N=1144 | | | N=2378 | |
| Due to my health condition | 89 | 25 | 14 | 36 | 1.11 (0.29 - 4.16) | 103 | 26 |
| There is a lack of water | 14 | 4 | 7 | 18 | 0.49 (0.07 - 3.68) | 21 | 5 |
| Couldn't get assistance whenever I need it | 24 | 7 | 0 | 0 | - | 24 | 6 |
| Bathing place is far away from my home | 21 | 6 | 0 | 0 | - | 21 | 5 |
| Level of satisfaction with the bathing place | | | | | | | |
| Very dissatisfied | 44 | 4 | 22 | 2 | 3.01 (1.99 - 4.54) | 67 | 3 |
| Dissatisfied | 168 | 14 | 93 | 8 | 2.25 (1.64 - 3.07) | 261 | 11 |
| Neither dissatisfied nor satisfied | 237 | 19 | 162 | 14 | 1.83 (1.42 - 2.34) | 399 | 17 |
| Satisfied | 733 | 59 | 788 | 69 | ref. | 1,521 | 64 |
| Very satisfied | 52 | 4 | 78 | 7 | 1.03 (0.75 - 1.42) | 130 | 5 |
| Future adaptations to be made | | | | | | | |
| Improved Path (e.g. straightened/obstacles removed/smoothened/less slippery/widened) | 99 | 8 | 56 | 5 | 1.12 (0.44 - 2.87) | 155 | 7 |
| Facility moved closer to the household | 165 | 13 | 128 | 11 | 0.67 (0.24 - 1.92) | 293 | 12 |
| Improved seating facility (eg. seat/slab) | 139 | 11 | 93 | 8 | 1.35 (0.21 - 8.59) | 232 | 10 |
| Increased space inside facility | 149 | 12 | 114 | 10 | 3.81 (0.74 - 19.57) | 263 | 11 |
| Improve lighting | 69 | 6 | 35 | 3 | 4.55 (1.11 - 18.57) | 104 | 4 |
| Improve the privacy of the infrastructure | 176 | 14 | 189 | 17 | 0.70 (0.21 - 2.34) | 365 | 15 |
| Availability of running water during all the day | 309 | 25 | 230 | 20 | 1.06 (0.36 - 3.09) | 540 | 23 |
| Constructed steps/ stairs/ path to the bathing facility (eg. Pond, river) | 29 | 2 | 29 | 3 | 2.61 (0.49 - 13.86) | 58 | 2 |
| Availability of additional water sources (stored water) | 58 | 5 | 26 | 2 | 11.42 (1.32 - 98.53) | 84 | 4 |
| Improve material quality of the bathing facility | 492 | 40 | 435 | 38 | 1.11 (0.22 - 5.56) | 927 | 39 |
| I don't want any changes | 586 | 48 | 605 | 53 | 1.94 (0.63 - 5.99) | 1,191 | 50 |

Table 34: Factors associated with the accessibility of bathing facility among persons with disability

| Indicators | Can't able to use the same bathing place as other HH members | | | Can't able to bath/ clean as often as needed | | | Need assistance for bathing | | |
|-----------------------|--|----|---------------------------|--|----|---------------------------|-----------------------------|----|---------------------------|
| | n | % | AOR (95% CI) | n | % | AOR (95% CI) | n | % | AOR (95% CI) |
| Age (in years) | | | | | | | | | |
| 5-9 | 3 | 11 | ref. | 14 | 51 | ref. | 18 | 69 | ref. |
| 10-17 | 4 | 6 | 1.06 (0.31 - 3.67) | 39 | 56 | 0.77 (0.32 - 1.84) | 18 | 26 | 0.28 (0.10 - 0.73) |
| 18-35 | 5 | 2 | 0.86 (0.28 - 2.59) | 31 | 15 | 0.29 (0.15 - 0.56) | 27 | 13 | 0.14 (0.05 - 0.38) |
| 36-49 | 6 | 2 | 1.07 (0.27 - 4.29) | 39 | 16 | 0.37 (0.18 - 0.76) | 21 | 9 | 0.16 (0.07 - 0.40) |
| 50-59 | 10 | 6 | 1.34 (0.44 - 4.06) | 37 | 21 | 0.44 (0.21 - 0.94) | 30 | 18 | 0.14 (0.05 - 0.44) |
| 60-70 | 30 | 13 | 1.34 (0.49 - 3.63) | 65 | 29 | 0.52 (0.27 - 1.01)* | 47 | 21 | 0.15 (0.06 - 0.39) |
| 70+ | 74 | 24 | 3.56 (1.37 - 9.25) | 155 | 51 | 1.14 (0.62 - 2.11) | 139 | 46 | 0.42 (0.17 - 1.07)* |
| Sex | | | | | | | | | |

| | | | | | | | | | |
|----------------------------|-----|----|---------------------------|-----|----|----------------------------|-----|----|-----------------------------|
| Male | 64 | 13 | ref. | 162 | 34 | ref. | 152 | 32 | ref. |
| Female | 68 | 9 | 0.80 (0.51 - 1.27) | 218 | 28 | 1.12 (0.79 - 1.57) | 149 | 19 | 0.82 (0.56 - 1.20) |
| Types of region | | | | | | | | | |
| Urban | 35 | 6 | ref. | 146 | 24 | ref. | 95 | 15 | ref. |
| Rural | 97 | 15 | 1.07 (0.58 - 1.98) | 234 | 37 | 0.95 (0.68 - 1.35) | 205 | 32 | 0.97 (0.63 - 1.48) |
| SES Index | | | | | | | | | |
| 1st quintile | 32 | 17 | ref. | 67 | 36 | ref. | 68 | 36 | ref. |
| 2nd quintile | 42 | 22 | 0.99 (0.55 - 1.79) | 77 | 40 | 0.96 (0.64 - 1.43) | 72 | 37 | 1.04 (0.63 - 1.71) |
| 3rd quintile | 14 | 6 | 0.47 (0.24 - 0.93) | 65 | 30 | 0.63 (0.38 - 1.04)* | 52 | 24 | 0.76 (0.47 - 1.24) |
| 4th quintile | 29 | 10 | 0.63 (0.32 - 1.22) | 80 | 27 | 0.89 (0.58 - 1.37) | 67 | 22 | 1.06 (0.72 - 1.58) |
| 5th quintile | 15 | 4 | 0.39 (0.17 - 0.91) | 92 | 25 | 0.87 (0.56 - 1.34) | 42 | 12 | 0.81 (0.49 - 1.31) |
| Types of disability | | | | | | | | | |
| Vision | 38 | 11 | 1.52 (0.89 - 2.56) | 100 | 29 | 2.44 (1.64 - 3.62) | 75 | 22 | 1.44 (0.95 - 2.19)* |
| Hearing | 36 | 20 | 1.29 (0.56 - 2.96) | 62 | 35 | 1.12 (0.69 - 1.82) | 65 | 37 | 1.53 (0.96 - 2.43)* |
| Mobility | 105 | 16 | 2.08 (1.23 - 3.52) | 287 | 44 | 3.81 (2.56 - 5.68) | 239 | 37 | 3.38 (2.11 - 5.44) |
| Communication | 37 | 21 | 2.26 (1.26 - 4.06) | 94 | 53 | 2.01 (1.16 - 3.49) | 77 | 44 | 1.12 (0.61 - 2.06) |
| Remembering | 54 | 16 | 1.34 (0.78 - 2.28) | 135 | 40 | 1.29 (0.86 - 1.96) | 117 | 35 | 1.94 (1.26 - 2.99) |
| Self_care | 89 | 32 | 4.31 (2.76 - 6.74) | 184 | 66 | 6.59 (4.15 - 10.47) | 189 | 67 | 12.26 (7.45 - 20.17) |
| Anxiety | 20 | 10 | 1.18 (0.56 - 2.48) | 53 | 25 | 1.08 (0.78 - 1.49) | 48 | 23 | 1.24 (0.79 - 1.93) |
| Depression | 12 | 11 | 1.01 (0.44 - 2.31) | 43 | 39 | 1.39 (0.88 - 2.21) | 31 | 28 | 0.90 (0.50 - 1.61) |

Table 35: Access to bathing facility by disability over age

| Indicators | Older | | | | Younger | | | | Overall | | | |
|--|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|---------|----|---------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Older | | Younger | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=596 | | N=401 | | N=654 | | N=727 | | N=997 | | N=1381 | |
| Able to use the same place to bathe as other members of the household | 479 | 80 | 382 | 95 | 628 | 96 | 719 | 99 | 861 | 86 | 1,348 | 98 |
| Reasons for not using the same facility | N=94 | | N=15 | | N=41 | | N=13 | | N=109 | | N=54 | |
| It would be physically difficult/impossible for me to reach there | 90 | 96 | 1 | 4 | 33 | 80 | 1 | 4 | 91 | 83 | 33 | 62 |
| It is difficult for my caregiver (Lack of time, physically difficult) | 31 | 34 | 0 | 0 | 8 | 20 | 0 | 0 | 31 | 29 | 8 | 15 |
| I am not allowed to use it | 1 | 1 | 0 | 0 | 2 | 4 | 4 | 33 | 1 | 1 | 6 | 11 |
| I would be embarrassed / People would laugh at me | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 5 | 1 | 1 | 1 | 1 |
| I couldn't use it whenever I want | 2 | 3 | 0 | 0 | 2 | 5 | 0 | 0 | 2 | 2 | 2 | 4 |
| Because of restricted time period to take bath (e.g. the person is not available during that time) | 0 | 0 | 5 | 33 | 2 | 4 | 0 | 0 | 5 | 5 | 2 | 3 |
| Bathing place is not accessible for me | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| Bathing place is far away from home | 4 | 4 | 0 | 0 | 1 | 3 | 1 | 7 | 4 | 4 | 2 | 4 |

| Indicators | Older | | | | Younger | | | | Overall | | | |
|---|--------------------------|------------|-----------------------------|-----------|--------------------------|----------|-----------------------------|-----------|---------|----------|---------|-----------|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Older | | Younger | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=596 | | N=401 | | N=654 | | N=727 | | N=997 | | N=1381 | |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 9 | 10 | 5 | 33 | 0 | 1 | 1 | 5 | 15 | 13 | 1 | 2 |
| Lack of proper privacy | 6 | 7 | 1 | 4 | 0 | 0 | 2 | 18 | 7 | 6 | 2 | 4 |
| Bathing facility area is not clean (eg. Debris/ Rubbish, bad odor) | 0 | 0 | 1 | 4 | 1 | 3 | 1 | 10 | 1 | 1 | 3 | 5 |
| Bathing place is muddy/ water clog | 6 | 6 | 6 | 37 | 0 | 0 | 0 | 2 | 11 | 11 | 0 | 1 |
| Others | 13 | 14 | 10 | 62 | 5 | 12 | 6 | 48 | 22 | 20 | 11 | 20 |
| Feel safe when going to the bathing place | 510 | 86 | 368 | 92 | 583 | 89 | 674 | 93 | 878 | 88 | 1,257 | 91 |
| Reason for not feeling safe when going to the bathing place | N=76 | | N=30 | | N=68 | | N=51 | | N=106 | | N=119 | |
| Not have enough privacy | 31 | 41 | 20 | 67 | 46 | 68 | 45 | 88 | 51 | 48 | 91 | 77 |
| People would abuse me verbally or physically | 1 | 1 | 0 | 0 | 7 | 10 | 0 | 0 | 1 | 1 | 7 | 6 |
| Not enough light | 3 | 4 | 1 | 3 | 1 | 1 | 0 | 0 | 4 | 4 | 1 | 1 |
| Risk of harmful animals | 4 | 5 | 2 | 7 | 0 | 0 | 5 | 9 | 6 | 6 | 5 | 4 |
| Inaccessible location and/or bathing place path (eg No wheelchair access / roads are uneven/slippery road near bathing place) | 20 | 27 | 3 | 11 | 5 | 7 | 2 | 3 | 24 | 22 | 7 | 6 |
| Bathing place is far away from my home | 18 | 23 | 9 | 31 | 25 | 36 | 9 | 17 | 27 | 25 | 33 | 28 |
| Poor infrastructure (eg. Broken platform, broken slab) | 4 | 5 | 2 | 5 | 4 | 6 | 1 | 3 | 5 | 5 | 6 | 5 |
| Bathing place area is muddy/ water clogging/ slippery area | 14 | 19 | 6 | 21 | 11 | 17 | 11 | 21 | 21 | 19 | 22 | 18 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 25 | 33 | 14 | 48 | 23 | 34 | 13 | 25 | 40 | 37 | 36 | 30 |
| Others | 25 | 33 | 2 | 5 | 15 | 23 | 7 | 14 | 27 | 25 | 22 | 19 |
| Bathing time (mean ± sd) | 604 | 6.3(±11.9) | 393 | 5.1(±6.9) | 649 | 5.4(±10) | 732 | 4.6(±8.2) | 997 | 5.9(±10) | 1381 | 5.0(±9.2) |
| Able to bathe without assistance | 386 | 65 | 388 | 97 | 550 | 84 | 720 | 99 | 774 | 78 | 1,270 | 92 |
| Able to bathe/clean yourself as often as needed | 347 | 58 | 369 | 92 | 510 | 78 | 715 | 98 | 716 | 72 | 1,225 | 89 |
| Reason for not being able to bathe/clean as often as needed | N=215 | | N=28 | | N=133 | | N=12 | | N=243 | | N=145 | |
| It would be physically difficult/impossible for me | 203 | 94 | 28 | 99 | 117 | 88 | 8 | 65 | 231 | 95 | 124 | 86 |
| It is difficult for my caregiver (Lack of time, physically difficult) | 71 | 33 | 0 | 0 | 45 | 34 | 0 | 0 | 71 | 29 | 45 | 31 |
| I am not allowed to do it | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 |
| People would abuse me verbally or physically | | | | | 6 | 4 | 0 | 0 | | | 6 | 4 |
| Due to my health condition | 54 | 25 | 13 | 45 | 34 | 26 | 2 | 16 | 67 | 27 | 36 | 25 |
| There is a lack of water | 7 | 3 | 6 | 20 | 7 | 5 | 2 | 13 | 13 | 5 | 8 | 6 |

| Indicators | Older | | | | Younger | | | | Overall | | | |
|--|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|---------|----|---------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Older | | Younger | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=596 | | N=401 | | N=654 | | N=727 | | N=997 | | N=1381 | |
| Couldn't get assistance whenever I need it | 12 | 6 | 0 | 0 | 11 | 8 | 0 | 0 | 12 | 5 | 11 | 8 |
| Bathing place is far away from my home | 8 | 4 | 0 | 0 | 13 | 9 | 0 | 0 | 8 | 3 | 13 | 9 |
| Other | 9 | 4 | 3 | 11 | 7 | 5 | 1 | 7 | 12 | 5 | 8 | 5 |
| Level of satisfaction with the bathing place | | | | | | | | | | | | |
| Very dissatisfied | 6 | 1 | 1 | 0 | 36 | 5 | 20 | 3 | 7 | 1 | 55 | 4 |
| Dissatisfied | 120 | 20 | 24 | 6 | 58 | 9 | 67 | 9 | 143 | 14 | 124 | 9 |
| Neither dissatisfied nor satisfied | 109 | 18 | 75 | 19 | 130 | 20 | 89 | 12 | 183 | 18 | 219 | 16 |
| Satisfied | 338 | 57 | 287 | 71 | 401 | 61 | 493 | 68 | 625 | 63 | 894 | 65 |
| Very satisfied | 23 | 4 | 15 | 4 | 30 | 5 | 59 | 8 | 38 | 4 | 89 | 6 |
| Future adaptations to be made | | | | | | | | | | | | |
| Improved Path (e.g. straightened/obstacles removed/smoothened/less slippery/widened) | 55 | 9 | 22 | 5 | 46 | 7 | 34 | 5 | 77 | 8 | 80 | 6 |
| Rope or other landmarks for guiding | 1 | 0 | 0 | 0 | | | | | 1 | 0 | | |
| ramps to the bathing facility | 4 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 | 2 | 0 |
| Handrails/support rails/grab bars | 5 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 7 | 1 | 2 | 0 |
| Facility moved closer to the household | 94 | 16 | 57 | 14 | 76 | 12 | 72 | 10 | 151 | 15 | 148 | 11 |
| Improved seating facility (eg. seat/slab) | 94 | 16 | 35 | 9 | 52 | 8 | 57 | 8 | 130 | 13 | 109 | 8 |
| Increased space inside facility | 75 | 13 | 39 | 10 | 76 | 12 | 74 | 10 | 114 | 11 | 150 | 11 |
| Improve lighting | 35 | 6 | 5 | 1 | 35 | 5 | 28 | 4 | 41 | 4 | 63 | 5 |
| Add a lock on the door | 1 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 4 | 0 |
| Improve the privacy of the infrastructure | 94 | 16 | 76 | 19 | 87 | 13 | 112 | 15 | 169 | 17 | 199 | 14 |
| Availability of running water during all the day | 150 | 25 | 66 | 16 | 163 | 25 | 158 | 22 | 216 | 22 | 321 | 23 |
| Constructed steps/ stairs/ path to the bathing facility (eg. Pond, river) | 9 | 2 | 21 | 5 | 19 | 3 | 10 | 1 | 30 | 3 | 29 | 2 |
| Availability of additional water sources (stored water) | 39 | 7 | 18 | 4 | 22 | 3 | 10 | 1 | 56 | 6 | 31 | 2 |
| Improve material quality of the bathing facility | 248 | 42 | 140 | 35 | 252 | 39 | 286 | 39 | 388 | 39 | 538 | 39 |
| I don't want any changes | 259 | 44 | 208 | 52 | 330 | 50 | 388 | 53 | 467 | 47 | 718 | 52 |
| Other | 33 | 6 | 24 | 6 | 34 | 5 | 30 | 4 | 57 | 6 | 64 | 5 |

Table 36: Access to bathing facility of with and without disability over region type

| Indicators | rural | | | | urban | | | | Overall | | | |
|--|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|---------|----|-------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Rural | | Urban | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=748 | | N=701 | | N=485 | | N=444 | | N=1449 | | N=929 | |
| Future adaptations to be made | | | | | | | | | | | | |
| Improved Path (e.g. straightened/obstacles removed/smoothened/less slippery/widened) | 86 | 12 | 49 | 7 | 21 | 4 | 12 | 3 | 135 | 9 | 33 | 4 |
| Rope or other landmarks for guiding ramps to the bathing facility | 1 | 0 | 0 | 0 | | | | | 1 | 0 | | |
| Handrails/support rails/grab bars | 5 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 1 | 0 |
| Facility moved closer to the household | 8 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 9 | 1 | 1 | 0 |
| Improved seating facility (eg. seat/slab) | 125 | 17 | 116 | 17 | 48 | 10 | 24 | 5 | 241 | 17 | 73 | 8 |
| Increased space inside facility | 119 | 16 | 84 | 12 | 32 | 7 | 18 | 4 | 203 | 14 | 49 | 5 |
| Improve lighting | 96 | 13 | 76 | 11 | 54 | 11 | 41 | 9 | 172 | 12 | 95 | 10 |
| Improve the privacy of the infrastructure | 48 | 6 | 35 | 5 | 23 | 5 | 4 | 1 | 84 | 6 | 27 | 3 |
| Availability of running water during all the day | 140 | 19 | 162 | 23 | 47 | 10 | 42 | 10 | 302 | 21 | 89 | 10 |
| Constructed steps/ stairs/ path to the bathing facility (eg. Pond, river) | 214 | 29 | 150 | 21 | 104 | 21 | 84 | 19 | 364 | 25 | 188 | 20 |
| Availability of additional water sources (stored water) | 24 | 3 | 26 | 4 | 7 | 1 | 6 | 1 | 50 | 3 | 13 | 1 |
| Improve material quality of the bathing facility | 51 | 7 | 25 | 4 | 12 | 2 | 4 | 1 | 76 | 5 | 16 | 2 |
| I don't want any changes | 338 | 45 | 305 | 44 | 167 | 34 | 143 | 32 | 643 | 44 | 309 | 33 |
| Other | 284 | 38 | 307 | 44 | 278 | 57 | 278 | 62 | 591 | 41 | 556 | 60 |
| | 59 | 8 | 40 | 6 | 13 | 3 | 16 | 4 | 99 | 7 | 29 | 3 |

Table 37: Access to bathing facility of with and without disability over gender

| Indicators | Female | | | | Male | | | | Overall | | | |
|--|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|---------|----|-------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Female | | Male | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=712 | | N=675 | | N=523 | | N=468 | | N=1387 | | N=991 | |
| Able to use the same place to bathe as other members of household | 650 | 91 | 667 | 99 | 453 | 87 | 449 | 96 | 1,317 | 95 | 902 | 91 |
| Feel safe when going to the bathing place | 610 | 86 | 605 | 90 | 476 | 91 | 454 | 97 | 1,216 | 88 | 930 | 94 |
| Reason for not feeling safe when going to the bathing place | N=97 | | N=66 | | N=48 | | N=14 | | N=163 | | N=62 | |
| Not have enough privacy | 61 | 63 | 56 | 85 | 16 | 33 | 8 | 59 | 117 | 72 | 24 | 39 |
| People would abuse me verbally or physically | 1 | 1 | 0 | 0 | 8 | 16 | 0 | 0 | 1 | 1 | 8 | 12 |
| Not enough light | 2 | 3 | 1 | 1 | 1 | 3 | 0 | 0 | 3 | 2 | 1 | 2 |
| Risk of harmful animals | 3 | 4 | 4 | 5 | 0 | 0 | 4 | 27 | 7 | 4 | 4 | 6 |
| Inaccessible location and/or bathing place path (eg No wheelchair access / roads are uneven/ slippery road near bathing place) | 11 | 11 | 1 | 1 | 16 | 32 | 5 | 36 | 11 | 7 | 20 | 33 |

| Indicators | Female | | | | Male | | | | Overall | | | |
|---|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|---------|----|-------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Female | | Male | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=712 | | N=675 | | N=523 | | N=468 | | N=1387 | | N=991 | |
| Bathing place is far away from my home | 30 | 31 | 13 | 19 | 13 | 26 | 5 | 36 | 43 | 26 | 18 | 28 |
| Poor infrastructure (eg. Broken platform, broken slab) | 4 | 4 | 3 | 4 | 5 | 10 | 0 | 0 | 7 | 4 | 5 | 8 |
| Bathing place area is muddy/ water clogging/ slippery area | 11 | 12 | 13 | 20 | 16 | 34 | 3 | 24 | 25 | 15 | 20 | 32 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 27 | 28 | 21 | 32 | 24 | 49 | 5 | 37 | 48 | 30 | 29 | 46 |
| Others | 27 | 28 | 6 | 10 | 13 | 28 | 3 | 19 | 33 | 20 | 16 | 26 |
| Able to bathe without assistance | 576 | 81 | 669 | 99 | 356 | 68 | 453 | 97 | 1,245 | 90 | 809 | 82 |
| Able to bathe/clean yourself as often as needed | 513 | 72 | 650 | 96 | 345 | 66 | 451 | 96 | 1,163 | 84 | 796 | 80 |

Table 38: Access to bathing facility by types of disabilities

| Indicators | vision | | hearing | | mobility | | communication | | cognition | | self-care | | anxiety | | depression | |
|---|--------|----|---------|----|----------|----|---------------|----|-----------|----|-----------|----|---------|-----|------------|----|
| | n | % | N | % | n | % | n | % | n | % | n | % | n | % | N | % |
| | N=337 | | N=175 | | N=643 | | N=173 | | N=330 | | N=276 | | N=207 | | N=109 | |
| Able to use the same place to bathe as other members of the household | 299 | 89 | 139 | 80 | 540 | 84 | 137 | 79 | 277 | 84 | 188 | 68 | 187 | 90 | 98 | 89 |
| Reasons for not using the same facility | N=39 | | N=38 | | N=108 | | N=38 | | N=56 | | N=92 | | N=21 | | N=12 | |
| It would be physically difficult/impossible for me to reach there | 39 | 99 | 33 | 88 | 104 | 96 | 34 | 90 | 52 | 94 | 90 | 98 | 21 | 100 | 12 | 98 |
| It is difficult for my caregiver (Lack of time, physically difficult) | 12 | 31 | 11 | 30 | 40 | 37 | 19 | 49 | 22 | 39 | 34 | 37 | 5 | 23 | 4 | 30 |
| I am not allowed to use it | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| I would be embarrassed / People would laugh at me | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| People would abuse me verbally or physically | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Risk of sexual harassment | | | | | | | | | | | | | | | | |
| I could not use it whenever I want | 0 | 1 | 2 | 5 | 3 | 3 | 1 | 3 | 1 | 1 | 3 | 3 | 0 | 1 | 0 | 1 |
| Bathing place is far away from home | 3 | 7 | 2 | 5 | 5 | 4 | 1 | 2 | 1 | 2 | 3 | 3 | 0 | 0 | 0 | 0 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 4 | 10 | 1 | 3 | 8 | 7 | 6 | 15 | 6 | 11 | 7 | 8 | 3 | 15 | 0 | 0 |
| Lack of proper privacy | 0 | 0 | 7 | 18 | 7 | 6 | 0 | 0 | 0 | 0 | 7 | 8 | 0 | 0 | 0 | 0 |
| Bathing facility area is not clean (eg. Debris/ Rubbish, bad odor) | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bathing place is muddy/ water clog | 1 | 2 | 1 | 2 | 7 | 6 | 7 | 18 | 7 | 12 | 7 | 7 | 0 | 0 | 0 | 0 |
| Others | 2 | 6 | 2 | 6 | 11 | 10 | 7 | 18 | 9 | 16 | 7 | 7 | 4 | 20 | 0 | 2 |
| Feel safe when going to the bathing place | 296 | 88 | 157 | 90 | 548 | 85 | 143 | 83 | 285 | 86 | 236 | 85 | 168 | 81 | 93 | 85 |
| Reason for not feeling safe when going to the bathing place | N=38 | | N=17 | | N=90 | | N=28 | | N=42 | | N=38 | | N=36 | | N=16 | |
| Not have enough privacy | 13 | 33 | 7 | 42 | 53 | 59 | 11 | 38 | 23 | 55 | 16 | 44 | 21 | 57 | 13 | 79 |

| Indicators | vision | | hearing | | mobility | | communication | | cognition | | self-care | | anxiety | | depression | |
|---|--------|----|---------|----|----------|----|---------------|----|-----------|----|-----------|----|---------|----|------------|----|
| | n | % | N | % | n | % | n | % | n | % | n | % | n | % | N | % |
| | N=337 | | N=175 | | N=643 | | N=173 | | N=330 | | N=276 | | N=207 | | N=109 | |
| People would abuse me verbally or physically | 0 | 1 | 0 | 0 | 0 | 1 | 5 | 19 | 7 | 16 | 1 | 3 | 1 | 2 | 0 | 2 |
| Not enough light | 1 | 2 | 1 | 7 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 1 | 0 | 2 |
| Risk of sexual harassment | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| Risk of harmful animals | 0 | 0 | 1 | 4 | 3 | 3 | 0 | 0 | 3 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| Inaccessible location and/or bathing place path (eg No wheelchair access / roads) | 8 | 21 | 3 | 20 | 15 | 17 | 8 | 29 | 7 | 16 | 13 | 34 | 2 | 6 | 0 | 1 |
| Bathing place is far away from my home | 4 | 12 | 3 | 19 | 21 | 23 | 7 | 26 | 19 | 46 | 8 | 22 | 18 | 48 | 8 | 50 |
| Remote location | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Poor infrastructure (eg. Broken platform, broken slab) | 1 | 4 | 0 | 1 | 5 | 6 | 1 | 5 | 3 | 7 | 4 | 11 | 0 | 1 | 0 | 1 |
| Bathing place area is muddy/ water clogging/ slippery area | 9 | 23 | 2 | 10 | 9 | 10 | 7 | 26 | 10 | 23 | 5 | 12 | 4 | 12 | 1 | 4 |
| Inaccessible location and/ Path (eg. Roads are uneven, slippery roads, Fear of drowning, risk of slipping down) | 10 | 27 | 4 | 22 | 29 | 33 | 14 | 51 | 22 | 53 | 15 | 39 | 10 | 26 | 0 | 3 |
| Others | 15 | 38 | 6 | 35 | 31 | 34 | 10 | 36 | 11 | 26 | 11 | 30 | 12 | 33 | 3 | 19 |
| Able to bathe without assistance | 262 | 78 | 111 | 63 | 407 | 63 | 98 | 56 | 215 | 65 | 90 | 33 | 159 | 77 | 79 | 72 |
| Able to bathe/clean yourself as often as needed | 238 | 71 | 114 | 65 | 360 | 56 | 81 | 47 | 198 | 60 | 94 | 34 | 154 | 75 | 67 | 61 |
| Reason for not being able to bathe/clean as often as needed | N=92 | | N=57 | | N=264 | | N=86 | | N=124 | | N=169 | | N=49 | | N=40 | |
| It would be physically difficult/impossible for me | 86 | 93 | 54 | 95 | 254 | 97 | 72 | 84 | 107 | 87 | 167 | 99 | 45 | 93 | 30 | 74 |
| It is difficult for my caregiver (Lack of time, physically difficult) | 23 | 25 | 20 | 35 | 100 | 38 | 46 | 54 | 49 | 40 | 76 | 45 | 22 | 45 | 16 | 39 |
| I am not allowed to do it | 0 | 0 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| People would abuse me verbally or physically | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 6 | 5 | 1 | 1 | 0 | 0 | 0 | 0 |
| Due to my health condition | 24 | 26 | 15 | 26 | 60 | 23 | 36 | 42 | 44 | 36 | 45 | 27 | 14 | 28 | 20 | 50 |
| There is a lack of water | 4 | 5 | 2 | 4 | 6 | 2 | 4 | 5 | 0 | 0 | 5 | 3 | 3 | 7 | 2 | 5 |
| Couldn't get assistance whenever I need it | 2 | 2 | 4 | 6 | 15 | 6 | 13 | 15 | 13 | 10 | 13 | 7 | 5 | 11 | 2 | 4 |
| Bathing place is far away from my home | 6 | 6 | 0 | 0 | 10 | 4 | 8 | 10 | 10 | 8 | 6 | 4 | 2 | 4 | 1 | 3 |
| Not enough light | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 |
| Other | 7 | 8 | 1 | 2 | 6 | 2 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 6 | 0 | 1 |

Table 39: Household handwashing facility by region and disability

| Indicators | Rural | | Household without person with disabilities | | Urban | | Household without person with disabilities | | AOR |
|---------------------------|---|----|--|----|---|----|--|----|-----------------|
| | Household with person with disabilities | | N | % | Household with person with disabilities | | n | % | |
| | N | % | N | % | n | % | n | % | |
| | 673 | | 575 | | | | | | |
| Handwashing ladder | N=412 | | N=347 | | | | | | |
| Basic | 90 | 22 | 69 | 20 | 74 | 31 | 52 | 26 | ref. |
| Limited | 274 | 66 | 219 | 63 | 154 | 64 | 127 | 65 | 0.92(0.73,1.15) |

| | | | | | | | | | |
|--|-----|----|-----|----|-----|----|-----|----|------------------------|
| No facility | 48 | 12 | 59 | 17 | 10 | 4 | 16 | 8 | 1.14(0.75,1.73) |
| Types of handwashing facility | | | | | | | | | |
| Toilet inside the household | 62 | 9 | 77 | 13 | 137 | 31 | 91 | 28 | 0.82(0.68,0.99) |
| Kitchen inside the household | 26 | 4 | 24 | 4 | 70 | 16 | 48 | 15 | 0.62(0.47,0.81) |
| Basin inside the household | 71 | 11 | 79 | 14 | 105 | 24 | 101 | 31 | 0.9(0.72,1.12) |
| Beside the tubewell/ tap/ water source in the yard | 457 | 68 | 360 | 63 | 200 | 45 | 141 | 43 | 1.22(0.95,1.56) |
| Customized bucket/ mug | 87 | 13 | 82 | 14 | 30 | 7 | 18 | 5 | 1.05(0.84,1.31) |
| Open water bodies (e.g. river, pond, spring) | 72 | 11 | 68 | 12 | 4 | 1 | 9 | 3 | |
| Public places (e.g. School/ College/ Madrasah) | 0 | 0 | 0 | 0 | | | | | |
| Others | 24 | 4 | 20 | 3 | 25 | 6 | 26 | 8 | 0.97(0.58,1.61) |

Table 40: Components available at the handwashing facility

| Indicators | Household with person with disabilities | | Household without person with disabilities | | Total | |
|---|---|----|--|-----|---------------|----|
| | n | % | n | % | n | % |
| | N=1120 | | N=897 | | N=2017 | |
| Functional hand washing station | 1,107 | 99 | 892 | 100 | 2,000 | 99 |
| Components available at the entry path | | | | | | |
| Smooth flat surface | 752 | 67 | 603 | 67 | 1,355 | 67 |
| Uneven flat surface | 352 | 31 | 286 | 32 | 638 | 32 |
| Surface is not slippery | 694 | 62 | 554 | 62 | 1,248 | 62 |
| Stairs | 97 | 9 | 87 | 10 | 185 | 9 |
| Adequate space for wheel chair accommodation | 63 | 6 | 84 | 9 | 147 | 7 |
| No barrier for wheel chair entry | 9 | 1 | 31 | 4 | 41 | 2 |
| Available signage to direct the path | 7 | 1 | 2 | 0 | 9 | 0 |
| Nothing /customized system (bowl) | 27 | 2 | 11 | 1 | 38 | 2 |
| Components available at the handwashing place | | | | | | |
| Handwashing area is not slippery | 855 | 76 | 704 | 79 | 1,559 | 77 |
| Surface around the handwashing area is flat | 640 | 57 | 512 | 57 | 1,151 | 57 |
| Surface around the handwashing area is bumpy | 202 | 18 | 148 | 17 | 350 | 17 |
| Handwashing area is visibly clean | 750 | 67 | 642 | 72 | 1,392 | 69 |
| No obstacle/ partitions/ objects on the surface | 161 | 14 | 135 | 15 | 296 | 15 |
| Sitting arrangement available during handwashing | 237 | 21 | 219 | 24 | 457 | 23 |
| Adequate space for wheel chair accommodation | 38 | 3 | 29 | 3 | 67 | 3 |
| Availability of multiple taps and basin facility | 214 | 19 | 210 | 23 | 423 | 21 |
| Availability of water | 206 | 18 | 172 | 19 | 378 | 19 |
| Water drawing mechanism can be operated with one hand | 404 | 36 | 336 | 38 | 740 | 37 |
| Availability of handwashing agent | 659 | 59 | 507 | 57 | 1,166 | 58 |

| Indicators | Household with person with disabilities | | Household without person with disabilities | | Total | |
|---|---|----|--|----|---------------|----|
| | n | % | n | % | n | % |
| | N=1120 | | N=897 | | N=2017 | |
| Handwashing agent is available in such area that wheel chair user or children can easily access | 2 | 0 | 1 | 0 | 3 | 0 |
| Accessories within the handwashing facility are in color contrast with their background color | 1 | 0 | 4 | 0 | 5 | 0 |
| Types of water sources | | | | | | |
| Handpump Tube-well | 452 | 40 | 350 | 39 | 802 | 40 |
| Water bucket | 528 | 47 | 420 | 47 | 948 | 47 |
| Regular tap (screw down valve) | 468 | 42 | 413 | 46 | 881 | 44 |
| Elbow or forearm operated tap | 23 | 2 | 7 | 1 | 30 | 1 |
| Water dispenser tap (lever or push button) | 27 | 2 | 13 | 1 | 40 | 2 |
| Time delay self-closing tap | 3 | 0 | 1 | 0 | 4 | 0 |
| Ball valve tap with extended handle | 4 | 0 | 6 | 1 | 10 | 0 |

Table 41: Access to handwashing facility by disability

| Indicators | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
|--|--------------------------|----|-----------------------------|----|---------------------------|--------|----|
| | n | % | n | % | | n | % |
| | N=1234 | | N=1144 | | | N=2378 | |
| Types of handwashing facility | | | | | | | |
| Toilet inside the household | 249 | 20 | 255 | 22 | 0.9(0.66-1.22) | 504 | 21 |
| Kitchen inside the household | 114 | 9 | 132 | 12 | 1.32(0.64-2.72) | 246 | 10 |
| Basin inside the household | 215 | 17 | 244 | 21 | 0.81(0.59-1.11) | 459 | 19 |
| Beside the tubewell/ tap/ water source in the yard | 698 | 57 | 625 | 55 | 1.11(0.85-1.44) | 1,323 | 56 |
| Customized bucket/ mug | 138 | 11 | 98 | 9 | 1.39(0.99-1.94)* | 236 | 10 |
| Open water bodies (e.g. river, pond, spring) | 67 | 5 | 83 | 7 | - | 150 | 6 |
| Public places (e.g. School/ College/ Madrasah) | 0 | 0 | 0 | 0 | - | 0 | 0 |
| Others | 51 | 4 | 66 | 6 | 0.75(0.46-1.21) | 117 | 5 |
| Handwashing ladder | N=723 | | N=674 | | | N=1397 | |
| Basic | 170 | 24 | 158 | 23 | ref. | 328 | 23 |
| Limited | 493 | 68 | 433 | 64 | 1.16(0.91-1.48) | 926 | 66 |
| No facility | 60 | 8 | 83 | 12 | 0.74(0.51-1.07) | 143 | 10 |
| Use the same handwashing facility as other members of the household | 1,078 | 87 | 1,119 | 98 | 0.07(0.05-0.11) | 2,197 | 92 |
| Reasons for not being able to use the same facility | N=139 | | N=22 | | | N=161 | |
| It would be difficult/impossible for me to reach there | 133 | 96 | 1 | 4 | 89.3(19.66-405.57) | 134 | 83 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 77 | 56 | 0 | 1 | 10.93(2.28-52.31) | 77 | 48 |
| I would be embarrassed / People would laugh at me | 0 | 0 | 0 | 0 | - | 0 | 0 |
| I don't feel safe and comfortable | 22 | 16 | 20 | 89 | 0.04(0-0.6) | 42 | 26 |

| Indicators | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
|---|--------------------------|----|-----------------------------|-----|------------------------|--------|----|
| | n | % | n | % | | n | % |
| | N=1234 | | N=1144 | | | N=2378 | |
| Unable to access the handwashing station/ place | 31 | 22 | 1 | 6 | 0.56(0.23-1.36) | 32 | 20 |
| I couldn't use it whenever I want | 17 | 12 | 15 | 66 | 0.49(0.1-2.37) | 32 | 20 |
| Lack of running water (e.g. shortage of water supply) | 3 | 2 | 2 | 10 | 0.02(0.01-0.08) | 5 | 3 |
| Able to wash hands without assistance | 1,082 | 88 | 1,142 | 100 | 0.02(0.01-0.06) | 2,224 | 94 |
| Able to wash hands as frequently as needed | 1,068 | 87 | 1,144 | 100 | 0.01(0-0.04) | 2,212 | 93 |
| Reasons for not being able to wash hands as often as needed | N=157 | | N=0 | | | N=157 | |
| It would be physically difficult/impossible for me to reach the handwashing place | 145 | 92 | 0 | 0 | - | 145 | 92 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 89 | 57 | 0 | 0 | - | 89 | 57 |
| Water is not available | 12 | 7 | 0 | 100 | - | 12 | 8 |
| Cleaning materials for handwashing | N=968 | | N=996 | | | N=1964 | |
| Bar Soap | 959 | 99 | 988 | 99 | 0.86(0.46-1.6) | 1,947 | 99 |
| Powder detergents | 170 | 18 | 140 | 14 | 1.05(0.75-1.47) | 311 | 16 |
| Sanitizer | 23 | 2 | 31 | 3 | 0.86(0.46-1.61) | 54 | 3 |
| Liquid soap | 97 | 10 | 137 | 14 | 0.79(0.56-1.11) | 235 | 12 |
| Ash/Mud/ sand | 15 | 2 | 20 | 2 | 1.03(0.49-2.17) | 34 | 2 |
| Soapy water | 9 | 1 | 8 | 1 | 1.11(0.34-3.58) | 17 | 1 |
| Reach the cleaning agents without assistance | 1,062 | 86 | 1,129 | 99 | 0.05(0.03-0.09) | 2,192 | 92 |
| Level of satisfaction with the handwashing facility | | | | | | | |
| Very dissatisfied | 16 | 1 | 9 | 1 | ref. | 25 | 1 |
| Dissatisfied | 151 | 12 | 58 | 5 | 1.32(0.57-3.07) | 209 | 9 |
| Neither dissatisfied nor satisfied | 227 | 18 | 145 | 13 | 0.98(0.42-2.27) | 373 | 16 |
| Satisfied | 792 | 64 | 831 | 73 | 0.5(0.24-1.03)* | 1,623 | 68 |
| Very satisfied | 47 | 4 | 101 | 9 | 0.39(0.18-0.8) | 148 | 6 |

Table 42: Access to handwashing facility by disability over age

| Indicators | older | | | | AOR (95% CI) | younger | | | | AOR (95% CI) | Overall | | | | AOR (95% CI) |
|--------------------------------------|--------------------------|----|-----------------------------|----|-----------------|--------------------------|----|-----------------------------|----|-----------------|---------|----|---------|----|-----------------|
| | Person with disabilities | | Person without disabilities | | | Person with disabilities | | Person without disabilities | | | Older | | Younger | | |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| | N=596 | | N=401 | | | N=654 | | N=727 | | | N=997 | | N=1381 | | |
| Handwashing ladder | N=351 | | N=247 | | | N=377 | | N=422 | | | N=598 | | N=799 | | |
| Basic | 66 | 19 | 46 | 18 | ref. | 104 | 28 | 110 | 26 | ref. | 111 | 19 | 214 | 27 | ref. |
| Limited | 252 | 72 | 167 | 67 | 1.22(0.79-1.88) | 245 | 65 | 265 | 63 | 1.1(0.84-1.44) | 419 | 70 | 509 | 64 | 1.16(0.91-1.48) |
| No facility | 32 | 9 | 35 | 14 | 0.8(0.42-1.55) | 29 | 8 | 48 | 11 | 0.72(0.5-1.05)* | 67 | 11 | 76 | 10 | 0.74(0.51-1.07) |
| Types of handwashing facility | | | | | | | | | | | | | | | |

| Indicators | older | | | | AOR (95% CI) | younger | | | | AOR (95% CI) | Overall | | | | |
|--|--------------------------|----|-----------------------------|----|--------------------------|--------------------------|----|-----------------------------|----|------------------------|---------|----|---------|----|------------------------|
| | Person with disabilities | | Person without disabilities | | | Person with disabilities | | Person without disabilities | | | Older | | Younger | | AOR (95% CI) |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| Toilet inside the household | 90 | 15 | 58 | 14 | 0.88(0.43-1.8) | 156 | 24 | 187 | 26 | 0.97(0.65-1.46) | 148 | 15 | 343 | 25 | 0.82(0.48-1.41) |
| Kitchen inside the household | 35 | 6 | 10 | 3 | 1.17(0.46-2.98) | 77 | 12 | 112 | 15 | 1.45(0.52-4.01) | 45 | 5 | 189 | 14 | 0.57(0.3-1.09)* |
| Basin inside the household | 90 | 15 | 78 | 19 | 1.16(0.72-1.86) | 125 | 19 | 162 | 22 | 0.76(0.49-1.17) | 168 | 17 | 286 | 21 | 1.3(0.83-2.02) |
| Beside the tubewell/ tap/ water source in the yard | 378 | 63 | 233 | 58 | 1.13(0.76-1.68) | 337 | 52 | 387 | 53 | 1.08(0.73-1.61) | 610 | 61 | 724 | 52 | 0.92(0.52-1.63) |
| Customized bucket/ mug | 79 | 13 | 40 | 10 | 1.55(0.99-2.42)* | 63 | 10 | 58 | 8 | - | 119 | 12 | 121 | 9 | 0.95(0.67-1.37) |
| Open water bodies (e.g. river, pond, spring) | 35 | 6 | 43 | 11 | - | 34 | 5 | 42 | 6 | - | 78 | 8 | 75 | 5 | - |
| Public places (e.g. School/ College/ Madrasah) | | | | | - | 0 | 0 | 0 | 0 | - | | | 0 | 0 | - |
| Others | 14 | 2 | 28 | 7 | - | 36 | 5 | 38 | 5 | 1.58(0.87-2.86) | 42 | 4 | 74 | 5 | 1.48(0.64-3.39) |
| Use the same handwashing facility as other members of the household | 478 | 80 | 393 | 98 | 0.07(0.02-0.18) | 605 | 93 | 711 | 98 | 0.1(0.04-0.25) | 871 | 87 | 1316 | 95 | 1 |
| Reasons for not being able to use the same facility | N=99 | | N=7 | | | N=41 | | N=14 | | | N=106 | | N=55 | | |
| It would be difficult/impossible for me to reach there | 95 | 95 | 1 | 13 | 13.31(2.68-66.07) | 40 | 96 | 0 | 0 | - | 96 | 90 | 40 | 72 | 9.73(0.2-462.18) |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 53 | 54 | 0 | 4 | 4.77(0.29-78.9) | 24 | 59 | 0 | 0 | - | 54 | 51 | 24 | 44 | 2.38(0.28-20.57) |
| I don't feel safe and comfortable | 18 | 18 | 6 | 83 | 0.01(0-0.12) | 4 | 11 | 13 | 91 | 0.41(0.07-2.5) | 24 | 22 | 17 | 31 | - |
| Unable to access the handwashing station/ place | 22 | 23 | 0 | 4 | 1.85(0.09-39.78) | 9 | 22 | 1 | 7 | - | 23 | 21 | 10 | 18 | 0.13(0-5.33) |
| I couldn't use it whenever I want | 9 | 9 | 0 | 0 | - | 8 | 18 | 13 | 92 | 0.05(0.01-0.26) | 9 | 8 | 20 | 37 | 0.13(0.01-1.99) |
| Lack of running water (e.g. shortage of water supply) | 3 | 3 | 0 | 0 | - | 0 | 0 | 2 | 14 | - | 3 | 2 | 2 | 4 | - |
| Key handwashing times | | | | | | | | | | | | | | | |
| Before eating | 566 | 95 | 392 | 98 | 0.26(0.1-0.66) | 640 | 98 | 716 | 98 | 0.47(0.29-0.76) | 958 | 96 | 1356 | 98 | 0.77(0.38-1.56) |
| Before touching face, mouth, nose, eyes | 82 | 14 | 75 | 19 | 0.73(0.5-1.05)* | 86 | 13 | 101 | 14 | 0.87(0.73-1.03) | 157 | 16 | 187 | 14 | 0.98(0.67-1.44) |
| Before preparing food | 75 | 13 | 82 | 21 | 0.51(0.27-0.95) | 227 | 35 | 293 | 40 | 0.62(0.45-0.86) | 157 | 16 | 520 | 38 | 0.32(0.22-0.47) |
| During preparing food | 81 | 14 | 86 | 21 | 0.52(0.34-0.79) | 191 | 29 | 286 | 39 | 0.54(0.39-0.74) | 167 | 17 | 478 | 35 | 0.3(0.2-0.45) |
| After defecation | 560 | 94 | 395 | 98 | 0.48(0.26-0.91) | 616 | 94 | 712 | 98 | 0.44(0.25-0.78) | 954 | 96 | 1328 | 96 | 0.81(0.42-1.58) |
| After eating | 545 | 91 | 364 | 91 | 0.52(0.29-0.96) | 600 | 92 | 704 | 97 | 0.43(0.28-0.66) | 909 | 91 | 1304 | 94 | 0.75(0.4-1.43) |
| After feeding | 53 | 9 | 46 | 11 | 0.72(0.4-1.29) | 117 | 18 | 234 | 32 | 0.42(0.34-0.54) | 99 | 10 | 351 | 25 | 0.43(0.29-0.62) |
| After preparing food | 66 | 11 | 91 | 23 | 0.5(0.31-0.81) | 248 | 38 | 285 | 39 | 0.64(0.5-0.8) | 157 | 16 | 534 | 39 | 0.3(0.2-0.44) |
| After taking care for others | 31 | 5 | 14 | 3 | 0.8(0.26-2.46) | 88 | 13 | 130 | 18 | 0.55(0.41-0.74) | 45 | 4 | 218 | 16 | 0.57(0.28-1.18) |
| After touching garbage | 419 | 70 | 325 | 81 | 0.53(0.33-0.85) | 437 | 67 | 655 | 90 | 0.3(0.23-0.37) | 745 | 75 | 1091 | 79 | 0.64(0.48-0.87) |
| After sneezing/ coughing | 51 | 9 | 40 | 10 | 1.17(0.7-1.96) | 70 | 11 | 98 | 14 | 0.83(0.64-1.06) | 91 | 9 | 168 | 12 | 0.47(0.3-0.75) |
| After changing diapers or cleaning up child fecal | 0 | 0 | 5 | 1 | - | 17 | 3 | 25 | 3 | 0.56(0.33-0.93) | 5 | 1 | 42 | 3 | 0.75(0.1-5.68) |

| Indicators | older | | | | AOR (95% CI) | younger | | | | AOR (95% CI) | Overall | | | | AOR (95% CI) |
|---|--------------------------|----|-----------------------------|-----|------------------------|--------------------------|----|-----------------------------|-----|------------------------|---------|----|---------|----|------------------------|
| | Person with disabilities | | Person without disabilities | | | Person with disabilities | | Person without disabilities | | | Older | | Younger | | |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| Others | 48 | 8 | 21 | 5 | 1.98(1.23-3.19) | 56 | 9 | 27 | 4 | 1.27(0.68-2.34) | 68 | 7 | 82 | 6 | 1(0.43-2.36) |
| Able to wash your hands without assistance | 494 | 83 | 401 | 100 | 1 | 596 | 91 | 725 | 100 | 0.04(0.01-0.12) | 895 | 90 | 1321 | 96 | 0.39(0.19-0.83) |
| Able to wash your hands as frequently as needed | 501 | 84 | 401 | 100 | 1 | 578 | 88 | 727 | 100 | 0.01(0-0.07) | 903 | 91 | 1305 | 94 | 0.69(0.4-1.2) |
| Reasons for not being able to wash hands as frequently as needed | N=83 | | | | | N=74 | | | | | N=83 | | N=74 | | |
| It would be physically difficult/impossible for me to reach the handwashing place | 78 | 94 | | | - | 67 | 90 | 0 | 0 | - | 78 | 94 | 67 | 90 | - |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 52 | 62 | | | - | 38 | 52 | 0 | 0 | - | 52 | 62 | 38 | 52 | - |
| Water is not available | 4 | 5 | | | - | 7 | 10 | 0 | 100 | - | 4 | 5 | 7 | 10 | - |
| Can't access the handwashing place | 3 | 3 | | | - | 3 | 5 | 0 | 0 | - | 3 | 3 | 3 | 5 | - |
| Couldn't get assistance whenever I need it | 4 | 4 | | | - | 5 | 7 | 0 | 0 | - | 4 | 4 | 5 | 7 | - |
| Handwashing place is far away from my home | 5 | 6 | | | - | 1 | 1 | 0 | 0 | - | 5 | 6 | 1 | 1 | - |
| Other | 0 | 0 | | | - | 8 | 11 | 0 | 0 | - | 0 | 0 | 8 | 11 | - |
| Types of handwashing materials available | N=462 | | N=336 | | | N=517 | | N=649 | | | N=798 | | N=1166 | | |
| Bar Soap | 458 | 99 | 334 | 99 | - | 512 | 99 | 643 | 99 | 0.86(0.34-2.18) | 793 | 99 | 1155 | 99 | 0.26(0.07-0.91) |
| Powder detergents | 66 | 14 | 24 | 7 | 1.37(0.73-2.55) | 103 | 20 | 111 | 17 | 0.98(0.69-1.39) | 91 | 11 | 214 | 18 | 0.62(0.37-1.04)* |
| Sanitizer | 12 | 3 | 5 | 2 | 1.59(0.49-5.14) | 12 | 2 | 24 | 4 | 0.55(0.27-1.12)* | 18 | 2 | 36 | 3 | 0.91(0.38-2.21) |
| Liquid soap | 24 | 5 | 30 | 9 | 0.59(0.26-1.35) | 70 | 14 | 103 | 16 | 0.87(0.65-1.17) | 54 | 7 | 173 | 15 | 0.79(0.35-1.8) |
| Ash/Mud/ sand | 10 | 2 | 12 | 4 | 1.18(0.52-2.67) | 5 | 1 | 8 | 1 | 0.99(0.4-2.4) | 22 | 3 | 14 | 1 | 0.89(0.39-2.05) |
| Soapy water | 3 | 1 | 3 | 1 | - | 6 | 1 | 4 | 1 | - | 7 | 1 | 10 | 1 | 1.73(0.53-5.67) |
| Reach the cleaning agents without assistance | 483 | 81 | 391 | 97 | 0.06(0.02-0.18) | 587 | 90 | 722 | 99 | 0.05(0.03-0.08) | 874 | 88 | 1309 | 95 | 0.61(0.33-1.15) |
| Level of satisfaction with the handwashing facility | | | | | | | | | | | | | | | |
| Very dissatisfied | 7 | 1 | 4 | 1 | ref. | 9 | 1 | 5 | 1 | ref. | 11 | 1 | 14 | 1 | ref. |
| Dissatisfied | 83 | 14 | 22 | 5 | 4.16(0.39-44.51) | 72 | 11 | 35 | 5 | 0.93(0.4-2.14) | 105 | 11 | 107 | 8 | 3.49(1.23-9.93) |
| Neither dissatisfied nor satisfied | 107 | 18 | 59 | 15 | 2.13(0.24-19.16) | 123 | 19 | 86 | 12 | 0.86(0.34-2.17) | 166 | 17 | 209 | 15 | 2.03(0.72-5.75) |
| Satisfied | 381 | 64 | 294 | 73 | 1.15(0.14-9.79) | 421 | 64 | 526 | 72 | 0.45(0.22-0.91) | 676 | 68 | 946 | 69 | 2.14(.75-6.1) |
| Very satisfied | 17 | 3 | 22 | 6 | 1.2(0.14-10.56) | 29 | 4 | 75 | 10 | 0.32(0.13-0.8) | 39 | 4 | 104 | 8 | 1.9(0.61-5.93) |

Table 43: Factors associated with the accessibility of handwashing facility among persons with disability

| Indicators | Can't able to use the same handwashing place as other HH members | | | Can't able to wash hands as often as needed | | | Can't able to wash hands without assistance | | |
|----------------------------|--|----|----------------------------|---|----|-----------------------------|---|----|-----------------------------|
| | N | % | AOR (95% CI) | n | % | AOR (95% CI) | n | % | AOR (95% CI) |
| Age (in years) | | | | | | | | | |
| 5--9 | 7 | 26 | ref. | 11 | 43 | ref. | 12 | 44 | ref. |
| 10--17 | 21 | 30 | 1.88 (0.61 - 5.79) | 27 | 38 | 1.46 (0.54 - 3.95) | 26 | 38 | 0.59 (0.18 - 2.04) |
| 18-35 | 6 | 3 | 0.81 (0.33 - 2.01) | 25 | 12 | 0.97 (0.24 - 3.94) | 15 | 7 | 0.37 (0.08 - 1.70) |
| 36-49 | 10 | 4 | 1.14 (0.34 - 3.78) | 8 | 3 | 0.49 (0.14 - 1.78) | 4 | 2 | 0.14 (0.03 - 0.75) |
| 50-59 | 10 | 6 | 0.72 (0.15 - 3.41) | 13 | 8 | 0.35 (0.09 - 1.32) | 7 | 4 | 0.12 (0.02 - 0.58) |
| 60-70 | 22 | 10 | 1.19 (0.30 - 4.77) | 21 | 9 | 0.44 (0.09 - 2.06) | 21 | 10 | 0.29 (0.08 - 1.06)* |
| 70+ | 83 | 27 | 2.71 (0.77 - 9.60) | 63 | 21 | 0.78 (0.25 - 2.45) | 69 | 23 | 0.53 (0.17 - 1.67) |
| Sex | | | | | | | | | |
| Male | 76 | 16 | ref. | 84 | 18 | ref. | 75 | 16 | ref. |
| Female | 83 | 11 | 0.77 (0.51 - 1.16) | 85 | 11 | 0.93 (0.52 - 1.66) | 79 | 10 | 0.93 (0.61 - 1.43) |
| Types of region | | | | | | | | | |
| Urban | 55 | 9 | ref. | 58 | 9 | ref. | 60 | 10 | ref. |
| Rural | 103 | 16 | 1.05 (0.51 - 2.15) | 110 | 17 | 1.04 (0.64 - 1.69) | 95 | 15 | 0.94 (0.54 - 1.62) |
| SES Index | | | | | | | | | |
| 1st quintile | 40 | 21 | ref. | 37 | 20 | ref. | 39 | 21 | ref. |
| 2nd quintile | 40 | 21 | 0.71 (0.33 - 1.52) | 40 | 21 | 0.75 (0.37 - 1.52) | 30 | 16 | 0.58 (0.29 - 1.16) |
| 3rd quintile | 18 | 8 | 0.41 (0.19 - 0.90) | 30 | 14 | 0.57 (0.27 - 1.19) | 22 | 10 | 0.42 (0.18 - 0.96) |
| 4th quintile | 32 | 11 | 0.55 (0.23 - 1.31) | 32 | 11 | 0.75 (0.42 - 1.31) | 29 | 10 | 0.56 (0.31 - 1.01)* |
| 5th quintile | 28 | 8 | 0.29 (0.09 - 0.91) | 30 | 8 | 0.36 (0.15 - 0.87) | 34 | 9 | 0.57 (0.25 - 1.29) |
| Types of disability | | | | | | | | | |
| Vision | 38 | 11 | 1.19 (0.63 - 2.26) | 32 | 10 | 1.80 (0.94 - 3.44)* | 31 | 9 | 1.07 (0.57 - 2.02) |
| Hearing | 32 | 18 | 1.47 (0.64 - 3.40) | 21 | 12 | 0.70 (0.32 - 1.53) | 26 | 14 | 1.03 (0.39 - 2.69) |
| Mobility | 145 | 22 | 6.79 (3.44 - 13.41) | 138 | 21 | 4.76 (2.66 - 8.51) | 133 | 20 | 3.69 (1.97 - 6.89) |
| Communication | 45 | 26 | 2.31 (1.14 - 4.68) | 66 | 37 | 2.17 (1.19 - 3.94) | 61 | 35 | 2.34 (1.22 - 4.50) |
| Remembering | 60 | 18 | 2.07 (1.15 - 3.72) | 76 | 23 | 1.99 (0.97 - 4.10)* | 75 | 22 | 2.23 (1.07 - 4.67) |
| Self_care | 112 | 40 | 9.25 (4.36 - 19.64) | 117 | 42 | 13.72 (6.69 - 28.11) | 113 | 40 | 16.66 (8.92 - 31.10) |
| Anxiety | 27 | 13 | 1.62 (0.69 - 3.82) | 31 | 15 | 2.17 (1.06 - 4.43) | 26 | 13 | 1.42 (0.65 - 3.11) |
| Depression | 20 | 18 | 0.98 (0.38 - 2.48) | 22 | 20 | 1.33 (0.59 - 3.02) | 23 | 20 | 1.81 (0.74 - 4.45) |

Table 44: Access to handwashing facility by disability over region

| Indicators | Rural | | | | Urban | | | | Overall | | | |
|---|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|---------|----|-------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Rural | | Urban | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=748 | | N=694 | | N=486 | | N=450 | | N=1442 | | N=936 | |
| Use the same handwashing facility as other members of the household | 626 | 84 | 686 | 99 | 442 | 91 | 435 | 97 | 1313 | 91 | 877 | 94 |
| Reasons for not being able to use the same facility | N=101 | | N=6 | | N=40 | | N=14 | | N=107 | | N=54 | |
| It would be difficult/impossible for me to reach there | 95 | 95 | 0 | 0 | 39 | 98 | 1 | 5 | 95 | 89 | 40 | 74 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 54 | 53 | 0 | 0 | 24 | 60 | 0 | 2 | 54 | 50 | 24 | 45 |
| I don't feel safe and comfortable | 19 | 19 | 6 | 90 | 4 | 9 | 12 | 89 | 25 | 23 | 16 | 30 |
| Unable to access the handwashing station/ place | 24 | 24 | 0 | 2 | 8 | 20 | 1 | 8 | 24 | 22 | 9 | 17 |
| Lack of lighting facility | 1 | 1 | 0 | 0 | | | | | 1 | 1 | | |
| I couldn't use it whenever I want | 8 | 8 | 0 | 2 | 8 | 20 | 12 | 87 | 8 | 8 | 20 | 37 |
| Lack of running water (e.g. shortage of water supply) | 3 | 3 | 0 | 8 | 0 | 0 | 2 | 11 | 4 | 3 | 2 | 3 |
| Able to wash your hands without assistance | 637 | 85 | 693 | 100 | 439 | 90 | 449 | 100 | 1329 | 92 | 888 | 95 |
| Able to wash your hands as frequently as needed | 618 | 83 | 694 | 100 | 440 | 91 | 450 | 100 | 1312 | 91 | 890 | 95 |
| Reasons for not being able to wash hands as frequently as needed | N=107 | | | | N=50 | | | | N=107 | | N=50 | |
| It would be physically difficult/impossible for me to reach the handwashing place | 97 | 91 | - | - | 47 | 95 | - | - | 97 | 91 | 47 | 94 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 52 | 49 | - | - | 36 | 72 | - | - | 52 | 49 | 36 | 72 |
| I am not allowed | 2 | 2 | - | - | | | - | - | 2 | 2 | | |
| I don't feel safe | 13 | 12 | - | - | 3 | 5 | - | - | 13 | 12 | 3 | 6 |
| Water is not available | 12 | 11 | - | - | 0 | 1 | - | - | 12 | 11 | 1 | 1 |
| Can't access the handwashing place | 6 | 5 | - | - | 1 | 2 | - | - | 6 | 5 | 1 | 2 |
| Couldn't get assistance whenever I need it | 5 | 5 | - | - | 4 | 8 | - | - | 5 | 5 | 4 | 8 |
| Handwashing place is far away from my home | 5 | 4 | - | - | 1 | 1 | - | - | 5 | 4 | 1 | 1 |
| Other | 9 | 9 | - | - | 0 | 0 | - | - | 9 | 9 | 0 | 0 |
| Handwashing materials | | | | | | | | | | | | |
| water only | 187 | 24 | 101 | 15 | 90 | 18 | 48 | 11 | 281 | 20 | 138 | 15 |
| water with soap | 568 | 76 | 593 | 85 | 396 | 82 | 402 | 89 | 1161 | 80 | 798 | 85 |
| Reach the cleaning agents without assistance | 620 | 83 | 682 | 98 | 435 | 90 | 446 | 99 | 1302 | 90 | 881 | 94 |

Table 45: Access to handwashing facility of by disability over gender

| Indicators | Female | | | | Male | | | | Overall | | | |
|---|--------------------------|-----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|---------|----|-------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Female | | Male | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=712 | | N=675 | | N=523 | | N=468 | | N=1387 | | N=991 | |
| Use the same handwashing facility as other members of the household | 636 | 89 | 658 | 97 | 440 | 84 | 460 | 98 | 1,294 | 93 | 900 | 91 |
| Reasons for not being able to use the same facility | N=69 | | N=16 | | N=70 | | N=6 | | N=85 | | N=76 | |
| It would be difficult/impossible for me to reach there | 69 | 100 | 1 | 3 | 64 | 91 | 0 | 5 | 70 | 82 | 64 | 84 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 39 | 57 | 0 | 0 | 38 | 54 | 0 | 5 | 39 | 46 | 38 | 50 |
| I don't feel safe and comfortable | 10 | 15 | 14 | 88 | 12 | 17 | 6 | 91 | 24 | 28 | 17 | 23 |
| Unable to access the handwashing station/ place | 10 | 15 | 1 | 7 | 21 | 31 | 0 | 5 | 11 | 13 | 22 | 29 |
| I couldn't use it whenever I want | 4 | 6 | 14 | 89 | 13 | 19 | 0 | 0 | 18 | 22 | 13 | 17 |
| Lack of running water (e.g. shortage of water supply) | 0 | 1 | 2 | 14 | 2 | 4 | 0 | 0 | 3 | 3 | 2 | 3 |
| Key handwashing times | | | | | | | | | | | | |
| Before eating | 694 | 98 | 664 | 98 | 499 | 95 | 459 | 98 | 1,358 | 98 | 957 | 97 |
| Before touching face, mouth, nose, eyes | 87 | 12 | 105 | 16 | 80 | 15 | 71 | 15 | 192 | 14 | 151 | 15 |
| Before preparing food | 283 | 40 | 354 | 52 | 8 | 2 | 11 | 2 | 637 | 46 | 20 | 2 |
| During preparing food | 252 | 35 | 350 | 52 | 9 | 2 | 12 | 2 | 602 | 43 | 21 | 2 |
| After defecation | 681 | 96 | 661 | 98 | 479 | 92 | 459 | 98 | 1,342 | 97 | 938 | 95 |
| After eating | 669 | 94 | 640 | 95 | 460 | 88 | 445 | 95 | 1,309 | 94 | 905 | 91 |
| After feeding | 147 | 21 | 252 | 37 | 18 | 3 | 27 | 6 | 399 | 29 | 45 | 5 |
| After preparing food | 297 | 42 | 353 | 52 | 11 | 2 | 11 | 2 | 650 | 47 | 22 | 2 |
| After taking care for others | 102 | 14 | 139 | 21 | 14 | 3 | 4 | 1 | 241 | 17 | 18 | 2 |
| After touching garbage | 515 | 72 | 601 | 89 | 323 | 62 | 393 | 84 | 1,117 | 81 | 716 | 72 |
| After sneezing/ coughing | 73 | 10 | 99 | 15 | 48 | 9 | 40 | 9 | 172 | 12 | 88 | 9 |
| After changing diapers or cleaning up child fecal | 17 | 2 | 30 | 4 | 1 | 0 | 0 | 0 | 47 | 3 | 1 | 0 |
| Others | 71 | 10 | 15 | 2 | 29 | 6 | 35 | 7 | 86 | 6 | 64 | 6 |
| Able to wash your hands without assistance | 639 | 90 | 674 | 100 | 440 | 84 | 466 | 100 | 1,313 | 95 | 907 | 91 |
| Able to wash your hands as frequently as needed | 635 | 89 | 675 | 100 | 431 | 82 | 468 | 100 | 1,310 | 94 | 899 | 91 |
| Reasons for not being able to wash hands as frequently as needed | N=82 | | N=0 | | N=75 | | | | N=82 | | N=75 | |
| It would be physically difficult/impossible for me to reach the handwashing place | 76 | 93 | 0 | 0 | 68 | 91 | | | 76 | 93 | 68 | 91 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 45 | 55 | 0 | 0 | 44 | 59 | | | 45 | 55 | 44 | 59 |
| Water is not available | 5 | 6 | 0 | 100 | 6 | 9 | | | 5 | 6 | 6 | 9 |
| Can't access the handwashing place | 1 | 1 | 0 | 0 | 5 | 7 | | | 1 | 1 | 5 | 7 |
| Couldn't get assistance whenever I need it | 3 | 3 | 0 | 0 | 6 | 8 | | | 3 | 3 | 6 | 8 |
| Handwashing place is far away from my home | 3 | 3 | 0 | 0 | 3 | 3 | | | 3 | 3 | 3 | 3 |
| Reach the cleaning agents without assistance | 623 | 88 | 670 | 99 | 439 | 84 | 457 | 98 | 1,293 | 93 | 896 | 90 |

Table 46: Access to handwashing facility by types of disabilities

| Indicators | vision | | hearing | | mobility | | communication | | cognition | | self_care | | anxiety | | depression | |
|---|--------|-----|---------|-----|----------|----|---------------|----|-----------|----|-----------|----|---------|-----|------------|-----|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=337 | | N=175 | | N=643 | | N=173 | | N=330 | | N=276 | | N=207 | | N=109 | |
| Use the same handwashing facility as other members of the household | 299 | 89 | 144 | 82 | 500 | 78 | 129 | 74 | 271 | 82 | 165 | 60 | 180 | 87 | 90 | 82 |
| Reasons for not being able to use the same facility | N=33 | | N=28 | | N=127 | | N=40 | | N=52 | | N=98 | | N=24 | | N=17 | |
| It would be difficult/impossible for me to reach there | 30 | 92 | 28 | 100 | 121 | 96 | 38 | 97 | 51 | 98 | 96 | 98 | 24 | 100 | 17 | 100 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 19 | 57 | 13 | 47 | 71 | 56 | 25 | 63 | 34 | 65 | 52 | 53 | 16 | 68 | 9 | 51 |
| I don't feel safe and comfortable | 3 | 9 | 6 | 23 | 20 | 16 | 4 | 10 | 4 | 8 | 16 | 16 | 3 | 12 | 1 | 8 |
| Unable to access the handwashing station/ place | 4 | 11 | 11 | 40 | 30 | 24 | 11 | 28 | 14 | 26 | 26 | 27 | 3 | 14 | 5 | 30 |
| I couldn't use it whenever I want | 5 | 16 | 5 | 19 | 17 | 13 | 3 | 8 | 7 | 14 | 14 | 14 | 5 | 21 | 7 | 38 |
| Lack of running water (e.g. shortage of water supply) | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 4 | 1 | 1 | 3 | 3 | 2 | 7 | 0 | 0 |
| Other | 2 | 7 | 3 | 11 | 11 | 9 | 9 | 23 | 9 | 17 | 11 | 11 | 1 | 4 | 0 | 0 |
| Able to wash your hands without assistance | 306 | 91 | 150 | 86 | 512 | 80 | 113 | 65 | 257 | 78 | 164 | 60 | 181 | 87 | 87 | 80 |
| Able to wash your hands as frequently as needed | 305 | 90 | 154 | 88 | 507 | 79 | 108 | 63 | 255 | 77 | 161 | 58 | 177 | 85 | 88 | 80 |
| Reasons for not being able to wash hands as frequently as needed | N=30 | | N=20 | | N=128 | | N=61 | | N=71 | | N=109 | | N=29 | | N=20 | |
| It would be physically difficult/impossible for me to reach the handwashing place | 30 | 100 | 19 | 95 | 122 | 95 | 55 | 89 | 62 | 87 | 105 | 97 | 26 | 92 | 19 | 95 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 18 | 60 | 13 | 66 | 80 | 63 | 39 | 63 | 49 | 68 | 63 | 58 | 17 | 58 | 13 | 65 |
| Water is not available | 4 | 13 | 0 | 0 | 7 | 6 | 3 | 5 | 3 | 4 | 8 | 7 | 3 | 12 | 0 | 2 |
| Can't access the handwashing place | 1 | 2 | 0 | 0 | 6 | 5 | 3 | 5 | 3 | 4 | 6 | 5 | 3 | 12 | 0 | 0 |
| Couldn't get assistance whenever I need it | 3 | 9 | 2 | 12 | 7 | 5 | 2 | 3 | 5 | 6 | 8 | 7 | 2 | 6 | 2 | 8 |
| Lack of enough lighting facility throughout the day | 1 | 2 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| Handwashing place is far away from my home | 1 | 2 | 1 | 7 | 5 | 4 | 3 | 5 | 2 | 2 | 5 | 4 | 3 | 9 | 0 | 1 |
| Reach the cleaning agents without assistance | 296 | 88 | 147 | 84 | 506 | 79 | 112 | 64 | 254 | 77 | 160 | 58 | 180 | 87 | 86 | 79 |
| Level of satisfaction with the handwashing facility | | | | | | | | | | | | | | | | |
| Very dissatisfied | 6 | 2 | 1 | 1 | 8 | 1 | 3 | 2 | 6 | 2 | 6 | 2 | 4 | 2 | 0 | 0 |
| Dissatisfied | 27 | 8 | 25 | 14 | 85 | 13 | 42 | 24 | 63 | 19 | 51 | 19 | 31 | 15 | 14 | 13 |
| Neither dissatisfied nor satisfied | 50 | 15 | 31 | 18 | 137 | 21 | 34 | 19 | 59 | 18 | 53 | 19 | 38 | 18 | 21 | 20 |
| Satisfied | 241 | 72 | 116 | 66 | 389 | 60 | 93 | 53 | 189 | 57 | 160 | 58 | 123 | 60 | 63 | 58 |
| Very satisfied | 13 | 4 | 2 | 1 | 25 | 4 | 2 | 1 | 13 | 4 | 6 | 2 | 11 | 6 | 10 | 10 |

Table 47: Access to handwashing facility by socio-economic status by disability

| Indicators | SES 1 | | | | SES 2 | | | | SES 3 | | | | SES 4 | | | | SES 5 | | | |
|--|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|-----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=252 | | N=224 | | N=246 | | N=230 | | N=267 | | N=208 | | N=242 | | N=234 | | N=238 | | N=237 | |
| Availability of soap at handwashing place | 79 | 31 | 62 | 28 | 90 | 37 | 81 | 35 | 140 | 53 | 109 | 52 | 142 | 59 | 122 | 52 | 198 | 83 | 204 | 86 |
| Use the same handwashing facility as other members of the household | 199 | 79 | 222 | 99 | 194 | 79 | 223 | 97 | 244 | 92 | 206 | 99 | 215 | 89 | 234 | 100 | 220 | 92 | 226 | 96 |
| Reasons for not being able to use the same facility | N=49 | | N=2 | | N=32 | | N=5 | | N=21 | | N=3 | | N=26 | | N=0 | | N=15 | | N=8 | |
| It would be difficult/impossible for me to reach there | 46 | 94 | 0 | 0 | 32 | 99 | 0 | 5 | 19 | 88 | 0 | 0 | 25 | 97 | 0 | 100 | 14 | 96 | 0 | 2 |
| It is difficult for my caregiver (Eg. Lack of time/ physically difficult) | 23 | 46 | 0 | 0 | 19 | 57 | 0 | 0 | 11 | 51 | 0 | 0 | 11 | 43 | 0 | 0 | 12 | 85 | 0 | 2 |
| I don't feel safe and comfortable | 10 | 20 | 0 | 0 | 6 | 20 | 5 | 95 | 8 | 35 | 1 | 54 | 2 | 7 | 0 | 0 | 0 | 0 | 8 | 100 |
| Unable to access the handwashing station/ place | 5 | 10 | 0 | 12 | 13 | 42 | 0 | 0 | 6 | 28 | 1 | 54 | 6 | 22 | 0 | 0 | 1 | 8 | 0 | 2 |
| I couldn't use it whenever I want | 2 | 5 | 0 | 12 | 2 | 6 | 0 | 0 | 7 | 31 | 1 | 54 | 6 | 22 | 0 | 0 | 1 | 8 | 8 | 98 |
| Lack of running water (e.g. shortage of water supply) | 1 | 3 | 1 | 39 | 2 | 5 | 0 | 0 | 0 | 0 | 3 | 100 | | | | | | | | |
| Other | 6 | 13 | 1 | 50 | 5 | 15 | 0 | 0 | 4 | 20 | 0 | 0 | 0 | 2 | 0 | 0 | | | | |
| Able to wash hands without assistance | 200 | 79 | 224 | 100 | 207 | 84 | 230 | 100 | 239 | 90 | 208 | 100 | 218 | 90 | 234 | 100 | 216 | 91 | 235 | 99 |
| Able to wash hands as frequently as needed | 203 | 80 | 224 | 100 | 194 | 79 | 230 | 100 | 230 | 86 | 208 | 100 | 216 | 89 | 234 | 100 | 219 | 92 | 237 | 100 |
| Reasons for not being able to wash hands as often as needed | N=49 | | | | N=34 | | | | N=27 | | | | N=27 | | | | N=20 | | | |
| It would be physically difficult/impossible for me | 48 | 98 | | | 31 | 93 | | | 22 | 81 | 0 | 0 | 24 | 89 | | | | | | |
| It is difficult for my caregiver | 25 | 51 | | | 19 | 56 | | | 8 | 32 | 0 | 0 | 17 | 61 | | | 17 | 87 | | |
| Water is not available | 2 | 4 | | | 2 | 6 | | | 6 | 21 | 0 | 100 | 2 | 7 | | | | | | |

| Indicators | SES 1 | | | | SES 2 | | | | SES 3 | | | | SES 4 | | | | SES 5 | | | |
|--|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|-----|--------------------------|----|-----------------------------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=252 | | N=224 | | N=246 | | N=230 | | N=267 | | N=208 | | N=242 | | N=234 | | N=238 | | N=237 | |
| Can't access the handwashing place | 1 | 3 | | | 2 | 7 | | | 1 | 3 | 0 | 0 | 2 | 6 | | | | | | |
| Couldn't get assistance whenever I need it | 7 | 14 | | | 1 | 3 | | | 1 | 5 | 0 | 0 | 0 | 0 | | | 1 | 6 | | |
| Reach the cleaning agents without assistance | 201 | 80 | 223 | 100 | 186 | 76 | 221 | 96 | 239 | 90 | 202 | 97 | 211 | 88 | 234 | 100 | 218 | 92 | 235 | 99 |
| Level of satisfaction with the handwashing facility | | | | | | | | | | | | | | | | | | | | |
| Very dissatisfied | 8 | 3 | 7 | 3 | 9 | 4 | 3 | 1 | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| Dissatisfied | 52 | 20 | 28 | 13 | 54 | 22 | 11 | 5 | 28 | 11 | 10 | 5 | 22 | 9 | 10 | 4 | 15 | 7 | 6 | 3 |
| Neither dissatisfied nor satisfied | 79 | 31 | 64 | 28 | 54 | 22 | 42 | 18 | 41 | 15 | 30 | 14 | 71 | 30 | 32 | 14 | 6 | 2 | 2 | 1 |
| Satisfied | 109 | 43 | 122 | 55 | 123 | 50 | 171 | 74 | 188 | 70 | 162 | 78 | 142 | 59 | 182 | 78 | 198 | 83 | 174 | 74 |
| Very satisfied | 4 | 2 | 3 | 2 | 6 | 2 | 4 | 2 | 8 | 3 | 6 | 3 | 5 | 2 | 10 | 4 | 18 | 8 | 53 | 23 |

*SES: Socio-Economic Status

Table 48: Menstrual product management at home by disability and region

| Indicators | Rural | | | | Urban | | | |
|--|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | |
| | N=95 | | N=129 | | N=80 | | N=105 | |
| | n | % | n | % | n | % | n | % |
| Frequency of changing menstrual products on the heaviest period day | | | | | | | | |
| 1 time (wear until the next day) | 15 | 16 | 25 | 20 | 4 | 5 | 15 | 14 |
| 2 times (e.g. morning and evening) | 25 | 26 | 37 | 29 | 39 | 48 | 43 | 41 |
| 3 times (eg. Morning, evening and once during day) | 36 | 39 | 47 | 37 | 26 | 32 | 37 | 35 |
| 4 times (eg. Morning, evening, and twice during day) | 13 | 14 | 16 | 12 | 9 | 11 | 3 | 2 |
| More than 4 times | 4 | 5 | 3 | 2 | 3 | 3 | 8 | 8 |
| | | | | | N=81 | | N=110 | |
| Menstrual materials changing place at home | | | | | | | | |
| Latrine | 62 | 65 | 92 | 72 | 68 | 83 | 100 | 90 |
| Bedroom | 16 | 17 | 19 | 15 | 11 | 13 | 3 | 3 |
| Bathroom/ washing space (separate from toilet) | 15 | 16 | 11 | 9 | 2 | 3 | 7 | 7 |
| Outside/ bush/ field | 1 | 1 | 5 | 4 | 0 | 1 | 0 | 0 |
| Other | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Reusable menstrual products management | N=63 | | N=79 | | N=43 | | N=60 | |
| Soak your materials when washing | 40 | 64 | 51 | 64 | 39 | 89 | 38 | 64 |

| Indicators | Rural | | | | Urban | | | |
|---|--------------------------|----|-----------------------------|----|--------------------------|-----|-----------------------------|-----|
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | |
| | N=95 | | N=129 | | N=80 | | N=105 | |
| | n | % | n | % | n | % | n | % |
| Use soap or detergent to wash or soak your menstrual materials | | | | | | | | |
| Never | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 |
| Sometimes | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Every time | 62 | 99 | 75 | 95 | 43 | 100 | 60 | 100 |
| Drying menstrual materials after wash | | | | | | | | |
| Outside (hanging) | 17 | 26 | 20 | 25 | 6 | 13 | 15 | 25 |
| Outside (hidden) | 14 | 23 | 22 | 27 | 8 | 18 | 12 | 20 |
| Inside (hanging) | 10 | 16 | 19 | 24 | 6 | 14 | 4 | 7 |
| Inside (hidden) | 21 | 34 | 16 | 20 | 24 | 55 | 28 | 47 |
| Other | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 15 |
| Disposal place of used menstrual materials | | | | | N=81 | | N=110 | |
| Into the latrine/ toilet | 6 | 6 | 3 | 3 | 1 | 1 | 4 | 4 |
| Burned | 0 | 0 | 4 | 3 | 0 | 0 | 1 | 1 |
| Household rubbish (bin in latrine) | 1 | 1 | 3 | 2 | 2 | 2 | 9 | 8 |
| Household rubbish (bin not in latrine) | 0 | 0 | 6 | 5 | 40 | 50 | 53 | 50 |
| Taken to community rubbish | 36 | 36 | 30 | 25 | 17 | 21 | 17 | 15 |
| Buried/ bush/ waterway | 21 | 22 | 41 | 34 | 8 | 10 | 13 | 12 |
| Did not dispose of any materials (including reusables) | 33 | 33 | 32 | 27 | 12 | 15 | 10 | 9 |

Table 49: Menstrual product management at home by types of disability

| Indicators | vision | | hearing | | mobility | | communication | | remembering | | self_care | | anxiety | | depression | |
|--|--------|----|---------|----|----------|----|---------------|----|-------------|----|-----------|----|---------|----|------------|----|
| | N=36 | | N=11 | | N=74 | | N=14 | | N=37 | | N=10 | | N=33 | | N=37 | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Frequency of changing menstrual products on the heaviest period day | | | | | | | | | | | | | | | | |
| 1 time (wear until the next day) | 4 | 12 | 0 | 4 | 7 | 9 | 1 | 8 | 4 | 10 | 1 | 14 | 6 | 17 | 1 | 9 |
| 2 times (e.g. morning and evening) | 14 | 39 | 3 | 33 | 42 | 56 | 5 | 32 | 7 | 18 | 4 | 42 | 9 | 28 | 4 | 26 |
| 3 times (eg. Morning, evening and once during day) | 12 | 33 | 4 | 39 | 22 | 29 | 6 | 44 | 16 | 45 | 4 | 37 | 10 | 31 | 8 | 47 |
| 4 times (eg. Morning, evening, and twice during day) | 5 | 14 | 1 | 10 | 3 | 4 | 0 | 4 | 7 | 19 | 0 | 3 | 7 | 20 | 0 | 1 |
| More than 4 times | 1 | 2 | 2 | 14 | 1 | 2 | 2 | 11 | 3 | 9 | 0 | 3 | 1 | 4 | 3 | 17 |
| Menstrual materials changing place at home | | | | | | | | | | | | | | | | |
| Latrine | 29 | 82 | 8 | 67 | 55 | 73 | 9 | 64 | 28 | 76 | 4 | 41 | 28 | 81 | 13 | 77 |
| Bedroom | 3 | 8 | 1 | 7 | 16 | 21 | 3 | 21 | 7 | 19 | 3 | 33 | 2 | 6 | 3 | 17 |

| Indicators | vision | | hearing | | mobility | | communication | | remembering | | self_care | | anxiety | | depression | |
|--|--------|----|---------|----|----------|----|---------------|----|-------------|----|-----------|----|---------|----|------------|----|
| | N=36 | | N=11 | | N=74 | | N=14 | | N=37 | | N=10 | | N=33 | | N=37 | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Bathroom/ washing space (separate from toilet) | 4 | 10 | 3 | 23 | 3 | 4 | 2 | 13 | 1 | 3 | 2 | 18 | 4 | 10 | 1 | 5 |
| Outside/ bush/ field | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 6 | 1 | 2 | 0 | 0 |
| Other | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| Disposal place of used menstrual materials | | | | | | | | | | | | | | | | |
| Into the latrine/ toilet | 2 | 5 | 0 | 3 | 2 | 3 | 1 | 6 | 1 | 2 | 0 | 3 | 0 | 1 | 0 | 1 |
| Burned | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 |
| Household rubbish (bin in latrine) | 1 | 4 | 0 | 3 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 5 |
| Household rubbish (bin not in latrine) | 1 | 3 | 0 | 0 | 46 | 60 | 1 | 6 | 8 | 21 | 3 | 25 | 13 | 37 | 7 | 42 |
| Taken to community rubbish | 20 | 56 | 1 | 11 | 10 | 14 | 2 | 13 | 10 | 28 | 3 | 31 | 3 | 10 | 3 | 17 |
| Buried/ bush/ waterway | 3 | 9 | 4 | 40 | 3 | 4 | 7 | 47 | 10 | 28 | 2 | 21 | 5 | 14 | 4 | 24 |
| Did not dispose of any materials (including reusables) | 9 | 24 | 5 | 42 | 12 | 16 | 4 | 26 | 8 | 21 | 2 | 19 | 12 | 35 | 2 | 12 |
| Other | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 50: Hygiene practices during menstruation by disability status

| Indicators | Person with disabilities | | Person without disabilities | | Total | |
|--|--------------------------|----|-----------------------------|----|--------------|----|
| | n | % | n | % | n | % |
| Handwashing practices | N=176 | | N=239 | | N=415 | |
| Washing hands before changing menstrual materials | | | | | | |
| Never | 54 | 31 | 31 | 13 | 85 | 20 |
| Sometimes | 21 | 12 | 18 | 7 | 38 | 9 |
| Every time | 101 | 58 | 190 | 80 | 292 | 70 |
| Washing hands after changing menstrual materials | | | | | | |
| Never | 12 | 7 | 4 | 2 | 16 | 4 |
| Sometimes | 17 | 10 | 6 | 2 | 23 | 5 |
| Every time | 147 | 83 | 229 | 96 | 376 | 91 |
| Genital wash practices | N=195 | | N=253 | | N=448 | |
| Frequency of washing genital | | | | | | |
| At the end of my period only | 2 | 1 | 1 | 0 | 2 | 0 |
| Every 2-3 days | 5 | 3 | 9 | 4 | 15 | 3 |
| Once per day | 15 | 8 | 24 | 10 | 40 | 9 |
| Twice per day | 12 | 6 | 12 | 5 | 24 | 5 |
| Three or more times per day | 160 | 82 | 207 | 82 | 368 | 82 |
| Use of soap for genital wash | | | | | | |
| Never | 20 | 10 | 37 | 14 | 57 | 13 |
| Sometimes | 90 | 46 | 90 | 36 | 181 | 40 |
| Every time | 84 | 43 | 126 | 50 | 211 | 47 |

Table 51: Challenges in maintaining menstrual hygiene practices

| Indicators | Person with disabilities | | Person without disabilities | | Total | |
|---|--------------------------|----|-----------------------------|----|--------------|----|
| | n | % | n | % | n | % |
| | N=186 | | N=252 | | N=438 | |
| Need assistance in changing, washing, or disposing menstrual materials | 21 | 12 | 1 | 0 | 22 | 5 |
| Assisted by | N=27 | | N=1 | | N=28 | |
| Adult (Male) | 0 | 0 | 0 | 0 | 0 | 2 |
| Adult (Female) | 25 | 92 | 0 | 0 | 25 | 91 |
| Older Females (60 and above years) | 1 | 5 | 0 | 0 | 1 | 4 |
| Level of difficulties in changing menstrual material | | | | | | |
| No difficulty at all | 141 | 76 | 246 | 98 | 388 | 88 |
| Some difficulty | 20 | 11 | 5 | 2 | 24 | 6 |
| A lot of difficulty | 12 | 7 | 1 | 0 | 13 | 3 |
| Cannot do at all by myself | 13 | 7 | 0 | 0 | 13 | 3 |
| Key future adaptations for easier menstrual hygiene management | N=195 | | N=253 | | N=448 | |
| Improve/ accessible disposal system | 31 | 16 | 58 | 23 | 89 | 20 |
| Negative attitudes of others | 2 | 1 | 0 | 0 | 2 | 0 |
| Separate changing room/ toilet | 50 | 25 | 114 | 45 | 164 | 37 |
| Customized changing room/ toilet for washing | 5 | 3 | 56 | 22 | 62 | 14 |
| Privacy of the changing room/ toilet | 43 | 22 | 87 | 34 | 130 | 29 |
| Ensure safety of the changing room/ toilet | 30 | 15 | 63 | 25 | 93 | 21 |
| Availability of the menstrual materials | 41 | 21 | 74 | 29 | 115 | 26 |
| Reasonable price of the menstrual materials | 44 | 22 | 96 | 38 | 140 | 31 |
| Availability of enough water for washing or cleaning | 20 | 10 | 7 | 3 | 27 | 6 |
| place to dry menstrual materials | 27 | 14 | 90 | 35 | 117 | 26 |
| Don't need any adaption/ change | 101 | 52 | 97 | 38 | 198 | 44 |

Table 52: Challenges in maintaining menstrual hygiene practices by types of disabilities

| Indicators | vision | | hearing | | Mobility | | Communication | | Cognition | | Self-care | | Anxiety | | Depression | |
|---|--------|---|---------|---|----------|----|---------------|----|-----------|----|-----------|----|---------|---|------------|---|
| | N=38 | | N=11 | | N=79 | | N=15 | | N=40 | | N=11 | | N=36 | | N=18 | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Need assistance in changing, washing, or disposing menstrual materials | 2 | 6 | 0 | 4 | 13 | 17 | 6 | 41 | 6 | 14 | 5 | 50 | 1 | 4 | 1 | 5 |
| Level of difficulties in changing menstrual material | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---|----|----|---|----|----|----|---|----|----|----|---|----|----|----|----|----|
| No difficulty at all | 31 | 81 | 9 | 77 | 50 | 64 | 6 | 41 | 30 | 75 | 3 | 26 | 30 | 85 | 15 | 85 |
| Some difficulty | 2 | 4 | 1 | 13 | 14 | 18 | 3 | 20 | 5 | 12 | 3 | 28 | 5 | 13 | 2 | 10 |
| A lot of difficulty | 5 | 14 | 1 | 10 | 3 | 3 | 4 | 29 | 3 | 9 | 4 | 33 | 0 | 1 | 0 | 2 |
| Cannot do at all by myself | 0 | 0 | 0 | 0 | 12 | 15 | 1 | 10 | 2 | 5 | 1 | 13 | 0 | 1 | 1 | 3 |
| Key future adaptations for easier menstrual hygiene management | | | | | | | | | | | | | | | | |
| Improve/ accessible disposal system | 1 | 4 | 0 | 1 | 14 | 16 | 0 | 1 | 14 | 35 | 0 | 0 | 2 | 5 | 1 | 6 |
| Negative attitudes of others | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Separate changing room/ toilet | 19 | 51 | 2 | 17 | 13 | 15 | 4 | 23 | 17 | 42 | 4 | 36 | 5 | 14 | 1 | 3 |
| Customized changing room/ toilet for washing | 2 | 5 | 1 | 7 | 1 | 1 | 2 | 11 | 3 | 6 | 1 | 13 | 1 | 2 | 1 | 5 |
| Privacy of the changing room/ toilet | 8 | 20 | 3 | 28 | 20 | 23 | 4 | 28 | 18 | 44 | 4 | 39 | 4 | 12 | 2 | 10 |
| Ensure safety of the changing room/ toilet | 3 | 8 | 2 | 15 | 12 | 14 | 2 | 10 | 14 | 35 | 1 | 13 | 0 | 0 | 1 | 3 |
| Availability of the menstrual materials | 2 | 4 | 1 | 5 | 25 | 28 | 1 | 6 | 15 | 38 | 2 | 15 | 1 | 3 | 1 | 6 |
| Reasonable price of the menstrual materials | 4 | 9 | 0 | 2 | 21 | 23 | 3 | 20 | 17 | 42 | 2 | 16 | 5 | 13 | 1 | 5 |
| Availability of enough water for washing or cleaning | 4 | 10 | 2 | 19 | 4 | 4 | 1 | 7 | 13 | 33 | 2 | 14 | 1 | 4 | 0 | 0 |
| Place to dry menstrual materials | 18 | 46 | 0 | 0 | 2 | 3 | 0 | 3 | 8 | 20 | 1 | 7 | 1 | 2 | 0 | 0 |
| Don't need any adaption/ change | 11 | 29 | 7 | 58 | 48 | 55 | 8 | 49 | 17 | 42 | 4 | 39 | 25 | 71 | 14 | 80 |

Table 53: Incontinence issues among different socio-demographic people

| Indicators | Urinary incontinence | | | | Fecal incontinence | | |
|-----------------------|----------------------|-----|----|---------------------------|--------------------|---|--------------------|
| | N | n | % | AOR (95% CI) | n | % | AOR (95% CI) |
| Overall | 2378 | 495 | 21 | | 181 | 8 | |
| Type of region | | | | | | | |
| Urban | 1172 | 189 | 16 | ref. | 68 | 6 | ref. |
| Rural | 1206 | 306 | 25 | 1.03 (0.78 - 1.35) | 112 | 9 | 1.16 (0.86 - 1.58) |
| Sex | | | | | | | |
| Male | 883 | 154 | 17 | ref. | 72 | 8 | ref. |
| Female | 1495 | 340 | 23 | 1.02 (1.01 - 1.03) | 109 | 7 | 0.99 (0.67 - 1.45) |
| Age group | | | | | | | |
| Younger | 1507 | 235 | 16 | ref. | 80 | 5 | ref. |

| | | | | | | | |
|----------------------------|------|-----|----|---------------------------|-----|----|----------------------------|
| Older | 871 | 259 | 30 | 1.89 (1.39 - 2.55) | 101 | 12 | 1.82 (1.25 - 2.66) |
| Age (in Years) | | | | | | | |
| 5--9 | 48 | 12 | 25 | ref. | 8 | 16 | ref. |
| 10--17 | 119 | 30 | 25 | 0.56 (0.26 - 1.17) | 24 | 20 | 0.58 (0.21 - 1.61) |
| 18-35 | 505 | 29 | 6 | 0.29 (0.13 - 0.64) | 16 | 3 | 0.37 (0.14 - 0.98) |
| 36-49 | 445 | 64 | 14 | 0.65 (0.29 - 1.43) | 9 | 2 | 0.21 (0.08 - 0.57) |
| 50-59 | 390 | 99 | 25 | 0.84 (0.41 - 1.72) | 24 | 6 | 0.45 (0.19 - 1.03)* |
| 60-69 | 445 | 98 | 22 | 0.77 (0.36 - 1.62) | 33 | 7 | 0.42 (0.17 - 1.03)* |
| 70+ | 426 | 161 | 38 | 1.68 (0.82 - 3.41) | 68 | 16 | 1.09 (0.49 - 2.44) |
| disability status | | | | | | | |
| Persons with disability | 1234 | 359 | 29 | 3.23 (2.4 - 4.35) | 161 | 13 | 6.89 (4.21 - 11.29) |
| Persons without disability | 1144 | 136 | 12 | ref. | 19 | 2 | ref. |
| Types of disability | | | | | | | |
| vision | 337 | 97 | 29 | 1.54 (1.19 - 1.99) | 38 | 11 | 1.82 (1.26 - 2.63) |
| hearing | 175 | 52 | 30 | 0.95 (0.60 - 1.50) | 21 | 12 | 1.69 (0.96 - 2.97)* |
| mobility | 643 | 252 | 39 | 3.69 (2.79 - 4.89) | 125 | 19 | 6.07 (4.33 - 8.49) |
| communication | 173 | 61 | 35 | 3.63 (2.50 - 5.26) | 48 | 28 | 7.07 (4.68 - 10.70) |
| remembering | 330 | 112 | 34 | 2.74 (1.94 - 3.86) | 61 | 18 | 5.16 (3.45 - 7.72) |
| self_care | 276 | 136 | 49 | 4.62 (3.50 - 6.09) | 89 | 32 | 9.21 (6.48 - 13.10) |
| anxiety | 207 | 73 | 35 | 1.98 (1.43 - 2.75) | 26 | 13 | 2.28 (1.51 - 3.44) |
| depression | 109 | 40 | 37 | 2.13 (1.32 - 3.43) | 15 | 14 | 2.51 (1.32 - 4.76) |

Table 54: Incontinence experience by Disability

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | |
|--|--------------------------|----|-----------------------------|----|-------|----|--------------------------|----|-----------------------------|----|-------|----|
| | People with disabilities | | People without disabilities | | Total | | People with disabilities | | People without disabilities | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=452 | | N=171 | | N=623 | | N=191 | | N=23 | | N=214 | |
| Experiencing incontinence | | | | | | | | | | | | |
| Less than 1 month | 13 | 3 | 10 | 6 | 22 | 4 | 10 | 5 | 5 | 22 | 15 | 7 |
| Within 1 to 3 months | 31 | 7 | 18 | 10 | 49 | 8 | 20 | 10 | 0 | 0 | 20 | 9 |
| Within 4 to 6 months | 27 | 6 | 6 | 4 | 34 | 5 | 15 | 8 | 2 | 9 | 17 | 8 |
| Within 7 months to 1 year | 56 | 12 | 32 | 19 | 88 | 14 | 19 | 10 | 5 | 21 | 24 | 11 |
| Within 1 to 5 years | 178 | 39 | 84 | 49 | 262 | 42 | 59 | 31 | 7 | 31 | 66 | 31 |
| More than 5 years | 148 | 33 | 21 | 12 | 169 | 27 | 69 | 36 | 4 | 18 | 73 | 34 |
| Reasons for having incontinence | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|-----|----|-----|----|-----|----|-----|----|----|----|-----|----|
| Unavailability of a toilet facility when I need to urinate | 28 | 6 | 9 | 5 | 38 | 6 | 21 | 11 | 3 | 13 | 21 | 10 |
| Limited accessibility in the toilet facility when I need to urinate | 9 | 2 | 1 | 0 | 10 | 2 | 11 | 5 | 0 | 0 | 11 | 5 |
| Due to medical/ health conditions | 374 | 83 | 105 | 62 | 479 | 77 | 155 | 81 | 17 | 74 | 172 | 80 |
| Bad dreams | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No reasons (It's normal /natural) | 68 | 15 | 55 | 32 | 123 | 20 | 22 | 11 | 3 | 13 | 25 | 12 |
| Lack of caregiver's support when I need to urinate | 30 | 7 | 0 | 0 | 30 | 5 | 20 | 10 | 0 | 0 | 20 | 9 |

Table 55: Incontinence management and its impact by Disability

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | | | |
|--|--------------------------|----|-----------------------------|----|---------------------------|-------|--------------------|--------------------------|----|-----------------------------|----|---------------------------|-------|----|
| | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | |
| | n | % | n | % | | n | % | n | % | n | % | | n | % |
| | N=452 | | N=171 | | | N=623 | | N=191 | | N=23 | | | N=214 | |
| Protection materials use | | | | | | | | | | | | | | |
| Commercially available disposable incontinence diaper/pads | 7 | 1 | 0 | 0 | - | 7 | 1 | 4 | 2 | 0 | 0 | - | 4 | 2 |
| Commercially available reusable incontinence cloth/pads | 4 | 1 | 2 | 1 | - | 6 | 1 | 2 | 1 | 0 | 0 | - | 2 | 1 |
| Toilet paper | 32 | 7 | 10 | 6 | 1.48 (0.56 - 3.86) | 41 | 7 | 26 | 14 | 0 | 0 | - | 26 | 12 |
| Underwear alone | 2 | 1 | 0 | 0 | - | 3 | 0 | - | - | - | - | - | | |
| Cloth | 96 | 21 | 24 | 14 | 1.55 (0.99 - 2.41)* | 120 | 19 | 53 | 28 | 1 | 4 | 2.75 (0.46 - 16.65) | 54 | 25 |
| No materials used | 325 | 72 | 135 | 79 | 0.76 (0.48 - 1.19) | 460 | 74 | 132 | 69 | 20 | 90 | 0.36 (0.06 - 2.19) | 152 | 71 |
| Able to clean and/or change in privacy | 305 | 67 | 159 | 93 | 0.13 (0.06 - 0.26) | 464 | 75 | 103 | 54 | 21 | 91 | 0.17 (0.04 - 0.65) | 124 | 58 |
| Disposal of protection materials | | | | | | | | | | | | | | |
| In a special bin that is just for continence and menstrual waste | 8 | 8 | 0 | 0 | - | 8 | 6 | 3 | 6 | 0 | 0 | - | 3 | 6 |

| Indicators | Urinary incontinence | | | | | | | | Fecal incontinence | | | | | | | |
|---------------------------------------|--------------------------|----|-----------------------------|-----|---------------------------|-------|----|--------------------------|--------------------|-----------------------------|----|---------------------|-------|----|--|--|
| | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | | Person with disabilities | | Person without disabilities | | AOR (95% CI) | Total | | | |
| | n | % | n | % | | n | % | n | % | n | % | | n | % | | |
| | N=452 | | N=171 | | | N=623 | | N=191 | | N=23 | | | N=214 | | | |
| In a bin with other waste | 55 | 52 | 16 | 52 | 0.99 (0.35 - 2.79) | 71 | 52 | 27 | 60 | 0 | 0 | - | 27 | 58 | | |
| In the latrine | 6 | 6 | 5 | 17 | 0.19 (0.05 - 0.79) | 11 | 8 | 3 | 7 | 0 | 0 | - | 3 | 7 | | |
| Burning | 1 | 1 | 0 | 0 | - | 1 | 1 | 0 | 1 | 0 | 0 | - | 0 | 1 | | |
| Burying | 3 | 3 | 1 | 2 | - | 4 | 3 | 0 | 1 | 0 | 0 | - | 0 | 1 | | |
| In an open place | 20 | 19 | 4 | 14 | 1.30 (0.33 - 5.15) | 24 | 18 | 4 | 9 | 0.16 | 9 | - | 4 | 9 | | |
| In a body of water | 1 | 1 | 0 | 0 | - | 1 | 0 | 1 | 2 | 0 | 0 | - | 1 | 2 | | |
| Miss out any activities | 151 | 33 | 27 | 16 | 3.36 (2.02 - 5.57) | 178 | 29 | 65 | 34 | 4 | 17 | 2.89 (0.64 - 13.16) | 69 | 32 | | |
| Types of activities missed out | | | | | | | | | | | | | | | | |
| Social | 88 | 58 | 19 | 69 | 1.55 (0.46 - 5.24) | 107 | 60 | 44 | 55 | 3 | 64 | 0.11 (0.001 - 6.87) | 47 | 55 | | |
| Cultural | 29 | 19 | 1 | 5 | 2.27 (0.26 - 20.14) | 30 | 17 | 13 | 16 | 0 | 0 | - | 13 | 15 | | |
| Religious | 81 | 53 | 18 | 66 | 0.36 (0.08 - 1.68) | 99 | 55 | 22 | 28 | 3 | 63 | 1.48 (0.12 - 18.70) | 25 | 30 | | |
| Family | 42 | 28 | 2 | 8 | 1.34 (0.23 - 7.96) | 45 | 25 | 18 | 22 | 1 | 23 | - | 19 | 22 | | |
| Work | 4 | 2 | 0 | 0 | - | 4 | 2 | 1 | 2 | 0.46 | 10 | - | 2 | 2 | | |
| Education / School | 3 | 2 | 0.1 | 0.4 | - | 3 | 2 | 3 | 4 | 0 | 0 | - | 3 | 3 | | |
| Political | 4 | 2 | 0 | 0 | - | 4 | 2 | 1 | 2 | 0 | 0 | - | 1 | 2 | | |
| Interference with life (mean) | 5.5 | | 3.91 | | 1.10 (0.69 - 1.51) | | | 5.51 | | 3.04 | | 1.72 (0.48 - 2.96) | | | | |

Table 56: Incontinence management and its impact by Ageing

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | | | |
|--|----------------------|---|---------|---|--------------|-------|--------------------|-------|---|---------|---|--------------|-------|---|
| | Older | | Younger | | AOR (95% CI) | Total | | Older | | Younger | | AOR (95% CI) | Total | |
| | n | % | n | % | | n | % | n | % | n | % | | n | % |
| | N=321 | | N=296 | | | N=623 | | N=119 | | N=95 | | | N=214 | |
| Protection materials use | | | | | | | | | | | | | | |
| Commercially available disposable incontinence diaper/pads | 6 | 2 | 1 | 0 | - | 7 | 1 | 4 | 3 | 1 | 1 | - | 4 | 2 |

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | | | |
|--|----------------------|----|---------|----|---------------------------|-------|--------------------|-------|----|---------|----|---------------------------|-------|----|
| | Older | | Younger | | AOR (95% CI) | Total | | Older | | Younger | | AOR (95% CI) | Total | |
| | n | % | n | % | | n | % | n | % | n | % | | n | % |
| | N=321 | | N=296 | | | N=623 | | N=119 | | N=95 | | | N=214 | |
| Commercially available reusable incontinence cloth/pads | 2 | 1 | 4 | 1 | - | 6 | 1 | 2 | 2 | 0 | 0 | - | 2 | 1 |
| Toilet paper | 24 | 7 | 17 | 6 | 0.30 (0.06 - 1.42) | 41 | 7 | 6 | 5 | 20 | 21 | 1.95 (0.07 - 55.23) | 26 | 12 |
| Underwear alone | 1 | 0 | 1 | 0 | - | 3 | 0 | - | - | - | - | - | | |
| Cloth | 65 | 20 | 55 | 19 | 1.59 (0.78 - 3.24) | 120 | 19 | 25 | 21 | 29 | 30 | 0.70 (0.23 - 2.19) | 54 | 25 |
| No materials used | 236 | 72 | 224 | 76 | 0.65 (0.32 - 1.32) | 460 | 74 | 88 | 74 | 65 | 68 | 0.84 (0.23 - 3.09) | 152 | 71 |
| Able to clean and/or change in privacy | 221 | 68 | 243 | 82 | 0.76 (0.34 - 1.73) | 464 | 75 | 60 | 50 | 64 | 68 | 0.79 (0.11 - 5.58) | 124 | 58 |
| Disposal of protection materials | | | | | | | | | | | | | | |
| In a special bin that is just for continence and menstrual waste | 8 | 10 | 1 | 1 | - | 8 | 6 | 2 | 10 | 0.4 | 2 | - | 3 | 6 |
| In a bin with other waste | 38 | 50 | 33 | 55 | 1.69 (0.36 - 8.05) | 71 | 52 | 10 | 42 | 17 | 74 | 1.40 (0.03 - 56.91) | 27 | 58 |
| In the latrine | 5 | 7 | 6 | 10 | 0.64 (0.09 - 4.27) | 11 | 8 | 2 | 7 | 2 | 7 | 0.21 (0.0006 - 67.78) | 3 | 7 |
| Burning | 1 | 1 | 0 | 0 | - | 1 | 1 | 0 | 2 | 0 | 0 | - | 0 | 1 |
| Burying | 2 | 3 | 2 | 3 | - | 4 | 3 | 0 | 2 | 0 | 0 | - | 0 | 1 |
| In an open place | 13 | 17 | 11 | 18 | 0.11 (0.01 - 0.82) | 24 | 18 | 0.5 | 2 | 4 | 16 | - | 4 | 9 |
| In a body of water | 0 | 0 | 0 | 0 | - | 1 | 0 | 1 | 4 | 0 | 0 | - | 1 | 2 |
| Miss out any activities | 105 | 32 | 73 | 25 | 1.46 (0.86 - 2.46) | 178 | 29 | 44 | 37 | 25 | 26 | 1.16 (0.38 - 3.53) | 69 | 32 |
| Types of activities missed out | | | | | | | | | | | | | | |
| Social | 63 | 60 | 44 | 59 | 0.49 (0.09 - 2.550) | 107 | 60 | 21 | 38 | 26 | 85 | 0.25 (0.01 - 4.92) | 47 | 55 |
| Cultural | 19 | 18 | 12 | 16 | 0.33 (0.04 - 2.66) | 30 | 17 | 5 | 10 | 8 | 26 | 0.90 (0.07 - 11.19) | 13 | 15 |
| Religious | 52 | 49 | 47 | 64 | 0.26 (0.05 - 1.52) | 99 | 55 | 13 | 24 | 12 | 40 | 0.25 (0.03 - 1.87) | 25 | 30 |
| Family | 26 | 25 | 18 | 25 | 0.75 (0.17 - 3.29) | 45 | 25 | 10 | 18 | 9 | 30 | 1.45 (0.12 - 17.80) | 19 | 22 |
| Work | 1 | 1 | 2 | 3 | - | 4 | 2 | 0 | 0 | 2 | 6 | - | 2 | 2 |
| Education / School | 0 | 0 | 3 | 5 | - | 3 | 2 | 0 | 0 | 3 | 9 | - | 3 | 3 |
| Political | 1 | 1 | 2 | 3 | - | 4 | 2 | 0 | 0 | 1 | 5 | - | 1 | 2 |
| Interference with life (mean) | 5.31 | | 4.8 | | 0.67 (0.04 - 1.30) | | | 4.94 | | 5.64 | | 1.83 (0.81 - 2.84) | | |

Table 57: Protection material use and cleaning practice by region

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | |
|--|----------------------|---|-------|---|-------|---|--------------------|----|-------|---|-------|----|
| | Urban | | Rural | | Total | | Urban | | Rural | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=240 | | N=383 | | N=623 | | N=83 | | N=131 | | N=214 | |
| Protection materials use | | | | | | | | | | | | |
| Commercially available disposable incontinence diaper/pads | 2 | 1 | 4 | 1 | 7 | 1 | 2 | 3 | 2 | 2 | 4 | 2 |
| Commercially available reusable incontinence cloth/pads | 1 | 1 | 5 | 1 | 6 | 1 | 0 | 0 | 2 | 2 | 2 | 1 |
| Toilet paper | 22 | 9 | 19 | 5 | 41 | 7 | 21 | 25 | 5 | 4 | 26 | 12 |
| Underwear alone | 0 | 0 | 3 | 1 | 3 | 0 | 83 | | | | | |

| | | | | | | | | | | | | |
|--|-----|----|-----|----|-----|----|----|----|----|----|-----|----|
| Cloth | 54 | 23 | 66 | 17 | 120 | 19 | 24 | 29 | 30 | 23 | 54 | 25 |
| No materials used | 166 | 69 | 295 | 77 | 460 | 74 | 55 | 66 | 97 | 75 | 152 | 71 |
| Able to clean and/or change in privacy | 189 | 79 | 275 | 72 | 464 | 75 | 54 | 65 | 70 | 53 | 124 | 58 |
| Disposal of protection materials | | | | | | | | | | | | |
| In a special bin that is just for continence and menstrual waste | 6 | 10 | 2 | 3 | 8 | 6 | 1 | 5 | 2 | 7 | 3 | 6 |
| In a bin with other waste | 35 | 56 | 36 | 49 | 71 | 52 | 17 | 79 | 10 | 40 | 27 | 58 |
| In the latrine | 7 | 11 | 4 | 6 | 11 | 8 | 2 | 8 | 1 | 6 | 3 | 7 |
| Burning | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 1 |
| Burying | 1 | 2 | 3 | 3 | 4 | 3 | 0 | 2 | 0 | 0 | 0 | 1 |
| In an open place | 3 | 6 | 21 | 28 | 24 | 18 | 1 | 6 | 3 | 11 | 4 | 9 |
| In a body of water | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 4 | 1 | 2 |

Table 58: Impact of incontinence on activities by Disability

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | |
|---|--------------------------|----|-----------------------------|----|-------|----|--------------------------|----|-----------------------------|----|-------|----|
| | Person with disabilities | | Person without disabilities | | Total | | Person with disabilities | | Person without disabilities | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=452 | | N=171 | | N=623 | | N=191 | | N=23 | | N=214 | |
| Miss out any activities | 151 | 33 | 27 | 16 | 178 | 29 | 65 | 34 | 4 | 17 | 69 | 32 |
| Types of activities missed out | | | | | | | | | | | | |
| Social | 88 | 58 | 19 | 69 | 107 | 60 | 44 | 55 | 3 | 64 | 47 | 55 |
| Cultural | 29 | 19 | 1 | 5 | 30 | 17 | 13 | 16 | 0 | 0 | 13 | 15 |
| Religious | 81 | 53 | 18 | 66 | 99 | 55 | 22 | 28 | 3 | 63 | 25 | 30 |
| Family | 42 | 28 | 2 | 8 | 45 | 25 | 18 | 22 | 1 | 23 | 19 | 22 |
| Work | 4 | 2 | 0 | 0 | 4 | 2 | 1 | 2 | 0 | 10 | 2 | 2 |
| Education / School | 3 | 2 | 0 | 0 | 3 | 2 | 3 | 4 | 0 | 0 | 3 | 3 |
| Political | 4 | 2 | 0 | 0 | 4 | 2 | 1 | 2 | 0 | 0 | 1 | 2 |
| Reasons for missing out activities | | | | | | | | | | | | |
| It is difficult for my caregiver | 143 | 47 | 0 | 0 | 143 | 41 | 98 | 59 | 0 | 0 | 98 | 56 |
| I am not allowed to participate | 47 | 15 | 1 | 3 | 48 | 14 | 34 | 21 | 3 | 24 | 37 | 21 |
| I would be embarrassed / People would laugh at me | 69 | 23 | 7 | 16 | 76 | 22 | 35 | 21 | 8 | 76 | 42 | 24 |
| People would abuse me verbally or physically | 29 | 10 | 0 | 1 | 29 | 8 | 32 | 19 | 1 | 11 | 33 | 19 |
| There is a lack of water for washing | 23 | 7 | 8 | 18 | 30 | 9 | 11 | 7 | 3 | 27 | 14 | 8 |
| Lack of disposal system for incontinence products | 14 | 5 | 6 | 13 | 20 | 6 | 25 | 15 | 0 | 0 | 25 | 14 |
| Fear of accidental leakage | 150 | 50 | 34 | 77 | 184 | 53 | 82 | 49 | 4 | 38 | 86 | 49 |
| Lack of privacy for washing or cleaning | 96 | 32 | 7 | 16 | 102 | 30 | 32 | 19 | 4 | 42 | 36 | 20 |
| Lack of bathroom | 15 | 5 | 4 | 9 | 19 | 5 | 4 | 2 | 0 | 0 | 4 | 2 |
| I do not have an incontinence product | 46 | 15 | 5 | 11 | 51 | 15 | 40 | 24 | 1 | 10 | 41 | 23 |
| Smell | 45 | 15 | 2 | 5 | 47 | 14 | 15 | 9 | 3 | 30 | 19 | 11 |

Table 59: Impact of incontinence on activities by ageing

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | |
|---|----------------------|----|---------|----|-------|----|--------------------|----|---------|----|-------|----|
| | Older | | Younger | | Total | | Older | | Younger | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=327 | | N=296 | | N=623 | | N=119 | | N=95 | | N=214 | |
| Miss out any activities | 105 | 32 | 73 | 25 | 178 | 29 | 44 | 37 | 25 | 26 | 69 | 32 |
| Types of activities missed out | | | | | | | | | | | | |
| Social | 63 | 60 | 44 | 59 | 107 | 60 | 21 | 38 | 26 | 85 | 47 | 55 |
| Cultural | 19 | 18 | 12 | 16 | 30 | 17 | 5 | 10 | 8 | 26 | 13 | 15 |
| Religious | 52 | 49 | 47 | 64 | 99 | 55 | 13 | 24 | 12 | 40 | 25 | 30 |
| Family | 26 | 25 | 18 | 25 | 45 | 25 | 10 | 18 | 9 | 30 | 19 | 22 |
| Work | 1 | 1 | 2 | 3 | 4 | 2 | 0 | 0 | 2 | 6 | 2 | 2 |
| Education / School | 0 | 0 | 3 | 5 | 3 | 2 | 0 | 0 | 3 | 9 | 3 | 3 |
| Political | 1 | 1 | 2 | 3 | 4 | 2 | 0 | 0 | 1 | 5 | 1 | 2 |
| Reasons for missing out activities | | | | | | | | | | | | |
| It is difficult for my caregiver | 88 | 44 | 55 | 38 | 143 | 41 | 51 | 56 | 47 | 56 | 98 | 56 |
| I am not allowed to participate | 25 | 12 | 23 | 16 | 48 | 14 | 14 | 15 | 22 | 27 | 37 | 21 |
| I would be embarrassed / People would laugh at me | 44 | 22 | 31 | 22 | 76 | 22 | 19 | 21 | 23 | 27 | 42 | 24 |
| People would abuse me verbally or physically | 17 | 8 | 12 | 8 | 29 | 8 | 12 | 13 | 21 | 25 | 33 | 19 |
| There is a lack of water for washing | 29 | 14 | 1 | 1 | 30 | 9 | 11 | 12 | 3 | 4 | 14 | 8 |
| Lack of disposal system for incontinence products | 14 | 7 | 6 | 4 | 20 | 6 | 21 | 23 | 4 | 5 | 25 | 14 |
| Fear of accidental leakage | 105 | 53 | 79 | 54 | 184 | 53 | 46 | 50 | 39 | 47 | 86 | 49 |
| Lack of privacy for washing or cleaning | 59 | 30 | 43 | 30 | 102 | 30 | 12 | 13 | 24 | 29 | 36 | 20 |
| Lack of bathroom | 16 | 8 | 3 | 2 | 19 | 5 | 3 | 3 | 1 | 1 | 4 | 2 |
| I do not have an incontinence product | 27 | 13 | 25 | 17 | 51 | 15 | 24 | 26 | 17 | 21 | 41 | 23 |
| Smell | 33 | 17 | 14 | 9 | 47 | 14 | 8 | 9 | 10 | 12 | 19 | 11 |

Table 60: Impact of incontinence on activities by gender and Disability

| Indicators | Urinary incontinence | | | | | | | | Fecal incontinence | | | | | | | |
|---------------------------------------|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|--------------------------|----|-----------------------------|----|
| | Female | | | | Male | | | | Female | | | | Male | | | |
| | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | | Person with disabilities | | Person without disabilities | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=159 | | N=47 | | N=294 | | N=123 | | N=84 | | N=8 | | N=108 | | N=14 | |
| Miss out any activities | 79 | 50 | 18 | 39 | 75 | 25 | 9 | 8 | 44 | 52 | 2 | 31 | 23 | 22 | 1 | 10 |
| Types of activities missed out | | | | | | | | | | | | | | | | |
| Social | 38 | 59 | 13 | 86 | 50 | 57 | 4 | 39 | 21 | 48 | 1 | 48 | 25 | 65 | 2 | 87 |
| Cultural | 17 | 26 | 1 | 4 | 11 | 12 | 1 | 6 | 7 | 17 | 0 | 0 | 6 | 15 | 0 | 0 |
| Religious | 33 | 52 | 8 | 53 | 49 | 55 | 10 | 90 | 13 | 29 | 2 | 69 | 9 | 25 | 1 | 56 |
| Family | 17 | 27 | 1 | 4 | 25 | 29 | 2 | 16 | 8 | 20 | 0 | 0 | 10 | 27 | 1 | 56 |

| | | | | | | | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|---|----|----|----|---|----|
| Work | 3 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 |
| Education / School | 2 | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 5 | 0 | 0 | 0 | 1 | 0 | 0 |
| Political | 3 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 |
| Reasons for missing out activities | | | | | | | | | | | | | | | | |
| It is difficult for my caregiver | 75 | 55 | 0 | 0 | 64 | 38 | 0 | 0 | 57 | 65 | 0 | 0 | 38 | 49 | 0 | 0 |
| I am not allowed to participate | 29 | 22 | 1 | 5 | 14 | 8 | 0 | 0 | 21 | 25 | 1 | 26 | 10 | 13 | 1 | 21 |
| I would be embarrassed / People would laugh at me | 25 | 19 | 4 | 17 | 46 | 28 | 3 | 15 | 18 | 20 | 4 | 74 | 17 | 22 | 5 | 79 |
| People would abuse me verbally or physically | 13 | 10 | 0 | 1 | 16 | 10 | 0 | 0 | 19 | 22 | 0 | 9 | 11 | 14 | 1 | 14 |
| There is a lack of water for washing | 17 | 12 | 6 | 28 | 3 | 2 | 0 | 0 | 8 | 9 | 0 | 0 | 2 | 2 | 4 | 64 |
| Lack of disposal system for incontinence products | 6 | 5 | 5 | 21 | 8 | 4 | 0 | 0 | 11 | 13 | 0 | 0 | 15 | 19 | 0 | 0 |
| Fear of accidental leakage | 58 | 43 | 18 | 78 | 98 | 58 | 15 | 76 | 39 | 45 | 1 | 26 | 45 | 58 | 3 | 56 |
| Lack of privacy for washing or cleaning | 52 | 39 | 1 | 4 | 39 | 23 | 7 | 36 | 8 | 9 | 1 | 26 | 29 | 38 | 4 | 65 |
| Lack of bathroom | 8 | 6 | 3 | 14 | 6 | 3 | 0 | 0 | 3 | 3 | 0 | 0 | 1 | 1 | 0 | 0 |
| I do not have an incontinence product | 20 | 15 | 2 | 9 | 27 | 16 | 3 | 16 | 24 | 28 | 1 | 17 | 14 | 18 | 0 | 0 |
| Smell | 21 | 15 | 1 | 6 | 24 | 14 | 0 | 2 | 4 | 5 | 3 | 52 | 14 | 17 | 0 | 0 |

Table 61: Impact of incontinence on activities by types of disability

| Indicators | Urinary incontinence | | | | | | | | | | | | | | | | Fecal incontinence | | | | | | | | | | | | | | | | |
|---|----------------------|----|---------|----|----------|----|---------------|----|-------------|----|-----------|----|---------|----|------------|----|--------------------|----|---------|----|----------|----|---------------|----|-------------|----|-----------|----|---------|----|------------|----|---|
| | vision | | hearing | | mobility | | communication | | remembering | | self_care | | anxiety | | depression | | vision | | hearing | | mobility | | communication | | remembering | | self_care | | anxiety | | depression | | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n |
| | N=123 | | N=66 | | N=317 | | N=76 | | N=141 | | N=172 | | N=92 | | N=51 | | N=46 | | N=25 | | N=148 | | N=57 | | N=72 | | N=106 | | N=31 | | N=18 | | |
| Miss out any activities | 51 | 42 | 16 | 25 | 105 | 33 | 40 | 52 | 58 | 41 | 75 | 44 | 40 | 43 | 27 | 54 | 13 | 28 | 8 | 31 | 55 | 37 | 29 | 51 | 36 | 49 | 50 | 47 | 18 | 60 | 12 | 69 | |
| Types of activities missed out | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Social | 24 | 47 | 10 | 58 | 66 | 63 | 22 | 54 | 27 | 46 | 48 | 64 | 18 | 46 | 18 | 67 | 4 | 28 | 6 | 65 | 34 | 50 | 18 | 50 | 25 | 58 | 31 | 51 | 7 | 32 | 10 | 62 | |
| Cultural | 11 | 21 | 5 | 28 | 21 | 20 | 11 | 26 | 10 | 18 | 19 | 26 | 9 | 23 | 9 | 32 | 3 | 17 | 4 | 38 | 13 | 19 | 8 | 24 | 7 | 16 | 11 | 18 | 3 | 12 | 6 | 37 | |
| Religious | 31 | 61 | 10 | 59 | 50 | 48 | 16 | 41 | 24 | 42 | 31 | 41 | 22 | 54 | 18 | 66 | 3 | 21 | 5 | 48 | 19 | 28 | 10 | 27 | 10 | 24 | 16 | 26 | 7 | 31 | 7 | 42 | |
| Family | 17 | 33 | 9 | 54 | 35 | 33 | 14 | 34 | 19 | 32 | 27 | 36 | 9 | 22 | 9 | 34 | 5 | 34 | 5 | 57 | 15 | 22 | 7 | 20 | 12 | 28 | 15 | 25 | 4 | 17 | 4 | 26 | |
| Work | 2 | 3 | 3 | 15 | 3 | 3 | 2 | 5 | 2 | 4 | 3 | 4 | 1 | 3 | 1 | 4 | 0 | 1 | 1 | 14 | 1 | 2 | 1 | 4 | 1 | 3 | 1 | 2 | 1 | 6 | 1 | 9 | |
| Education / School | 0 | 0 | 1 | 7 | 3 | 3 | 3 | 8 | 2 | 4 | 3 | 4 | 2 | 6 | 2 | 8 | 0 | 1 | 1 | 14 | 3 | 4 | 2 | 6 | 2 | 5 | 2 | 4 | 1 | 6 | 1 | 9 | |
| Political | 2 | 3 | 3 | 15 | 3 | 3 | 2 | 5 | 2 | 4 | 3 | 4 | 1 | 3 | 1 | 4 | 0 | 1 | 1 | 14 | 1 | 2 | 1 | 4 | 1 | 3 | 1 | 2 | 1 | 6 | 1 | 9 | |
| Reasons for missing out activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| It is difficult for my caregiver | 37 | 35 | 22 | 50 | 114 | 51 | 64 | 71 | 67 | 60 | 125 | 72 | 37 | 46 | 40 | 56 | 14 | 45 | 17 | 50 | 77 | 56 | 59 | 72 | 69 | 70 | 91 | 70 | 21 | 47 | 19 | 43 | |
| I am not allowed to participate | 15 | 15 | 19 | 42 | 36 | 16 | 10 | 11 | 19 | 17 | 38 | 22 | 11 | 14 | 14 | 20 | 2 | 7 | 11 | 33 | 28 | 20 | 13 | 16 | 21 | 21 | 29 | 22 | 16 | 37 | 13 | 29 | |
| I would be embarrassed / People would laugh at me | 21 | 21 | 5 | 12 | 39 | 18 | 10 | 11 | 26 | 23 | 30 | 18 | 14 | 18 | 5 | 7 | 8 | 26 | 4 | 13 | 22 | 16 | 5 | 5 | 21 | 22 | 20 | 15 | 5 | 12 | 4 | 10 | |
| People would abuse me verbally or physically | 8 | 8 | 3 | 8 | 14 | 6 | 4 | 4 | 13 | 11 | 13 | 7 | 7 | 8 | 6 | 8 | 6 | 20 | 3 | 10 | 17 | 12 | 12 | 14 | 22 | 22 | 23 | 18 | 9 | 21 | 5 | 11 | |
| Lack of water for washing | 17 | 17 | 9 | 19 | 14 | 6 | 3 | 4 | 2 | 1 | 12 | 7 | 11 | 13 | 0 | 0 | 3 | 10 | 2 | 8 | 9 | 7 | 4 | 5 | 1 | 1 | 8 | 6 | 4 | 9 | 2 | 3 | |
| Lack of disposal system | 3 | 3 | 3 | 7 | 13 | 6 | 10 | 11 | 9 | 8 | 9 | 5 | 4 | 5 | 7 | 10 | 1 | 4 | 2 | 6 | 23 | 17 | 16 | 19 | 19 | 19 | 21 | 16 | 7 | 16 | 3 | 8 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Fear of accidental leakage | 55 | 54 | 12 | 27 | 99 | 44 | 28 | 30 | 46 | 42 | 53 | 30 | 31 | 39 | 24 | 34 | 12 | 40 | 12 | 36 | 64 | 46 | 37 | 46 | 50 | 51 | 60 | 46 | 16 | 37 | 24 | 54 |
| Lack of privacy for washing or cleaning | 39 | 38 | 15 | 33 | 68 | 31 | 19 | 21 | 26 | 23 | 50 | 29 | 32 | 40 | 18 | 26 | 8 | 26 | 5 | 17 | 23 | 16 | 8 | 10 | 16 | 16 | 17 | 13 | 8 | 19 | 10 | 24 |
| Lack of bathroom | 11 | 10 | 9 | 20 | 14 | 6 | 2 | 2 | 2 | 1 | 12 | 7 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 0 | 0 |
| Lack of incontinence product | 9 | 9 | 10 | 22 | 33 | 15 | 24 | 26 | 27 | 24 | 31 | 18 | 12 | 15 | 15 | 21 | 4 | 11 | 5 | 16 | 36 | 26 | 30 | 37 | 33 | 34 | 33 | 25 | 6 | 14 | 15 | 33 |
| Smell | 18 | 17 | 6 | 13 | 42 | 19 | 16 | 18 | 15 | 14 | 20 | 11 | 6 | 8 | 10 | 14 | 9 | 30 | 6 | 19 | 12 | 9 | 7 | 8 | 13 | 13 | 10 | 8 | 8 | 18 | 10 | 23 |

Table 62: Impact of incontinence on daily life and required future adaptations by Disability

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | |
|---|--------------------------|----|-----------------------------|----|-------|----|--------------------------|----|-----------------------------|----|-------|----|
| | Person with disabilities | | Person without disabilities | | Total | | Person with disabilities | | Person without disabilities | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=452 | | N=171 | | N=623 | | N=191 | | N=23 | | N=214 | |
| Avg score of interference | 5.50 | | 3.90 | | 5.07 | | 5.50 | | 3.04 | | 5.25 | |
| Key future adaptations | | | | | | | | | | | | |
| Improved/ accessible disposal system | 23 | 5 | 2 | 1 | 25 | 4 | 24 | 13 | 0 | 1 | 25 | 12 |
| Changes in Negative attitudes of others | 11 | 2 | 0 | 0 | 11 | 2 | 2 | 1 | 0 | 0 | 2 | 1 |
| Separate changing room/ toilets | 27 | 6 | 0 | 0 | 27 | 4 | 3 | 2 | 0 | 0 | 3 | 2 |
| Customized changing room/ toilet for washing | 29 | 6 | 2 | 1 | 32 | 5 | 11 | 6 | 0 | 0 | 11 | 5 |
| Privacy of the changing room/ toilet | 13 | 3 | 3 | 2 | 16 | 3 | 10 | 5 | 0 | 0 | 10 | 5 |
| Ensure safety of the changing room/ toilet | 9 | 2 | 7 | 4 | 16 | 3 | 13 | 7 | 0 | 0 | 13 | 6 |
| Availability of the WASH products (eg - bed pans, commodes) | 21 | 5 | 0 | 0 | 21 | 3 | 14 | 7 | 0 | 1 | 14 | 7 |
| Reasonable price of the incontinence products | 30 | 7 | 1 | 1 | 31 | 5 | 20 | 11 | 0 | 0 | 20 | 9 |
| Availability of water for washing | 39 | 9 | 11 | 6 | 49 | 8 | 12 | 6 | 1 | 3 | 13 | 6 |
| Availability of urinary incontinence products (eg. adult diaper) | 19 | 4 | 0 | 0 | 20 | 3 | 9 | 5 | 0 | 0 | 9 | 4 |
| Improve the accessibility of the incontinence related treatments | 295 | 65 | 75 | 44 | 369 | 59 | 96 | 50 | 9 | 41 | 106 | 49 |
| Greater access to medical information on how to manage urinary incontinence | 187 | 41 | 48 | 28 | 235 | 38 | 54 | 28 | 3 | 12 | 57 | 26 |
| Don't need any adaption/ change | 82 | 18 | 58 | 34 | 140 | 23 | 56 | 29 | 12 | 53 | 68 | 32 |

Table 63: Impact of incontinence on daily life and required future adaptations by ageing

| Indicators | Urinary incontinence | | | | | | Fecal incontinence | | | | | |
|---|----------------------|---|---------|---|-------|---|--------------------|----|---------|---|-------|----|
| | Older | | Younger | | Total | | Older | | Younger | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | N=327 | | N=296 | | N=623 | | N=119 | | N=95 | | N=214 | |
| Avg score of interference | 5.30 | | 4.80 | | 5.07 | | 4.94 | | 5.64 | | 5.25 | |
| Key future adaptations | | | | | | | | | | | | |
| Improved/ accessible disposal system | 17 | 5 | 8 | 3 | 25 | 4 | 18 | 15 | 7 | 7 | 25 | 12 |
| Changes in Negative attitudes of others | 9 | 3 | 2 | 1 | 11 | 2 | 0 | 0 | 2 | 2 | 2 | 1 |
| Separate changing room/ toilets | 13 | 4 | 14 | 5 | 27 | 4 | 1 | 1 | 2 | 2 | 3 | 2 |

| | | | | | | | | | | | | |
|---|-----|----|-----|----|-----|----|----|----|----|----|-----|----|
| Customized changing room/ toilet for washing | 14 | 4 | 18 | 6 | 32 | 5 | 3 | 3 | 8 | 8 | 11 | 5 |
| Privacy of the changing room/ toilet | 8 | 2 | 9 | 3 | 16 | 3 | 3 | 3 | 6 | 7 | 10 | 5 |
| Ensure safety of the changing room/ toilet | 12 | 4 | 4 | 1 | 16 | 3 | 8 | 6 | 5 | 5 | 13 | 6 |
| Availability of the WASH products (eg - bed pans, commodes) | 8 | 2 | 12 | 4 | 21 | 3 | 8 | 7 | 6 | 6 | 14 | 7 |
| Reasonable price of the incontinence products | 17 | 5 | 14 | 5 | 31 | 5 | 18 | 15 | 3 | 3 | 20 | 9 |
| Availability of water for washing | 31 | 9 | 19 | 6 | 49 | 8 | 7 | 6 | 6 | 6 | 13 | 6 |
| Availability of urinary incontinence products (eg. adult diaper) | 17 | 5 | 3 | 1 | 20 | 3 | 8 | 7 | 1 | 1 | 9 | 4 |
| Improve the accessibility of the incontinence related treatments | 210 | 64 | 159 | 54 | 369 | 59 | 69 | 57 | 37 | 39 | 106 | 49 |
| Greater access to medical information on how to manage urinary incontinence | 134 | 41 | 101 | 34 | 235 | 38 | 41 | 34 | 16 | 16 | 57 | 26 |
| Don't need any adaption/ change | 49 | 15 | 92 | 31 | 140 | 23 | 24 | 20 | 44 | 46 | 68 | 32 |

Table 64: Impact of incontinence on daily life and required future adaptations by types of disability

| Indicators | Urinary incontinence | | | | | | | | | | Fecal incontinence | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|----|---------|----|----------|----|---------------|----|-------------|----|--------------------|----|---------|----|------------|----|--------|----|---------|----|----------|----|---------------|----|-------------|----|-----------|----|---------|----|------------|----|---|
| | vision | | hearing | | mobility | | communication | | remembering | | self_care | | anxiety | | depression | | vision | | hearing | | mobility | | communication | | remembering | | self_care | | anxiety | | depression | | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n |
| | N=123 | | N=66 | | N=317 | | N=76 | | N=141 | | N=172 | | N=92 | | N=51 | | N=46 | | N=25 | | N=148 | | N=57 | | N=72 | | N=106 | | N=31 | | N=18 | | |
| Avg score of interference | 5.59 | | 5.66 | | 5.69 | | 6.50 | | 5.70 | | 5.69 | | 4.99 | | 5.37 | | 5.00 | | 5.67 | | 5.66 | | 6.68 | | 6.15 | | 5.65 | | 4.80 | | 3.95 | | |
| Key future adaptations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Improved/ accessible disposal system | 3 | 3 | 7 | 10 | 20 | 6 | 12 | 16 | 15 | 11 | 20 | 12 | 1 | 1 | 4 | 8 | 4 | 10 | 6 | 25 | 24 | 16 | 15 | 26 | 16 | 22 | 22 | 21 | 1 | 3 | 4 | 20 | |
| Changes in Negative attitudes of others | 2 | 1 | 0 | 0 | 11 | 3 | 1 | 2 | 1 | 1 | 9 | 5 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 9 | |
| Separate changing room/ toilets | 0 | 0 | 4 | 7 | 21 | 7 | 1 | 2 | 19 | 14 | 12 | 7 | 10 | 10 | 4 | 9 | 1 | 2 | 0 | 2 | 3 | 2 | 1 | 2 | 1 | 1 | 3 | 3 | 0 | 0 | 1 | 6 | |
| Customized changing room/ toilet for washing | 2 | 1 | 3 | 4 | 24 | 7 | 13 | 17 | 20 | 14 | 16 | 9 | 9 | 10 | 1 | 2 | 0 | 0 | 3 | 10 | 7 | 5 | 7 | 12 | 6 | 9 | 7 | 7 | 3 | 10 | 3 | 14 | |
| Privacy of the changing room/ toilet | 3 | 2 | 2 | 2 | 13 | 4 | 1 | 1 | 1 | 1 | 5 | 3 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 4 | 8 | 6 | 7 | 11 | 4 | 6 | 8 | 8 | 3 | 10 | 2 | 9 | |
| Ensure safety of the changing room/ toilet | 4 | 3 | 1 | 2 | 7 | 2 | 3 | 3 | 4 | 3 | 4 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 2 | 12 | 8 | 8 | 14 | 8 | 11 | 11 | 10 | 1 | 3 | 0 | 0 | |
| Availability of the WASH products (eg - bed pans, commodes) | 3 | 2 | 4 | 7 | 19 | 6 | 9 | 12 | 12 | 8 | 16 | 10 | 5 | 6 | 4 | 9 | 1 | 3 | 4 | 14 | 13 | 9 | 8 | 13 | 9 | 12 | 12 | 11 | 3 | 11 | 4 | 20 | |
| Reasonable price of products | 13 | 11 | 7 | 11 | 21 | 7 | 7 | 9 | 11 | 7 | 14 | 8 | 6 | 7 | 3 | 6 | 4 | 9 | 6 | 24 | 19 | 13 | 14 | 24 | 15 | 21 | 18 | 17 | 4 | 13 | 4 | 23 | |
| Availability of water for washing | 7 | 6 | 3 | 4 | 33 | 10 | 14 | 19 | 18 | 13 | 24 | 14 | 7 | 7 | 2 | 4 | 1 | 3 | 2 | 8 | 12 | 8 | 5 | 9 | 4 | 5 | 12 | 11 | 3 | 11 | 1 | 6 | |
| Availability of urinary incontinence products (eg. adult diaper) | 7 | 6 | 1 | 2 | 15 | 5 | 4 | 5 | 8 | 6 | 8 | 5 | 8 | 9 | 2 | 4 | 4 | 8 | 1 | 2 | 9 | 6 | 1 | 1 | 6 | 8 | 4 | 4 | 3 | 10 | 3 | 16 | |
| Improve the accessibility of the incontinence treatments | 87 | 71 | 49 | 74 | 208 | 66 | 58 | 76 | 97 | 69 | 126 | 73 | 62 | 68 | 32 | 62 | 28 | 61 | 13 | 53 | 71 | 48 | 34 | 60 | 36 | 50 | 65 | 62 | 22 | 71 | 11 | 59 | |
| Greater access to medical information on how to manage urinary incontinence | 58 | 47 | 25 | 39 | 137 | 43 | 35 | 46 | 64 | 46 | 64 | 37 | 47 | 51 | 24 | 48 | 21 | 45 | 7 | 27 | 40 | 27 | 23 | 40 | 30 | 41 | 37 | 35 | 19 | 61 | 12 | 65 | |
| Don't need any adaption/ change | 11 | 9 | 6 | 9 | 58 | 18 | 5 | 6 | 13 | 9 | 18 | 10 | 18 | 19 | 8 | 17 | 12 | 27 | 5 | 19 | 42 | 29 | 7 | 13 | 11 | 15 | 14 | 13 | 4 | 11 | 2 | 9 | |