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Sarah Gelbard Date

# Water, Sanitation, Hygiene, and Reproductive Health Access Barriers in Rural Cambodia: Issues in Gender and Disability

By

Sarah Gelbard

Master of Public Health

Hubert Department of Global Health

_____

Roger Rochat, MD

Committee Chair

_____

Dawn L. Comeau, MPH, PhD

Committee Member

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By

Sarah Gelbard

MPH

Emory University

2018

Thesis Committee Chair: Roger Rochat, MD

An abstract of

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Abstract

Water, Sanitation, Hygiene, and Reproductive Health Access Barriers in Rural Cambodia:

Issues in Gender and Disability

**Background**: Approximately 4.7% of Cambodia's population lives with disability.[28] Disabled women are particularly marginalized due to pervasiveness of stigma and gender-based violence (GBV).[8] The interaction between disability and gender in the water, sanitation, and hygiene (WASH) sector has important implications for global public health scholarship and program implementation.

**Purpose**: This study was conducted in June and July of 2017 with support from WaterAid Cambodia in Phnom Penh. It was intended to describe and address the barriers that disabled women face regarding WASH and menstrual hygiene management (MHM) in rural areas of Kampot Province, Kratie Province, and Kampong Thom Province. Further literature review was intended to develop a greater understanding of the social, cultural, and historical forces that shape the experiences of disabled women living in rural areas, specifically regarding access to WASH and a range of health services, including sexual and reproductive health (SRH).

**Methods**: Twenty-five women aged eighteen to seventy participated in the study, which involved fourteen in-depth interviews (IDIs), two focus group discussions (FGDs), and narrative photography.

**Results**: Barriers were identified in three categories: physical/environmental, economic/financial, and social. Physical/environmental barriers included uneven terrain, inaccessible facilities, lack of facilities, lack of privacy, distance to water sources, distance to health clinics, and difficulty carrying water. Economic/financial barriers included inability to afford improved infrastructure, clean water, adequate food stores, and MHM supplies. Social barriers included discrimination, isolation, misinformation about menstruation, exclusion from the workforce and from community gatherings, and physical, psychological, and sexual abuse.

**Conclusion**: Experience of inequalities in access to WASH and healthcare is impacted by a range of factors. Improved access requires a multidisciplinary approach. There is a need for distribution of accessible WASH technologies, for promotion of rights-based WASH education that emphasizes GBV prevention, and for mainstreaming of inclusive income-generating activities (IGAs). There is a need for cross-disciplinary engagement in addressing environmental, financial, and social barriers, and for innovation in building mechanisms through which disabled women living in rural areas of Cambodia may enjoy full agency.

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By

Sarah Gelbard

BA

University of Rochester

2013

MPH

Emory University

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To the women in Kampot Province, Kratie Province, and Kampong Thom Province, Cambodia who participated in the study— you have my immense gratitude. Your voices are so important. I hope that others will listen.

Thank you to my teachers, friends, and family (especially **Professor Rubric**, **WBG**, and **ESG**) for believing that my own voice is a voice worth listening to.

**អរគុណច្រើន (aw-koon ch'ran)** ***Thank you very much.***

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# CHAPTER I: INTRODUCTION

## LANGUAGE AND TERMINOLOGY: AUTHOR'S NOTE

In disability scholarship, there is a popular tendency towards person-first language. According to the Centers for Disease Control, to call a person "disabled" is comparable to calling them "lame."[10] The United Spinal Association has released a disability etiquette guide in which they encourage readers to say "person with a disability" rather than "disabled person," and not to worry about idiomatic expressions like "see you later" within the context of blindness.[48]

For WaterAid Cambodia informational materials, I was asked to use person-first language. It has been adopted by the global masses as respectful, though the term "PWD" (an acronym for "people with disabilities") hardly seems more respectful than "disabled people." In a 1999 study on language and labeling, a researcher found that person-first terminology was *not* received as "significantly more positive" in 98% of comparisons.[42] Altering of structure does not inherently enrich substance, promote understanding, or command respect. It does not excuse Emory University for failing to provide accessible entryways in every building, or a ramp beside the staircase that connects the Rollins School of Public Health to the main campus. Respect should be actionable. Rather than carefully tiptoe around disability with verbose euphemisms, build a modified ramp.

In 1912, the *New Jersey Board of Examiners of the Feeble-Minded (Including Idiots,*

*Imbeciles and Morons), Epileptics, Criminals and Other Defectives* ruled epilepsy a justification for the forced sterilization of a young woman in the United States.[30] Language can be impactful, and movements to end terminology like that which qualified early twentieth century eugenicists are necessary. Purposeful rearranging of the word "disabled," though, assumes that it is negative, that it must be separated from personhood. No one insists on transforming neutral adjectives that precede personhood. The United States National Federation for the Blind makes this compelling claim: *"…Vigorous prose is virtue and... blind people can stand to read one of the adjectives that describes them before arriving at the noun. Blind people we are, and we are content to be described as such."*[22]

I was disabled at birth. My mobility is permanently impaired. It comes with physical discomfort, with financial burdens, with difficulties in navigating the built environment, with a loneliness that follows rejection based upon perceived limitations. It also comes with a sense of learned dedication, creativity and self-advocacy, with valued insights and with the forging of great partnerships. Disability is not pitiable. It is a part of my life, and I do not need euphemistically constructed distance from it.

When I joined WaterAid, I had never envisioned being both a disabled person and a disability researcher. A staff member commented on the luckiness of it. Participants might be more open with me, she thought. I visited women in their homes where I was indeed met with openness. One of them asked me— *"People in your country have disabilities too?"* I met women who were struggling. They didn't tell me that they wanted others to refer to them as "women with disabilities." They told me that they wanted to reach a toilet without injury, that they wanted clean water, that they feared assault, that they could not find work and were without enough money to buy food, that bullying made them sad.

In a recent interview, American actress Gabrielle Union recounted her coming of age as a black teenager in a predominantly white suburb, her desperate longing for the boys in her high school class to notice her. When one of them did, she was so thrilled, she said, that "he could have had a club foot," and it wouldn't have mattered.[36] The audience laughed. *That's us*, I thought, as they laughed— *leftovers for the desperate, comedic punchlines, freaks*. This was the most pervasive identified barrier among study participants— stigma so entrenched that othering is unquestioned, automatic, a joke. Though it originated with good intent, in response to dehumanization— person-first language both calls attention to and attempts to shrink disability. Shrinking disability will not shrink stigma. The presence of confident disabled role models might.

If you are unsure, ask disabled people what they prefer and then honor it. I know a few who appreciate the terminology, a few who don't, and most of them expressly do not care. I have never favored the phrase "person with a disability," though I have used "disabled people" and "people with disabilities" interchangeably. I see the movement towards politically correct wordiness as a distraction from more substantive issues, and so nowhere in this document will you find intentional person-first language.

This past February, I went to a lobbying session at the Georgia State Capitol. A speaker there defined reproductive justice as racial and gender equality, as economic opportunity, as safe access to all health services, and at its core, as the ability to be fully who we are, in every space that we are in. I want to extend that sentiment to disability justice. If we are freaks, then freaks are totally cool. For myself and for the twenty-five women I interviewed in Cambodia, for every disabled friend and stranger— I wish for unfettered freak power and pride. May we all be comfortably and fully who we are, in every space that we are in.

## PURPOSE OF RESEARCH

The aims of this study conducted in collaboration with WaterAid Cambodia were to:

1. Determine the barriers to water, sanitation, hygiene (WASH) and menstrual hygiene management (MHM) access encountered by disabled women living in rural areas.
2. Identify tangible programmatic solutions that could be implemented to improve access, safety, and dignity in a manner that is inclusive, efficient, affordable, and appropriate within the social, cultural, and geographic contexts.
3. Understand ways in which the WASH sector may better serve women with a range of disabilities in rural areas of Cambodia.

Further research was intended to understand the ways in which gender, disability, geography, and class intersect to affect a person's marginalized status. Particular attention was paid to reproductive health (the broader category that surrounds menstrual hygiene management), to the state of reproductive healthcare in Cambodia, and to the differing nature of access for women depending upon various intersectional identity factors.

## CHAPTER II: REVIEW OF THE LITERATURE

Relevant background begins with Cambodia's recent history. Though decades past, the effects of war and genocide persist as living trauma; one of the women who participated in the study was blinded by a landmine explosion as a teenager. Her experience as a disabled woman informs the discussion that follows— on global and local aspects of oppression that accompany gender, disability, geography, and class. Moving from history and sociology to medicine and public health, remaining sections provide a framework for WASH and reproductive health standards in Cambodia. That review of the literature concludes with details of previous interventions in the region reflects a hope that this work might in some small way help to inform future programming.

### CONTEXT: CAMBODIA AFTER GENOCIDE

Through starvation, forced labor, and mass murder, the Khmer Rouge decimated about a quarter of Cambodia's population. From 1975 through 1978— for three years, eight months, and twenty days— servants of Pol Pot targeted intellectuals, government workers, lawyers, doctors, journalists, those who had achieved wealth, those who openly expressed emotion, those who wore glasses, members of various religious groups, teachers, parents, and children. Those who weren't executed were relocated to the remote countryside to serve as slave agrarian farmers. While global actors failed to acknowledge a genocide and to condemn the Democratic

Kampuchea, Pol Pot's army ruthlessly and methodically returned Cambodia to "Year Zero."[11]

"*To keep you is no benefit, to destroy you is no loss*," was the cry that echoed for years as soldiers shackled hundreds of thousands of people and shot them, tortured them with barbaric instruments, beat them to death by hand, or buried them alive in mass graves.[49] At the Killing Fields stands a massive tree upon which executioners thrust infants and toddlers, slamming their heads into its trunk until they died. "*To stop the weeds, you must also pull out their roots*," killers said.[49] The United States bombed neutral Cambodia relentlessly during the Vietnam War, and the Khmer Rouge and other factions placed an extensive network of landmines. In the end, graves were filled with bodies of citizens and of soldiers who had participated in the killing.

Efforts to rebuild coincide with lingering trauma and infrastructural deficits. In a 2009 survey of 1,320 Cambodians, 7.4% had post-traumatic stress disorder (PTSD), 42% had depression, and 53% had an anxiety disorder. Researchers commented on continued "psychiatric morbidity and poor health" following genocide.[3] In 2017, Transparency International ranked Cambodia at 21 on its corruption index.[44] (A score of zero indicates high levels of corruption, and a score of 100 indicates lack of corruption.) Wealth is concentrated among a small echelon and poverty is widespread. Cambodia today has one of the highest poverty rates in the region. Ninety percent of Cambodia's poor live in rural areas.[7]

## INTERSECTIONALITY: GENDER, DISABILITY, GEOGRAPHY, AND CLASS

Historically, female characteristics and physiology have been scrutinized, imagined by

male scholars as inherently inferior. Female anatomy has been called evil, hidden, and sex organs likened to an incomplete, deformed version of the male counterpart.[25] Across epochs and cultures, women have been relegated to a lower status as "the second sex"— destined for pregnancy, mothering, and domestic duties, while unfit for labor and higher professional or intellectual pursuits.[9] Antiquated sociological literature suggests that the mere state of womanhood is a disabling condition.[30]

Worldwide female sex slavery and trafficking, and female genital mutilation in certain regions of Africa, Asia and the Middle East (with practicing communities across the globe) emphasize gender oppression most dramatically.[23] Women are objectified and exposed to dehumanization, pain, and lethal danger in service of male pleasure, with cultural justifications. As economies develop, women are persistently awarded a more modest income than their male peers in similar professional roles.[5] They are more likely to encounter discrimination in the workplace, and incidences of sexual abuse, harassment, or violence.[23] In isolation, a female gender identity lends itself towards some form of marginalized status.

Disability oppression is perhaps even more fundamental than gender oppression; scientists suggest that negative responses to disability were an earliest survival mechanism, meant to promote avoidance of disease or contagion. Fear responses are innate— broad, automatic, and without intellect. Fear is also learned, and contemporary social constructs reinforce separation of those who are disabled from those who are not. Research shows non-disabled company reacting with an "increased galvanic skin response" in the presence of people who are visibly disabled.[31] *"When confronted with physically disabled individuals who pose no realistic health risk whatsoever, people prefer to avoid them… like the plague."*[1] Individuals perceived as different from those in a larger group may be treated poorly and in some settings,

they may be so encumbered by stigma that risk associated with disclosing disability to seek accommodation or healthcare seems too great.[59]

The World Health Organization (WHO) has found that there are approximately one billion people living with disabilities worldwide, and that 80% of them are in low and middle income communities.[59] Conservative estimates maintain that 4.7% of the Cambodian population is disabled, though WHO suggests that in low and middle-income countries, disability prevalence is closer to 10 – 15%.[16, 59] There could be over two million disabled Cambodians; national census data may reflect failure to capture members of the population.[15, 59] Considering the aftermath of genocide, presence of unexploded ordinance, and frequency of traffic accidents, the United Nations estimates that as the lowest ranking country on the Development Index for Southeast Asia, Cambodia has one of the highest disability rates in the world.[12]

In some spaces, local culture envisions disability as a product of poor karma, of bad behavior in a previous life.[15] Those with severe mobility, vision, and hearing impairments are most likely to be ostracized. If they are able to find employment, it is commonly unskilled. It is a widespread misconception that disability signifies lack of ability, and that disabled men and women are unable to work. In areas of rural Cambodia, challenges related to gender and disability are exacerbated by class divisions and relative geographic isolation. Gender and sexual identity, age, socio-economic background, ethnicity, residence in rural or urban settings, and nature and severity of disability amplify disadvantage in different ways. Hierarchical divisions are owed chiefly to gender (where women earn a lower status than men), age (where older individuals are better respected than younger), and wealth (where those without adequate financial resources are more vulnerable). Cambodian women earn about 30% less than men. Literacy rates are 40% lower for women and school enrollment is 50% lower for girls.[15]

Poverty rates have decreased from 53.2% in 2004 to 20.5% in 2011.[7] There is no evidence, though, to suggest that intersectional inequalities have decreased, and as the economy improves marginalized groups may be increasingly left behind.[15] International human rights agencies acknowledge that disabled women and girls experience higher rates of abuse and exploitation, and that they are up to three times more likely than non-disabled people to be physically or sexually assaulted.[15] 2009 research from the Pacific Island found that disabled women experienced violence at higher rates than non-disabled peers.[8] A 2004 study of women with disabilities conducted in Orissa, India, showed that 100% of participants had experienced violence in their homes.[8] This violence has adverse effects on community participation, physical and mental health, and sexual and reproductive health (SRH).[15] In a mixed methods gender-based violence (GBV) study in Cambodia, 52.5% of disabled women reported emotional violence, 25.4% reported physical violence, and 5.7% reported sexual violence perpetrated by family members.[8] In this same study, a disabled Cambodian woman shed light on healthcare access and spousal abuse:

*"I have never gone to the hospital even when I've been sick. When my wheelchair broke, I could have used my cart to help me travel to the central hospital when I was pregnant. I asked my husband to take me to the hospital but he refused and tied up my cart so that I couldn't go."*[8]

Disabled women experienced higher rates of familial violence, and within their family networks they were more likely to be insulted, manipulated, intimidated, or exposed to physical and sexual abuse. One informant described sexual assault committed by her grandfather:

*"One day when I was 13 my parents went out and my grandfather was responsible for looking after me. He turned on the TV very loud so that the neighbors could not hear. He took the opportunity to rape me… The second time my grandfather tried to do this I was 18 so I could help myself by kicking him… I told my parents… but my grandfather did not admit it… [He] said, 'You are blind and so you won't have a chance at having a husband.'"*[8]

Family and community members may consider disability sound justification for violence and neglect. Another informant linked neglect directly to her disability:

*"My mother doesn't care about me the way she does about my brother. I have to do everything myself including cooking, cleaning, washing and ironing while my mother does everything for my brother. One day I said to her in tears, 'Mum, I am angry that I have to do everything by myself and you do everything for my brother.' She thought about that and started to take care of me for a while, but then it went back to the same thing. I think she does that because she thinks she can depend on him when she gets old, but not on me because I have a disability."*[8]

Documented incidences of GBV suggest that women who are isolated from easily accessible WASH resources are at a greater risk for victimization.[19, 35, 43] In a 2015 study on gender, violence, and WASH, researchers categorized findings into four groups: sexual violence (including rape, sexual assault, and molestation), psychological violence (including harassment and bullying), physical violence (including "beating or fighting leading to injury or death"), and sociocultural violence (including ostracism or discrimination). They found a range of violent incidences in each category, spanning multiple countries— from sexual assault occurring at latrines or during open defecation, to men hiding in the bushes so that they might view women as they squatted to urinate, to marital tensions and bullying of women related to inability to collect enough water for the family.[40] In areas where enclosed bathing spaces are less common and where bathroom facilities do not come with doors or locks, women and girls have reported harassment and rape.[40] Disabled women are especially at risk, depending on physical difficulties associated with impairments.[50] In a study of sexual and reproductive health of disabled women, a 35-year-old woman with a vision impairment explained:

*"I'm scared because I don't know who has good intentions and who has bad... because I stay alone and I can't see… I've heard that disabled people got raped… and so I get scared and worried for myself to have such things happen to me..."*[15]

Researchers theorized that perpetrators consider disabled women less physically able to retaliate or to run away.[15] In Cambodia, disabled women who had never married or had children were

exposed to the highest rates of violence, general poverty, landlessness, and discrimination. A 58-year-old woman with vision and mobility impairments offers some context:

*"I married at an old age. If I married when I was young, I may have children... but because I am looked down on, that's why I got married at an old age… while I stay alone, I was looked down on and didn't have a house... the neighbors used to speak ill about me… as I am weak and stay alone at night... they often violated me… stole my earnings… I didn't know where to go as I am poor and struggle to live alone... and the one who stole my chickens… they came to hit me..."*[15]

Disabled women may find requesting assistance difficult within that context of widespread abuse, and they may remain at home without seeking care when they are ill. When they cannot ask for help, even when cost of care is low or subsidized, transportation alone may be prohibitively expensive or unavailable in rural areas. Some healthcare providers have limited understanding of disability. Some women receive inaccurate information from healthcare providers. Family members may prefer to purchase medications themselves and bring them home to the disabled women living with them, rather than attempt to arrange for transportation to a healthcare facility.[15] From the sweeping elements that inform gender and disability oppression to the specifics of rural poverty and social hierarchies in Cambodia, disadvantages are intricate and variable. Pictures of progress and of national health and WASH standards may easily leave out some of the most marginalized members of the population.

## WATER, SANITATION, AND HYGIENE (WASH)

780 million people around the world are without an improved water source, and 2.5 billion people do not have access to improved sanitation.[58] About four million people in

Cambodia lack access to improved water supply, and about nine million Cambodians do not have sufficient access to improved sanitation.[57] In WASH programming, the specific needs of disabled women may be overlooked due to poor communication between key actors within WASH and disability institutions, and a lack of specialized knowledge among WASH practitioners.

While global WASH is most often associated with urination and defecation, it is much broader in scope and it encompasses essential activities of daily living like bathing, cleaning, cooking, carrying water, and menstrual hygiene management (MHM).[14, 21, 27] Adequate water and sanitation resources are of particular importance to women during menstruation. Approximately 25% of the global population includes women and girls of menstruating age.[20] Needs related to MHM are sometimes more complicated for disabled woman and girls, who may lack access to services or supplies due to increased poverty, lack of transportation, mobility, hearing, or vision impairments, and social isolation.[28, 47] Globally, lack of safe water access has been linked to heightened social and psychological distress, negative health outcomes, and higher incidence of reproductive tract infections related to poor MHM.[29, 41] In Southeast Asia, MHM is complicated by myths and misinformation, and for disabled women, by additional physical, social, and economic challenges.

Women with limited mobility in areas with restricted WASH access must crawl across dirty ground outside, or sit on dirty latrines to change sanitary pads or cloths, and there is a false belief that women with disabilities do not menstruate at all.[20, 54] Good MHM is a function of WASH access, and programming efforts have focused increasingly on providing resources for girls in schools.[2, 26, 39] The general lack of evidence relevant to disability and MHM in low and middle income communities has resulted in programming that excludes disabled women and

girls.[20] Latrine pits that require standing and walking long distances are inaccessible for some disabled women, and efforts to relieve themselves or to bathe could mean increased risk of injury, indignity, and violence.

Absence of essential elements for the enhancement of privacy and security like doors and locks for WASH facilities is dangerous, given incidences of sexual harassment and assault. Absence of convenient disposal methods for MHM waste materials is cumbersome, contributing to unhygienic practices, unclean facilities, and increased stigma when women and girls must wear bloodstained clothing. Improper disposal of MHM materials has been implicated in environmental contamination, and in poorer community sanitation systems.[24]

The lack of education and diminished access to clean, safe MHM materials can have horrible consequences. In a remote village in Bangladesh, a girl named Shahana used a rag that she had washed and set out to dry underneath a tree. An insect had burrowed into the rag as it dried, and when Shahana reused it, the insect crawled into her vagina and entered her body, causing stomach pain. She died the following week. She was eleven years old.[4]

Broadly considered, MHM should apply not only to monthly menstruation but to extended bleeding associated with other events including childbirth, miscarriage, and abortion. Disability further complicates hygienic management and access to necessary healthcare across the life cycle. MHM and more general reproductive health topics should be thoroughly addressed within WASH and disability frameworks.

## REPRODUCTIVE HEALTH

In 1997, the Cambodian government legalized abortion to address high maternal

mortality rates associated with unsafe abortion, and to improve societal welfare. Abortion in Cambodia is now legal during the first twelve weeks of pregnancy.[38] Despite progress that followed legalization of abortion, many Cambodians still lack access to in-patient services and accurate health information.[37] Between 2000 and 2005, 28% of births in Cambodia were reported as unplanned.[46] Fifty-six percent of married women reported using contraception, most commonly the pill.[46] Male attitudes, and women's perceptions of their husband's attitudes, are implicated as significant factors in decisions about family planning.

For disabled women living in rural areas, limited social networks and decreased mobility may restrict autonomy in such a way that their access differs greatly from the general population. Disabled women have unequal access to healthcare, information, preventative methods, and overall "greater unmet health needs, particularly surrounding sexual and reproductive health."[15] There is a lack of appropriate information and programming related to disability in national SRH strategy. The Cambodian Demographic and Health Survey provides the most current data on reproductive health trends, though as of 2015 data is not disaggregated by disability or gender.[15]

In a 2015 study of 33 adult Cambodian women with mobility, hearing, and vision impairments in rural areas, marriage rates among disabled informants (45%) fell below the national average of 68%. In a 2006 study of disability in Prey Veng, Province, Cambodia, 13 of 39 disabled women (33%) had reported difficulties in marrying a person that they would choose.[12] Only 11% of disabled men reported such difficulty.[12] National fertility rates were lower for disabled women at 1.26, compared to the national average of 2.7 children per woman.[15] Disabled women expressed fears that they were unattractive to men, and their families worried that they might be abused or abandoned by male partners. Disabled men faced fewer barriers—they could approach potential spouses, while women, according to custom, were meant to wait

for men to approach them.

Disabled women in marriages were able to access affordable contraceptive resources much like their non-disabled peers. They were especially supported in seeking antenatal and postnatal care, reportedly for assurance that their children would be born without disability. Those living in poverty were least likely to experience childbirth at a health center. Cost of travel was a significant barrier, and informants worried that they could not ask others for assistance in seeking healthcare or arranging transportation.[15] Women who had had abortions reported multiple abortions, and they experienced post-abortion complications that required costly visits to healthcare professionals. This suggests that counseling and resources are not routinely provided at health centers. Access to safe abortion outside of Phnom Penh is more limited. A 42-year-old woman with a mobility impairment shared her experience with abortion:

*"I had three abortions after my four children were born... we are poor and lacked things... I am a disabled person... I am afraid I can't feed my kids and if they are sick... it is so difficult and I pity my children [so I had an abortion]."*[15]

Her testimony reveals a lack of reproductive health education on contraceptive use following abortion. It also supports the faulty narrative in which disabled women are somehow lesser able to care for their families.

Another young woman spoke of coercion by a male partner who abandoned her, leaving her to support herself and a child on her own:

*"I said [to my partner] that I want an abortion... but he said 'don't do that to the baby... it is bad.' And so I did not. It was an accident... I didn't want [a baby]."*[15]

There is a lack of agency here, characteristic of androcentric society. That victimization can only be amplified by disability in a hierarchy that devalues disabled people.

Women who are older, who have completed higher levels of education, who earn greater income and who reside in urban areas are more likely than their peers to use modern methods of contraception. Conversely, women who are poor, who live in rural areas, and who have little or no formal education are least likely to have an awareness of or access to birth control methods. Many disabled women fall into the latter category. Disabled men and women could name contraceptive technologies such as the pill, implants, intrauterine devices, condoms, and tubal ligation. They did not express extensive knowledge about how these types of contraception work to prevent pregnancy. One informant said:

*"Condoms spread AIDS and they are not so good and affect the ovaries."*[15]

Lack of education is highly problematic in rural areas. Disabled men and women living in rural areas (and their non-disabled peers) have reported learning about SRH from three sources: social networks, informational meetings organized by non-governmental organizations (NGOs), or visiting healthcare professionals. Most commonly, women report learning about reproductive health through networks of friends or family members. Young men and women may learn very little or nothing at all from their parents or in the school setting. Information may not be available in specialized formats for learners with vision or hearing impairments. Disabled people have expressed a belief that they do not need knowledge of sexual health because disability makes them less likely to pursue marriage, children, and families.[15] A 35-year-old single woman with a mobility impairment explained:

*"I'm a disabled person... no one sees [is attracted to] me... they think that I can't do much work... so nobody wants me and my appearance looks bad... they only want to marry pretty girls who are not disabled…"*[15]

This sense of unworthiness fosters diminished initiative in seeking SRH education. The stigma

attached to disability is overwhelming, and it manifests as tangible barriers to agency, community participation, and safe, dignified healthcare.

## OVERVIEW OF INTERVENTIONS

*"In total, women spend around six to seven years of their lives menstruating. A key priority for women and girls is to have the necessary knowledge, facilities and cultural environment to manage menstruation hygienically, and with dignity. Yet the importance of menstrual hygiene management is mostly neglected by development practitioners within the WASH sector…"*[27]

Increased focus on MHM in the WASH context is relatively recent. Emerging programmatic instructions emphasize provision of private, hygienic disposal methods for sanitary pads, availability and affordability of sanitary pads, use of reusable sanitary pads, and inclusion of MHM education into curricula. Research emphasizes the gender-specific impact of maintaining clean and private WASH facilities.[53] Practitioners have developed guidelines for promoting MHM resources in schools, addressing reproductive health, access to facilities, hygienic practices, and sexual violence.[34]

Recommendations focus on providing education that targets not only women and girls but men and boys. Men's attitudes significantly influence women's access to care.[47] To address menstrual dysfunction and morbidity, researchers have suggested interventions aimed at training medical professionals in resource-limited settings to properly diagnose and treat associated infections, educating women about differentiating between normal menstrual function or a potentially dangerous condition, and ensuring that both women and men understand various aspects of menstrual and sexual health.[17]

Broader WASH interventions have adopted a community-led total sanitation (CLTS) approach, in which practitioners focus on behavior change initiatives to eliminate open defecation. Southeast Asia is at the forefront of these efforts. Intervention science recognizes that mere infrastructural changes, such as the installation of more modern toilets, will be ineffective without educational, behavioral components and mechanisms to promote community ownership of improved sanitation. WaterAid Bangladesh recently orchestrated implementation of specialized female toilet facilities in public spaces. Toilets were one to two feet wider than traditional male toilets, constructed alongside a raised platform with facilities for washing and hang drying menstrual rags. These facilities encouraged discussion among local men and women, and led to modification of hygiene education and school sanitation programs.[18] In Hasanpura, Faisalabad (Pakistan), WASH sector actors were able to increase toilet use from 50% to 100%, eliminating open defecation by integrating a gender-based awareness campaign, an interest-free loaning scheme, and infrastructural improvements developed with community leaders.[4] Other CLTS interventions have been documented in Nepal, India, and Cambodia.[33]

There remains a dearth of knowledge regarding how best to address combined issues in gender, MHM, WASH, and disability. WASH interventions have focused upon improving access for disabled people mostly in terms of adaptive technologies. Recommendations have included a range of innovative, low-cost modifications to WASH facilities, along with assistive mobility devices for disabled people to use.[48, 51, 52] It is understood that disabled women may encounter numerous additional barriers to access that cannot be solved with adaptive technologies alone, but those issues remain poorly addressed and disability is overlooked, or there is lack of meaningful collaboration across sectors.

# CHAPTER III: METHODOLOGY

## DESIGN

The study took place in Kratie Province, Kampot Province, and Kampong Thom Province, Cambodia, in June and July of 2017. The project was approved through WaterAid, the Cambodian Ministry of Rural Development, and Emory University. It was qualitative in nature, with three key components: in-depth interviews, focus group discussions, and photographic narrative. Qualitative methods are exploratory; they emphasize the emic perspective, encouraging participants to serve as experts on their own lived experiences. They give us a depth of insight that quantitative methods cannot capture.[32] That depth encapsulates complexity and nuance, allowing for new information to emerge without limiting the scope of responses.

The intersection of WASH, disability, and reproductive health is a very specific and neglected topic area. Qualitative methods provided an opportunity here to address knowledge gaps and to amplify the voices of people who are too often ignored. Each of the three qualitative methods in the study design allowed for a different aspect of data capture:

In-depth interviews (IDIs) may permit greater privacy and individual focus, with direct questioning that probes a person's unique experience. In this study, IDIs gave way to the most developed rapport and to the most detailed responses, to the greatest funds of new knowledge.

Focus group discussions (FGDs), while less private, may foster more candidness, in that

questioning is directed towards a group— they require participants to reflect upon communal experience rather than personal experience. In this study, some perspective may have been lost during FGDs, with certain participants speaking more than others, with quieter voices lost.

Narrative photography is a participatory action-based research method, encouraging participants to reflect on their experiences in a visual, creative way. In research, photography allows participants to tell a story about their lives.[56] In this study, photographs were taken by the researcher of locations or objects that the participant pointed out as relevant. Sometimes, pictures included the participants themselves, so that if they wished, they could be shown performing a WASH-related activity. The photographing inspired further conversation about the importance of what had been captured and related challenges.

## PARTICIPANTS AND RECRUITMENT

The researcher and WaterAid support staff networked with community leaders at an informational meeting of the Cambodian Rural Sanitation and Hygiene Improvement Program (CRSHIP) in Kampong Chhnang Province. Participating community leaders identified disabled women in their communities. Study sites were chosen after consultation with WASH sector collaborators within CRSHIP, and with local disability advocacy organization representatives who convened in Phnom Penh. Three sites were selected in provinces with the highest reported concentrations of disabled women: Kampot Province, Kratie Province, and Kampong Thom Province. Participants were approached by community leaders who informed them of their

eligibility to take part in a study of women with disabilities for WaterAid Cambodia. Those who expressed interest in participating were scheduled for interviews.

## Study Sites

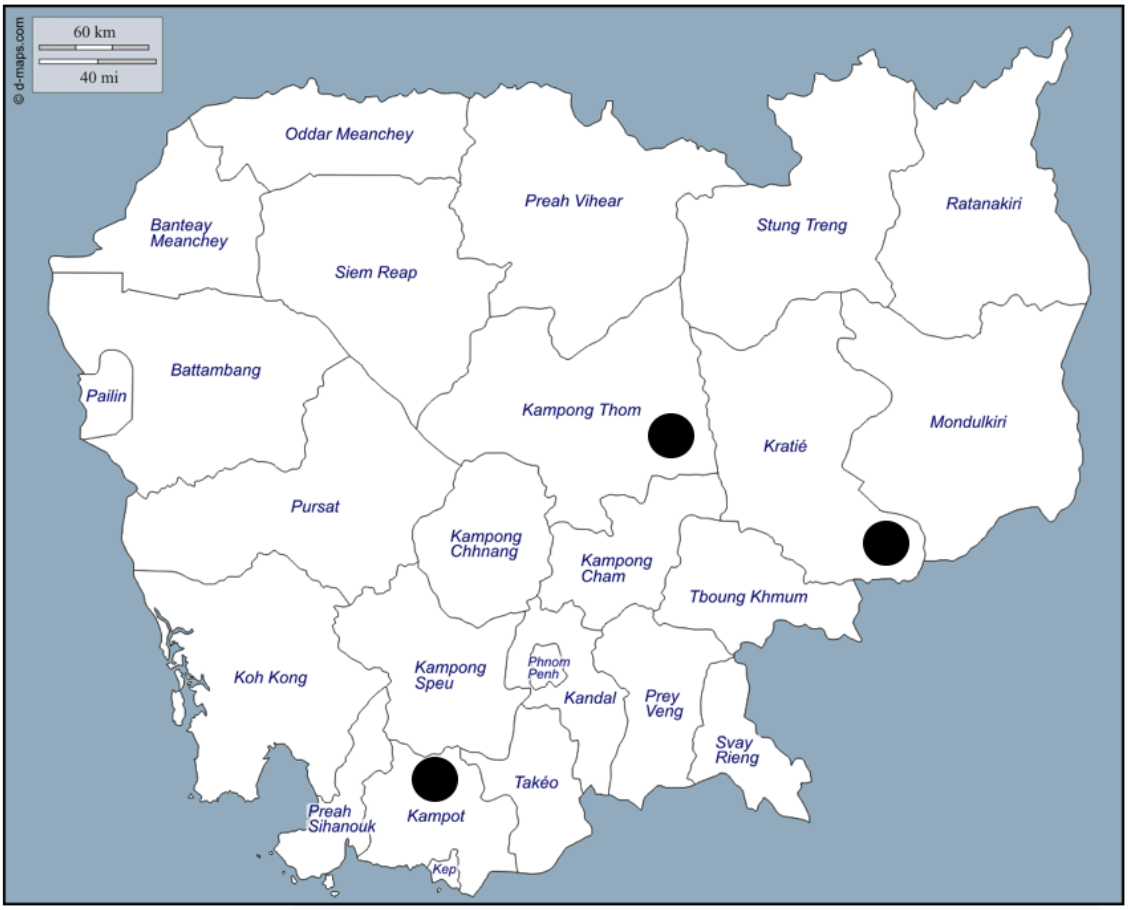



Figure 1

Twenty-five female study participants between the ages of eighteen and seventy were purposively sampled to capture a range of experiences relevant to gender, disability, and WASH in rural Cambodia. They were invited to participate based on presence of mild to severe mobility impairments such as (though not limited to) difficulty with walking or other activities of daily

living, impaired fine motor skills, impaired limb function, hearing impairments, and vision impairments.

**Disability Representation Among Participants (n = 25)**

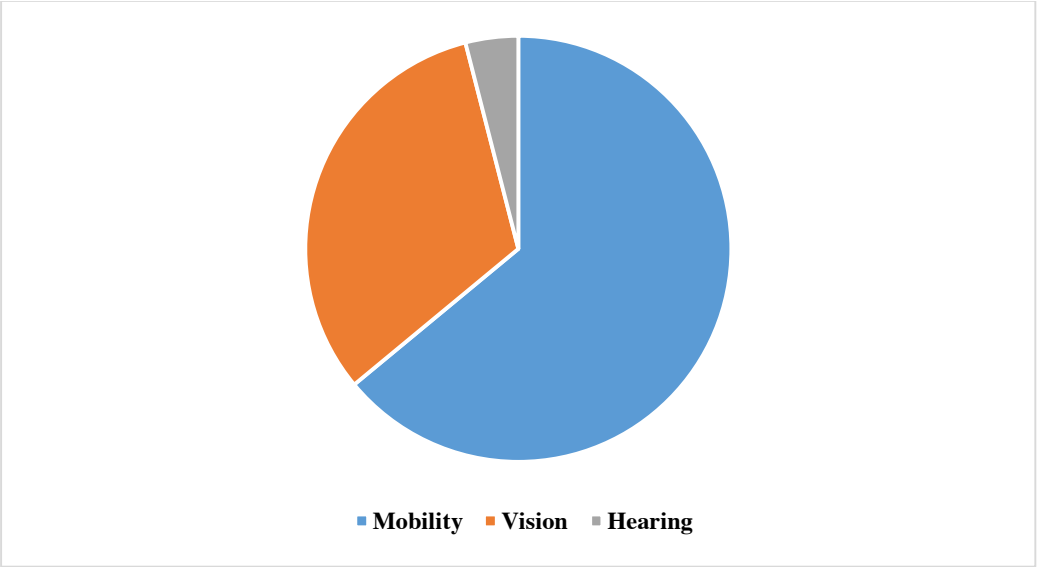



Figure 2

The average participant age was 35, with a median age of 32.5. Most of the participants (64%) had a mobility impairment of some sort, ranging from mild to severe. Eight of them had vision impairments, ranging from impaired vision in one eye to total blindness. One focus group discussion participant reported a hearing impairment. No participants reported severe or total deafness.

Women with intellectual disabilities were not included in this study. Consideration of intellectual disability exceeded the given scope of resources, timeframe, and areas of focus. Disability and gender experience is diverse; the sample is not representative of all disabled women.

**Age Distribution Among Participants (n = 25)**

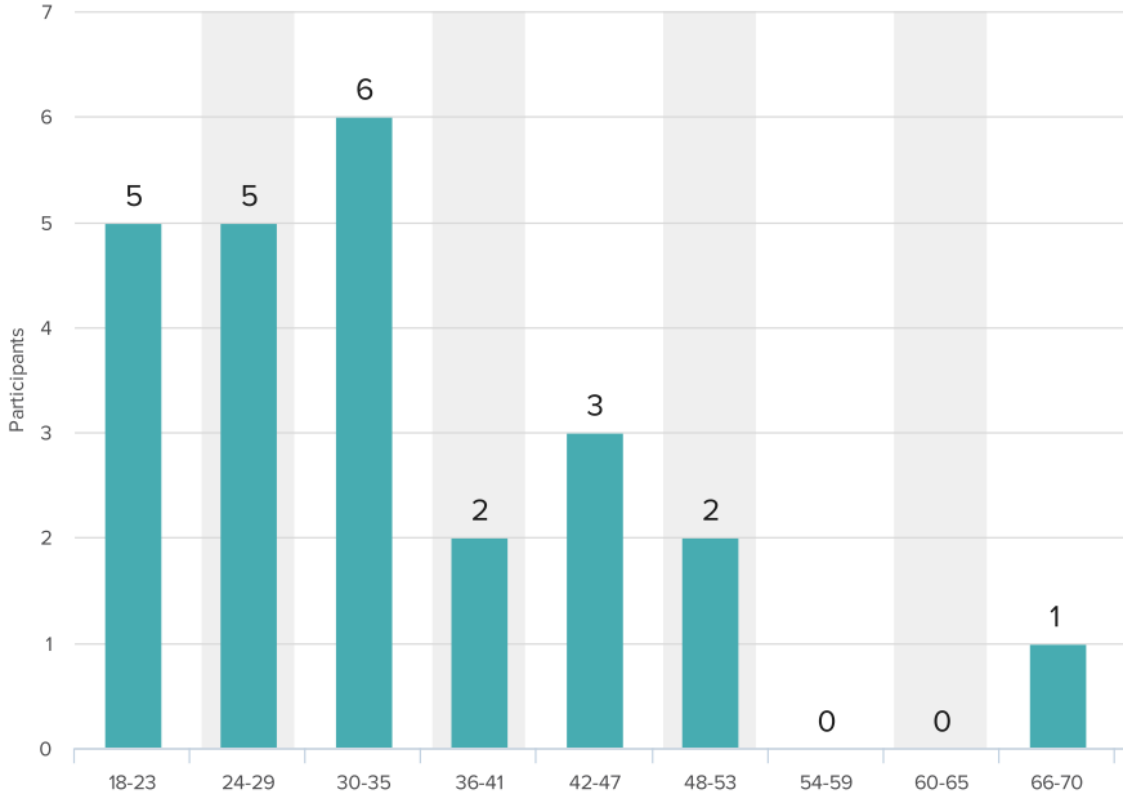



Figure 2

## MEASURES

Interview tools were informed by disability research guidelines put forth by WHO and Handicap International. Guides took into account previous WASH, MHM, and disability research. Data was collected through qualitative methods including in-depth interviews (IDIs), focus group discussions (FGDs), and participatory action-based research methods (narrative photography). Narrative photography was used only in certain IDIs where participants agreed to

be photographed, sometimes while completing a task related to WASH, such as gathering water from a nearby pump. Some participants expressed wishes to be photographed, while others allowed for photographs to be taken of their WASH facilities while they described challenges.

FGDs and IDIs were written in English and translated into the local language (Khmer). A Cambodian research assistant conducted all of the interviews in Khmer. Prior to conducting interviews, she received training from the researcher and study tools were discussed. The research assistant had substantive professional background in interviewing and MHM research. All FGDs and IDIs were documented with a digital recorder, with permission from participants. Interviews and notes were discussed at the end of each day during which data collection had occurred. Recordings were transcribed by the research assistant and translated into English. The researcher and research assistant worked together to ensure clear and accurate data collection.

## DATA COLLECTION

The researcher and research assistant conducted all interviews. All interviews were recorded. Prior to each interview, the translator read informed consent documents aloud to participants. Participants were given an additional copy of informed consent documentation. After reading of consent forms, participants provided handwritten signatures. If they were unable to write, a witness would sign for them, with verbal consent from the participant. Participants were informed that all aspects of the interview, including any questioning and collection of narrative photography data, were entirely voluntary. They were informed that they could withdraw their participation at any point. Time was given for questioning. To preserve privacy,

numeric identifiers were used for each recording and interview transcript instead of full names.

An interview guide was used for all IDIs and FGDs. They were approximately 35 to 50 minutes in length. For each IDI, the research assistant translated responses following every response, so that the researcher could pose follow-up questions and seek elaboration or clarification when necessary. During FGDs, participant responses were not translated for the researcher, so as not to interrupt conversation flow. The researcher and research assistant discussed sessions in detail after their conclusion.

The research assistant transcribed audio recordings in Khmer, and translated them from Khmer to English within two weeks of data collection. The researcher uploaded all transcripts into MaxQDA 11.2.5 for coding and analysis. Information was appropriately de-identified in transcripts, and a numeric identifier linked recordings to transcripts.

## DATA ANALYSIS

Transcripts were reviewed when data collection was complete. Following thorough discussion of transcripts with the research assistant and a colleague at WaterAid Cambodia, free coding was used to address themes that emerged from the data. Relevant codes were identified and defined. A codebook was written, and passages were coded with reference to the codebook. The researcher and colleague at WaterAid Cambodia assessed categories and reviewed data to ensure agreement and inter-coder reliability.

# CHAPTER IV: RESULTS

For the most part, findings could be organized into three broad and distinct categories. These categories reflect a focus on barriers that disabled women encountered regarding WASH and MHM access. They encountered (1) environmental/physical barriers, (2) economic/financial barriers, and (3) social barriers. Other qualitative findings showed the absence of barriers, or positive deviance, in which a select few participants seemed to manage well where other participants struggled. The results provide a meaningful capture of relevant challenges, with insights about how some of those challenges might be addressed.

## AGGREGATE DATA

### *Environmental/Physical Barriers*

Several participants discussed distance from a water source as a recurring barrier to access to water for sanitation and hygiene purposes. They spoke about difficulty walking, about obstacles in walking long distances while carrying heavy objects. Some struggled to transport water from the source to their homes.

*"I feel pain when I carry water for a bath. The water is far from home."* (IDI)

It was common for participants to mention experiencing pain and physical discomfort associated with tasks related to WASH.

*"[It is] hard to carry water for washing clothes and bathing because I can fall on the ground."* (IDI)

There was significant mention of difficulty with uneven terrain and with stairs leading to participants' homes, especially following periods of heavy rain. Participants spoke of difficulty with squat toilets and latrines. Many women with mobility impairments noted pain in their lower extremities while bathing or using the toilet. A fifth of study participants did not have access to a toilet, and relied on open defecation. Those who used basic outdoor latrine pit facilities and open defecation areas expressed fears about exposure to poisonous plants, animals, and insects, especially snakes and scorpions. One participant with total blindness shared that when she wiped herself with leaves after defecation, she could be bitten by snakes and scorpions.

*"I defecate at night… I can't see and I hit the wood or am cut by the thorn."* (IDI)

Another said: *"I feel scared of being bitten by a snake or scorpion."* (IDI)

Women noted inadequacy of water sources, commenting on contamination by insects and bacteria. They expressed wishes for water filters or for funding to purchase clean water. The consequences of contaminated water were widely understood as undesirable and dangerous to personal health, particularly during menstruation.

*"When I have menstruation, I need warm water for a bath. But I don't have [it] and I access the pond, which is not really clean."* (IDI)

Lack of privacy and security was a common cause for concern. Many participants expressed that they were unhappy with their toilet facilities because they did not have a door. (Those satisfied with bathroom facilities noted that they had access to a door that could be

locked.) Women who had to bathe in open areas spoke of shyness, embarrassment, and anxiety surrounding the potential for public exposure. Women with vision impairments shared concerns about being unable to see who might be watching them while they were bathing or relieving themselves. They were fearful of potential predators. Two participants spoke of sexual assault incidences within their communities, and of avoidance of bathing for fear of attack.

*"I am afraid of being raped. There was a rape case that happened last year."* (IDI)

Those with more severe impairments, particularly vision impairments, expressed the greatest anxieties with regards to neglect, isolation, and exposure to gender-based violence.

### *Economic/Financial Barriers*

Several study participants discussed economic hardship. Some were able to connect that hardship directly to discrimination in the workplace and lack of employment opportunities for disabled workers.

*"Women with disabilities don't work, so they are not able to return the cash if they borrow money from other people."* (FGD)

Without opportunity to generate income they cannot access loans, and they may feel caught in a continuous cycle.

*"…When [disabled people] do not have enough food to eat and they can't work, they are helpless."* (FGD)

Some respondents did not have enough money for basic necessities like food, water, and materials for MHM.

*"I do not have enough money to buy hygiene materials."* (IDI)

*"I have no soap and I smell bad. I have no cash to buy [it]."* (IDI)

*"I don't have enough water to use because I have no cash."* (IDI)

Women with greater financial resources and familial support were able enlist friends or family members, or to hire others in the community to help them carry water. Those without were forced to carry water themselves, regardless of severity of impairment. They were more vulnerable to injury, pain, and exacerbation of disability. One participant with total blindness and no means for purchasing sanitary pads struggled to remove bloodstains from clothing. She expressed worry about how she might be perceived in public, as a blind woman with bloodstains on her clothing. The financial insecurity that underpins an inability to afford sanitary pads has grave social consequences, and it may encourage a false belief that disabled women cannot properly care for themselves.

### *Social Barriers*

Participants spoke about menstruation in a way that suggested presence of misinformation in rural communities. They recalled that at the time of their first menstruation, they had not known to expect it. Some of them remembered being fearful, until a trusted adult told them that what they were experiencing was normal. There was repeated mention of the belief that use of sanitary pads would impede menstruation and the natural flow of menstrual blood. One participant shared that a healthcare provider had advised her not to use sanitary pads, because they might block blood flow.

*"I never use pads because it can stop my menstruation."* (IDI)

These participants— along with those who could not afford sanitary pads— preferred to wear multiple layers of clothing during menstruation. When the blood had soaked through, they would change their clothing. (If they had a severe vision impairment, they struggled to discern when bloodstains were noticeable.)

Participants spoke of pervasive discrimination, of non-disabled community members expressing negative attitudes about disability. They believed that disabled women could not make money, that they could not contribute adequately to the community or properly care for themselves, that they could not work as well as their able-bodied peers. That negative stereotyping allowed community members and potential employers to exclude disabled women.

*"The factory does not accept [disabled workers*]." (IDI)

*"People discriminate at the [community] meetings, and women with disabilities are not invited."* (IDI)

Many women were unable to find work, making them more dependent on others and reinforcing the harmful trope that disabled women cannot contribute or care for themselves. They were not invited to organized gatherings, leaving them excluded from community education and allowing for others to speculate about their lack of involvement. This exclusion furthers isolation, which in turn makes way for abuse, neglect, and violence. One young woman cried as she spoke of bullies in her community:

*Most people in the community look down on me by saying that I don't walk correctly and calling me 'paralyzed woman'. I feel sad… I don't want them to call me that... I want them to treat me as normal."* (IDI)

Another informant said simply: *"I am afraid of other people's abuse."* (IDI)

Physical, sexual, and psychological abuse may penetrate intimate family structures, and women will find themselves without community support and without relief from abuse at home.

*"[It is] difficult to live when my family does not care. They don't love me. No member of my family wants to live with me."* (IDI)

For participants without a supportive family network, access to WASH and healthcare resources becomes especially precarious. Considering the broader scope of MHM, participants were questioned about how they might manage extended bleeding after childbirth, miscarriage, and abortion. Many of the women said that they did not know how extended bleeding could be managed. One woman said that her friend had had an abortion at a health center, and that she had appeared well afterwards. Another woman spoke of related mortality:

*"When women are bleeding, they go to the health center, and some women are bleeding to death."* (IDI)

Given the relative isolation and discrimination that disabled women may experience, any complications that arise related to menstrual hygiene and extended bleeding take on even greater significance. Exclusion or abandonment makes it very difficult for women to seek assistance, and they may be forced to manage complications on their own.

### *Positive Deviance*

Some participants had found coping strategies, or they noted few or no difficulties with access to WASH. They had impairments that were more minor in nature, such as loss of vision in only one eye rather than total blindness. All participants who reported active participation in their communities and good access to WASH facilities had family members who shared in financial responsibilities and who provided social support. A few participants had their entire

extended families offer to keep them company during interviews. One of those women, with several of her sisters present, said:

*"I can go to work at the health center and do housework. I feel proud of doing many things."* (IDI)

Others connected improved WASH access to modifications built uniquely for them.

*"Before I didn't have a toilet or bathroom. It was difficult for [urination] and bathing. It is more convenient after my father built a toilet."* (IDI)

Such findings point to improved infrastructure underpinning equal access to WASH. Women who used adapted facilities could manage hygiene needs in safer and more efficient ways. Women with more minor impairments also faced lesser social discrimination, had greater access to employment, better income, and improved access to WASH overall.

Another participant spoke of improved social circumstances:

*"People discriminated more in the past, and it is better now because they understand."* (IDI)

She was in her late forties and without children, living with her family after a divorce. She had a mobility impairment exacerbated by the effects of aging and the strain of performing heavy labor. She was able to ride her bike and carry water, but she struggled to use her family's water pump, and she felt pain when she carried water. She explained that as she spent more time with her family, they developed a better understanding of her disability and came to care for her more.

## CASE STUDIES

While it is useful to examine themes in a disaggregated dataset, the narratives are most compelling when we consider them individually. The following two case studies could not offer more disparate pictures of gender, disability, and WASH issues in rural Cambodia. *Participant 1*

has every disadvantage: total blindness as a result of traumatic injury (severe disability), chronic illness and poor general health, lack of financial resources, lack of familial support, exposure to family violence and community abuse, and lack of accessible WASH infrastructure. *Participant 2* has every advantage: comparatively mild disability, good health and independence, greater economic privilege, familial support, reliable income, and secure, adapted WASH infrastructure with access to a toilet and an enclosed bath. Their stories show how widely these factors may vary for different women, and how greatly each factor might alter a person's experience.

## *Participant 1*

A woman in her early thirties sits beside her father across a long, raised slab in the corner of a darkened room. She appears years older than her given age. Outside there is a cow with a protruding, bony frame. The woman coughs continuously, sometimes halting conversation to allow for intermittent coughing fits. Her father shares her cough. Her sister coughs too, she says, and she is "very skinny," but still working to make income for the family. "*I can't see for more than ten years*," she says. She was eighteen or nineteen when it happened. While clearing grass near the Thai border, she was blinded by a landmine explosion.

Now, each day while her sister goes to work in the field, she carries water from the well, cooks, washes dishes, cuts wood, and cares for her father and her sister's two children— one boy and one girl. She feels pain in her arms and shoulders when she carries water. She says that walking and carrying water is difficult without sight. It makes her feel tired. She worries about

contamination of the water.

She bathes in an open area, and she wonders about who might see her. She asks her sister to accompany her when she bathes at night. She is afraid of being raped. She talks about a recent rape case. The rapist ran away and was never arrested.

She does not have access to a toilet. She fears exposure to poisonous insects while defecating. Her brother has found a scorpion on her after open defecation, and her sister found a centipede inside of her shirt. Without her siblings there to warn her, she has been bitten by snakes and scorpions.

*"When I defecate at the fence, I pick up the leaves to clean and the bees on the leaves bite me."*

She was once visited by members of an organization who offered to build her a toilet for sixty-five dollars. She doesn't remember what the organization was called, but she didn't have the money, and they did not build her a toilet.

Community members "look down on" her. They have even stolen her chickens. She did not report them because she is "poor and weak," and she was afraid that they might retaliate. At home, she helps her sister when her husband beats her and for this, she says, he does not like her.

*"My brother-in-law scolds me and calls me 'blind woman'. When he becomes drunk, he takes clothes off… Most of the time, he is drunk and becomes violent."*

She coughs, and complains of chest pain. When she menstruates she uses disposable pads, and buries them in plastic bags underground. She only menstruates once per year, and she thinks it's because she is sick. She has not visited a doctor. *"I want to go to the health center,"* she says, "*but no people can take me… I can't ride the bike because I can't see."*

*Participant 2*

In her late twenties and undeniably lively, she goes by motorbike from a community gathering to her home on a weekday morning. When she arrives, she is greeted by a swarm of puppies in her backyard. She has taken on a leadership role in a women's forum, she helps her sister at a local coffee shop, and she works with children in the community.

Her father hired construction workers to build her a separate, low-to-the-ground bathing facility, and she collects water from "a big basin designed with a low tap." She has a congenital mobility impairment that manifests with a noticeably shortened stature. Disability does not make things more difficult, she says, because "*I am not paralyzed*." She feels safe when she uses the bathroom— there is a door that she can lock. She uses disposable pads when she menstruates, and she burns the used pads with other waste materials. Her father distributes and sells clean water in the community. She is knowledgeable about the importance of clean water and the potential effects of contaminated water on health. She acknowledges that others in her community and particularly other disabled women may have more difficulty with water access.

She says that her neighbor "doesn't like disabilities," and that they don't have a relationship. Her family treats her normally because she is able to work, and she doesn't depend on them.

"*We are one family,"* she says.

# CHAPTER V: DISCUSSION

Study findings were consistent with background literature, most notably with regards to disability stigma, discrimination, and gender-based violence. In a comprehensive report entitled *Hidden* Sisters (on disabled women and girls in the Asian and Pacific Region), researchers had found that "disabled women face discrimination from birth," and that girls born disabled were sometimes left to die.[45] Those who lived into adulthood received less attention and resources, and they had limited access to healthcare. They were more likely to be excluded from marriage and employment, to be perceived as burdensome to their families and communities. Throughout this study, participants offered tangible portrayals of disability-related discrimination, othering, and abuse. One study participant said that no one in her family wanted to live with her, that she was alone. Their experiences reinforced conclusions from the literature on gender and disability trends globally and in Cambodia.

Previous exploration of GBV related to WASH activities (both for disabled and non-disabled women) has suggested a sense of fear, shame, and secrecy surrounding violent incidences. In a 2009 survey on violence against women in Cambodia, 66% reported feelings of fear and anxiety associated with GBV.[8] In this study, participants exposed to violence expressed fear of "*other people's abuse*" and fear of "*being raped*." Some of the study participants shared that they were afraid to bathe. One of them spoke about a woman she had known leaving the community after she was raped. Despite relevance to WASH and disability, GBV has been consistently left out of discussions about disability issues, as leaders in disabled people's organizations are typically male and women's voices are lesser emphasized.[8]

Research on access and adaptive technologies reflects concerns that study participants shared.[52, 55] Many of them made independent requests for infrastructural modifications that had been previously outlined in guides, such as modified sitting toilets. Participants with mobility impairments had widely noted difficulty in standing while relieving themselves. Similar challenges had been described in literature on WASH access in Cambodia and Malawi.[28, 54] A WaterAid study on WASH access in rural Papua New Guinea found that both men and women expressed difficulties with traveling long distances to water sources and with traveling across steep terrain. Findings had also indicated that disabled women experienced greater difficulties due to negative social attitudes and prevalence of GBV.[50] Such findings seem commensurate with those expressed in this study, with women discussing tangible physical/environmental barriers, complicated by pervasive discrimination or exposure to violence.

Women who had to defecate in open areas expressed similar discomfort and fear of assault in Kampala, Uganda, as they did in Kampot and Kampong Thom, Cambodia.[24] Open defecation is a persistent problem in Cambodia,[51] and five of the study participants (20%) did not have access to a toilet within their homes. When they needed the toilet, they said, they went "to the bush." Other psychosocial stressors indicated in the global literature and found in this study data include poor health outcomes, concerns about privacy, and concerns about cleanliness.[35]

Findings reinforced literature on lack of relevant education and resources.[17] Some of the participants expressed that they had not known to expect menstruation before it began, and that they believed use of pads would block menstruation. A great deal of the literature surrounding WASH and MHM focuses on girls in schools, and this study was limited to an adult population. It did not yield enough information about trends in extended bleeding, abortion care, or broader reproductive health topics to make meaningful comparisons to the literature. Literature specific

to WASH, SRH, and disability is scant. A lot of research has dealt with these issues in isolation— in terms of WASH and poverty, gender and MHM, disability, and more recently, disability and gender, or disability and WASH. This study shows us that these issues do not exist in isolation— gender, poverty, WASH, MHM, and reproductive health are interconnected. As research and program implementation efforts progress, perhaps the literature will better reflect that interconnectedness.

## OPPORTUNITIES AND RECOMMENDATIONS

Participants had their own suggestions about ways to improve WASH access. Opportunities and recommendations address potential solutions to environmental/physical barriers, economic/financial barriers, and social barriers. They are based on participant suggestions, incidences of positive deviance, and success of previous interventions in the region.

## ENVIRONMENTAL/PHYSICAL OPPORTUNITIES

Participants had especially specific requests regarding infrastructural enhancements and changes to the built environment. They most commonly expressed wishes for the following:

- Accessible and secure toilet and bathing facilities
- Doors that could be closed and locked for bathroom facilities

- Sitting toilets instead of squat toilets, to alleviate pain associated with urinating in an upright, standing position
- Pump machines that would be easy to operate for transporting water
- Filters to ensure that their water was clean
- Enclosed spaces for bathing and defecating
- Privacy from those who might pass by
- To avoid potential predators while bathing, urinating, or defecating
- To go to the bathroom without risking falls or injury
- To collect water without risking falls or injury
- To be safe and secure

Models of adaptive equipment and facilities that might serve these wishes effectively have been designed and tested in rural areas.[37] Useful tools for increased privacy may include:

- Attachment of curtains to bathroom and bathing facilities
- Secure rooftop coverings for bathroom and bathing facilities
- Swinging doors that can be locked with a hook design

Modifications for improved access might include:

- Hand walkers and rubber knee pads for women who have to crawl across dirty ground
- Handrails to prevent slipping on staircases
- Handrails surrounding latrine pits or squat toilets
- Accessible pathways with low rope for those with vision impairments
- Smooth, wide pathways for those with mobility impairments

- Signs pointing towards facilities with raised symbols for those with vision impairments
- Ramps with low slope gradients
- Construction of slip-resistant surfaces
- Widened entryways and increased space inside of toilet and bathing facilities for those who use wheelchairs or walkers
- Portable commode seats or fixed seat pans made from cement or other sturdy materials
- Moveable seats to be placed over latrine pits for those who have difficulty standing
- Placement of seats or stools near pump machines, to allow sitting during water collection
- Lengthened handles with grips attached to pump machines, to simplify water collection
- Modified water containers that can be pushed or pulled, rather than carried

Modifications could be implemented with basic equipment at low costs. Implementation should involve extensive input from disabled women. Appointed community representatives with a desire for leadership experience should work closely with WASH sector actors to ensure that improvements to the physical environment are maintained and serving intended purposes.

## ECONOMIC/FINANCIAL OPPORTUNITIES

The majority of study participants were economically disadvantaged, and noted financial constraints as key barriers to procurement of adequate food supplies, clean water, or secure and accessible toilet facilities. They worried that because they were disabled, other people might think of them as unable to work. Many wanted jobs, to support themselves and their families.

Establishment of income generating activities (IGAs) could significantly improve financial circumstances. IGAs led by women and staffed by women could be especially powerful, eliminate dependence, and encourage female leadership. IGAs could address gaps in material needs for MHM— disabled women could be recruited to produce reusable sanitary pads. They could work at various levels of production, including management and oversight, accounting, sewing, and packaging of the reusable pads and underwear. To develop and oversee successful IGA groups in rural communities, representatives including disabled women and WASH/MHM experts should collaborate throughout the various stages of planning and implementation. Additional market research should be done on the feasibility of producing and distributing different types of reusable sanitary pads. The active involvement of women in WASH projects across communities has been shown to decrease corruption, heighten transparency in program management and oversight of financial resources, and encourage other women within their social spheres. The presence of women in leadership has a pronounced reach, helping to ensure that women and girls have access to the resources that they need.[27] Ensuring that disabled women have the opportunity to assume leadership roles should improve economic outcomes.

## SOCIAL OPPORTUNITIES

Many women expressed feeling misunderstood or neglected. Of 25 respondents, only one indicated that she had been to a gathering intended for WASH education. All of them expressed that given the opportunity, they would be interested in an informative workshop.

*"I would like to have [a] program for health maintenance. I request [an] organization to train women with disabilities about water, sanitation, and hygiene."* (IDI)

Collaboration between the WASH and disability sectors is necessary to organize community-wide initiatives addressing stigma. As programming develops, outcomes that are meaningful to disabled women should be carefully documented for scaling up of initiatives.

**Key Recommendations**

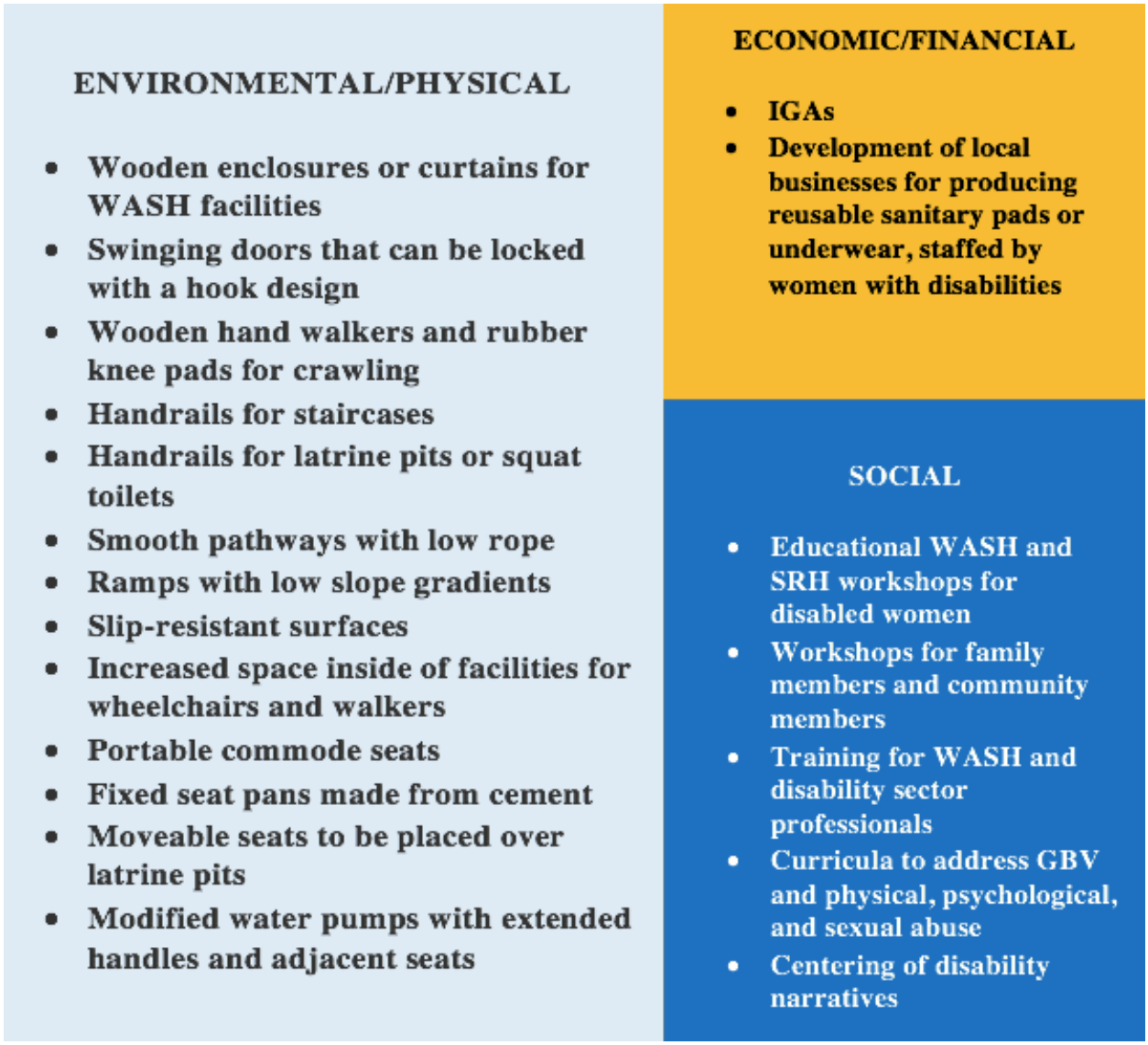



Figure 4

Educational programming should cover individual rights, inclusive WASH and MHM methods and tools, and resources for managing physical, sexual, or psychological trauma. That similar programming be tailored towards families of disabled women is essential; family members are often an individual's strongest source of support, and when in ignorance or frustration they neglect disabled women among them, the results can be devastating. Programming should engage family members with personal narratives, and offer tangible information about how they might provide assistance (depending on nature of impairments).

General programming and educational workshops should be made available at the community level, with additional materials targeted towards employers and business owners who might hire women with disabilities. A curriculum should be designed with input from disabled women, and consultants in the WASH and disability sectors. Those involved in programming and implementation should receive training regarding the most sensitive issues facing members of communities in which they may be working— social discrimination, bullying, abuse, neglect, coercion, and all forms of physical and sexual violence.

Researchers should focus on the ways in which multiple social factors intersect. Broadly, they may continue to explore disability, gender, geography, class, and health issues in Cambodia. More targeted subtopics may include differences in experience and access within the disability community, based on nature and severity of impairments. This study was unable to specifically address challenges associated with deafness or profound hearing loss. One young woman with total deafness was recruited for the study, but she was unable to participate because she had no system of communicating with others or of providing informed consent. Future projects might consider communication difficulties that are particular to deafness in remote areas where deaf individuals may not have extensive educational opportunities. Research might compare access to

reproductive healthcare among disabled and non-disabled women in rural versus urban settings. This study focused on the adult population— researchers might explore disability and WASH access for girls and adolescents who are approaching puberty, or who have not yet begun to menstruate. Such research could inform earlier intervention efforts to educate women and girls, to foster confidence, and to equip them with self-advocacy tools so that should they encounter bullying, abuse, or violence later in life, they may know that resources are available.

## LIMITATIONS

The age range of study participants in the sample was far broader than the intended range of eighteen to forty. One participant did not know her age. Another participant was seventy years old and post-menopausal. Practices described by older women may not be relevant to some of the younger women in the sample. All of the women had experienced menstruation, and were able to reflect on their memories of it.

Timeframes for data collection were brief, and the scope of disability represented in this sample is somewhat narrow. Most participants reported disabilities including partial vision loss, mild mobility impairments, disabling limb pain, or limited functioning of one hand or foot. Comparatively few participants reported total blindness, or severe difficulty with ambulation. Though one FGD participant noted a hearing impairment, the two FGDs conducted tended to favor the voices of a more active few over others who remained fairly quiet. No new insights were gained regarding the effects of hearing impairments. Participation from those with milder

impairments did allow for meaningful comparison to those with more severe impairments. Participants with severe impairments shared detailed accounts of the challenges they faced.

Translation by the research assistant was thorough, though given the language barrier it is possible that some information and certain nuances in expression were lost as questions were translated from English to Khmer, and responses were translated from Khmer to English. For FGDs, opportunities for probing were lost as the research assistant did not translate responses for the researcher during discussion. For IDIs, each response was translated during interviews, allowing for more accurate probing, and minimizing the potential for loss of information. There was a possibility for researcher bias, addressed with reflexivity and use of purposefully open-ended questioning.

## IMPLICATIONS

Despite its limitations, this study provided incredibly rich data with compelling verbal and narrative photography components. From it, distinct themes emerged surrounding water, sanitation, hygiene, and reproductive health access barriers relevant to disabled women in rural Cambodia. Findings were consistent with literature that explores associated issues in Cambodia and globally. Moving beyond summary and analysis of the issues, the qualitative methodology allowed for generation of widely applicable recommendations and opportunities, many of them suggested by the participants themselves.

*"Pay attention to women with disabilities,"* said one participant during a focus group discussion that involved five women with a range of mobility and vision impairments.

Throughout, participants returned to the notion that family members and community members did not pay attention to them. They were not treated well, they were not hired to work, they were neglected, abused, or abandoned. This sense of otherness affected access to healthcare, access to basic resources including food and water, MHM, and difficulty with WASH-related activities. Their insights reflect the entrenched stigma that is associated with disability in Cambodia as it is in the United States, in historical and contemporary settings. Some of the potential consequences are certainly different in rural Cambodia than they are in urban America, but the pervasiveness is ubiquitous. It makes the social barriers more difficult to resolve.

The environmental and physical barriers to access were the most concrete, the most straightforward. These can be addressed with adaptive technologies. Economic and financial barriers to healthcare, to transportation, to free movement within communities— these may be a bit less straightforward, more tied into hierarchical structuring of society— but they can still be addressed with innovative business plans, with well-managed income-generating activities. More widespread use of adaptive technologies may help to address social stigma. If disabled women are better able to access basic resources and to enjoy greater mobility, to seek healthcare when they need it without relying on others who might resent them, their participation in community and family life may only increase. Presence of IGAs and improved economic status, too, may help to address social stigma. Working disabled women would have an opportunity to disprove the myth that being disabled disqualifies them from employment.

Direct and effective addressing of the social barriers is more difficult. It will require devoted education and advocacy efforts where disability is consistently ignored. In a sense, popular public health practice permits that ignorance. It often favors a population-based approach in which we invest limited resources into efforts that might help the greatest number of

people, sacrificing minorities. Perhaps a one-hundred-million-dollar grant could solidify curative research for Friedreich's ataxia, a life-shortening and degenerative neuromuscular disease that affects roughly 15,000 children and adults in the world— or it could go towards preventing malaria, which affects over one million people each year.[6, 60] Similarly, it is less costly and less time-consuming to develop WASH infrastructure that might improve the lives of most, while neglecting disabled women. Attempting to aid many while relegating a minority to a lesser status, to neglect or death should be an acceptable solution to no one. To willfully admit sacrifices like these is unthinkable, but it is done, widely by lack of ingenuity, by failure to seek efficient, inclusive solutions. Rare disease and disability are both major public health issues— no single course at the Rollins School of Public Health at Emory University is dedicated to them.

Every thread of this research on issues in gender and disability— poverty, violence, WASH, MHM, and reproductive health— is impacted by social stigma. It persists because we let it persist. Researchers should consider the ways in which these underlying social factors affect so many different systems at once. As research yields recommendations and implications for future programming, practitioners should prioritize efforts to include everyone, to seek out those who are left out of global conversations, national data summaries, and local community gatherings. The most important step, the first and the continuous step, is a centering of the narratives of those who are marginalized. It is, as our FGD participant says, to pay attention to women with disabilities.

**REFERENCES**


1. Abberley, Paul. (1987) *The Concept of Oppression and the Development of a Social Theory of Disability*. Disability, Handicap & Society, 2:1, 5-19.
2. Abrahams, N., Mathews, S. & Ramela, P. (2006) *Intersections of Sanitation, Sexual Coercion and Girls' Safety in Schools*. Tropical Medicine and International Health, Vol. 11 No. 5.
3. Agger, Inger. (2015) *Healing the Mind: Calming After Mass Atrocity in Cambodia*. Transcultural Psychiatry.
4. Ahmed, R. and Yesmin, K. (2008) *Menstrual Hygiene: Breaking the Silence, in Beyond Construction: UseByAll: A Collection of Case Studies from Sanitation and Hygiene Promotion Practitioners in South Asia*. International Water and Sanitation Centre, WaterAid.
5. Alkadry, M. G., Tower, L. E. (2006). *Unequal Pay: The Role of Gender*. Public Administration Review, 66, 888-898.
6. Ashley CN, Hoang KD, Lynch DR, Perlman SL, Maria BL. (2012) Childhood Ataxia: Clinical Features, Pathogenesis, Key Unanswered Questions, and Future Directions. J Child Neurol 27:1095-20.
7. Asian Development Bank. (2014) *Cambodia: Country Poverty Analysis 2014*. Asian Development Bank.
8. Astbury, J. & Walji, F. (2013) *Triple Jeopardy: Gender-Based Violence and Human Rights Violations Experienced by Women with Disabilities in Cambodia*. Australian Aid.
9. Butler, Judith. (1986) *Sex and Gender in Simone de Beauvoir's Second Sex*. Yale French Studies, No. 72, pp. 35-49.
10. Centers for Disease Control. (2017) Communicating with and About People with Disabilities. CDC.
11. Clayton, Thomas. (1998) *Building the New Cambodia: Educational Destruction and Construction Under the Khmer Rouge, 1975-1979*. History of Education Quarterly, Vol. 38, Issue 1.
12. Cooperation Committee for Cambodia. (2006) *The Challenge of Living with Disability in Rural Cambodia: A Study of Mobility Impaired People in the Social Setting of Prey Veng District, Prey Veng Province*. CCC Cambodia.
13. Fetters, T., Vonthanak, S., Picardo, C., Rathavy, T. (2008) *Abortion-Related Complications in Cambodia*. An International Journal of Obstetrics & Gynecology.
14. Fisher, J. (2006) *For Her it's the Big Issue: Putting Women at the Centre of Water Supply, Sanitation and Hygiene*. Water, Sanitation and Hygiene: Evidence Report.
15. Gartrell, Alexandra. (2015) *The Intimate Worlds of Men and Women with Disabilities in Cambodia: Disability, Sexual & Reproductive Health and Rights*. Deutsche Gesellschaft für Internationale Zusammenarbeit.
16. Handicap International (2009). *Disability Facts in Cambodia*. Handicap International, France.
17. Harlow, S.D. & Campbell, O.M.R. (2000) *Menstrual Dysfunction: A Missed Opportunity for Improving Reproductive Health in Developing Countries*. Reproductive Health Matters, Vol. 8, No. 15, Reproductive Rights, Human Rights and Ethics.

18. Hennegan, J. & Montgomery, P. (2016) *Do Menstrual Hygiene Management Interventions Improve Education and Psychosocial Outcomes for Women and Girls in Low and Middle Income Countries? A Systematic Review*. Centre for Evidence-Based Intervention, University of Oxford, Oxford, United Kingdom.
19. House, S. & Cavill, S. (2015) *Making Sanitation & Hygiene Safer: Reducing Vulnerabilities to Violence*. Frontiers of CLTS #5. IDS: Brighton.
20. House, S., Mahon, T., Cavill, S. (2012) *Menstrual Hygiene Matters: A Resource for Menstrual Hygiene Management Around the World*. WaterAid.
21. Jansz, S. & Wilbur, J. (2013) *Women and WASH: Water, Sanitation and Hygiene for Women's Rights and Gender Equality*. WaterAid.
22. Jernigan, Kenneth. (2009) *The Pitfalls of Political Correctness: Euphemisms Excoriated*. Braille Monitor, 2009.
23. Krug EG et. al. (2002) *World Report on Violence and Health*. Geneva, World Health Organization.
24. Kwiringira, J., Atekyereza, P., Niwagaba, C. & Gunther, I. (2014) *Gender Variations in Access, Choice to Use and Cleaning of Shared Latrines; Experiences from Kampala Slums, Uganda*. BMC Public Health, 14:1180.
25. Laqueur, Thomas W. (1990) *Making Sex: Body and Gender from the Greeks to Freud*. Cambridge, Mass: Harvard University Press, Print.
26. Long, J., Caruso, B.A., Lopez, D., Vancraeynest, K., Sahin, M., Andes, K.L. & Freeman, M.C. (2013) *WASH in Schools Empowers Girls' Education in Rural Cochabamba, Bolivia: An Assessment of Menstrual Hygiene Management in Schools*. United Nations Children's Fund, New York.
27. Mahon, T. & Fernandes, M. (2010) *Menstrual Hygiene in South Asia: A Neglected Issue for WASH*. Gender and Development, Vol. 18, No. 1, Water, pp. 99-113.
28. MacLeod, M., Pann, M., Cantwell, R., & Moore, S. (2014) *Issues in Access to Safe Drinking Water and Basic Hygiene for Persons with Physical Disabilities in Rural Cambodia*. Journal of Water and Health.
29. Mishra, V.K. (2015) *Social and Psychological Impact of Limited Access to Sanitation: MHM and Reproductive Tract Infections*. Presented at 38th WEDC International Conference, Loughborough, UK, Department for International Development.
30. Nielsen, Kim E. (2012) *A Disability History of the United States*. Boston: Beacon Press, Print.
31. Park, Justin H. et al. (2003) *Evolved Disease-Avoidance Processes and Contemporary Anti-Social Behavior: Prejudicial Attitudes and Avoidance of People with Physical Disabilities*. Journal of Nonverbal Behavior, Vol. 27, Issue 2, pp. 65-87.
32. Patton, Michael Quinn (2002) *Qualitative Research and Evaluation Methods*. Thousand Oaks, Calif: Sage Publications.
33. Plan International. (2014) *Testing CLTS Approaches for Scalability*. CLTS Learning Series: Cambodia Country Report Plan International & UNC Gillings School of Public Health.
34. Roose, S., Rankin, T., & Cavill, S. (2015) Breaking the Next Taboo: Menstrual Hygiene within CLTS. Frontiers of CLTS #6. IDS: Brighton.
35. Sahoo, K.C. et. al. (2015) *Sanitation-Related Psychosocial Stress: A Grounded Theory Study of Women Across the Life-Course in Odisha, India*. Social Science & Medicine. Vol. 139.

36. Sale, Anna. (Host & Managing Editor.) (2017) *Gabrielle Union is Fed Up*. Death, Sex, & Money (Audio Podcast), WNYC Studios.
37. Samandari, G. (2010) *Contraceptive Use in Cambodia: A Multi-Method Examination of Determinants and Barriers to Modern Contraception*. University of North Carolina, Chapel Hill.
38. Shah, Jui A. *UNFPA's Role in Population, Gender, and Reproductive Health Country Case Study: Cambodia*. (2010) PATH, Cambodia.
39. Sommer, M., Ackatia-Armah, N., Connolly, S. & Smiles, D. (2015) *A Comparison of the Menstruation and Education Experiences of Girls in Tanzania, Ghana, Cambodia and Ethiopia*. Compare: A Journal of Comparative and International Education, 45:4, 589-609, DOI: 10.1080/03057925.2013.871399.
40. Sommer, M., Ferron, S., Cavill, S. & House, S. (2015) *Violence, Gender and WASH: Spurring Action on a Complex, Under-Documented and Sensitive Topic*. Environment & Urbanization, Vol. 27 No. 1.
41. Sommer, M., Kjellen, M. & Pensulo, C. (2013) *Girls' and Women's Unmet Needs for Menstrual Hygiene Management (MHM): The Interactions Between MHM and Sanitation Systems in Low-Income Countries*. Journal of Water, Sanitation, and Hygiene for Development.
42. St. Louis, Kenneth. (1999) Person-First Language and Stuttering. Journal of Fluency Disord. 1–24.
43. Stevenson, E.G.J., et al. (2012) *Water Insecurity in 3 Dimensions: An Anthropological Perspective on Water and Women's Psychosocial Distress in Ethiopia*. Social Science & Medicine 75.2 (2012): 392-400.
44. Transparency International (2017), Corruption Perceptions Index, Cambodia.
45. UNESCAP (1995) *Hidden Sisters: Women with Disabilities in the Asia Pacific Region*. United Nations Economic and Social Commission for Asia and the Pacific.
46. UNFPA. (2013) *Levels and Trends of Contraceptive Prevalence and Unmet Need for Family Planning in Cambodia*. United Nations Population Fund.
47. UNICEF (2016) *Supporting the Rights of Girls and Women through Menstrual Hygiene Management in the East Asia and Pacific Region; Realities, Progress and Opportunities*. UNICEF East Asia and Pacific Regional Office.
48. United Spinal Association. (2015) *Disability Etiquette: Tips on Interacting with People with Disabilities*. United Spinal Association.
49. Van Schaak, Beth, et. al. (2011) *Cambodia's Hidden Scars: Trauma Psychology in the Wake of the Khmer Rouge*. Documentation Center of Cambodia.
50. WaterAid. (2015) *Understanding Disability and Access to Water, Sanitation, and Hygiene (East Sepik, Papua New Guinea)*. WaterAid, Papua New Guinea.
51. WaterAid. (2016) *Accessible WASH in Cambodia*. WaterAid, Cambodia.
52. WaterAid. (2016) *How to Conduct a WASH Barrier Analysis*. WaterAid, Cambodia.
53. WaterAid. (2017) *The Last Taboo: Research on Menstrual Hygiene Management in the Pacific*. WaterAid, Fiji.
54. White, S., Kuper, H., Itimu-Phiri, A., Holm, R. and Birian, A. (2016) *A Qualitative Study of Barriers to Accessing Water, Sanitation and Hygiene for Disabled People in Malawi*. PLoS ONE 11(5): e0155043.
55. Wilbur, J. & Jones, H. (2014) *Compendium of Accessible WASH Technologies*. WaterAid.

56. Winton, Ailsa. (2016) Using Photography as a Creative, Collaborative Research Tool. The Qualitative Report, Vol. 21, No. 2.
57. World Bank (2015) *Water Supply and Sanitation in Cambodia (Turning Finance into Services for the Future)*. The World Bank/International Bank for Reconstruction and Development.
58. World Health Organization & UNICEF (2015) *Progress on Sanitation and Drinking Water, 2015 Update and MDG Assessment*, WHO.
59. World Health Organization and World Bank (2011) *World Report on Disability*. WHO Library Catalogue.
60. World Health Organization. *World Malaria Report* (2016) Geneva: WHO.

## APPENDIX I: NARRATIVE PHOTOGRAPHY COMPONENTS

In the absence of a friend or family member, a smooth pathway with low rope extending from the home to WASH facilities, or use of a cane may be beneficial for those with vision impairments.

This woman stands at the entryway to her bathroom. Ensuring privacy and security may be as straightforward as building wooden enclosures, and doors that can be locked with simple hooks.

This well is a water source. There are feces on the ground beside it.

Cows congregate near a participant's home and water source.

This participant demonstrates how she collects water from the pump. Pumps can be made more accessible with simple modifications; handles can be lengthened to increase leverage power, and grips can be reinforced with low-cost materials. Chairs or stools can be placed near pumps, to eliminate the strain involved in standing while pumping water.

A participant shows the outside of her home. The stairs are especially slippery when it rains. Difficulties associated with stairs could be diminished by use of ramps with low slope gradients, or with the addition of sturdy wooden handrails where construction of ramps is less feasible.

To collect water from the well, a participant with total blindness holds onto the clothing line for guidance. Rope systems can help people with vision or mobility impairments move safely from their homes to WASH facilities.

This participant demonstrates how she carries water from the pond. Modified water containers with sturdier handles, or containers that can be pushed or pulled rather than carried may be helpful for those with mobility impairments.

Pictured is a specially constructed low-to-the-ground toilet and bath, modified for a participant's private use. Modifications like these may be most helpful in cases of mobility impairments associated with shortened stature or restricted use of the lower extremities.

This participant has total blindness. She stands outside of a latrine pit. Behind her, there is a large opening for defecating. Handrails placed on either side of the opening and moveable seat covers could be helpful to women with mobility or vision impairments.

One of the participants uses this pond for bathing.


This participant demonstrates how she uses her sewing machine. IGAs could include sewing, and provide meaningful economic opportunity.

A young woman with total blindness leans against the well where she collects water.

Pictured here is a participant's supportive family. The participant is hidden from the frame. Disabled women often lack representation and visibility in local and global settings.

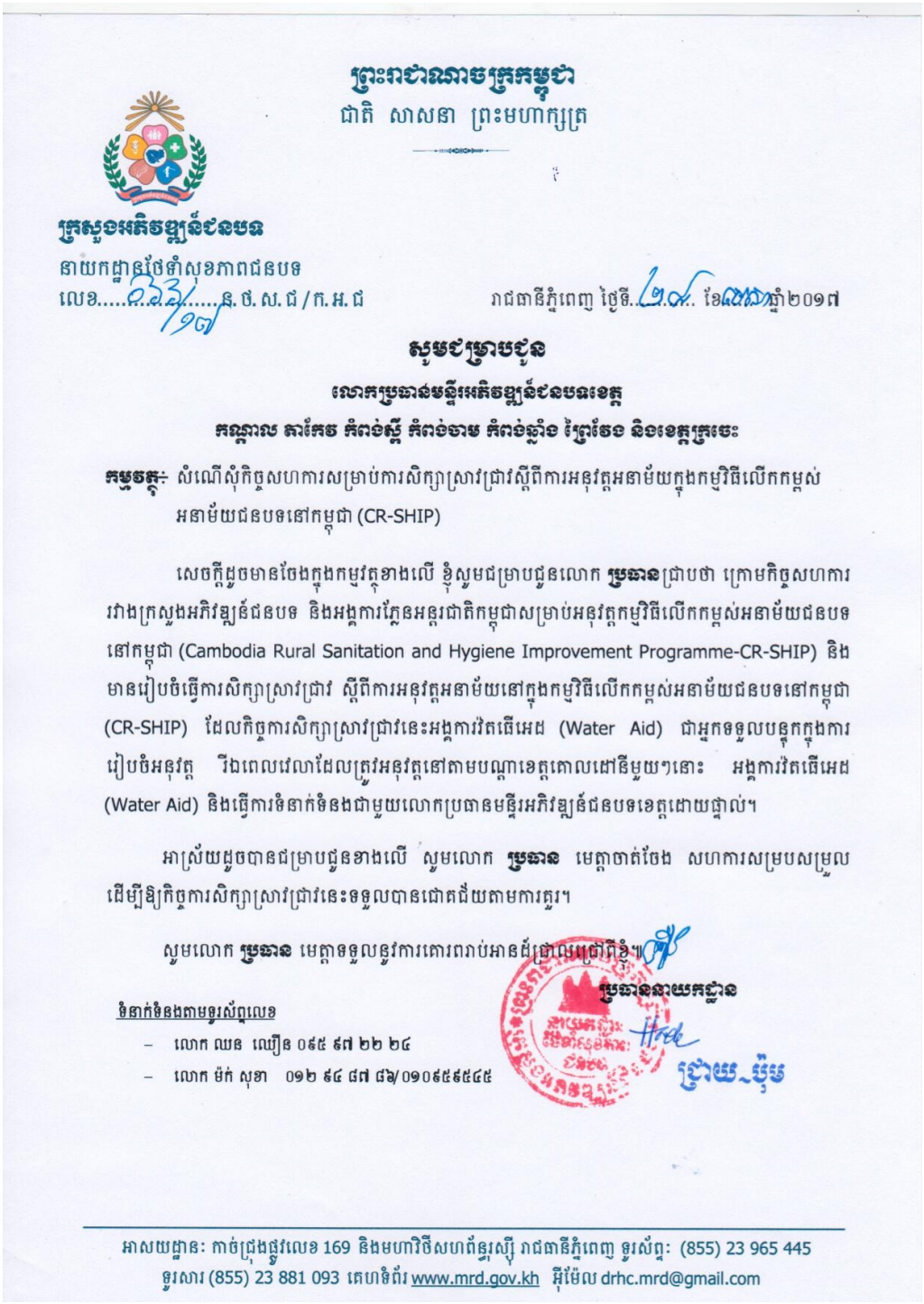
This photograph was a winning submission in the 2017 Emory Global Health Institute Photography Contest. The accompanying caption reads:

Sisters (Cambodia)

Women gather together to support a disabled sister as she discusses practices in water, sanitation, and menstrual hygiene management in a rural part of Cambodia. It is estimated that 4.7% of Cambodia's population lives with disability, most commonly involving impairments of mobility or vision. Caused by illness and disease, congenital conditions, accidental injury, and in rarer cases by landmine explosion, disability can render a person uniquely susceptible to economic hardship, environmental obstacles, and social discrimination. A higher percentage of Cambodian women with disabilities reside in rural areas. They may encounter additional barriers related to water, sanitation, and hygiene access. In considering global health research and program implementation, their narratives are essential to inclusive progress. The dictum "nothing about us without us" is always relevant.

## APPENDIX II: DOCUMENTATION OF PROJECT APPROVAL

*Letter from the Cambodian Ministry of Rural Development:*



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងអភិវឌ្ឍន៍ជនបទ
នាយកដ្ឋានថែទាំសុខភាពជនបទ
លេខ.....ន.ថ.ស.ជ/ក.អ.ជ

រាជធានីភ្នំពេញ ថ្ងៃទី..... ខែ..... ឆ្នាំ២០១៧

**សូមជម្រាបជូន**

**លោកប្រធានមន្ទីរអភិវឌ្ឍន៍ជនបទខេត្ត**
**កណ្តាល តាកែវ កំពង់ស្ពឺ កំពង់ចាម កំពង់ឆ្នាំង ព្រៃវែង និងខេត្តក្រចេះ**

**កម្មវត្ថុ:** សំណើសុំកិច្ចសហការសម្រាប់ការសិក្សាស្រាវជ្រាវស្តីពីការអនុវត្តអនាម័យក្នុងកម្មវិធីលើកកម្ពស់អនាម័យជនបទនៅកម្ពុជា (CR-SHIP)

សេចក្តីដូចមានចែងក្នុងកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូនលោក **ប្រធាន**ជ្រាបថា ក្រោមកិច្ចសហការរវាងក្រសួងអភិវឌ្ឍន៍ជនបទ និងអង្គការភ្លែនអន្តរជាតិកម្ពុជាសម្រាប់អនុវត្តកម្មវិធីលើកកម្ពស់អនាម័យជនបទនៅកម្ពុជា (Cambodia Rural Sanitation and Hygiene Improvement Programme-CR-SHIP) និងមានរៀបចំធ្វើការសិក្សាស្រាវជ្រាវ ស្តីពីការអនុវត្តអនាម័យនៅក្នុងកម្មវិធីលើកកម្ពស់អនាម័យជនបទនៅកម្ពុជា (CR-SHIP) ដែលកិច្ចការសិក្សាស្រាវជ្រាវនេះអង្គការវ៉ាតធើអេដ (Water Aid) ជាអ្នកទទួលបន្ទុកក្នុងការរៀបចំអនុវត្ត រីឯពេលវេលាដែលត្រូវអនុវត្តនៅតាមបណ្តាខេត្តគោលដៅនីមួយៗនោះ អង្គការវ៉ាតធើអេដ (Water Aid) និងធ្វើការទំនាក់ទំនងជាមួយលោកប្រធានមន្ទីរអភិវឌ្ឍន៍ជនបទខេត្តដោយផ្ទាល់។

អាស្រ័យដូចបានជម្រាបជូនខាងលើ សូមលោក **ប្រធាន** មេត្តាចាត់ចែង សហការសម្របសម្រួលដើម្បីឱ្យកិច្ចការសិក្សាស្រាវជ្រាវនេះទទួលបានជោគជ័យតាមការគួរ។

សូមលោក **ប្រធាន** មេត្តាទទួលនូវការគោរពរាប់អានជ៍ជ្រាលជ្រៅពីខ្ញុំ។

**ប្រធាននាយកដ្ឋាន**

ជ្រាយ ប៊ុម

<u>ទំនាក់ទំនងតាមទូរស័ព្ទលេខ</u>
- លោក ឈន ឈឿន ០៩៥ ៩៧ ២២ ២៤
- លោក ម៉ក់ សុខា ០១២ ៩៤ ៨៧ ៨៦/០១០៩៥៩៥៩

អាសយដ្ឋាន: កាច់ជ្រុងផ្លូវលេខ 169 និងមហាវិថីសហព័ន្ធរុស្ស៊ី រាជធានីភ្នំពេញ ទូរស័ព្ទ: (855) 23 965 445
ទូរសារ (855) 23 881 093 គេហទំព័រ www.mrd.gov.kh អ៊ីម៉ែល drhc.mrd@gmail.com

*Letter from the Emory IRB:*

EMORY UNIVERSITY | Institutional Review Board

June 5, 2017

Sarah Beth Gelbard
School of Public Health
Emory University

**RE:** **Determination:** **No IRB Review Required**
**Title:** **Addressing Water, Sanitation, and Hygiene Access Challenges for Khmer Women with Physical Disabilities in Rural Areas**
**PI:** **Sarah Beth Gelbard**

Dear Sarah:

Thank you for requesting a determination from our office about the above-referenced project. Based on our review of the materials you provided, we have determined that it does not require IRB review because it does not meet the definition of "research" as set forth in Emory policies and procedures and federal rules, if applicable. Specifically, in this project, you will do programmatic research for improvement of water, sanitation, and hygiene (WASH) access for adult women with disabilities. The results of this project will be used as community case studies to help WaterAid Cambodia improve program design and outreach methods to better serve participating adult women with physical disabilities in a rural area. The expected findings, as you have explained, are not intended to be generalizable and therefore, do not require IRB review.

Please note that this determination does not mean that you cannot publish the results. This determination could be affected by substantive changes in the study design, subject populations, or identifiability of data. If the project changes in any substantive way, please contact our office for clarification.

Thank you for consulting the IRB.

Sincerely,

Leslie J. Garrett

Leslie J. Garrett, BS/BA, CIP
Sr. Research Protocol Analyst

Emory University
1599 Clifton Road, 5th Floor - Atlanta, Georgia 30322
Tel: 404.712.0720 - Fax: 404.727.1358 - Email: irb@emory.edu - Web: http://www.irb.emory.edu

**APPENDIX III: IN-DEPTH INTERVIEW GUIDE**

WaterAid

Addressing Water, Sanitation, and Menstrual Hygiene Management Access Barriers Encountered by Khmer Women with Disabilities

**Materials for IDIs:**

- Consent Forms
- Question Guide for Interviewer
- Digital Recording Device
- Charger for Recording Device
- Digital Camera
- Charger for Digital Camera
- Notebook
- Refreshments

## IN-DEPTH INTERVIEW GUIDE

| | | | |
|---|---|---|---|
| Name of Interviewer: | | Name of Research Assistant: | |
| Date (DD/MM/YY): | | | |
| Start Time: | | End Time: | |
| | | | |
| Age of Participant: | | Research Site: | |
| Has written/verbal informed consent been obtained? YES / NO | | | |
| Why has this person been selected for an interview? | | | |

The facilitator will turn on the recorder and clearly state the date, time, location, and facilitator's name.

**Introduction:**

**Interviewer:** Thank you for talking with me today. My name is [name of facilitator]. I am working with WaterAid to conduct a study among community members in [name of province]. The purpose of this study is to find out about some of the challenges that women with disabilities encounter regarding access to water and sanitation for menstrual hygiene management and other activities of daily living.

This interview is part of the study. We are interested in learning from you about what women with disabilities experience in their daily lives, specifically concerning access to water, activities for which water is necessary, use of toilet and bathing facilities, and menstrual hygiene management. WaterAid Cambodia will use the results of this study to inform future efforts for improvement of water, sanitation, and hygiene conditions for women with disabilities, and to develop inclusive, accessible programs.

The interview should take about 1 hour. We will ask you some questions, and take notes to record your ideas. We will record the interview using a voice recorder. Once we have written down the recorded interview, the recording will be destroyed.

Please remember that everything you say will remain private and confidential. You do not have to answer any questions that you do not wish to. We will not record your name on any of the notes. I would like to encourage you to share your ideas, as everything you have to say is very important. There are no right or wrong answers, so you should feel free to express yourself fully.

Do you have any questions? May we begin now?

IDI Guide:

Opening Questions:

1. How many people do you live with?
    a. Probe: Who is in your household?

2. How would you describe your typical day?

3. Does disability affect your activities?
    a. Probe: How?

Water Access:

4. How do you access water?

5. Does disability affect your access to water?
    a. Probe: How?

6. Are you able to access all of the water that you need?
    a. Probe: Do you have the same access to water as other members of your family?

7. What barriers affect your access to water?
    a. Probe: What barriers affect your access to water *most*?

Sanitation Access:

8. Does your household have a toilet?
    a. Probe: Is there a toilet, latrine, or open defecation area that you typically use?

11. Does disability affect how you access the toilet, latrine, or open defecation area?
    a. Probes: How?

12. Does disability affect how you access bathing facilities?
    a. Probes: How?

Managing Menstruation:

13. Can you tell me about your first menstruation?

14. What are challenges in managing your period each month?

15. Can you tell me about the sanitary materials that you use to absorb blood?
    a. Probe: What are the challenges related to use of sanitary materials?
    b. Probe: How satisfied are you with current methods for managing menstruation?

16. Can you tell me about what you do with used sanitary materials?

17. How would you manage extended bleeding after childbirth, miscarriage, or an abortion?
    a. Probe: How would a female friend or family member with a disability manage extended bleeding after childbirth, miscarriage, or an abortion?

18. How does your access toilets, latrines, or open defecation areas affect your experience of menstruation?

19. How does your access to bathing facilities affect your experience of menstruation?

Safety and Security:

20. How do other members of the community treat you?
    a. Probe: How do family members treat you?
    b. Probe: How do neighbors treat you?
    c. Probe: Why do you think they treat you this way?

21. Do you feel safe when accessing toilets, latrines, or open defecation areas?

a. Probe: Why might you *not* feel safe when accessing toilets, latrines, or open defecation areas?
b. Probe: How satisfied are you with privacy conditions while accessing facilities?
c. Probe: How satisfied are you with security conditions while accessing facilities?

22. Do you feel safe when accessing bathing areas?
    a. Probe: Why might you *not* feel safe when bathing?
    b. Probe: How satisfied are you with privacy conditions while accessing facilities?
    c. Probe: How satisfied are you with security conditions while accessing facilities?

Closing Questions:

23. Have you participated in any group activities or workshops concerning water and sanitation?

24. How do your challenges compare to those of other women in the community?
    a. Probe: How do your challenges in accessing water compare to those of other women?
    b. Probe: How do your challenges in accessing toilets, latrines, open defecation areas compare to those of other women?
    c. Probe: How do your challenges in accessing bathing areas compare to those of other women?
    d. How do your challenges in managing menstruation compare to those of other women?

25. What would improve accessibility for you?
    a. Probe: What would make accessing water easier?
    b. Probe: What would make accessing toilets, latrines, or open defecation areas easier?
    c. What would make accessing bathing areas easier?
    d. What would make managing menstruation easier?

26. I would like for you to show me what is most challenging for you about access to water. I would like to take pictures of what you show me.
    a. Probe: Could you show me where you go to the bathroom?
    b. Probe: Could you show me how you access water?
    c. Probe: Could you tell me about what is most challenging about these activities, and about why it is challenging?

WaterAid

ដោះស្រាយបញ្ហាការប្រើប្រាស់ទឹក ការលើកកម្ពស់អនាម័យ និងការថែទាំអនាម័យ
ការមកដូវដែលប្រឈមដោយស្ត្រីពិការកម្ពុជា

សម្ភារៈសម្រាប់ការសម្ភាស

- ទម្រង់ព្រមព្រៀង
- កម្រងសំណួរសម្រាប់ការសម្ភាស
- ប្រដាប់ថតសំលេង
- ថ្មសាកប្រដាប់ថតសំលេង
- ម៉ាស៊ីនថត
- ថ្មសាកម៉ាស៊ីនថត
- សៀវភៅកត់ត្រា
- អាហារសម្រន់

កម្រងសំណួរសម្ភាស

| | | | |
|---|---|---|---|
| ឈ្មោះអ្នកសម្ភាស | | ឈ្មោះជំនួយការសម្ភាស | |
| កាលបរិច្ឆេទ | | | |
| ពេលចាប់ផ្តើម | | ពេលបញ្ចប់: | |
| | | | |
| អាយុអ្នកសម្ភាស: | | ទីតាំងសម្ភាស: | |
| តើអ្នកបានទទួលព័ត៌មានទម្រង់ព្រមព្រៀងជាអក្សរ/ អំនាន? ចាស/ ទេ | | | |
| ហេតុអ្វីបានជាអ្នកសម្ភាសនេះជ្រើសរើសសម្រាប់ការសម្ភាស? | | | |

អ្នកសម្របសម្រួលនឹងបើកប្រដាប់ថតសម្លេង ហើយដាក់ថ្ងៃ កាលបរិច្ឆេទ ទីតាំង និងឈ្មោះអ្នសម្របសម្រួល

សេចក្តីណែនាំ

អ្នកសម្ភាស: សូមអរគុណចំពោះការជជែកគ្នាថ្ងៃនេះ។ ខ្ញុំឈ្មោះ.....ខ្ញុំធ្វើការនៅអង្គការ Water Aid ធ្វើការសិក្សាក្នុងសហគមន៍ (ឈ្មោះខេត្ត)។ គោលបំណងនៃការសិក្សានេះគឺស្វែងរកបញ្ហាដែលស្ត្រីពិការប្រឈមយោងទៅលើការប្រើប្រាស់ទឹក និងការលើកកម្ពស់អនាម័យសម្រាប់ការថែទាំអនាម័យការមករដូវ និងសកម្មភាពរស់នៅប្រចាំថ្ងៃផ្សេងៗ។

ការសម្ភាសនេះជាផ្នែកមួយនៃការសិក្សា ។ យើងពិតជាចាប់អារម្មណ៍ក្នុងការរៀនសូត្រអំពីអ្នក ពីអ្វីដែលស្ត្រីពិការប្រឈមក្នុងការរស់នៅប្រចាំថ្ងៃជាពិសេសទាក់ទងនឹងការប្រើប្រាស់ទឹក សកម្មភាពដែលទឹកពិតជាចាំបាច់ប្រើក្នុងបង្គន់និង សម្រាប់ងូតទឹក និងការថែទាំអនាម័យការមករដូវ។ អង្គការ Water Aid កម្ពុជានឹងប្រើប្រាស់លទ្ធផលនៃការសិក្សានេះដើម្បីផ្តល់ព័ត៌មានកិច្ចខំប្រឹងប្រែងអនាគតដើម្បីបង្កើនលក្ខខណ្ឌទឹក ការលើកកម្ពស់ អនាម័យចំពោះស្ត្រីជនពិការ និងកម្មវិធីរួមបញ្ចូល។

ការសម្ភាសគួរតែចំនាយពេលប្រហែលមួយម៉ាង ។ យើងនឹងសួរសំណួរខ្លះៗ ហើយកត់ត្រាគំនិតរបស់អ្នក។យើងនឹងកត់ត្រាការសម្ភាសដោយប្រើប្រដាប់ថតសម្លេង។ ពេលដែលយើងបានសរសេរកំណត់ត្រាសម្ភាសហើយកំណត់ត្រានឹងលុបចេញ។
សូមចាំអ្វីៗដែលអ្នកនិយាយនឹងរក្សាជាឯកជន និងសម្ងាត់។ អ្នកមិនត្រូវឆ្លើយសំណួរដែលអ្នកមិនចង់។ឈ្មោះអ្នកនឹងមិនត្រូវបានកត់ត្រាក្នុងសៀវភៅ។ ខ្ញុំសូមលើកទឹកចិត្តអ្នកដើម្បីចែកចាយគំនិតរបស់អ្នក ខណៈដែលអ្វីៗដែលអ្នកនិយាយពិតជាមានសារសំខាន់។ គ្មានចំលើយខុស ឬត្រូវ ដូចនេះអ្នកគួរតែមានសេរីភាពក្នុងការបង្ហាញពីខ្លួនអ្នកទាំងស្រុង ។

តើអ្នកមានសំណួរដែរឬទេ? តើយើងចាប់ផ្តើមពេលនេះបានដែរឬទេ?

**សំណួរសម្ភាស:**

សំណួរចាប់ផ្តើម:

- ១.តើមានមនុស្សប៉ុន្មានអ្នករស់នៅជាមួយអ្នក?
  - ក. ការស៊ើបអង្កេត: តើមាននរណានៅក្នុងគ្រួសារអ្នក?
- ២. តើអ្នកនឹងរៀបរាប់សកម្មភាពរបស់អ្នកដូចម្តេច?
- ៣. តើពិការភាពប៉ះពាល់សកម្មភាពរបស់អ្នកដែរឬទេ?
  - ក. ការស៊ើបអង្កេត: ដោយរបៀបណា?

ការប្រើប្រាស់ទឹក:

- ៤. តើអ្នកទទួលបានទឹកប្រើប្រាស់របៀបណា?
- ៥. តើពិការភាពប៉ះពាល់ការប្រើប្រាស់ទឹកដែរឬទេ?
  - ក. ការស៊ើបអង្កេត: ដោយរបៀបណា?

៦. តើអ្នកអាចប្រើប្រាស់ទឹកទាំងអស់ដែលអ្នកត្រូវការដែរឬទេ?

ក. ការស៊ើបអង្កេត: តើអ្នកមានទឹកប្រើប្រាស់ដូចជាសមាជិកគ្រួសារដទៃដែរឬទេ?

៧ . តើអ្វីជាការប្រឈមប៉ះពាល់ការប្រើប្រាស់ទឹក?

ក. ការស៊ើបអង្កេត: តើអ្វីជាការប្រឈមប៉ះពាល់ការប្រើប្រាស់ទឹកខ្លាំងបំផុត?

ការទទួលបានអនាម័យ:

៨. តើផ្ទះរបស់អ្នកមានបង្គន់ដែរឬទេ?

ក. ការស៊ើបអង្កេត: តើមានបង្គន់ ឬ បង្គន់អនាម័យ ឬកន្លែងបន្ទោរបង់ហាលវាលដែលអ្នកប្រើជាទូទៅ?

៩. តើការពិការប៉ះពាល់ពីរបៀបដែលអ្នកប្រើបង្គន់ បង្គន់អនាម័យ ឬកន្លែងបន្ទោរបង់ហាលវាលដែរឬទេ?

ក. ការស៊ើបអង្កេត: ដោយរបៀបណា?

១០ . តើការពិការប៉ះពាល់បែបណាពេលដែលអ្នកងូតទឹក?

ក. ការស៊ើបអង្កេត: ដោយរបៀបណា?

ការថែទាំការមករដូវ:

១១. តើអ្នកអាចប្រាប់ខ្ញុំបានឬទេពីការមករដូវលើកដំបូងរបស់អ្នក?

១២. តើអ្នកមានបញ្ហាអ្វីខ្លះក្នុងការថែទាំការមករដូវជារៀងរាល់ខែ?

១៣. តើអ្នកអាចប្រាប់ខ្ញុំបានទេអំពីសម្ភារៈដែលអ្នកប្រើក្នុងពេលមករដូវ?

ក. ការស៊ើបអង្កេត: តើមានបញ្ហាអ្វីខ្លះទាក់ទងក្នុងការប្រើសម្ភារៈអនាម័យ?

ខ. ការស៊ើបអង្កេត: តើអ្នកវីកាយជាមួយនឹងវិធីបច្ចុប្បន្នសម្រាប់ថែទាំការមករដូវ?

១៤. អ្នកអាចប្រាប់បានទេថាតើអ្នកធ្វើដូចម្តេចចំពោះសម្ភារៈអនាម័យដែលបានប្រើប្រាស់ហើយ?

១៥. តើអ្នកថែទាំការធ្លាក់ឈាមបែបណាបន្ទាប់ពីបង្កើតកូន រលូតកូន និងការរំលូតកូន?

ក. ការស៊ើបអង្កេត: តើមិត្តភ័ក្រស្រី ឬ សមាជិកគ្រួសារពិការថែទាំការធ្លាក់ឈាមបន្ទាប់ពីបង្កើតកូន រលូតកូន និងការរំលូតកូន?

១៦. តើការប្រើប្រាស់បន្ទប់ទឹក បង្គន់អនាម័យ ឬកន្លែងបន្ទោរបង់ហាលវាលប៉ះពាល់បទពិសោធន៍ការមករដូវរបស់អ្នកបែបណា?

១៧. តើកន្លែងងូតទឹករបស់អ្នកប៉ះពាល់បទពិសោធន៍ការមករដូវបែបណា?

សុវត្ថិភាព និងសន្តិសុខ

១៨. តើមនុស្សក្នុងភូមិប្រព្រឹត្តបែបណាចំពោះអ្នក?

ក. ការស៊ើបអង្កេត: តើសមាជិកគ្រួសារប្រព្រឹត្តបែបណាខ្លះចំពោះអ្នក?

ខ. ការស៊ើបអង្កេត: តើអ្នកជិតខាងប្រព្រឹត្តបែបណាខ្លះចំពោះអ្នក?

គ. ការស៊ើបអង្កេត: ហេតុអ្វីបានជាអ្នកគិតថាពួកគេប្រព្រឹត្តបែបនេះ?

១៩. តើអ្នកមានអារម្មណ៍សុវត្ថិភាពពេលដែលអ្នកប្រើបន្ទប់ទឹក បង្គន់អនាម័យ ឬការបន្ទោរបង់ហាលវាល?

ក. ការស៊ើបអង្កេត: ហេតុអ្វីបានជាអ្នកមានអារម្មណ៍អត់សុវត្ថិភាពពេលដែលប្រើបន្ទប់ទឹក បង្គន់អនាម័យ ឬកន្លែងបន្ទោរបង់ហាលវាល?

ខ. ការស៊ើបអង្កេត: តើអ្នកវីកាយបែបណាជាមួយលក្ខណៈឯកជនពេលដែលអ្នកប្រើប្រាស់?

គ. ការស៊ើបអង្កេត: តើអ្នកវីកាយបែបណាជាមួយលក្ខណៈសន្តិសុខពេលដែលអ្នកប្រើប្រាស់?

២០. តើអ្នកមានអារម្មណ៍សុវត្ថិភាពនៅកន្លែងងូតទឹក?

ក. ការស៊ើបអង្កេត: ហេតុអ្វីបានជាអ្នកមានអារម្មណ៍អត់សុវត្ថិភាពនៅពេលងូតទឹក?

ខ. ការស៊ើបអង្កេត:តើអ្នកវីកវាយបែបណាជាមួយលក្ខណៈឯកជនពេលដែលអ្នកប្រើប្រាស់?

គ. ការស៊ើបអង្កេត: តើអ្នកវីកវាយបែបណាដែរជាមួយលក្ខណៈសន្តិសុខពេលដែលអ្នកប្រើប្រាស់?

សំណួរបញ្ចប់:

២១. តើអ្នកធ្លាប់បានចូលរួមក្នុងសកម្មភាពក្រុម ឬសិក្ខាសាលាទាក់ទងនឹងទឹក និងការលើកកម្ពស់អនាម័យដែរឬទេ?

២២. តើអ្នកមានបញ្ហាបែបណាខ្លះប្រៀបធៀបនឹងស្ត្រីផ្សេងៗក្នុងសហគមន៍?

ក. ការស៊ើបអង្កេត: តើអ្នកមានការបញ្ហាបែបណាក្នុងការប្រើប្រាស់ទឹកប្រៀបធៀបនឹងស្ត្រីផ្សេងៗ?

ខ. ការស៊ើបអង្កេត: តើអ្នកមានការបញ្ហាបែបណាក្នុងការប្រើប្រាស់បង្គន់ បង្គន់អនាម័យ ឬការបន្ទោរបង់ហាលវាលប្រៀបធៀបនឹងស្ត្រីផ្សេងៗ?

គ. ការស៊ើបអង្កេត: តើអ្នកមានការបញ្ហាបែបណាក្នុងការប្រើប្រាស់កន្លែងងូតទឹកប្រៀបធៀបនឹងស្ត្រីដទៃ?

ឃ. ការស៊ើបអង្កេត: តើអ្នកមានការបញ្ហាបែបណាក្នុងការថែទាំការមករដូវប្រៀបធៀបនឹងស្ត្រីដទៃ?

២៣. តើអ្វីខ្លះនឹងបង្កើនការទទួលបានការប្រើប្រាស់សម្រាប់អ្នក?

ក. ការស៊ើបអង្កេត: តើអ្វីខ្លះនឹងធ្វើឲ្យអ្នកប្រើប្រាស់ទឹកងាយស្រួលជាងមុន?

ខ. ការស៊ើបអង្កេត: តើអ្វីខ្លះនឹងធ្វើឲ្យអ្នកប្រើប្រាស់បង្គន់ បង្គន់អនាម័យ ឬការបន្ទោរបង់ហាលវាលជាងមុន?

គ. ការស៊ើបអង្កេត: តើអ្វីខ្លះនឹងធ្វើឲ្យអ្នកមានកន្លែងងូតទឹកងាយស្រួលជាងមុន?

ឃ.ការស៊ើបអង្កេត: តើអ្វីខ្លះនឹងធ្វើឲ្យអ្នកថែទាំការមករដូវងាយស្រួលជាងមុន?

២៤. ខ្ញុំសូមឲ្យអ្នកបង្ហាញអ្វីដែលជាការលំបាកបំផុតសម្រាប់អ្នកពីការប្រើប្រាស់ទឹក។ ខ្ញុំសូមថតរូបពេលដែលអ្នកបង្ហាញខ្ញុំ។

ក. ការស៊ើបអង្កេត: តើអ្នកអាចបង្ហាញខ្ញុំដែរឬទេពេលដែលអ្នកទៅបន្ទប់ទឹក?

ខ. ការស៊ើបអង្កេត: តើអ្នកអាចបង្ហាញខ្ញុំដែរឬទេពេលដែលអ្នកប្រើប្រាស់ទឹក?

គ. ការស៊ើបអង្កេត: តើអ្នកអាចបង្ហាញខ្ញុំអ្វីជាការលំបាកបំផុតអំពីសកម្មភាពទាំងនេះ ហើយហេតុអ្វីបានជាវាលំបាក?

**APPENDIX IV: FOCUS GROUP DISCUSSION GUIDE**

WaterAid

Addressing Water, Sanitation, and Menstrual Hygiene Management Access Barriers Encountered by Khmer Women with Disabilities

**Materials for FGDs:**

- Consent Forms
- Focus Group Discussion Guide for Facilitator
- Digital Recording Device
- Charger for Recording Device
- Notebook
- Refreshments

## FOCUS GROUP DISCUSSION

| | | | |
|---|---|---|---|
| Name of Facilitator: | | Name of Research Assistant: | |
| Date (DD/MM/YY): | | | |
| Start Time: | | End Time: | |
| | | | |
| Name of Province: | | Research Site: | |

Please record the age of each FGD participant below:

| Participant Number | Age (Years) |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

Nature of Disabilities:

Impaired Mobility: _____

Impaired Hearing: _____

Impaired Vision: _____

Has written or verbal informed consent been obtained from all participants?

YES / NO

**Introduction:**

**Facilitator**: Thank you all for attending this focus group discussion today. My name is [name of facilitator]. I am working with WaterAid Cambodia to conduct a study among community members in [name of province/research site]. The purpose of this study is to explore some of the challenges that women with disabilities face regarding access to water and sanitation for menstrual hygiene management and other activities of daily living.

This discussion is part of the study. We are interested in learning from you about what women with disabilities experience in their daily lives, specifically concerning access to water, activities for which water is necessary, use of toilet and bathing facilities, and menstrual hygiene management. WaterAid Cambodia will use the results of this study to inform future efforts for improvement of water, sanitation, and hygiene conditions for women with disabilities, and to develop inclusive, accessible programs.

The discussion should take about one hour. We will ask you some questions and take notes to record your ideas. We will record the discussion using a voice recorder. Once we have written down the recorded discussion, the recording will be destroyed.

Please remember that everything you say will remain private and confidential. We will not record your names on any of the notes. I would like to encourage everyone to share their ideas, as everything you have to say is very important. There are no right or wrong answers, so you should feel free to express yourself fully.

To make sure everyone feels comfortable to speak freely, there are some rules for this discussion:

- Everything we discuss here is private, so please do not tell other people about the details of this discussion after we have left this room.
- Please respect each other by not repeating information that you hear during this discussion to anyone outside of this group.
- So that everyone can express their ideas in full, only one person should speak at a time; everyone can take turns speaking.
- Everyone's ideas and opinions are important, so let's give everyone a chance to talk. Please respect others by not making other people feel uncomfortable or judging what they say.
- It would be best if you could stay for the whole discussion. However, if you need to leave during the discussion, please put up your hand and ask to leave. You may leave at any time.

Does anyone have any questions? May we begin the discussion now?

The facilitator will turn on the recorder and clearly state the date, time, location, and facilitator's name.

FGD Guide:

Opening Questions:

1. What do women in the community typically do each day?

2. Does disability affect the activities of women in the community?
    a. Probe: How?

Water Access:

3. How do women in the community access water?

4. Does disability affect access to water for women in the community?
    a. Probe: How?
    b. Probe: What are the barriers?

Sanitation Access:

5. Do most women in the community have toilets in their households?

6. Does disability affect how women access the toilet, latrine, or open defecation area?
    a. Probes: How?

7. What do women with disabilities in the community learn about menstruation?

8. Do women know to expect menstruation before they begin menstruating?
    a. Probe: How does this affect their experiences with first menstruation?

9. What challenges do women with disabilities face in managing periods each month?

10. How do women with disabilities access sanitary materials?
    a. Probe: What are their challenges related to use of sanitary materials?
    b. Probe: How satisfied are they with current methods for managing menstruation?

11. What do women with disabilities do with used sanitary materials?

12. How do women with disabilities manage extended bleeding after childbirth, miscarriage, or an abortion?

13. How does access to water and toilets affect experience of menstruation for women with disabilities?

Safety and Security:

14. How are women with disabilities treated in the community?
    a. Probe: How do family members treat women with disabilities?
    b. How do neighbors or other community members treat women with disabilities?
    c. Probe: Why do you think women with disabilities are treated this way?

15. Do women with disabilities feel safe when accessing toilets, latrines, or open defecation areas?
    a. Probe: Why might women with disabilities *not* feel safe when accessing toilets, latrines, or open defecation areas?
    b. Probe: How satisfied are women with privacy conditions while accessing facilities?
    c. Probe: How satisfied are women with security conditions while accessing facilities?

16. Do women with disabilities feel safe when bathing?
    a. Probe: Why might women with disabilities *not* feel safe when bathing?
    b. Probe: How satisfied are women with privacy conditions while accessing facilities?
    c. Probe: How satisfied are women with security conditions while accessing facilities?

Closing Questions:

17. Are women with disabilities in the community able to participate in workshops, trainings, or meetings concerning water and sanitation?

18. How do the challenges that women with disabilities face compare to those of women in the community without disabilities?
    a. Probe: How do challenges in accessing water for women with disabilities compare to those of women without disabilities?
    b. Probe: How do challenges in accessing toilets, latrines, or open defecation areas for women with disabilities compare to those of women without disabilities?
    c. How do challenges in accessing bathing areas for women with disabilities compare to those of women without disabilities?
    d. How do challenges in managing menstruation for women with disabilities compare to those of women without disabilities?

19. What would improve accessibility for women with disabilities in the community?
    a. Probe: What would make accessing water easier for women with disabilities in the community?
    b. Probe: What would make accessing toilets, latrines, or open defecation areas, easier for women with disabilities in the community?
    c. What would make accessing bathing areas easier for women with disabilities in the community?
    d. What would make managing menstruation easier for women with disabilities in the community?

WaterAid

ដំណោះស្រាយបញ្ហាការប្រើប្រាស់ទឹក, ការលើកកម្ពស់អនាម័យ និងការថែទាំអនាម័យ
ការមកវិជ្ជរំដែលប្រឈមដោយស្ត្រីពិការកម្ពុជា

សម្ភារៈសម្រាប់ការពិភាក្សាក្រុម

- ទម្រង់ព្រមព្រៀង
- កម្រងសំណួរសម្រាប់ការពិភាក្សាក្រុម
- ប្រដាប់ថតសំលេង
- ថ្មសាកប្រដាប់ថតសំលេង
- សៀវភៅកត់ត្រា
- អាហារសម្រន់

កម្រងសំណួរពិភាក្សាក្រុម

| | | | |
|---|---|---|---|
| ឈ្មោះអ្នកសម្របសម្រួល | | ឈ្មោះជំនួយការសម្គាស | |
| កាលបរិច្ឆេទ: | | | |
| ពេលចាប់ផ្តើម: | | ពេលបញ្ចប់: | |
| | | | |
| ឈ្មោះខេត្ត: | | ទីតាំងពិភាក្សាក្រុម: | |

សូមកត់ត្រាអាយុអ្នកពិភាក្សាក្រុមនីមួយៗខាងក្រោម:

| ល.រ | អាយុ (ឆ្នាំ) |
|---|---|
| ១ | |
| ២ | |
| ៣ | |
| ៤ | |
| ៥ | |
| ៦ | |
| ៧ | |
| ៨ | |

លក្ខណៈនៃភាពពិការ

មិនអាចដើរ : _____

មិនអាចលឺ : _____

មិនអាចឃើញ : _____

តើអ្នកបានទទួលព័ត៌មានទម្រង់ព្រមព្រៀងដែលបានអានដែរឬទេ? ចាស/ទេ

សេចក្តីណែនាំ

| |
|---|
| អ្នកសម្របសម្រួល: សូមអរគុណចំពោះការចូលរួមការពិភាក្សាក្រុមថ្ងៃនេះ។ ខ្ញុំឈ្មោះ.....ខ្ញុំធ្វើការនៅអង្គការ Water Aid ធ្វើការសិក្សាក្នុងសហគមន៍ (ឈ្មោះខេត្ត/ ទីតាំង)។ គោលបំណងនៃការសិក្សានេះគឺរកបញ្ហាខ្លះៗដែលស្ត្រីពិការប្រឈមយោងទៅលើការប្រើប្រាស់ទឹក និងការលើកកម្ពស់អនាម័យសម្រាប់ការថែទាំអនាម័យការមករដូវ និងសកម្មភាពរស់នៅប្រចាំថ្ងៃផ្សេងៗ។<br><br>ការពិភាក្សានេះជាផ្នែកមួយនៃការសិក្សា ។ យើងពិតជាចាប់អារម្មណ៍ក្នុងការរៀនសូត្រពីអ្នក អំពីអ្វីដែលស្ត្រីពិការប្រឈមក្នុងការរស់នៅប្រចាំថ្ងៃជាពិសេសទាក់ទងនឹងការប្រើប្រាស់ទឹក សកម្មភាពនានា ទឹកពិតជាចាំបាច់ប្រើក្នុងបង្គន់ ងូតទឹក និងការថែទាំអនាម័យការមករដូវ។ អង្គការ WaterAid នៅកម្ពុជានឹងប្រើប្រាស់លទ្ធផលនៃការសិក្សានេះដើម្បីផ្តល់ព័ត៌មានក្នុងកិច្ចខំប្រឹងប្រែងអនាគតដើម្បីអភិវឌ្ឍលក្ខខណ្ឌទឹក ការលើកកម្ពស់អនាម័យសម្រាប់ស្ត្រីពិការ និងកម្មវិធីការទទួលបាន និងរួមបញ្ចូល។<br><br>ការពិភាក្សាគួរតែចំនាយពេលប្រហែលមួយម៉ាង ។ យើងនឹងសួរសំណួរខ្លះៗ ហើយកត់ត្រាគំនិតរបស់អ្នក។យើងនឹងកត់ត្រាការពិភាក្សាដោយប្រដាប់ថតសម្លេង។ ពេលដែលយើងបានសរសេរកំណត់ត្រាពិភាក្សាហើយ កំណត់ត្រានឹងលុបចេញ។<br>សូមចាំថាអ្វីៗដែលអ្នកនីយាយនឹងរក្សាជាឯកជន និងសម្ងាត់។ ឈ្មោះអ្នកនឹងមិនត្រូវបានសរសេរក្នុងសៀវភៅ។ ខ្ញុំសូមលើកទឹកចិត្តអ្នកដើម្បីចែកចាយគំនិតរបស់អ្នក អ្វីៗដែលអ្នកនីយាយពិតជាមានសារសំខាន់។ គ្មានចំលើយខុស រឺត្រូវ ដូចនេះអ្នកមានសិទ្ធិក្នុងការបង្ហាញពីខ្លួនឯងទាំងស្រុង ។<br>ដើម្បីជានាថាអ្នករាល់គ្នាមានអារម្មណ៍ស្រួលក្នុងការនិយាយដោយសេរី មានច្បាប់ខ្លះៗក្នុងការពិភាក្សានេះ: ៖<br>• អ្វីដែលយើងពិភាក្សាទីនេះជាឯកជន ដូច្នេះសូមអ្នកកុំប្រាប់អ្នកដទៃពីភាពលំអិតនៃការពិភាក្សានេះ ពេលដែលយើងចប់ការពិភាក្សា<br>• សូមគោរពគ្នាដោយមិនថាតាមព័ត៌មានដែលអ្នកលឺកំលុងពេលពិភាក្សាដល់អ្នកដទៃក្រៅក្រុមនេះ<br>• ដូច្នេះអ្នករាល់គ្នាអាចបង្ហាញពីគំនិតរបស់អ្នកពេញលេញ នីយាយម្នាក់ម្តង អ្នករាល់គ្នាអាចជាក់វេនគ្នានីយាយ<br>• គំនិត និងយោបល់អ្នករាល់គ្នាពិតជាសំខាន់ ដូច្នេះសូមទុកពេលឲ្យម្នាក់ៗនិយាយ។ សូមគោរពអ្នកដទៃដោយមិនធ្វើឲ្យអ្នកដទៃមានអារម្មណ៍មិនស្រួល រឺនិយាយកាត់<br>• វានឹងល្អបំផុតប្រសិនបើអ្នកអាចនៅក្នុងការពិភាក្សាក្រុមទាំងមូល។ ទោះបីយ៉ាងណាក៏ដោយ ប្រសិនបើអ្នកត្រូវការចាកចេញកំលុងពេលពិភាក្សា សូមលើកដៃ ហើយចាកចេញ។ អ្នកអាចចាកចេញពេលណាក៏បាន<br><br>តើអ្នកមានសំណួរដែរឬទេ? តើយើងចាប់ផ្តើមការពិភាក្សាពេលនេះបានដែរឬទេ? |

អ្នកសម្របសម្រួលនឹងបើកប្រដាប់ថតសម្លេង ហើយដាក់ថ្ងៃ កាលបរិច្ឆេទ ទីតាំង និងឈ្មោះអ្នសម្របសម្រួល

សំណួរពិភាក្សាក្រុម:

សំណួរចាប់ផ្តើម

១. តើស្ត្រីក្នុងភូមិធ្វើអ្វីខ្លះប្រចាំថ្ងៃ?

២. តើការពិការប៉ះពាល់សកម្មភាពស្ត្រីក្នុងភូមិដែរឬទេ?

ក. ការស៊ើបអង្កេត: បែបណាខ្លះ?

ការប្រើប្រាស់ទឹក:

៣. តើស្ត្រីប្រើប្រាស់ទឹកដោយរបៀបណានៅក្នុងភូមិ?

៤. តើការពិការប៉ះពាល់ដល់ការប្រើប្រាស់ទឹកក្នុងភូមិ?

ក. ការស៊ើបអង្កេត: បែបណាខ្លះ?

ខ. ការស៊ើបអង្កេត: តើមានការប្រឈមអ្វីខ្លះ?

ការទទួលបានអនាម័យ

៥. តើស្ត្រីភាគច្រើនក្នុងភូមិមានបង្គន់នៅផ្ទះពួកគេដែរឬទេ?

៦. តើការពិការប៉ះពាល់ដល់ស្ត្រីក្នុងការប្រើបង្គន់ បង្គន់អនាម័យ ឬកន្លែងបត់ជើងហាលវាលដែរឬទេ ?

ក. ការស៊ើបអង្កេត: បែបណាខ្លះ?

៧. តើស្ត្រីពិការក្នុងភូមិរៀនអ្វីខ្លះអំពីការមករដូវ?

៨. តើស្ត្រីដឹងពីការមករដូវមុនពេលពួកគេមករដូវដំបូង ?

ក. ការស៊ើបអង្កេត: តើការដឹងនេះប៉ះពាល់បទដល់ការមករដូវដំបូងដែរឬទេ ?

៩. តើស្ត្រីពិការប្រឈមបញ្ហាអ្វីខ្លះក្នុងការថែទាំការមករដូវជារៀងរាល់ខែ?

១០. តើស្ត្រីពិការទទួលបានសម្ភារៈអនាម័យដោយបែបណា?

ក. ការស៊ើបអង្កេត: តើពួកគេមានការប្រឈមអ្វីខ្លះទាក់ទងនឹងការប្រើសម្ភារៈអនាម័យ?

ខ. ការស៊ើបអង្កេត: តើពួកគេរីករាយជាមួយវិធីថ្មីៗក្នុងការថែទាំការមករដូវ?

១១. តើស្ត្រីពិការធ្វើអ្វីខ្លះបន្ទាប់ពីប្រើសម្ភារៈអនាម័យហើយ?

១២. តើស្ត្រីពិការថែទាំការធ្លាក់ឈាមបន្តបែបណាខ្លះបន្ទាប់ពីបង្កើតកូន រលូតកូន និងការរលូតកូន?

១៣. តើការប្រើប្រាស់ទឹក និងបង្គន់ប៉ះពាល់បទពិសោធន៍ការមករដូវបែបណាខ្លះចំពោះស្ត្រីពិការ?

សុវត្ថិភាព និងសន្តិសុខ

១៤. តើប្រជាជនក្នុងភូមិប្រព្រឹត្តបែបណាខ្លះចំពោះស្ត្រីពិការ?

ក. ការស៊ើបអង្កេត: តើសមាជិកគ្រួសារប្រព្រឹត្តបែបណាខ្លះចំពោះស្ត្រីពិការ?

ខ. ការស៊ើបអង្កេត: តើអ្នកជិតខាងប្រព្រឹត្តបែបណាខ្លះចំពោះស្ត្រីពិការ?

គ. ការស៊ើបអង្កេត: ហេតុអ្វីបានជាអ្នកគិតថាពួកគេប្រព្រឹត្តបែបនេះ?

១៥. តើស្ត្រីពិការមានអារម្មណ៍សុវត្ថិភាពពេលដែលប្រើបង្គន់ បង្គន់អនាម័យ ឬការបន្ទោរបង់ហាលវាល?

ក. ការស៊ើបអង្កេត: ហេតុអ្វីបានជាស្ត្រីពិការគ្មានអារម្មណ៍សុវត្ថិភាពពេលដែលប្រើបង្គន់ បង្គន់អនាម័យ ឬកន្លែងបន្ទោរបង់ហាលវាល?

ខ. ការស៊ើបអង្កេត: តើពួកគេរីករាយបែបណាជាមួយលក្ខណៈឯកជនពេលដែលពួកគេប្រើសម្ភារៈ?

គ. ការស៊ើបអង្កេត: តើពួកគេរីករាយបែបណាដែរជាមួយលក្ខណៈសន្តិសុខពេលដែលពួកគេប្រើសម្ភារៈ?

១៦. តើអ្នកមានអារម្មណ៍សុវត្ថិភាពនៅកន្លែងងូតទឹក?

ក. ការស៊ើបអង្កេត: ហេតុអ្វីបានជាស្ត្រីពិការគ្មានអារម្មណ៍សុវត្ថិភាពនៅពេលងូតទឹក?

ខ. ការស៊ើបអង្កេត: តើស្ត្រីពិការរីករាយបែបណាជាមួយលក្ខណៈឯកជនពេលដែលអ្នកប្រើសម្ភារៈ?

គ. ការស៊ើបអង្កេត: តើស្ត្រីពិការរីករាយបែបណាជាមួយលក្ខណៈសន្តិសុខពេលដែលអ្នកទទួលសម្ភារៈ?

សំណួរបញ្ចប់:

២១. តើស្ត្រីពិការក្នុងសហគមន៍អាចចូលរួមក្នុងសិក្ខាសាលា វគ្គបណ្តុះបណ្តាល ឬ ការប្រជុំទាក់ទងនឹងទឹក និងការលើកកម្ពស់អនាម័យ?

២២. តើស្ត្រីពិការមានបញ្ហាបែបណាប្រៀបធៀបនឹងស្ត្រីមិនពិការក្នុងសហគមន៍?

ក. ការស៊ើបអង្កេត: តើបញ្ហាបែបណាខ្លះក្នុងការប្រើប្រាស់ទឹកប្រៀបធៀបនឹងស្ត្រីផ្សេងៗ?

ខ. ការស៊ើបអង្កេត: តើអ្នកមានការបញ្ហាបែបណាខ្លះក្នុងការប្រើប្រាស់បង្គន់ បង្គន់អនាម័យ ឬការបន្ទោរបង់ហាលវាលប្រៀបធៀបនឹងស្ត្រីផ្សេងៗ?

គ. ការស៊ើបអង្កេត: តើអ្នកមានការបញ្ហាបែបណាខ្លះក្នុងការប្រើប្រាស់កន្លែងងូតទឹកប្រៀបធៀបនឹងស្ត្រីដទៃ?

ឃ. ការស៊ើបអង្កេត: តើស្ត្រីពិការមានបញ្ហាបែបណាខ្លះក្នុងការថៃទាំការមករដូវប្រៀបធៀបនឹងស្ត្រីមិនពិការ?

២៣. តើអ្វីខ្លះនឹងបង្កើនការទទួលបានការប្រើប្រាស់ចំពោះស្ត្រីពិការក្នុងភូមិ?

ក. ការស៊ើបអង្កេត: តើអ្វីខ្លះនឹងធ្វើឲ្យស្ត្រីពិការប្រើប្រាស់ទឹកងាយស្រួលជាងស្ត្រីមិនពិការក្នុងភូមិ?

ខ. ការស៊ើបអង្កេត: តើអ្វីខ្លះនឹងធ្វើឲ្យស្ត្រីពិការប្រើប្រាស់បង្គន់ បង្គន់អនាម័យ ឬការបន្ទោរបង់ហាលវាលបានងាយជាងស្ត្រីមិនពិការក្នុងសហគមន៍?

គ. ការស៊ើបអង្កេត: តើអ្វីខ្លះនឹងធ្វើឲ្យស្ត្រីពិការក្នុងភូមិមានកន្លែងងូតទឹកងាយស្រួលជាងមុន?

ឃ.ការស៊ើបអង្កេត: តើអ្វីខ្លះនឹងធ្វើឲ្យស្ត្រីពិការក្នុងភូមិថៃទាំការមករដូវងាយស្រួលជាងមុន?

## APPENDIX V: CONSENT FORMS

*In-Depth Interview Informed Consent:*

WaterAid

Addressing Water, Sanitation, and Menstrual Hygiene Management Access Barriers Encountered by Khmer Women with Disabilities

**PARTICIPANT INFORMATION AND CONSENT FORM**
**IN-DEPTH INTERVIEWS**

You are being invited to take part in a study about access to water, sanitation, and menstrual hygiene management for women with disabilities.

**What are we collecting information about?** Women with disabilities may experience unique challenges with regards to accessing water, sanitation, and hygiene resources. The purpose of this study is to better understand how women with disabilities access water and sanitation, manage associated menstrual hygiene, and how challenges might be addressed. We would like to ask you questions about how you access water and toilets, and how you perform daily tasks that involve water. We would also like to ask you questions about the challenges that you face during menstruation, and about what can be done to address those challenges.

**Do I have to take part?** We would like for you to take part in the interview, but it is your decision. You can change your mind and leave the interview at any time. It is entirely your choice. Please let us know if you have any questions about the study.

**What happens if I agree to take part?** You will be asked to participate in a private interview about access to water, sanitation, and menstrual hygiene management. This will take about 1 hour. We will take notes during the discussion and record the interview with a recording device so that we can accurately write down the ideas you share.

**What if I am upset by anything in the interview?** Sometimes issues related to menstrual health can be sensitive. You do not have to answer any questions that you do not wish to.

**Will anyone know what I talk about?** Everything that we discuss will remain confidential. We will not record your name on any of the notes or on the recordings. Once we have finished writing down all of your ideas, the recordings will be destroyed.

**What will happen to the information collected?** Responses given during the interviews will be summarized and they will remain anonymous. A summary of the main findings will be shared with representatives from organizations working to improve health and access to water and sanitation for women with disabilities.

**Questions?** You are free to ask any questions before agreeing to participate. If you have more questions later, you may contact: Sarah Gelbard (Researcher at WaterAid, Sarah.Beth.Gelbard@emory.edu)

**Complaints?** If you have any complaints about the research, you may contact: Chelsea Huggett (Advisor at WaterAid, Chelsea.Huggett@wateraid.org.au) Any complaint you make will be investigated promptly and you will be informed of the outcome.

**OPTION 1:**

☐ I have received the Participant Information Sheet explaining this study. I understand why the study is being conducted and what my role in the study will be. I understand that all data collected will remain confidential. I agree to participate in the study. (☑ if this statement is correct.)

…… *(Signature of participant)*

…… *(Signature of researcher)*

Date: ……/……/……

**OPTION 2: (*To be used if participant is not able to sign name)***

☐ This participant has received the Participant Information Sheet explaining this study. She states that she understands why the study is being conducted and what her role in the study will be. She understands that all data collected will remain confidential. She has freely agreed to participate in the study. (☑ if this statement is correct.)

…… *(Signature of witness)*

…… *(Signature of researcher)*

Date: ……/……/……

WaterAid

ដោះស្រាយបញ្ហាការប្រើប្រាស់ទឹក ការលើកកម្ពស់អនាម័យ និងការថែទាំ
អនាម័យការមករដូវដែលប្រឈមដោយស្ត្រីពិការកម្ពុជា
ព័ត៌មានការចូលរួម និងទម្រង់ព្រមព្រៀងក្នុងការពិភាក្សាក្រុម: ការសម្ភាស

យើងអញ្ជើញអ្នកមកចូលរួមក្នុងការសិក្សាអំពីការប្រើប្រាស់ទឹក អនាម័យ និងការថែទាំអនាម័យការមករដូវសម្រាប់ស្ត្រីពិការ ។ **តើយើងប្រមូលព័តមានពីអ្វីខ្លះ** ? ស្ត្រីពិការអាចប្រឈមនឹងការលំបាកដោយឡែកទាក់ទងនឹងការប្រើប្រាស់ទឹក អនាម័យ និង ធនធានអនាម័យ។ គោលបំណងនៃការសិក្សានេះគឺជាការយល់ដឹងប្រសើរឡើងពីស្ត្រីប្រើប្រាស់ទឹក អនាម័យ ការថែទាំរួមបញ្ចូលអនាម័យការមករដូវ និងដំណោះស្រាយការលំបាកជាច្រើន។ យើងសូមសួរសំណួរពីការប្រើប្រាស់ទឹក បង្គន់ និងកិច្ចការប្រចាំថ្ងៃទាក់ទងនឹងការប្រើប្រាស់ទឹក។ យើងសូមសួរសំណួរពីការលំបាកដែលអ្នកមានក្នុងពេលមករដូវ និងពីអ្វីដែលអ្នកដោះស្រាយ។

**តើខ្ញុំត្រូវចូលរួមដែរឬទេ?** យើងសូមឲ្យអ្នកចូលរួមការសម្ភាស ប៉ុន្តែវាជាការសម្រេចចិត្តរបស់អ្នក។ អ្នកអាចប្តូរគំនិត និងឈប់ផ្តល់ការសម្ភាសពេលណាមួយ។ វាជាការជ្រើសរើសរបស់អ្នកទាំងស្រុង។ សូមសួរយើងបើមានសំណួរអំពីការសិក្សា។

**តើអ្វីកើតឡើងប្រសិនជាខ្ញុំយល់ព្រមការចូលរួម?** យើងបានសូមអ្នកឲ្យចូលរួមក្នុងការសម្ភាសនិយាយពីការប្រើប្រាស់ទឹក អនាម័យ និងការថែទាំអនាម័យការមករដូវ។ ការសម្ភាសនេះនឹងចំនាយពេលប្រហែលមួយម៉ោង។ យើងនឹងកត់ត្រាក្នុងពេលសម្ភាស និងថតសម្លេងដូច្នេះយើងអាចសរសេរគំនិតយ៉ាងត្រឹមត្រូវដែលអ្នកចែកចាយ។

**ហើយប្រសិនបើខ្ញុំមិនសប្បាយចិត្តក្នុងការសម្ភាស?** ពេលខ្លះបញ្ហាទាក់ទងសុខភាពការមករដូវអាចជាការប៉ះពាល់។ អ្នកមានសិទ្ធិមិនឆ្លើយសំណួរណាមួយដែលអ្នកមិនចង់ឆ្លើយ។

**តើមាននរណាខ្លះដឹងពីអ្វីដែលខ្ញុំនិយាយ?** អ្វីៗដែលយើងពិភាក្សានឹងរក្សាការសម្ងាត់។ យើងនឹងមិនបញ្ចេញឈ្មោះរបស់អ្នកលើកំណត់ត្រា ឬប្រដាប់ថតសម្លេង។ ពេលដែលយើងបញ្ចប់ការសិក្សានេះយើងនឹងលុបឯកសារក្នុងប្រដាប់ថតសម្លេង។
**តើនឹងមានអ្វីកើតឡើងចំពោះព័ត៌មានដែលប្រមូលបាន?** ឆ្លើយតបនឹងការផ្តល់ឲ្យក្នុងការសម្ភាសនេះនឹងត្រូវបានសង្ខេប ហើយរាល់គំនិតនឹងមិនត្រូវបានបញ្ចេញឈ្មោះ។ សេចក្តីសង្ខេបនៃការរកឃើញសំខាន់នេះនឹងចែកចាយជាមួយអ្នកតំណាងពីអង្គការធ្វើការទាក់ទងនឹងសុខភាព ការប្រើប្រាស់ទឹក និងអនាម័យសម្រាប់ស្ត្រីពិការ។

**សំណួរ?** អ្នកអាចសួរមុនពេលយល់ព្រមក្នុងការចូលរួម។ ប្រសិនបើអ្នកមានសំណួរបន្ថែមពេលក្រោយ អ្នកអាចទាក់ទង : Sarah Gelbard (អ្នកស្រាវជ្រាវនៅអង្គការ WaterAid, Sarah.Beth.Gelbard@emory.edu)

**បណ្តឹង?** ប្រសិនបើអ្នកមានបណ្តឹងពីការស្រាវជ្រាវ អ្នកអាចទាក់ទង Chelsea Huggett (អ្នកផ្តល់ជំបូន្មាននៅអង្គការ WaterAid, Chelsea.Huggett@wateraid.org.au) រាល់បណ្តឹងអ្នកអាចនឹងត្រូវបានអង្កេតភ្លាមៗ ហើយនឹងផ្តល់ជំនឹងឲ្យអ្នក។

**ទម្រង់ព្រមព្រៀងការសម្ភាស**

**ជម្រើស១**

☐ ខ្ញុំបានទទួលក្រដាសព័ត៌មានការចូលរួមពន្យល់ការសិក្សានេះ។ ខ្ញុំយល់ពីមូលហេតុដែលការសិក្សានេះបានរៀបចំឡើង និងតួនាទីរបស់ខ្ញុំក្នុងការសិក្សា។ ខ្ញុំដឹងថាទិន្នន័យដែលបានប្រមូលនឹងរក្សាការសម្ងាត់។ ខ្ញុំយល់ព្រមក្នុងការសិក្សានេះ។ (☑ប្រសិនបើសេចក្តីថ្លែងការនេះត្រឹមត្រូវ )

..... (ហត្ថលេខាអ្នកចូលរួម)

..... (ហត្ថលេខាអ្នកស្រាវជ្រាវ)

កាលបរិច្ឆេទ : ...../...../.....

ជម្រើស២ ( ប្រើចំពោះអ្នកចូលរួមមិនអាចចុះហត្ថលេខាបាន)

☐ អ្នកចូលរួមបានសរសេរក្រដាសព័ត៌មានការចូលរួមដែលពន្យល់ពីការសិក្សានេះ។ គាត់ថ្លែងថាគាត់យល់មូលហេតុដែលការសិក្សានេះរៀបចំឡើង និងអ្វីជាតួនាទីរបស់គាត់ក្នុងការសិក្សានេះ។ គាត់យល់ថាទិន្នន័យត្រូវបានប្រមូលនឹងរក្សាការសម្ងាត់។ គាត់យល់ព្រមក្នុងការសិក្សានេះ។ (☑ប្រសិនបើសេចក្តីថ្លែងការនេះត្រឹមត្រូវ )

..... (ហត្ថលេខាសាក្សី)

..... (ហត្ថលេខាអ្នកស្រាវជ្រាវ)

កាលបរិច្ឆេទ : ...../...../.....

*Focus Group Discussion Informed Consent:*

WaterAid

Addressing Water, Sanitation, and Menstrual Hygiene Management Access Barriers Encountered by Khmer Women with Disabilities

**PARTICIPANT INFORMATION AND CONSENT FORM: FGDs**

You are being invited to take part in a study about access to water, sanitation, and menstrual hygiene management for women with disabilities.

**What are we collecting information about?** Women with disabilities may experience unique challenges with regards to accessing water, sanitation, and hygiene resources. The purpose of this study is to better understand how women with disabilities access water and sanitation, manage associated menstrual hygiene, and how challenges might be addressed. We would like to ask you questions about how you access water and toilets, and perform daily tasks that involve water. We would also like to ask you questions about the challenges that you face during menstruation, and about what can be done to address those challenges.

**Do I have to take part?** We would like for you to take part in the discussion, but it is your decision. You can change your mind and leave at any time. It is entirely your choice. Please let us know if you have any questions about the study.

**What happens if I agree to take part?** You will be asked to participate in a group discussion with other women about access to water, sanitation, and menstrual hygiene management. This will take about 1 hour. We will take notes during the discussion and record the interview with a recording device.

**What if I am upset by anything in the discussion group?** Sometimes issues related to menstrual health can be sensitive. You do not have to answer any questions that you do not wish to.

**Will anyone know what I talk about?** Everything that we discuss in this group will remain confidential. We will not record your name on any of the notes or on the recordings. Once we have finished writing down all of your ideas the recordings will be destroyed.

**What will happen to the information collected?** Responses given during the discussion will be summarized and they will remain anonymous. A summary of the main findings will be shared with representatives from organizations working to improve health and access to water and sanitation for women with disabilities.

**Questions?** You are free to ask any questions before agreeing to participate. If you have more questions later, you may contact: Sarah Gelbard (Researcher at WaterAid, sarah.beth.gelbard@emory.edu)

**Complaints?** If you have any complaints about the research, you may contact: Chelsea Huggett (Advisor at WaterAid, Chelsea.Huggett@wateraid.org.au) Any complaint you make will be investigated promptly and you will be informed of the outcome.

**FOCUS GROUP DISCUSSION CONSENT FORM**

**OPTION 1:**

☐ I have received the Participant Information Sheet explaining this study. I understand why the study is being conducted and what my role in the study will be. I understand that all data collected will remain confidential. I agree to participate in the study. (☑ if this statement is correct.)

…… *(Signature of participant)*

…… *(Signature of researcher)*

Date: ……/……/……

**OPTION 2: (*To be used if participant is not able to sign name)***

☐ This participant has received the Participant Information Sheet explaining this study. She states that she understands why the study is being conducted and what her role in the study will be. She understands that all data collected will remain confidential. She has freely agreed to participate in the study. (☑ if this statement is correct.)

…… *(Signature of witness)*

…… *(Signature of researcher)*

Date: ……/……/……

WaterAid

ដោះស្រាយបញ្ហាការប្រើប្រាស់ទឹក ការលើកកម្ពស់អនាម័យ និងការថែទាំ
អនាម័យការមករដូវដែលប្រឈមដោយស្ត្រីពិការកម្ពុជា
ព័ត៌មានការចូលរួម និងទម្រង់ព្រមព្រៀងក្នុងការពិភាក្សាក្រុម: ការពិភាក្សាក្រុម

យើងអញ្ជើញអ្នកមកចូលរួមក្នុងការសិក្សាអំពីការប្រើប្រាស់ទឹក អនាម័យ និងការថែទាំអនាម័យការមករដូវសម្រាប់ស្ត្រីពិការ ។
**តើយើងប្រមូលព័តមានពីអ្វីខ្លះ ?** ស្ត្រីពិការអាចប្រឈមនឹងការលំបាកដោយឡែកទាក់ទងនឹងការប្រើប្រាស់ទឹក អនាម័យ និង ធនធានអនាម័យ។ គោលបំណងនៃការសិក្សានេះគឺជាការយល់ដឹងប្រសើរឡើងពីស្ត្រីប្រើប្រាស់ទឹក អនាម័យ ការថែទាំ រួមបញ្ចូលអនាម័យការមករដូវ និងជំណោះស្រាយការលំបាកជាច្រើន។ យើងសូមសួរសំណួរពីការប្រើប្រាស់ទឹក បង្គន់ និងកិច្ចការប្រចាំថ្ងៃទាក់ទងនឹងការប្រើប្រាស់ទឹក។ យើងសូមសួរសំណួរពីការលំបាកដែលអ្នកមានក្នុងពេលមករដូវ និងពីអ្វីដែលអ្នកដោះស្រាយ។

**តើខ្ញុំត្រូវចូលរួមដែរឬទេ?** យើងសូមឲ្យអ្នកចូលរួមការពិភាក្សា ប៉ុន្តែជាការសម្រេចចិត្តរបស់អ្នក។ អ្នកអាចប្តូរគំនិត និងឈប់ពិភាក្សាក្រុមពេលណាមួយ។ វាជាការជ្រើសរើសរបស់អ្នកទាំងស្រុង។ សូមសួរយើងបើអ្នកមានសំណួរអំពីការសិក្សា។

**តើមានអ្វីកើតឡើងប្រសិនជាអ្នកយល់ព្រមការចូលរួម?** យើងបានសូមអ្នកឲ្យចូលរួមក្នុងការពិភាក្សាក្រុមនិយាយពីការប្រើប្រាស់ទឹក អនាម័យ និងការថែទាំអនាម័យការមករដូវ។ ការពិភាក្សានេះនឹងចំនាយពេលប្រហែលមួយម៉ោង។ យើងនឹងកត់ត្រាក្នុងពេលពិភាក្សា និងថតសម្លេងជូរច្នេះយើងអាចកត់ត្រាគំនិតយ៉ាងត្រឹមត្រូវដែលអ្នកចែកចាយ។

**ប្រសិនបើខ្ញុំមិនសប្បាយចិត្តក្នុងការពិភាក្សាក្រុម?** ពេលខ្លះបញ្ហាទាក់ទងសុខភាពការមករដូវអាចជាការប៉ះពាល់។ អ្នកមានសិទ្ធិមិនឆ្លើយសំណួរណាមួយដែលអ្នកមិនចង់ឆ្លើយ។

**តើមាននរណាខ្លះដឹងពីអ្វីដែលខ្ញុំនិយាយ?** អ្វីៗដែលយើងពិភាក្សានឹងរក្សាការសម្ងាត់។ យើងនឹងមិនបញ្ចេញឈ្មោះរបស់អ្នកលើកំណត់ត្រា ឬប្រដាប់ថតសម្លេង។ ពេលដែលយើងបញ្ចប់ការសិក្សានេះយើងនឹងលុបឯកសារក្នុងប្រដាប់ថតសម្លេងចេញ។
**តើនឹងមានអ្វីកើតឡើងចំពោះព័ត៌មានដែលប្រមូលបាន?** ឆ្លើយតបនឹងការផ្តល់ឲ្យក្នុងការពិភាក្សានេះនឹងត្រូវបានសង្ខេប ហើយរាល់គំនិតនឹងមិនត្រូវបានបញ្ចេញឈ្មោះ។ សេចក្តីសង្ខេបនៃការរកឃើញសំខាន់នេះនឹងចែកចាយជាមួយអ្នកតំណាងពីអង្គការធ្វើការទាក់ទងនឹងសុខភាព ការប្រប្រាស់ទឹក និងអនាម័យសម្រាប់ស្ត្រីពិការ។

**សំណួរ?** អ្នកអាចសួរមុនពេលយល់ព្រមក្នុងការចូលរួម។ ប្រសិនបើអ្នកមានសំណួរបន្ថែមពេលក្រោយ អ្នកអាចទាក់ទង : Sarah Gelbard (អ្នកស្រាវជ្រាវនៅអង្គការ WaterAid, Sarah.Beth.Gelbard@emory.edu)

**បណ្តឹង?** ប្រសិនបើអ្នកមានបណ្តឹងពីការស្រាវជ្រាវ អ្នកអាចទាក់ទង Chelsea Huggett (អ្នកផ្តល់ដំបូន្មាននៅអង្គការ WaterAid, Chelsea.Huggett@wateraid.org.au) រាល់បណ្តឹងអ្នកអាចនឹងត្រូវបានអង្កេតស្លាមៗ ហើយនឹងផ្តល់ជំនឹងឲ្យអ្នក។

**ទម្រង់ព្រមព្រៀងការពិភាក្សាក្រុម**

**ជម្រើស១**

☐ ខ្ញុំបានទទួលក្រដាសព័ត៌មានការចូលរួមពន្យល់ការសិក្សានេះ។ ខ្ញុំយល់ដឹងពីមូលហេតុដែលការសិក្សានេះបានរៀបចំឡើងនិងតួនាទីរបស់ខ្ញុំក្នុងការសិក្សា។ ខ្ញុំដឹងថាទិន្នន័យដែលបានប្រមូលនឹងរក្សាការសម្ងាត់។ ខ្ញុំយល់ព្រមក្នុងការសិក្សានេះ។ (☑ប្រសិនបើសេចក្តីថ្លែងការនេះត្រឹមត្រូវ )

..... (ហត្ថលេខាអ្នកចូលរួម)

..... (ហត្ថលេខាអ្នកស្រាវជ្រាវ)

កាលបរិច្ឆេទ : ...../...../.....

ជម្រើស២ ( ប្រើចំពោះអ្នកចូលរួមមិនអាចចុះហត្ថលេខាបាន)

☐ អ្នកចូលរួមបានសរសេរក្រដាសព័ត៌មានការចូលរួមដែលពន្យល់ពីការសិក្សានេះ។ គាត់ថ្លែងថាគាត់យល់មូលហេតុដែលការសិក្សានេះរៀបចំឡើង និងអ្វីជាតួនាទីរបស់គាត់ក្នុងការសិក្សានេះ។ គាត់យល់ថាទិន្នន័យត្រូវបានប្រមូលនឹងរក្សាការសម្ងាត់។ គាត់យល់ព្រមក្នុងការសិក្សានេះ។ (☑ប្រសិនបើសេចក្តីថ្លែងការនេះត្រឹមត្រូវ )

..... (ហត្ថលេខាសាក្សី)

..... (ហត្ថលេខាអ្នកស្រាវជ្រាវ)

កាលបរិច្ឆេទ : ...../...../.....

*WaterAid Consent Form for Photographic Images:*

**Consent form**

Name:_____
__

Date:_____
__

Location:_____
__

I give my consent for the images and interviews collected to be used by WaterAid. I understand the following:

1. The material will be stored by WaterAid and could be used on printed materials (including fundraising appeals, publications and adverts) and online.
2. The material could be used by WaterAid offices around the world.
3. The material could be used by WaterAid's partners in fundraising, campaigning and programme work.
4. The material could be used in the press such as newspapers and the television.

WaterAid will ensure that all material is used accurately and honestly. The material will not be used out of context. The material will only be used by organisations or individuals who are working with WaterAid and are supporting its aims.

Signed: