

A shared agenda

Exploring links between water, sanitation, hygiene, and sexual and reproductive health and rights in sustainable development



Simavi/Hilda Alberda



Contributing authors

The development of this paper was led by **Chelsea Huggett, Danielle Zielinski and Martina Nee (WaterAid)** and was co-authored by:

International Planned Parenthood Federation (IPPF): Hayley Gleeson, YuHsin Huang, Natassha Kaur, Daniel McCartney, Nabreesa Murphy, Phoebe Ryan, Nay Lynn Aung Sai, Clare Waite, Darcy Weaver

International Women's Health Coalition (IWHC): Eleanor Blomstrom

Marie Stopes International (MSI): Batya Atlas

Simavi: Hilda Alberda, Renate Douwes, Dorine Thomissen

WaterAid: Alison MacIntyre, Priya Nath, Manuela Pinilla, Megan Wilson Jones

Design and layout: Anna Schön, WaterAid

Published May 2019

Cover photo: Menstrual Health training in a community in Netrakona, Bangladesh by Simavi's local partner BNPS, as part of the Ritu programme.

Acronyms

ART	antiretroviral therapy
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CSE	comprehensive sexuality education
DFAT	Department of Foreign Affairs and Trade (Australia)
DFID	Department for International Development (UK)
HIV	human immunodeficiency virus
HPV	human papillomavirus
ICPD PoA	International Conference on Population and Development Program of Action
LARCs	long-acting reversible contraceptives
MH	menstrual health
MHM	menstrual hygiene management
SDGs	Sustainable Development Goals
SGBV	sexual and gender-based violence
SRH	sexual and reproductive health
SRHR	sexual and reproductive health and rights
STIs	sexually transmitted infections
UNFPA	United Nations Population Fund
UTIs	urinary tract infections
WASH	water, sanitation and hygiene
WHO	World Health Organization



IPPF/Suzanne Lee

Filipino girls listening to a health worker at a camp in Zambanga, Philippines.

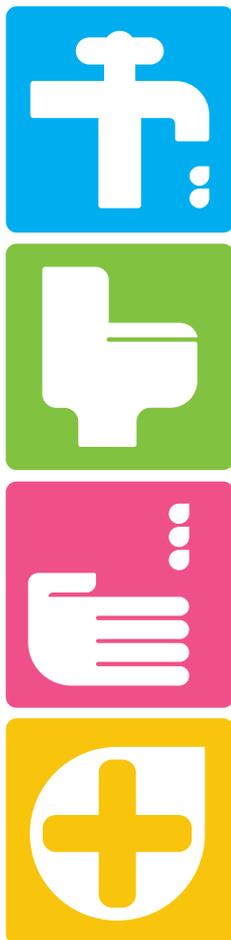


Table of contents

Introduction	4
Taking action on a shared agenda	5
Defining sexual and reproductive health and rights, and water, sanitation and hygiene	6
SRHR and WASH in global agreements, strategies, and frameworks	8
Exploring links between SRHR and WASH	12
Menstrual health	13
Contraception	15
Pregnancy, childbirth, and abortion	16
Fistula and other reproductive tract injuries	17
HIV and AIDS	19
Sexually transmitted and other infections	20
Discrimination and rights to WASH	21
Connections with sexual and gender-based violence and gender inequality	21
Recommendations for action on a shared agenda	22
Resources	26

Introduction

Across the globe, too many people do not have access to adequate sexual and reproductive health (SRH) information and services. As a result, they cannot enjoy their sexual and reproductive rights over the course of their lives. Fulfillment of sexual and reproductive health and rights (SRHR) positively impacts economic, educational and sustainable development outcomes for all, while poor economic, educational and sustainable development can negatively impact the fulfillment of SRHR. This is particularly the case for women and girls, who face disproportionate challenges to realizing their SRHR.

Water, sanitation and hygiene (WASH) plays a significant role in the quality of quality of SRH service delivery and the realization of SRHR. Where WASH facilities and services are weak or missing from SRHR systems and services, positive health outcomes are compromised. Unhygienic conditions in health care facilities with inadequate WASH and substandard infection prevention and control increase risks to women and newborns, and delay or prevent people from seeking SRH care.¹ Poor access to gender-sensitive WASH facilities limits women's and girls' ability to manage their menstrual period privately and hygienically.

The Sustainable Development Goals (SDGs) that address WASH, health, and gender equality are interlinked and reliant on each other. Combining SRHR and WASH interventions creates opportunities to bolster health and human rights outcomes, but synergies between the two are not

always prioritized, and integrated approaches are limited in both policy and practice.

In this paper, we explore the links between WASH and SRHR in comprehensive and integrated policy and programming in low and middle-income countries. We seek to:

1. Examine the critical role of water, sanitation and hygiene in a broad, inclusive and human-rights based definition of comprehensive and integrated SRHR.
2. Demonstrate how combined efforts in SRHR and WASH will improve outcomes in health, equality and attainment of human rights.
3. Identify the opportunities and entry points for WASH and SRHR actors to collaboratively drive greater action across sectors at the national, regional, and global levels.

This paper proposes a shared agenda and a way forward. We look at ways that joint action can improve health outcomes and contribute to gender equality, explore where a SRHR lens can prioritize WASH investments to those who need them most, and examine where SRHR initiatives can be integrated into WASH-led efforts.



Ruy, a Marie Stopes educator, pilots a new MHM curriculum with presecondary boys and girls in Díli, the capital of Timor-Leste.

Taking action on a shared agenda

WaterAid, International Planned Parenthood Federation (IPPF), International Women's Health Coalition (IWHC), Marie Stopes International (MSI) and Simavi recommend the following five key areas for action:

Action area 1: Strengthen the links between SRHR and WASH as fundamental elements of building stronger health systems and improved access to quality services and care

SRHR and WASH actors can work together to strengthen standards and practice for embedding and integrating WASH as fundamental to improving the quality of SRH and WASH service delivery, thereby contributing to Universal Health Coverage goals.



Action area 2: Ensure joint SRHR and WASH capacity strengthening at all levels of government

WASH and SRHR actors can collaborate on design, implementation and monitoring of initiatives to strengthen the capacity of governments at all levels, from frontline workers to ministerial coordination.



Action area 3: Increase the focus on menstrual health as a critical pathway to improving SRHR

WASH and SRHR actors can leverage one another's efforts for a greater impact on improving menstrual health, particularly to reach adolescents and young adults.



Action Area 4: Develop and promote a shared advocacy agenda for a gender and rights-based approach to SRH and WASH

By undertaking joint advocacy and influencing initiatives, WASH and SRHR actors can have a united voice. We can formulate regional and global strategies which promote a gender-transformative agenda in SRHR and WASH solutions through joint messaging, dialogue and calls to action.



Action Area 5: Collaborate within and across the SRHR and WASH sectors to build a stronger evidence base to inform best practice and decision-making

SRHR and WASH actors can strengthen the cross-sectoral evidence base by ensuring best practices are tested, documented and disseminated. By working together, we can establish stronger monitoring systems for SRHR and WASH improvements.



Specific recommendations under each action area are addressed in greater detail in the final section of the paper.

Defining sexual and reproductive health and rights, and water, sanitation and hygiene

A report by the Guttmacher-Lancet Commission on Sexual and Reproductive Health and Rights provides an integrated and comprehensive definition of SRHR, which highlights that all individuals have a right to “make decisions governing their bodies and to access services that support that right,” articulated in a “broad, inclusive and human rights based” framing.² This comprehensive definition highlights that “achievement of sexual and reproductive health relies on the realization of sexual and reproductive rights” and sets out how essential sexual and reproductive health services must meet public health and human rights standards, including the “Availability, Accessibility, Acceptability, and Quality” framework of the right to health.³ In defining a comprehensive agenda, global experts are advocating for greater attention to address the vast unmet needs of SRHR. It is within this

broader framing of SRHR that water, sanitation and hygiene actors can better define the role of WASH in realizing SRHR goals, and establish points of entry and synergy with the SRHR sector.

Universal and equitable access to WASH for all requires that households and institutions, such as schools and health care facilities, have safe, affordable and adequate water, sanitation and hygiene services. Sustainable Development Goal 6 — ensure availability and sustainable management of water and sanitation for all — has an explicit gender dimension, and calls for attention to the WASH needs of women and girls. The human right to water and sanitation requires services to be available in an acceptable, adequate, affordable, appropriate, and safe manner to all.

The Guttmacher-Lancet Commission’s **Integrated definition of sexual and reproductive health and rights**

The definition below is taken directly from Starrs et al. (2018) *Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher-Lancet Commission, The Lancet*.

Sexual and reproductive health is a state of physical, emotional, mental, and social wellbeing in relation to all aspects of sexuality and reproduction, not merely the absence of disease, dysfunction, or infirmity. Therefore, a positive approach to sexuality and reproduction should recognize the part played by pleasurable sexual relationships, trust, and communication in the promotion of self-esteem and overall wellbeing. All individuals have a right to make decisions governing their bodies and to access services that support that right.

Essential sexual and reproductive health services must meet public health and human rights standards, including the “Availability, Accessibility, Acceptability, and Quality” framework of the right to health. The services should include:

- accurate information and counselling on sexual and reproductive health, including evidence-based, comprehensive sexuality education;
- information, counselling, and care related to sexual function and satisfaction;
- prevention, detection, and management of sexual and gender-based violence and coercion;
- a choice of safe and effective contraceptive methods;
- safe and effective antenatal, childbirth, and postnatal care;
- safe and effective abortion services and care;
- prevention, management, and treatment of infertility;
- prevention, detection, and treatment of sexually transmitted infections, including HIV, and of reproductive tract infections; and
- prevention, detection, and treatment of reproductive cancers.

The facts: SRHR and WASH around the world

- Roughly half of the world's population, 4.3 billion people, is of reproductive age⁴



- Across developing regions, 45 million women have inadequate or no antenatal care⁵
- Complications related to pregnancy and childbirth are among the leading causes of deaths for women of reproductive age⁶

- Each year, more than 200 million women globally who want to prevent pregnancy are not using a modern method of contraception⁷



- 25 million unsafe abortions are conducted annually⁸
- In 2015, new HIV infections were estimated at 2.1 million (range of 1.8 million–2.4 million)⁹
- Each year, there are an estimated 357 million new infections with 1 of 4 STIs: chlamydia, gonorrhoea, syphilis and trichomoniasis¹⁰



- Approximately 2.3 billion people do not have an adequate toilet of their own and 844 million people do not have clean water close to their home¹¹
- 896 million people globally have no water service at all at their health care facility, and 1.5 billion people globally have no toilet at their health care facility



- Globally, one in six of health care facilities that lack water services and toilets do not have a place to wash hands with soap and water
- Almost one in five schools do not have clean water, almost a quarter of schools do not have a decent toilet, and more than one third do not have soap and water to wash hands¹²

SRHR and WASH in global agreements, strategies, and frameworks

Two targets of the Sustainable Development Goals explicitly address sexual and reproductive health — target 3.7 under the health goal and target 5.6 under the gender equality goal. In addition, other targets under SDGs 3, 5 and 6 (Clean water and sanitation) implicitly link to SRHR. By combining interventions to improve sexual and reproductive health outcomes with interventions to improve water, sanitation and hygiene in health facilities and communities, the two sectors will jointly contribute to achievement of several SDGs (see infographic on the next page).

School girls posing after a handball game on a school that is part of the Ritu (menstrual health) programme in Netrakona, Bangladesh.



Simavi/Prabuddha Paul

Links between WASH and SRHR in achieving Sustainable Development Goals 3, 5, and 6

WASH

Safe water, sanitation and hygiene in health care facilities are critical for infection prevention and control (IPC) and quality health care.

Sepsis and other infections are major causes of maternal and newborn mortality. Improving WASH and IPC in both health facilities and households reduces the risk to mothers and newborns.

People living with HIV disproportionately suffer adverse effects of inadequate WASH due to their suppressed immune systems and are more likely to suffer and die from diarrheal diseases.

Infants born to mothers with HIV are more reliant on complementary feeding methods, which require access to safe water.

Prevention and treatment of non-communicable diseases, such as cervical cancer, require quality facility care and IPC.

Poor WASH infrastructure, staff shortages and training gaps on IPC undermine contraceptive access, safe childbirth and abortion, and management of sexual health, including HIV/AIDS.

Menstrual health and hygiene can be an entry point to SRHR, and should be included in comprehensive sexuality education.

Universal health coverage relies on adequate access to water, sanitation and hygiene at the household and community level.

SRHR

3 GOOD HEALTH AND WELL-BEING



SRHR targets of SDG 3:

Reduce the global maternal mortality ratio (3.1)

By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births. (3.2)

End the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases, and combat hepatitis, water-borne diseases, and other communicable diseases (3.3)

By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being (3.4)

Ensure universal access to sexual and reproductive health-care services, including for family planning, contraceptive information and sexuality education, and the integration of reproductive health and education into national strategies and programmes (3.7)

Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all. (3.8)



WASH targets of SDG 6:

By 2030, achieve universal and equitable access to safe and affordable drinking water for all (6.1)

By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations (6.2)

Support and strengthen the participation of local communities in improving water and sanitation management (6.B)

6 CLEAN WATER AND SANITATION



Taboos around menstruation threaten women's rights to water and sanitation. Menstruating women can have their mobility restricted, or are prohibited from accessing water, kitchens, or toilets.

Stigma against people living with HIV and a lack of knowledge regarding HIV transmission can exclude them from accessing safe water and sanitation.

Transgender, intersex, and gender non-conforming individuals can find gender-segregated toilets challenging, and deciding where to go can be psychologically stressful, socially awkward, and dangerous.

Social norms that condone violence against women and girls mean that issues related to WASH and sexual and gender-based violence are often not discussed by governments, communities, women and men.

Realizing sexual and reproductive rights empowers people and allows them to participate more fully in their communities.

Lack of decent sanitation facilities and water points in safe locations restricts women's mobility and increases their risk of sexual violence.

Poor sanitation without proper menstrual health facilities, lack of information, education and appropriate sanitary products to manage menstrual bleeding impacts adolescent girls' access to education and attainment of good health outcomes.

Comprehensive menstrual health approaches can contribute to stopping harmful practices and beliefs, such as early marriage once girls have their first menstruation.

Facilities without clean water, decent toilets and good hygiene practices put the health and safety of female nurses, midwives and community health workers at risk.

Women have the right to quality of care, dignity and privacy in health care facilities (including adequate WASH), whether they are patients or caregivers.

5 GENDER EQUALITY



SRHR targets of SDG 5:

End all forms of discrimination against all women and girls everywhere (5.1)

Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking, and sexual and other types of exploitation (5.2)

Ensure universal access to SRHR as agreed in accordance with the Programme of Action of the ICPD and the Beijing Platform for Action, and the outcome documents of their review conferences (5.6)

Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels (5.C)



The interlinkages between SDGs 3, 5 and 6 demonstrate there is an urgent need for WASH actors to contribute to all components of SRHR. Still, comprehensive water, sanitation and hygiene are sometimes missing from major global strategies on SRHR and adolescent health. While Principle 2 of the International Conference of Population and Development (ICPD) references water and sanitation in relation to the right to an adequate standard of living, prevention of infection, infant mortality and other issues, it does not link explicitly to ensuring SRHR. The Framework of Actions for the Follow-up to the Program of Action of the ICPD (ICPD PoA) in 2014¹³ states that access to appropriate and accurate information, counselling and education on human sexuality and reproductive health are central to realizing sexual and reproductive health and rights. It provides a united focus for global SRHR advocacy efforts. While the ICPD PoA framework makes no explicit mention of the role of WASH, its importance as an enabler and as a human right is central to operationalizing comprehensive and integrated SRHR.

The Committee on Economic, Social and Cultural Rights and the Committee on the Elimination of Discrimination against Women (CEDAW), which focus on implementation of the related human rights treaties. They both have acknowledged WASH and SRHR to different degrees. For example, the CEDAW Committee's General Recommendation 37 specifically references SRH (para 67) as well as water, sanitation and menstrual hygiene (para 68) in addressing the gender-related dimension of disaster risk reduction in the context of climate change.¹⁴

WASH is also increasingly recognized as a foundation of health, and this can extend to SRH. The Office of the United Nations High Commissioner for Human Rights (OHCHR) and the WHO have recognized that health goes beyond access to health care and building hospitals, and that rights to health rely on underlying determinants including water, sanitation and hygiene.¹⁵

WASH in health care facilities is recognized across the World Health Organization's standards and guidance documents as being



IPPF/Tom Pliston

Padma after receiving a contraceptive implant at the IPPF FPAN clinic in Ekamba Sansari, Nepal, following the devastating floods in 2017.



MST/MarianodaSilva

Following an education session from Marie Stopes on reproductive and menstrual health, girls from the Catholic Dom Bosco Training Center pose with their new, locally-produced menstrual hygiene products.

essential for improving pediatric, adolescent, maternal and newborn health. This recognition is evident, for example, in the *Standards for improving the quality of care for children and young adolescents in health facilities*¹⁶ and *Standards for improving the quality of maternal and newborn care in health facilities*.¹⁷ These standards and guidance improvements are part of efforts to operationalize the WASH-related standards across priority countries as they relate to SRH. There is a growing body of evidence about the role of safe water, sanitation, hygiene, waste management, and cleaning in creating a hygienic and safe environment during labor and childbirth. The attention given to this issue is increasing, although greater prioritization of WASH is still required.

While menstruation is not mentioned in the WHO's *Global strategy for women's, adolescents' and children's health (2016-2030)*,¹⁸ it is increasingly being integrated into SRHR discussions and strategies. In 2016, for example, menstrual health was incorporated into UNESCO's updated sexuality education guidelines and operational guidelines for

puberty education.¹⁹ However, in practice, there is often not sufficient information included about menstrual health in comprehensive sexuality education (CSE) curricula. Where CSE does include menstruation, it often covers the biological aspects but does not discuss practical information about hygiene or address social norms or taboos. Similarly, menstrual health interventions designed and implemented by WASH actors are an underutilized entry point for providing access to information about sexual and reproductive health issues such as family planning, and for improving girls' access to education. WASH-led plans and strategies looking at the integration of WASH and health rarely consider holistic SRHR. One positive example of incorporating SRHR into WASH standards is the UNICEF/WHO Joint Monitoring Programme's (JMP's) integration of indicators to measure menstrual health facilities and services in schools and health care facilities. A basic level of sanitation service includes a measure for having a bin for disposal of menstrual products in toilets and gender segregated sanitation facilities.²⁰

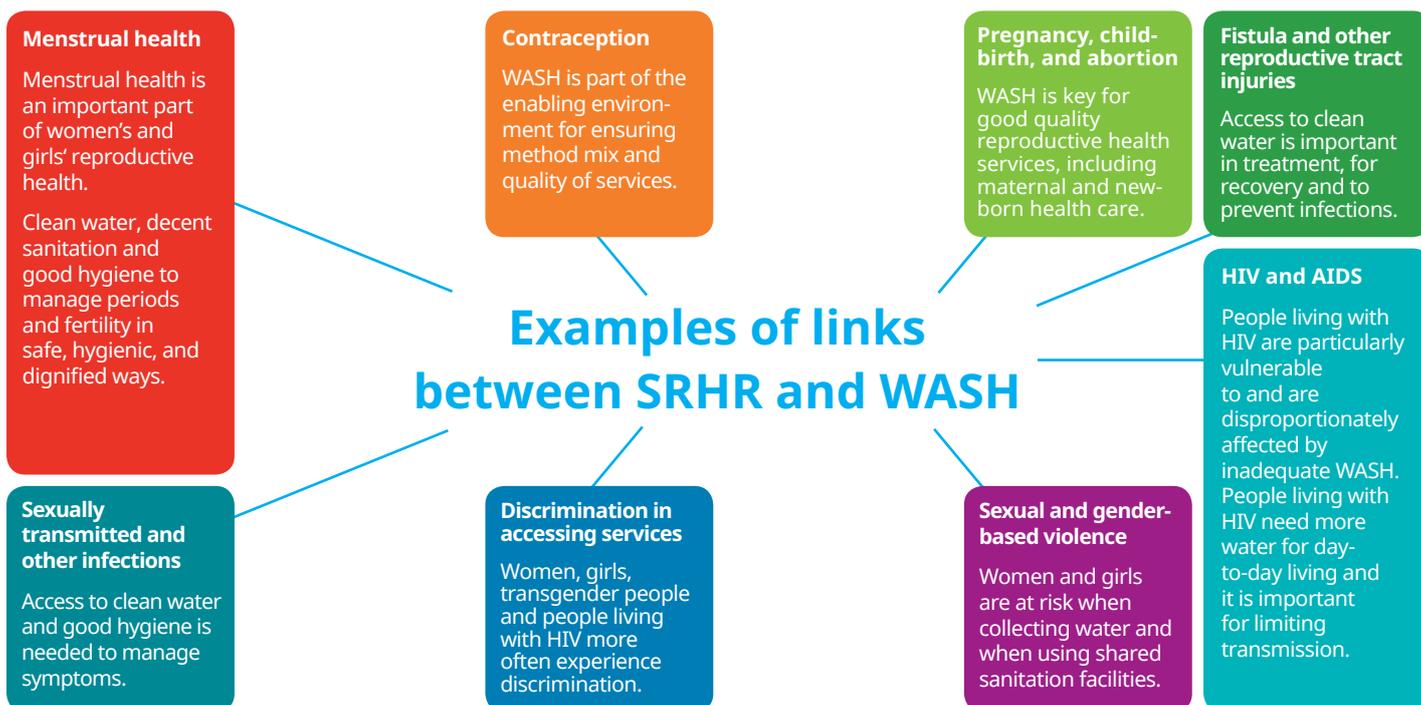
Exploring links between SRHR and WASH

Considering SRHR from a more holistic perspective, one can see multiple intersections with WASH across the life course. Water, sanitation and hygiene are not only essential for health and safety during the reproductive cycle, but also play a critical role in maintaining sexual health, and preventing and treating infections and injuries. Without clean water, decent sanitation and good hygiene practices, menstruation can feel like a burden, pregnancy and childbirth pose greater health risks, and it becomes harder to manage and prevent the spread of infections.

Additionally, the realization of the human rights to water and sanitation is interconnected with the attainment of sexual and reproductive rights. In 2010, the United Nations explicitly recognized access to water and sanitation as a human right.²¹ But while these rights may be universally recognized, they are not universally implemented, and many are denied these rights based on gender identity or sexual orientation. Inadequate

WASH services and non-inclusive infrastructure (e.g., a lack of public toilets or a lack of gender segregated toilets) hamper the fulfillment of sexual and reproductive rights, including the right to health, the right to autonomy and bodily integrity, the right to privacy, the right to equality and non-discrimination, and the right to be free from sexual violence.²² All of this underscores that WASH is not just an issue of service delivery, but one of health, rights, and dignity. If WASH and SRHR interventions are better integrated, increased health and women's rights outcomes can be achieved.

The following sections explore the connections between SRHR and WASH across eight key areas: menstrual health; contraceptive access; pregnancy, childbirth, and abortion; fistula and other reproductive tract injuries; HIV; sexually transmitted infections; discrimination in accessing WASH services; and sexual and gender-based violence.



Menstrual health

To improve menstrual health, women and girls need to have access to comprehensive information as well as services and products.²³ Menstruation is an indication that ovulation is happening, and thus pregnancy is possible. It is therefore a foundational issue in sexual and reproductive health. An integrated solution combines 1) holistic menstrual health education, linked to sexuality education, 2) strategies to address limiting norms and practices, 3) access to gender-sensitive WASH facilities, 4) access to hygiene products, including a range of menstrual products, 5) a supportive enabling environment, including policies that answer to women's and girls' menstrual health needs. This includes men and boys having information and education on menstruation, and them playing a role in shifting negative attitudes and secrecy surrounding menstruation.

Clean water, decent sanitation and good hygiene are important in terms of the resources women and girls need to manage their periods and their fertility in safe, hygienic, and dignified ways. It is estimated that more than 300 million people are menstruating on any given day, yet appropriate and hygienic infrastructure — including safe, private and accessible toilets equipped with soap and water, where individuals can change and clean or dispose of menstrual hygiene products — remains a huge area of need.²⁴ There is growing evidence that not being able to change menstrual pads, or using menstrual cloths that haven't been properly cleaned, can lead to reproductive tract infections.²⁵ Additionally, it is important that women have access to a range of menstrual products and are educated on how to use them. Programs that promote one type of product neglect the fact that women and girls are not a homogeneous group, and their needs and preferences vary. For example, in some contexts, tampons and menstrual cups may not be culturally accepted,²⁶ and women and girls may face a greater risk of infection if they don't know how to insert, or when to change these products, or if they do not wash their hands before doing so.²⁷ Hormonal changes during perimenopause (the time leading up to and around menopause) can lead to heavier bleeding, requiring more frequent changing and

washing.²⁸ Many women and girls still do not have real control over the products they use, and do not have the ability to dispose of or clean these products in an appropriate manner (in line with personal, environmental, cultural and other considerations).



Sangita, 32, holds up a finished reusable sanitary pad, Banepa Municipality, Nepal.

It is also important to educate and empower both women and men to reduce stigma and harmful practices, and to challenge limiting social and cultural norms surrounding menstruation and sexuality overall. Many adolescent girls and boys remain uninformed about menstruation, and girls may be unprepared for managing their menstrual health.²⁹ In many places, sexuality education isn't taught or only starts in secondary school, well after girls have started menstruating. This is a missed opportunity because ensuring that girls are prepared for the onset of menstruation

can set an important foundation for their overall reproductive health and well-being. Many girls and boys lack the information they need to make informed choices about their sexual and reproductive health.³⁰ SRHR education and services, including menstrual health education, can also be limited and difficult for young people to access, especially where there are negative social norms and cultural taboos around sex.³¹

Tackling these issues can start with access to comprehensive sexuality education (CSE) that includes information on WASH, SRHR, and gender equality. It is important that WASH-sector practitioners of menstrual health programming are equipped to educate young people on SRHR topics, to mitigate the risk of reinforcing misinformation. For example, in the Pacific, negative social norms are associated with menstruation, such as the belief that menstrual blood is dirty; and that when menstruating, girls and women can bring bad luck to men.³²

Menstrual health can be used as a key entry point and pathway for discussions of sexuality, reproduction, family planning, and early pregnancy, as menstrual health is often met with less resistance in communities. Additionally, menstrual health education often leads to questions about broader SRHR topics, and can be an opportunity to tackle issues of gender inequality. For example, in many countries the arrival of a girl's first period signals that she is a woman and ready for marriage and childbearing. In Uganda, the local NGO Health Promotion and Rights Watch, also a member of the global partnership organization 'Girls not Brides',³³ uses menstrual hygiene education as an entry point for raising awareness about the impact of child marriage.³⁴ Similarly, Simavi's Menstrual Health Training Manual identifies menstrual health as an entry point to educate girls and boys and their parents about broader SRHR, including contraceptive use and prevention of early marriage.³⁵

Partnerships between WASH and SRHR actors can help overcome challenges and improve the overall quality of existing programming. Addressing menstrual health as part of SRHR would strengthen comprehensive sexuality education and extend the reach of both menstrual hygiene knowledge and SRH information and services.³⁶

Evidence based advocacy on menstrual health in Bangladesh

Key Lesson: Ritu — Evidence based advocacy on menstrual health

Partners: Simavi, BNPS and DORP

Ritu is the name of a girl and is also used to identify season as well as period in Bengali. The Ritu program aims to improve health and well-being during menstruation of girls (11-13 years old) in Netrakona, Bangladesh. In the design of the program, Simavi took an evidence informed approach making use of available rigorous evidence as well as formative research amongst girls in Netrakona, Bangladesh. Based on the idea that toilets need to be in place in order for girls to practice their newly learned behavior, the interventions in schools are sequenced as follows: 1) kick-off in schools to inform teachers and students about the program, 2) budget tapping process with students and School Management Committee to realize gender sensitive toilets, 3) training head masters and 10 teachers per school following a holistic menstrual health manual, 4) informing parents of the school girls about menstrual health and 5) motivating and engaging parents of girls in budget tapping to build gender sensitive toilets.

As several studies have stressed, there is a gap in evidence for quantitative studies on the causal effect of MH interventions, and the need for more rigorous evidence especially for adolescent girls' school attainment. To contribute to the available evidence, Simavi works with Maastricht University and Johns Hopkins Bloomberg School of Public Health to conduct a cluster randomized controlled trial. In our baseline survey we found that of girls who started menstruating, 36% missed school last time they menstruated and 53% missed 2 to 3 days of school. Reasons that were given for missing school were: cramps/bad physical feeling (64%), fear of leaking (54%), not allowed to leave house/go to school (30%), no sanitary facilities at school (13%) and it is normal not to go to school during menstruation (28%).

The end of program evaluation is conducted in March and April 2019. The findings from the baseline and formative research, combined with the evaluation findings will be used to inform an evidence informed advocacy strategy towards the Government of Bangladesh to inform policies and programs. Building on the learnings from the Ritu program, the main areas of attention will be the inclusion of menstrual health in Teacher Trainings curriculum and the implementation of the WASH circular that promotes gender-sensitive toilets in schools.

Contraception

The ICPD Program of Action states that women and girls should have access to full range of effective, affordable and acceptable modern contraceptive options to manage their fertility, and that all people should have the capability to reproduce and the freedom to decide if, when and how often to do so. Currently, more than 214 million women want to avoid pregnancy, or limit their bleeding during menstruation, but are not using modern contraception.³⁷ They include 23 million girls aged 15 to 19 years in developing regions.³⁸

Ensuring that women and girls have access to a range of contraceptive methods is a key element of quality SRH services.³⁹ WASH is part of the enabling environment for facilitating and maintaining availability for these methods. Together these efforts can raise levels of contraceptive use. Long-acting reversible contraceptives (LARCs), such as intrauterine devices and implants, require clean hands and clean instruments for insertion and removal to prevent infection.⁴⁰ Poor WASH affects quality of services — in facilities with inadequate WASH, these methods are less likely to be options for women and girls, even though they are some of the most effective and/or the most popular.

Insertable barrier methods (such as a diaphragms, cervical caps, or sponges) and insertable hormonal methods (such as the vaginal contraceptive ring) also require clean hands in order to prevent vaginal infections.⁴¹ Re-usable devices such as the diaphragm and cervical cap require washing with soap and water before storage or reinsertion to prevent infection. When WASH promotion is not integrated thoroughly into the training of the health care workers who are providing family planning services, opportunities for behavior change communication, infection prevention and control, and more, are missed.

Timor-Leste and Papua New Guinea: Improving menstrual health through WASH and family planning in rural schools

Key Lesson: Menstrual health is a critical entry point for engaging adolescents in family planning service delivery

Partners: Marie Stopes International; WaterAid

This innovative three-year project is being implemented in Papua New Guinea and Timor-Leste. It aims to improve women's and girls' education, health and social outcomes, by delivering holistic approaches to menstrual health (MH) and sexual and reproductive health (SRH) in schools and communities. Utilizing results from 'The Last Taboo' research, project partners are piloting new resources and implementation strategies, and conducting research to develop cross-sectoral, evidence-based approaches to improving access to girl-friendly WASH facilities, menstrual products, education, and reproductive health services.

Eighteen months into the project's three-year implementation, the partnership has produced research, creative solutions to private sector challenges and increased community access to WASH and SRHR information and services. Evidence-based advocacy efforts have brought together the ministries of health and education and civil society actors into a community of practice able to facilitate positive change in practice and policy, and address harmful social norms associated with sex, sexuality, and menstruation.

Cross-sectoral collaboration and evidence-based experimentation can lead to practical, effective approaches to improving a country's MH ecosystem, that are cost-effective and of public health importance. Leveraging one another's expertise, the MSI and WaterAid project should continue to be monitored and reviewed for successes and lessons learnt, with results shared widely.

Pregnancy, childbirth, and abortion

WASH is a key ingredient of quality, respectful maternity care. Women have the right to a safe and dignified birth experience, which is not possible without water, accessible toilets, and proper hygiene. The WHO officially includes water, sanitation and hygiene in its framework for quality maternal and newborn health care, under the standard for “availability of essential physical resources.” The framework mandates that “water, energy, sanitation, hand hygiene and waste disposal facilities are functioning, reliable, safe and sufficient for the needs of staff, women and their families.”⁴² Improving WASH contributes to improving client satisfaction with quality of care received and also increases care-seeking behavior.⁴³

Conversely, poor water, sanitation, and hygiene access can increase health risks for pregnant women. A systematic review found women who live in households without adequate sanitation were three times more likely to die during childbirth,⁴⁴ and a study in India found open defecation to be associated with a higher risk of adverse pregnancy outcomes such as premature birth or low birth weight.⁴⁵ High levels of contaminants in drinking water — such as arsenic or metals — are also associated with higher risks of miscarriage, stillbirth and infant mortality.⁴⁶ Additionally, accessibility of toilets can be an issue for women during pregnancy.⁴⁷ Pregnant women may not be able to walk long distances to access toilets or get into the squat position required to use some types of latrines. Pregnant women also need to urinate more frequently, so their need for sanitation facilities is greater.⁴⁸

WASH is critical for infection prevention and problems during pregnancy, childbirth, and abortion. Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth.⁴⁹ Approximately 16 million girls aged 15 to 19 years and 2.5 million girls under 16 years give birth each year in developing regions,⁵⁰ and complications during pregnancy and childbirth are the leading cause of death for 15 to 19-year-old girls globally.⁵¹ Sepsis and other infections are among the leading causes of preventable maternal and newborn deaths,⁵² with unhygienic conditions and poor WASH being a contributor.⁵³ The WHO



Salimata Dagnogo, 32, Matron of Talo Health Centre, Municipality of Falo, Mali.

estimates that the deaths of newborn infants (during the first 28 days of life) make up 47% of all deaths of children under five. This is often due to conditions and diseases associated with lack of quality care at birth and in the first days of life.⁵⁴

If a woman chooses to terminate a pregnancy either by self-administration (in the first trimester) or in a health facility by a service provider (in the second and third trimesters), WASH is important to this being done safely and hygienically. Medical abortion and post-abortion care in health facilities without proper WASH carry similar risks of infection to delivery.⁵⁵ Infection of the genital tract following abortion is common if the provider has dirty hands or uses unclean instruments. The clandestine nature of abortion or the challenges faced by abortion providers due to legal restrictions in some places, increases the risk of unsafe abortions, as underground providers are even more likely to perform procedures in unhygienic conditions, without adequate WASH, and without following infection prevention protocols.⁵⁶ Improved access to safe abortions, as well as better access to WASH and training for abortion providers on infection prevention, mitigates these risks.

Supporting safer births in Myanmar

Key Lesson: A partnership between maternal and newborn health specialist organizations and WASH organization can turn maternal quality of care recommendations into action

Partners: WaterAid, Jhpiego, the Soapbox Collaborative

The *Supporting Safer Births in Myanmar* project is a four-year project, currently at one year of implementation. It brings together experienced WASH and health experts to support the Myanmar Government's aspiration for all health facilities to meet the minimum quality WASH and IPC standards. Building off a national-level health systems analysis (WHO, UNICEF and WaterAid, 2016) WaterAid, Jhpiego and The Soapbox Collaborative are working with the Ministry of Health and Sports (MOHS) to support quality improvements at five township hospitals in the Ayeyarwady region. The Ayeyarwady region has a neonatal mortality rate higher than the national average, at 36 deaths per 1,000 live births, and only 34% of deliveries occur in a health facility.

The project brings a strong gender-sensitive and inclusive approach to an overall model of improving standards in WASH in health care facilities. The four outcomes of the project are to 1) MOHS systems, monitoring, standards and quality mechanisms prioritize gender sensitive and inclusive WASH and IPC; 2) Inclusive and gender sensitive sustainable WASH facilities and services provided in selected hospitals; 3) Selected hospitals have strengthened approaches to gender equality and social inclusion and; 4) Evidence and learning generated from the project positively influences the design and implementation of other national and global programs.

The focus is on improving hygiene behaviors and practices, and strengthening IPC practices at the same time as ensuring a people-centered approach with 'user-friendly' services. It promotes people's full participation, access and dignity to WASH while utilizing health care facilities.

Fistula and other reproductive tract injuries

Two to three million women are estimated to be living with fistula, and some 50,000 to 100,000 new cases develop annually.⁵⁷ Fistula is an abnormal opening between the vagina and the bladder or rectum, and can be caused by prolonged obstructed labor and poor obstetric care (obstetric fistula), or by trauma to the genital area through violence or cultural practices including female genital cutting (traumatic fistula).⁵⁸ Women with fistula experience leaking of urine and/or feces from their bodies. Having access to an adequate supply of clean water is important in fistula treatment and throughout recovery to prevent infections. Inadequate access to WASH makes it harder for women to bathe, clean themselves and cope with the condition, exacerbating the social stigma and exclusion that often comes with fistula.⁵⁹

Carrying heavy loads (such as water) during or immediately after pregnancy, can also contribute to or worsen pelvic floor prolapse, which can affect the bladder, uterus, and rectum. Prolapses are potentially serious birth-related reproductive tract injuries with lasting impacts that can include obstructed labor, incontinence, and more.⁶⁰ Incontinence affects one in four women over the age of 35 years, compared with one in ten adult men.⁶¹ This can be associated with anatomy, pregnancy, childbirth, menopause, fistula and the structure of the female urinary tract. Perimenopause can also increase a woman's need to use the toilet because the bladder is weakened. Issues for incontinent women are very similar to those relating to menstruation. Women need safe, private sanitation facilities, access to water for personal hygiene and cleaning of clothes, as well as sanitary pads (rather than unhygienic products such as rags or newspapers).⁶²

Integrating essential services: Collaborating to improve SRHR, maternal and newborn and child health and water sanitation and hygiene at the local level, Tanzania

Key Lesson: The interlinkages between each partner's area of work led to improved maternal health outcomes

Partners: WaterAid; the Swedish Association for Sexuality Education (RFSU); African Medical Research Foundation (AMREF) the Africa and Sustainable Environmental Management Association (SEMA) and TMEP

National coordination across WASH, SRHR and maternal and child health actors in Tanzania, including the endorsement of national guidelines on WASH in health care facilities, has improved over the past three years. Evidence of the impact of interlinked service delivery to improve maternal and newborn health (MNBH) outcomes in Tanzania emerged from the 'Good Start' project (2013-2016). WaterAid and RFSU led a joint service delivery project in the Singida and Iramba regions, to embed WASH within MNBH and sexual and reproductive health and rights services. Quality of care was improved across eight health care facilities through the promotion of hygiene environments and behavior, clean and adequate water and improved sanitation and safe medical waste treatment. Community dialogue on the right to SRH and improving hygienic behavior led to increased awareness of rights and improved engagement of men and boys in SRHR. Hosting dramas on SRHR provided information to community members; and training of trainers improved access to essential services.

The project resulted in an increased willingness on the part of pregnant women to utilize maternal health services, with recorded maternal deliveries rising from 25-40 deliveries per month up to 200-250 deliveries per month. Men's involvement in reproductive and child health services increased from 21% to 47%, and in one health facility it reached 80%. The Iramba District Health Officer reported *"Since we started the Good Start Project in 2014, there has been continuous education about the reproductive health services and importance of facility based health services. This education was accompanied with sensitization on hygiene and sanitation. To date we are experiencing that the number of pregnant women attending at various health facilities for maternity clinic services is increasing significantly"*.

The evidence from this project has contributed to developing a national wide coordination of stakeholders whereby several stakeholders have worked on the development of the national guidelines for WASH in health care facilities, with strong coordination of the Ministry of Health in Tanzania.



Grace Nabenga Lufu, 31, a nurse, with a healthy three hours old baby girl after medical examination. Kakora Dispensary, Tanzania.

HIV and AIDS

Insufficient WASH access compounds the difficulty of living with HIV. Inadequate WASH facilities, including unsafe drinking water and poor sanitation, contribute to people living with HIV becoming more susceptible to opportunistic infections causing diarrhea.⁶³ Diarrheal disease affects close to 100 percent of people living with HIV in developing countries and results in significant morbidity and mortality.⁶⁴ People living with HIV generally experience diarrhea more frequently, have more severe episodes, and are more likely to die from it.⁶⁵ Chronic diarrhea leaves people living with HIV with an increased viral load and increased risk of AIDS related illnesses. It also contributes to enteropathy (inflammation of the gut), which reduces absorption of antiretroviral therapies, making them less effective.⁶⁶

People living with HIV also need more water for day-to-day living. The World Health Organization recommends a minimum of 20 liters of water per person per day, to cover consumption, food preparation, cleaning, laundry, and personal hygiene. People living with HIV need to take antiretroviral therapies with plenty of water and require good nutrition for the medicine to work at its best, meaning that lack of WASH can further limit the absorption and efficacy of these lifesaving drugs.⁶⁷

For women living with HIV, there are additional challenges related to caregiving responsibilities, particularly for preventing mother-to-child transmission of HIV. Administration of post-exposure prophylactic medicine to infants of mothers living with HIV is recommended. In areas where syrup-based medicine is scarce, tablets are sometimes crushed and mixed with water to give to babies. If the water used to soften the tablets is unsafe, it will compromise the effectiveness of the intervention by causing diarrhea.⁶⁸ Likewise, there are important WASH considerations related to feeding of infants and preventing transmission of HIV. Access to safe water and good hygiene during feeding helps ensure adequate nutrition for infants of mothers living with HIV. According to WHO guidelines, women regularly taking antiretroviral therapies can breastfeed safely, though persistent stigma and misconceptions mean that many HIV-positive women are hesitant to do so. For women who are not breastfeeding, safe drinking water is essential for mixing with formula to reduce undernutrition and diarrhea in infants.⁶⁹



WaterAid/Chileshe Chanda

First and Second Line treatment drugs for people living with HIV, at Simango Rural Health Center, Zambia.

Sexually transmitted and other infections

WASH is neither a treatment for, nor a way to prevent the spread of sexually transmitted infections (STIs). However WASH is critical in addressing STIs. People with sexually transmitted infections such as gonorrhoea, chlamydia and trichomoniasis need access to clean water for washing to manage symptoms, as well as to take oral medications.⁷⁰ Some may also experience the need to urinate more frequently, and some women may experience bleeding between menstrual periods.⁷¹ Genital ulcers and sores caused by some infections (herpes, syphilis, chancroid) are exacerbated by poor hygiene. Washing with clean water and soap can be effective in keeping wounds clean and preventing secondary infections.⁷² Human papillomavirus (HPV), a common STI, is also a key cause of reproductive cancers, including cervical cancer. Cervical cancer is preventable if vaccinations, screening and treatment are available. WASH plays a significant role in quality cervical cancer prevention programs, particularly in infection prevention control during needle utilization and the examination process.⁷³

Hygiene — including clean, dry underwear and the ability to wash and wipe properly — is also important in preventing reproductive tract infections (bacterial vaginosis), yeast infections, and urinary tract infections (UTIs).⁷⁴ UTIs can be exacerbated by lack of fluid to flush bacteria out of the system, highlighting the need for women suffering from UTIs to drink copious amounts of clean water.⁷⁵ Women without regular access to sanitation facilities may also be at greater risk of UTIs due to “holding it” overnight or waiting until it is safe to use facilities.⁷⁶ The practice of vaginal cleansing or douching and anal douching can also put women, men and people of all sexual orientations and gender identities and expressions at risk of infection, particularly if contaminated water is used.⁷⁷ Studies suggest that vaginal cleansing is especially common amongst sex workers for personal hygiene, perceived disease prevention, and client pleasure, putting them at greater risk.⁷⁸ There are also key consequences related to anorectal sexual practices. These include infections such as shigella and hepatitis A, which are commonly associated with poor WASH, but are also affected by certain sexual practices.⁷⁹

HPV DNA Screenings of Cervical Cancer for Underserved Women in Malaysia

Key Lesson: With adequate training and support, primary care level health facilities are capable to provide high-quality and high-technology cervical cancer screening

Partners: International Planned Parenthood Federation (IPPF), Federation of Reproductive Health Associations Malaysia (FRHAM), Malaysian Ministry of Health (MoH)

Cervical cancer is a preventable reproductive cancer. However, there were an estimated 266,000 deaths from cervical cancer worldwide in 2012 and approximately 90% of these deaths happen in low- and middle-income countries. The World Health Organization (WHO) has called for action to eliminate cervical cancer and encourages use of innovative technologies and strategies. A one-year pilot project was developed by IPPF to introduce HPV DNA test, an innovative cervical cancer screening option, to underserved women in Malaysia. Through this project, partners raised awareness of cervical cancer prevention, provided a high quality screening option thus increasing number of women screened for cervical cancer, and shared best practices and lessons learned with national stakeholders.

HPV DNA test has higher sensitivity and specificity in comparison to other cervical cancer screening options hence the working facilities must have clean water and functional and well-maintained handwashing stations to reduce risk of contamination. Facility infrastructures and equipment in selected health centers were assessed and, if needed, renovated to ensure high service quality. Moreover, a working manual for health providers was developed to provide standard operating procedures for sample collection, infection prevention controls including hand hygiene — before and after service provision emphasizing the use of water and soap, and reaffirm the clinical waste management processes. In one year and with the efforts of dedicated volunteers and staff, over 6,000 people were reached with cervical cancer prevention information through various community-based activities. More than 500 underserved women were screened using HPV DNA test in selected health facilities and there were no adverse events reported. The women served were satisfied with the counselling, service quality, flow management and referral information. Furthermore, all collected samples were well-preserved and none were contaminated.

FRHAM's project experiences and results were shared with the Malaysian MoH and other stakeholders. It is believed that through adequate training of, and supportive supervision to, service providers innovative and high technology products, such as the HPV DNA test, can be carried out at primary level health facilities. With this experience, we are confident to say primary care level health facilities can support service decentralization and contribute to the national cervical cancer screening coverage rate.

Discrimination and rights to WASH

Poor access to sanitation disproportionately impedes women and girls from realizing their rights to water and sanitation.⁸⁰ For example, some women lack accessible, acceptable, safe public toilets in cities, in transit, and elsewhere. In other places, stigma and taboos around menstruation threaten women's rights. Because of myths or cultural practices, menstruating women can have their mobility restricted, or they can be prohibited from accessing water, cooking facilities, or even toilets.⁸¹ A recent systematic review of menstrual hygiene management requirements for women with disabilities found they experience additional barriers which adversely affect their hygiene and dignity, such as lack of education and poor access to products. The research found that care providers sometimes restricted the movement of women with a disability on the days they were menstruating and care providers sometimes suppressed their menstruation altogether.⁸²

Transgender, intersex, and gender non-conforming individuals can find gender-segregated toilets challenging, and deciding where to go might be psychologically stressful, socially awkward, or dangerous.⁸³ This can be an issue in schools, especially for students who are transitioning from male to female or vice versa. When using public, community or institutional toilets around the world, which are often sex-segregated, transgender people can face not only exclusion but also verbal harassment, physical abuse and even arrest.⁸⁴ Whether they use the facility associated with their identity or their biology, gender-segregated toilets may be an especially unsafe place.

HIV status can also affect people's rights to water and sanitation. People living with HIV still face stigma and discrimination, and a lack of knowledge regarding the routes of transmission of HIV results in their exclusion from access to basic services, including safe water and sanitation. In a study in Ethiopia, more than a third of participants living with HIV had experienced discrimination when trying to access water and sanitation.⁸⁵ Similarly, in a Nigerian study, 29% reported water point discrimination.⁸⁶



IPPF/Tommy Trenchard

Laboratory technician Denis Bongoyinge washes his hands after examining a blood sample at the Reproductive Health Uganda clinic in Gulu, Uganda.

Connections with sexual and gender-based violence and gender inequality

The daily task of collecting water and the lack of adequate, gender-sensitive sanitation services puts women and girls at risk. In 8 out of 10 homes without running water, it's women and girls who are tasked with collecting it.⁸⁷ They often leave home before dawn and travel long distances in the dark to get to the water point early. Traveling alone or in remote areas leaves women and girls vulnerable to sexual assault.

Lack of safe sanitation facilities for women and girls also increases their vulnerability to violence.⁸⁸ Girls in Uganda reported that they avoid going out at night to use a latrine or change menstrual items, for fear of violence or rape.⁸⁹ Women without access to toilets may defecate before dawn or after dark to "preserve dignity," or they may limit their consumption of water or food in order to reduce the chances of needing to use the toilet, which can compromise their overall health.⁹⁰

Overall, one in three women will experience physical or sexual violence in her lifetime.⁹¹ Taboos regarding women's sexual and reproductive health, and dominant social norms that condone violence against women and girls, mean that issues related to WASH and sexual and gender-based violence are often not discussed by governments, communities, women and men. Societal drivers of gender inequality — such as predominantly male control over decision-making and resources — are underlying forces that may further enable violence, as well as make it harder for women and girls to meet their sexual and reproductive health needs.

Recommendations for action on a shared agenda

Despite synergies achieved in tackling WASH and SRHR together, integrated WASH and SRHR approaches are limited and often not prioritized in global and national policy or practice. The Agenda 2030 gives a common ground for sectors to collaborate on sustainable development for all, and the SDGs related to WASH, health, and gender equality are mutually reinforcing and interdependent. But without combined efforts, both health and human rights will be compromised. There are clear opportunities and entry points for WASH and SRHR actors to move a shared agenda forward and collaboratively drive greater action across sectors at national, regional and global levels. We recommend the following five key areas for action:

● Action area 1:

Strengthen the links between SRHR and WASH as fundamental elements of building stronger health systems and improved access to quality services and care



- 1. Integrate national SRHR and WASH policies, standards, and guidelines and incorporate minimum standards. Examples include:**
 - Ensure WASH in Health Care Facilities minimum standards and indicators incorporate the seven elements of essential SRHR services: gender-based violence; HIV; contraceptive services; maternal and newborn health; access to safe abortion; infertility and reproductive cancers.
 - Ensure that SRHR service delivery policies, guidelines and other guidance incorporates quality and user-centred WASH minimum standards.
 - Ensure that people utilizing SRHR services have access to quality water, sanitation and hygiene services which meet their needs, are private, and contribute to a more quality health service experience.
- 2. Expand current WASH in health care facility efforts that focus on maternal and newborn health so that they address all components of SRHR.**
- 3. Programs to improve WASH in schools collaborate with SRHR stakeholders to better plan and design integrated interventions for all.**

● Action area 2:

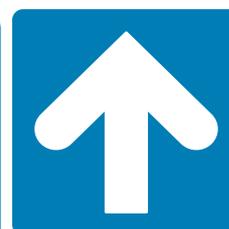
Ensure joint SRHR and WASH capacity strengthening at all levels of government



- 1. Strengthen the capacity of government to coordinate and promote quality of services:**
 - Support national and sub-national ministries of Health, Education and WASH to strengthen institutional coordination when implementing policies and action plans.
 - Strengthen the capacity of government ministries who are delivering health-focused WASH initiatives so that they have skills and knowledge on how to consider SRHR.
 - Strengthen the capacity of government ministries who are delivering SRHR initiatives so that they have skills and knowledge of the fundamental role of WASH services and rights.
- 2. Train frontline health care workers delivering SRH services in hygiene-related infection prevention and control.** For example: In training on post-abortion care, incorporate hygiene-related solutions, and adopt similar solutions to those used in menstrual health (access to sanitary pads, appropriate information).

● Action area 3:

Increase the focus of menstrual health as a critical pathway to improving SRHR



- 1. Develop shared terminology and a broader definition of menstrual health** which encompasses the hygienic aspects of menstruation as well as the broader systemic factors such as education and rights. This can bring greater clarity to the formulation of a joint development agenda by WASH and SRHR proponents and other actors.
- 2. Design and deliver joint, rights-based menstrual health programming solutions**, including by tackling social norms and attitudes in menstrual health and hygiene education programs through joint efforts to reduce stigma and taboos related to SRHR.
- 3. Support governments to integrate menstrual health into school curricula:** SRHR and WASH actors to combine efforts to improve the policy environment, strengthen curricula, and ensure that teacher training incorporates menstrual health into comprehensive sexuality education (CSE).
- 4. Conduct joint advocacy and influencing at global, regional and national levels:** Identify shared goals across sectors and develop cross-sectoral platforms, plans and financial structures to jointly address menstrual health.

● Action Area 4:

Develop and promote a shared advocacy agenda for a gender and rights-based approach to SRH and WASH



- 1. Formulate joint regional and global strategies:** Lead WASH and SRHR actors develop and implement joint strategies with clear targets and indicators. For example, prepare a joint statement for incorporation into the Beijing Platform for Action review (2020), and joint advocacy ahead of the UHC high level meeting in September 2019 at the United Nations General Assembly.
- 2. Promote a gender transformative agenda in SRHR and WASH solutions, including addressing the most underserved and marginalized:** Ensure user-led solutions are adopted in Action Areas 1, 2 and 3, and that they reach people and groups who are marginalized. Examples include:
 - Ensure integrated services are accessible and inclusive of persons with disabilities, indigenous people and of other underserved groups.
 - Remove barriers to WASH and SRHR for sexual and gender minorities and design youth-friendly integrated services.
 - In supporting user-led initiatives, ensure a diverse cross-section of voices including youth, gender and sexual minorities, and include men and boys as champions of change.
 - Jointly advocate against government policies or strategies that restrict comprehensive SRHR, or discriminate against SRH in relation to other health areas.
- 3. Jointly deliver evidence-informed messaging at global health and global WASH forums and other spaces:** WASH and SRHR actors can jointly present shared evidence-informed messaging through virtual and other dialogues. This includes adopting and applying a comprehensive definition of SRHR, which gives specific attention to the role of water, sanitation and hygiene.
- 4. Advocate for mobilization of resources for SRHR-related WASH through joint funding streams:** Scale up financial investment for WASH in a comprehensive approach to improved health outcomes for women and girls, including in SRHR, and monitor investments in WASH and SRHR.

Action Area 5:

Collaborate within and across the SRHR and WASH sectors to build a stronger evidence-base to inform best practice and decision-making



- 1. Strengthen the cross-sectoral evidence base:** Conduct joint operational research to guide collaborative WASH and SRHR approaches. Examples include:
 - Learning and documentation between WASH and SRH actors on effective menstrual health programming approaches.
 - Expand research on WASH in health care facilities to specifically include aspects of SRHR, such as safety and quality of care in abortion services.
- 2. Create evidence-informed dialogue and key messaging:** Draw on evidence to develop messaging across WASH and SRHR communities to drive agendas at global health and global WASH forums.
- 3. Establish stronger monitoring mechanisms for SRHR and WASH improvements:** Improve the collection of timely and reliable data and information which can be used by governments and other actors to inform efforts to improve WASH and SRHR outcomes.



WaterAid/Tom Greenwood

Nurse Peu Aranhya, 30, washes his hands in clean water at a sink, Thmor Kol Referral Hospital, Cambodia.

Resources

- ¹ Bouzid M, Cumming O, Hunter P (2018) What is the impact of water sanitation and hygiene in healthcare facilities on care seeking behavior and patient satisfaction? A systematic review of the evidence from low-income and middle-income countries; *BMJ Global Health* 3(3) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5950627/>
- ² Starrs, A. et al. (2018). Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *The Lancet*, 391(10140), 2642–2692
- ³ UN Population Fund (2004) Programme of action adopted at the International Conference on Population and Development, Cairo, Sept 5–13, 1994. New York, NY: United Nations Population Fund
- ⁴ Starrs A; Ezeh AC; Barker G et al. Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *Lancet*. 2018 [http://dx.doi.org/10.1016/S0140-6736\(18\)30293-9](http://dx.doi.org/10.1016/S0140-6736(18)30293-9)
- ⁵ Starrs A; Ezeh AC; Barker G et al. Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *Lancet*. 2018 [http://dx.doi.org/10.1016/S0140-6736\(18\)30293-9](http://dx.doi.org/10.1016/S0140-6736(18)30293-9)
- ⁶ Say, L., Chou, D., Gemmill, A., Tunçalp, Ö., Moller, A. B., Daniels, J., ... & Alkema, L. (2014). Global causes of maternal death: a WHO systematic analysis. *The Lancet Global Health*, 2(6), e323–e333.
- ⁷ Starrs, A. M., Ezeh, A. C., Barker, G., Basu, A., Bertrand, J. T., Blum, R., ... & Sathar, Z. A. (2018). Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *The Lancet*.
- ⁸ Starrs, A. M., Ezeh, A. C., Barker, G., Basu, A., Bertrand, J. T., Blum, R., ... & Sathar, Z. A. (2018). Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *The Lancet*. Starrs A et al (2018)
- ⁹ World health organisation; Global Health Sector Strategy on HIV 2016 – 2021 <https://apps.who.int/iris/bitstream/handle/10665/246178/WHO-HIV-2016.05-eng.pdf?sequence=1>
- ¹⁰ World Health Organisation (2019) Sexually Transmitted Infections (STIs) Fact Sheet [https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-\(stis\)](https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis))
- ¹¹ WHO/UNICEF Joint Monitoring Programme (JMP) (2017) Report <https://www.who.int/mediacentre/news/releases/2017/launch-version-report-jmp-water-sanitation-hygiene.pdf>
- ¹² WHO/UNICEF Joint Monitoring Programme (JMP) (2019) WASH in Healthcare Facilities, Global Baseline report <https://washdata.org/sites/default/files/documents/reports/2019-04/JMP-2019-wash-in-hcf-launch.pdf>
- ¹³ United Nations (2014) Framework of Actions for the Follow-up to the Programme of Action of the International Conference on Population and Development <https://www.unfpa.org/publications/framework-actions-follow-programme-action-international-conference-population-and>
- ¹⁴ General recommendation No. 37 (2018) on the gender-related dimensions of disaster risk reduction in the context of climate change <https://undocs.org/CEDAW/C/GC/37>
- ¹⁵ Office for UN High Commissioner for Human Rights and World Health Organisation (2008) The Right to Health, Factsheet No. 31 <https://www.ohchr.org/Documents/Publications/Factsheet31.pdf>
- ¹⁶ World Health Organisation (2018) Standards for Improving the quality of care for children and young adolescents in health facilities. Geneva <https://apps.who.int/iris/bitstream/handle/10665/272346/9789241565554-eng.pdf?ua=1>
- ¹⁷ World health organisation (2016) Standards for improving quality of maternal and newborn care in health facilities https://www.who.int/maternal_child_adolescent/documents/improving-maternal-newborn-care-quality/en/
- ¹⁸ World health organisation (2015) Global strategy for women's, adolescents' and children's health (2016–2030) <https://www.who.int/life-course/publications/global-strategy-2016-2030/en/>
- ¹⁹ UNESCO (2018) International technical guidance on sexuality education: an evidence-informed approach. <https://unesdoc.unesco.org/ark:/48223/pf0000183281>
- ²⁰ WHO/UNICEF (2019) WASH in Healthcare Facilities
- Global Baseline Report <https://washdata.org/monitoring/health-care-facilities>
- ²¹ United Nations General Assembly (2010). Resolution: The human right to water and sanitation (A/RES/64/292). New York: UN Publishing https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/64/292
- ²² International Planned Parenthood Federation. (2003) IPPF Charter Guidelines on Sexual and Reproductive Health and Rights https://www.ippf.org/sites/default/files/ippf_charter_on_sexual_and_reproductive_rights_guidelines.pdf
- UN Human Rights Office of the High Commissioner. Sexual and Reproductive Health and Rights <https://www.ohchr.org/en/issues/women/wrgs/pages/healthrights.aspx>
- ²³ Simavi (2018) Menstrual Health https://simavi.org/wp-content/uploads/2018/10/Simavi_Factsheet_MH_online_final.pdf
- ²⁴ L. C. A. H. (2018). Normalising menstruation, empowering girls. *The Lancet. Child & adolescent health*, 2(6), 379.
- ²⁵ Torondel, B., Sinha, S., Mohanty, J. R., Swain, T., Sahoo, P., Panda, B., ... & Panigrahi, P. (2018). Association between unhygienic menstrual management practices and prevalence of lower reproductive tract infections: a hospital-based cross-sectional study in Odisha, India. *BMC Infectious Diseases*, 18(1), 473.
- Das, P., Baker, K. K., Dutta, A., Swain, T., Sahoo, S., Das, B. S., Panda, B., Nayak, A., Bara, M., Bilung, B., Mishra, P. R., Panigrahi, P., Cairncross, S., ... Torondel, B. (2015). Menstrual hygiene practices, WASH access and the risk of urogenital infection in women from Odisha, India. *PLoS one*, 10(6), e0130777 <http://doi.org/10.1371/journal.pone.0130777>
- Zhang X-J, Shen Q, Wang G-Y, Yu Y-L, Sun Y-H, Yu G-B, et al. (2009) Risk factors for reproductive tract infections among married women in rural areas of Anhui Province, China. *Eur J Obstet Gynecol* [Internet] <http://doi.org/10.1016/j.ejogrb.2009.08.017>
- Anand, E., Singh, J., & Unisa, S. (2015). Menstrual hygiene practices and its association with reproductive tract infections and abnormal vaginal discharge among women in India. *Sexual & Reproductive Healthcare*, 6(4), 249–254.
- ²⁶ House, S., T. Mahon, and S. Cavill (2012) Menstrual hygiene matters: A resource for improving menstrual hygiene around the world. London: WaterAid.
- ²⁷ Crofts, T. (2012) Menstruation hygiene management for schoolgirls in low-income countries. Leicestershire: Water, Engineering, and Development Centre, Loughborough University.
- ²⁸ Bhakta A, Fisher J and Reed B (2014). WASH for the perimenopause in low-income countries: changing women, concealed knowledge? 37th WEDC Conference: Sustainable water and sanitation services in a fast changing world, Hanoi.
- Bishop K (2016). Gender and Development Network. Briefing: achieving gender equality through WASH. WaterAid and GADN.
- ²⁹ Chandra-Mouli, V., & Patel, S. V. (2017). Mapping the knowledge and understanding of menarche, menstrual hygiene and menstrual health among adolescent girls in low- and middle-income countries. *Reproductive health*, 14(1), 30.
- ³⁰ Sommer, M., Caruso, B. A., Sahin, M., Calderon, T., Cavill, S., Mahon, T., & Phillips-Howard, P. A. (2016). A time for global action: addressing girls' menstrual hygiene management needs in schools. *PLoS medicine*, 13(2), e1001962.
- ³¹ Morris, J. L., & Rushwan, H. (2015). Adolescent sexual and reproductive health: The global challenges. *International Journal of Gynecology & Obstetrics*, 131, S40–S42.
- ³² Mohamed Y, Durrant K, Huggett C, Davis J, Macintyre A, Menu S, et al. (2018) A qualitative exploration of menstruation-related restrictive practices in Fiji, Solomon Islands and Papua New Guinea. *PLoS ONE* 13(12): e0208224 <https://doi.org/10.1371/journal.pone.0208224>
- ³³ Health Promotion Rights Watch Uganda (HPRW)
- ³⁴ Hope, Nankunda (2017) Periods and Child Marriage <https://www.girlsnotbrides.org/periods-child-marriage-link/>
- ³⁵ Simavi (2018) Menstrual Health Training Manual <https://simavi.org/wp-content/uploads/2018/10/MH-Manual-Digital-DEF.pdf>
- ³⁶ WaterAid and Marie Stopes International Australia (2018) Integrating Menstrual Health, Water, Sanitation and Hygiene, and Sexual and Reproductive Health in Asia and the Pacific Region <https://washmatters.wateraid.org/publications/integrated-approaches-to-menstrual-health-in-asia-and-the-pacific>
- ³⁷ Starrs, A. M., Ezeh, A. C., Barker, G., Basu, A., Bertrand, J. T., Blum, R., ... & Sathar, Z. A. (2018). Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *The Lancet*. 2018 Jun 30 391(10140):2642–2692
- ³⁸ Darroch JE et al. (2016) Adding It Up: Costs and Benefits of Meeting the Contraceptive Needs of Adolescents, New York: Guttmacher Institute <https://www.guttmacher.org/report/adding-it-meeting-contraceptive-needs-of-adolescents>.
- ³⁹ Ross, J., & Stover, J. (2013). Use of modern contraception increases when more methods become available: analysis of evidence from 1982–2009. *Global health, science and practice*, 1(2), 203–12. doi:10.9745/GHSP-D-13-00010
- ⁴⁰ World health organisation (2018) Family Planning: A Global Handbook for Providers <https://apps.who.int/iris/bitstream/handle/10665/260156/9780999203705-eng.pdf?sequence=1>
- JHPIEGO. (2006). *IUD Guidelines for Family Planning Service Programs: A Problem-Solving Reference Manual*, Third Edition. JPIEGO, Baltimore, Maryland http://resources.jhpiego.org/system/files/resources/iud_manual_0.pdf
- Tietjen, L., Cronin, W., & McIntosh, N. (1992). *Infection prevention for family planning service programs: a problem-solving reference manual*.
- ⁴¹ World health organisation (2018) Family Planning: A Global Handbook for Providers <https://apps.who.int/iris/bitstream/handle/10665/260156/9780999203705-eng.pdf?sequence=1>
- ⁴² World Health Organization. (2016). Standards for improving quality of maternal and newborn care in health facilities https://www.who.int/maternal_child_adolescent/documents/improving-maternal-newborn-care-quality/en/
- ⁴³ Bouzid M, Cumming O, Hunter PR (2018) What is the impact of water sanitation and hygiene in healthcare facilities on care seeking behaviour and patient satisfaction? A systematic review of the evidence from low-income and middle-income countries *BMJ Global Health*;3:e000648.
- ⁴⁴ Benova, L., Cumming, O., & Campbell, O. M. (2014). Systematic review and meta-analysis: association between water and sanitation environment and maternal mortality. *Tropical Medicine & International Health*, 19(4), 368–387.
- ⁴⁵ Padhi, B. K., Baker, K. K., Dutta, A., Cumming, O., Freeman, M. C., Satpathy, R., Das, B. S., ... Panigrahi, P. (2015). Risk of Adverse Pregnancy Outcomes among Women Practicing Poor Sanitation in Rural India: A Population-Based Prospective Cohort Study. *PLoS medicine*, 12(7), e1001851 <http://doi.org/10.1371/journal.pmed.1001851>
- ⁴⁶ Campbell, O. M., Benova, L., Gon, G., Afsana, K., & Cumming, O. (2015). Getting the basic rights—the role of water, sanitation and hygiene in maternal and reproductive health: a conceptual framework. *Tropical medicine & international health*, 20(3), 252–267.
- ⁴⁷ Jones H and Reed B (2005). Water and sanitation for disabled people and other vulnerable groups: designing services to improve accessibility. UK: WEDC <https://www.susana.org/en/knowledge-hub/resources-and-publications/library/details/2218>
- ⁴⁸ Thorp Jr, J. M., Norton, P. A., Wall, L. L., Kuller, J. A., Eucker, B., & Wells, E. (1999). Urinary incontinence in pregnancy and the puerperium: a prospective study. *American journal of obstetrics and gynecology*, 181(2), 266–273.
- ⁴⁹ Alkema, L., Chou, D., Hogan, D., Zhang, S., Moller, A. B., Gemmill, A., ... & Say, L. (2016). Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group. *The Lancet*, 387(10017), 462–474.
- World health organisation (2018). Key facts: Maternal Mortality <https://www.who.int/en/news-room/fact-sheets/detail/maternal-mortality>
- ⁵⁰ UNFPA (2015) Girlhood, not motherhood: Preventing adolescent pregnancy. New York: UNFPA <https://www.unfpa.org/publications/girlhood-not-motherhood>
- Neal S, Matthews Z, Frost M, et al (2012) Childbearing in adolescents aged 12–15 years in low resource countries: a neglected issue. New estimates from demographic and

- household surveys in 42 countries. *Acta Obstet Gynecol Scand* 91: 1114–18.
- Every Woman Every Child. The Global Strategy for Women's, Children's and Adolescents' Health (2016-2030). Geneva: Every Woman Every Child, 2015.
- ⁵¹ World health organisation (2016) Global health estimates 2015: deaths by cause, age, sex, by country and by region, 2000–2015. Geneva: WHO https://www.who.int/healthinfo/global_burden_disease/estimates_regional_2000_2015/en/
- ⁵² Say, L., Chou, D., Gemmill, A., Tunçalp, Ö., Moller, A. B., Daniels, J., ... & Alkema, L. (2014). Global causes of maternal death: a WHO systematic analysis. *The Lancet Global Health*, 2(6), e323–e333.
- ⁵³ Hussein, J., & Walker, L. (2010). Puerperal sepsis in low and middle income settings: past, present and future. Maternal and infant deaths: chasing Millennium Development Goals, 4, 131–47.
- Cross, S., Afsana, K., Banu, M., Mavalankar, D., Morrison, E., Rahman, A., ... & Graham, W. J. (2016). Hygiene on maternity units: lessons from a needs assessment in Bangladesh and India. *Global health action*, 9(1), 32541.
- Edmond, K., & Zaidi, A. (2010). New approaches to preventing, diagnosing, and treating neonatal sepsis. *PLoS medicine*, 7(3), e1000213.
- ⁵⁴ World Health Organisation (2018) Fact Sheet: Newborns – Reducing Mortality <https://www.who.int/en/news-room/fact-sheets/detail/newborns-reducing-mortality>
- ⁵⁵ World health organisation (2012) Safe Abortion: Technical and Policy Guidance for Health Systems, second ed., Geneva: WHO http://apps.who.int/iris/bitstream/10665/70914/1/9789241548434_eng.pdf
- Diedrich J, Steinauer J (2009) Complications of surgical abortion. *Clin Obstet and Gynecol* 52(2):205–202. doi: 10.1097/GRF.0b013e3181a2b756.
- ⁵⁶ Singh, S., Remez, L., Sedgh, G., Kwok, L., & Onda, T. (2018). Abortion Worldwide 2017: Uneven Progress and Unequal Access Abortion Worldwide 2017: Uneven Progress and Unequal Access.
- Singh S (2010) Global Consequences of Unsafe Abortion; Womens Health (London, England) 6 (6): 849–60.
- Shah I, Ahman E (2009) Unsafe Abortion: Global and Regional Incidence, Trends, Consequences, and Challenges. *Journal of Obstetrics and Gynaecology Canada* 31 (12): 1149–58.
- Grimes D A, Benson J, Singh S, Romero M, Ganatra B. others (2006) Unsafe Abortion: The Preventable Pandemic. *The Lancet* 368 (9550): 1908–19.
- ⁵⁷ World Health Organization. 10 Facts on Obstetric Fistula https://www.who.int/features/factfiles/obstetric_fistula/en/
- Ahmed, S., & Tunçalp, Ö. (2015). Burden of obstetric fistula: from measurement to action. *The Lancet Global Health*, 3(5), e243–e244.
- Adler AJ, Ronsmans C, Calvert C, Filippi V (2013). Estimating the prevalence of obstetric fistula: a systematic review and meta-analysis. *BMC Pregnancy Childbirth*. 13(246):246. <http://dx.doi.org/10.1186/1471-2393-13-246>
- ⁵⁸ Semere, L., & Nour, N. M. (2008). Obstetric fistula: living with incontinence and shame. *Reviews in obstetrics & gynecology*, 1(4), 193–7.
- ⁵⁹ Phillips-Howard, PA, Mason, L, Hopkins, J, Rheingans, R, Alexander, K, Laserson, K et al. (2011). Water and sanitation issues in relation to sexual and reproductive health across the female lifespan (WSSRH). Background White Paper.
- ⁶⁰ Campbell, O. M., Benova, L., Gon, G., Afsana, K., & Cumming, O. (2014). Getting the basic rights - the role of water, sanitation and hygiene in maternal and reproductive health: a conceptual framework. *Tropical medicine & international health : TM & IH*, 20(3), 252–67.
- Okonkwo JE, Obionu CO, Obiechina NJ (2001) Factors contributing to urinary incontinence and pelvic prolapse in Nigeria. *Int J Gynaecol Obstet*, 74:301–303.
- ⁶¹ Hafskjold B, Pop-Stefanija B Giles-Hansen C et al (2016). Taking stock: incompetent at incontinence – why are we ignoring the needs of incontinence sufferers? *Waterlines* 35.
- ⁶² Phillips-Howard, PA, Mason, L, Hopkins, J, Rheingans, R, Alexander, K, Laserson, K et al. (2011). Water and sanitation issues in relation to sexual and reproductive health across the female lifespan (WSSRH). Background White Paper.
- Hafskjold B, Pop-Stefanija B Giles-Hansen C et al (2016). Taking stock: incompetent at incontinence – why are we ignoring the needs of incontinence sufferers? *Waterlines*, 35.
- ⁶³ Rees, G., Pond, K., Kay, D., Bartram, J., & Santo Domingo, J. (2010). How to integrate water, sanitation and hygiene into HIV programmes.
- ⁶⁴ Elfstrand, L., & Florén, C. H. (2010). Management of chronic diarrhoea in HIV-infected patients: current treatment options, challenges and future directions. *HIV/AIDS (Auckland, N.Z.)*, 2, 219–24.
- Smith, P., Colebunders, R. & Mayer, H. as cited in Monkemuller, K.E. & Wilcox, C.M. (2000). Investigation of Diarrhea in AIDS. *Canadian Journal of Gastroenterology* 14(11), 933–40.
- Momba, M. N. B., Madoroba, E., & Obi, C. L. (2010). Apparent impact of enteric pathogens in drinking water and implications for the relentless saga of HIV/AIDS in South Africa. *Current Research, Technology and Education Topic in Applied Microbiology and Microbial Biotechnology. Formatex Microbiological Series.* (2), 615–625
- ⁶⁵ Stark, D., Barratt, J. L., van Hal, S., Marriott, D., Harkness, J., & Ellis, J. T. (2009). Clinical significance of enteric protozoa in the immunosuppressed human population. *Clinical microbiology reviews*, 22(4), 634–50.
- ⁶⁶ Prendergast, A. & Kelly, P. (2012). Enteropathies in the Developing World: Neglected Effects on Global Health. *American Journal of Tropical Medicine and Hygiene*. 86(5), 756–763.
- Bushen, O., et al. (2004). Diarrhea and Reduced Levels of Antiretroviral Drugs: Improvement with Glutamine or Alanyl-Glutamine in a Randomized Controlled Trial in Northeast Brazil. *Clinical Infectious Diseases*. 38(12), 1764–70.
- ⁶⁷ USAID. Water, Sanitation and Hygiene (WASH) Considerations for Accelerated PMTCT Programming http://www.washplus.org/sites/default/files/wash-pmtct_final_1.pdf
- ⁶⁸ USAID. Water, Sanitation and Hygiene (WASH) Considerations for Accelerated PMTCT Programming http://www.washplus.org/sites/default/files/wash-pmtct_final_1.pdf
- ⁶⁹ World Health Organisation; Unicef (2016) Guidelines: Updates on HIV and infant feeding <https://apps.who.int/iris/bitstream/handle/10665/246260/9789241549707-eng.pdf>
- Kamminga, E., & Wegelin-Schuringa, M. (2003). HIV/AIDS and water, sanitation and hygiene. IRC Thematic Overview Papers
- ⁷⁰ Phillips-Howard, PA, Mason, L, Hopkins, J, Rheingans, R, Alexander, K, Laserson, K et al. (2011). Water and sanitation issues in relation to sexual and reproductive health across the female lifespan (WSSRH). Background White Paper.
- ⁷¹ Phillips-Howard, PA, Mason, L, Hopkins, J, Rheingans, R, Alexander, K, Laserson, K et al. (2011). Water and sanitation issues in relation to sexual and reproductive health across the female lifespan (WSSRH). Background White Paper.
- American College of Obstetricians and Gynecologists (2016). Frequently Asked Questions: Gynecological Problems <https://www.acog.org/-/media/For-Patients/faq071.pdf?dmcc=1&ts=20190125T0033446423>
- ⁷² O'Farrell N (1993) Soap and water prophylaxis for limiting genital ulcer disease and HIV-1 infection in men in sub-Saharan Africa. *Genitourin Med* 69:297–300.
- ⁷³ World Health Organisation (2014) Comprehensive Cervical Cancer Control: A guide to essential practice https://apps.who.int/iris/bitstream/handle/10665/144785/9789241548953_eng.pdf
- ⁷⁴ August, S. L., & De Rosa, M. J. (2012). Evaluation of the prevalence of urinary tract infection in rural Panamanian women. *PLoS one*, 7(10), e47752.
- Phillips-Howard, PA, Mason, L, Hopkins, J, Rheingans, R, Alexander, K, Laserson, K et al. (2011). Water and sanitation issues in relation to sexual and reproductive health across the female lifespan (WSSRH). Background White Paper.
- Planned Parenthood. How do I prevent vaginitis? <https://www.plannedparenthood.org/learn/health-and-wellness/vaginitis/how-do-i-prevent-vaginitis>
- ⁷⁵ Groen, S. (2005). The course of recurrent urinary tract infections in non-pregnant women of childbearing age, the consequences for daily life and the ideas of the patients. *Nederlands tijdschrift voor geneeskunde*, 149(19), 1048–1051.
- ⁷⁶ Diverde, H. (2013). The sanitary situation and its health effects on women exposed to occupational heat in Chennai, India.
- ⁷⁷ Klebanoff, M. A., Nansel, T. R., Brotman, R. M., Zhang, J., Yu, K. F., Schwabke, J. R., & Andrews, W. W. (2010). Personal hygiene behaviors and bacterial vaginosis. *Sexually transmitted diseases*, 37(2), 94.
- ⁷⁸ Gallo MF, Sharma A, Bukusi EA, Njoroge B, Nguti R, Jamieson DJ, Bell AJ, Eschenbach DA (2010): Intravaginal practices among female sex workers in Kibera, Kenya. *Sex Transm Infect*. 86:318–322.
- Amaral, R., Giraldo, P. C., Gonçalves, A. K., Junior, J. E., Santos-Pereira, S., Linhares, I., & Passos, M. R. (2007). Evaluation of hygienic douching on the vaginal microflora of female sex workers. *International journal of STD & AIDS*, 18(11), 770–773.
- Wang, B. O., Li, X., Stanton, B., Yang, H., Fang, X., Zhao, R., ... & Liang, S. (2005). Vaginal douching, condom use, and sexually transmitted infections among Chinese female sex workers. *Sexually transmitted diseases*, 32(11), 696.
- ⁷⁹ Ballini et al (2012) Transmission of nonviral sexually transmitted infections and oral sex. *J Sex Med*. 2012 Feb;9(2):372–84. doi: 10.1111/j.1743-6109.2011.02515
- ⁸⁰ WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (2010). Progress on sanitation and drinking-water – 2010 update. Geneva: WHO/UNICEF https://www.who.int/water_sanitation_health/publications/9789241563956/en/
- ⁸¹ House, S., T. Mahon, and S. Cavill (2012) Menstrual hygiene matters: A resource for improving menstrual hygiene around the world. London: WaterAid.
- ⁸² Wilbur J, Torondel B, Hameed S, Mahon T, Kuper H (2019) Systematic review of menstrual hygiene management requirements, its barriers and strategies for disabled people. *PLoS ONE* 14(2): e0210974 <https://doi.org/10.1371/journal.pone.0210974>
- ⁸³ Benjamin C and Hueso A (2017). LGBTI and sanitation: what we know and what the gaps are. 40th WEDC International Conference, Loughborough, UK <https://wedc-knowledge.lboro.ac.uk/resources/conference/40/Benjamin-2649.pdf>
- ⁸⁴ Benjamin C and Hueso A (2017). LGBTI and sanitation: what we know and what the gaps are. 40th WEDC International Conference, Loughborough, UK <https://wedc-knowledge.lboro.ac.uk/resources/conference/40/Benjamin-2649.pdf>
- ⁸⁵ Tibebu B, Belachew T (2007) Knowledge, attitude and practice of home-based care for HIV/AIDS patients by their family/ caregivers at Jimma town. *Ethiopian Medical Journal* 45: 282–292.
- ⁸⁶ Yallew, W. W., Terefe, M. W., Herchline, T. E., Sharma, H. R., Bitew, B. D., Kifle, M. W., ... & Adane, M. M. (2012). Assessment of water, sanitation, and hygiene practice and associated factors among people living with HIV/AIDS home based care services in Gondar city, Ethiopia. *BMC Public Health*, 12(1), 1057.
- ⁸⁷ UNICEF. The Water Burden: Girls and Women Lack Safe Water <https://www.unicefusa.org/mission/survival/water/water-burden-girls-and-women-lack-safe-water>
- ⁸⁸ Wendland, C., Yadav M., Stock, A. and Seager, J (2017) Gender and Sanitation Issues. In: J.B. Rose and B. Jiménez-Cisneros, (eds) *Global Water Pathogen Project*. (J.B. Rose and B. Jiménez-Cisneros) (eds) Part 1 The Health Hazards of Excreta: Theory and Control Michigan State University, E. Lansing, MI, UNESCO <http://www.waterpathogens.org/book/gender-and-sanitation>
- ⁸⁹ Kumar M (2013). Rapists on prowl in loo-less rural Bihar. 17 January 2013. As cited in House S, Ferron S, Sommer S and Cavill S (2014)
- Massey K (2011). Insecurity and shame, exploration of the impact of the lack of sanitation on women in the slums of Kampala, Uganda. Briefing note. London: SHARE Consortium https://assets.publishing.service.gov.uk/media/57a08ae9e5274a27b2000839/NAV_Uganda.pdf
- ⁹⁰ Campbell, O. M., Benova, L., Gon, G., Afsana, K., & Cumming, O. (2014). Getting the basic rights - the role of water, sanitation and hygiene in maternal and reproductive health: a conceptual framework. *Tropical medicine & international health : TM & IH*, 20(3), 252–67.
- Das B, Das P, Dutta A et al (2015). Social and psychological impact of limited access to sanitation. *WSSCC; LSHTM* https://www.wsscc.org/wp-content/uploads/2015/09/Briefing_Note_3_2015_UPDATE.pdf
- ⁹¹ World Health Organization (2017). Key Facts: Violence Against Women <https://www.who.int/news-room/fact-sheets/detail/violence-against-women>

Contributing authors

The development of this paper was led by Chelsea Huggett, Danielle Zielinski and Martina Nee (WaterAid) and was co-authored by:

International Planned Parenthood Federation (IPPF): Hayley Gleeson, YuHsin Huang, Natassa Kaur, Daniel McCartney, Nabreesa Murphy, Phoebe Ryan, Nay Lynn Aung Sai, Clare Waite, Darcy Weaver

International Women's Health Coalition (IWHC): Eleanor Blomstrom

Marie Stopes International (MSI): Batya Atlas

Simavi: Hilda Alberda, Renate Douwes, Dorine Thomissen

WaterAid: Alison MacIntyre, Priya Nath, Manuela Pinilla, Megan Wilson Jones

