

# Training of Trainers Module on Water Sanitation and Hygiene

*For Bihar Front-Line Health and Nutrition Service Providers*

*(ASHA, ANM, Anganwadi workers)*

Project Supported by

CARE, Bihar and B-TAST, Bihar

Technical Assistance Support Team

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## Millennium Development Goals



## Preface

WASH Institute is very grateful for this opportunity given to us by CARE Bihar and B-TAST for entrusting us to develop this module. We are also happy of the support of DFID to assist the Department of Health (DoH), Social Welfare Department (SWD) and Public Health Engineering Department (PHED), Government of Bihar, in its initiatives to successfully implement the Sector Wide Approach to improve health and nutrition conditions of people of Bihar (SWASTH).

This module was prepared for the Training of Trainers (ToTs) of the AWWs, ASHAs and ANMs on water and sanitation issues in health care, as they relate to the functioning of these front-line health workers. This module was carefully prepared after understanding the Bihar situation by visiting various stakeholders and incorporating the views of both government officials and the front line workers themselves and based on WASH Institute experience in water and sanitation.

The emerging need for orienting these front line workers in water and sanitation is highly valuable as the impact can be far reaching as they will help changes in life style is excepted within the frontline workers themselves, their families and communities, and more importantly to help them to bring a difference in their work environment. The aim is prevention of water sanitation related diseases affecting health as poor water and sanitation that contributes to 80% of the diseases. Below is an outline of the topics covered in the module. The whole module is split as two parts. Part 1 contains guidance topics for the trainer and the Part 2 covers the detailed content of the topics to be covered.

Part 1 begins with a session on notes to trainers, an introduction, and how to use the module, determining WASH workshop topics, preparing yourself as a Trainer of Trainers, the training methodologies, teaching tools and materials, and resource materials.

There are a total of four chapters, the first chapter begins with *On empowering front line workers* which includes the importance of Front –line service provider interaction, socioeconomic and cultural Sensitivity, gender mainstreaming, empowering the community, integrating WASH into daily scope of work, offering practical solutions, and participatory methods of interaction with the community and conclusion and evaluation

The chapter 2 on *Water* covers on what are the water sources, water quality, and household level water management.

The chapter 3 on *Sanitation* covers the components of human sanitation, a complete sanitation system, why everyone needs adequate and appropriate sanitation systems, impacts of inadequate or inappropriate sanitation systems, environmental sanitation and a conclusion and evaluation.

The chapter on *Hygiene* outlines what is hygiene and goes into details of importance of hand washing, menstrual hygiene, maintenance of water sources, toilet demand creation and maintenance, school and Anganwadi hygiene and ending with a conclusion and evaluation. Working definitions, acronyms, expansion of abbreviations are also provided to give a clear understanding of the subjects. It is the fond hope of WASH Institute that this manual will benefit all those in the sector not only in Bihar but India at large to make a difference in the attitude, approach and life of those being affected by water sanitation issues.

We invite all readers to write to us your comments and suggestions to incorporate it in the future editions of this and other modules.

## Acronyms and Abbreviations

<b>ANM</b>	Auxiliary Nurse Midwife
<b>APL</b>	Above Poverty Line
<b>ASHA</b>	Accredited Social Health Activist
<b>AWC</b>	Anganwadi Centre
<b>AWH</b>	Anganwadi Helper
<b>AWTC</b>	Anganwadi Training Centre
<b>AWW</b>	Anganwadi worker
<b>BCC</b>	Behaviour change or behaviour centred communication
<b>BHSRP or B-SHSRP</b>	Bihar [State] Health Sector Reform Project
<b>BPL</b>	Below Poverty Line
<b>BTAST</b>	Bihar Technical Assistance Support Team
<b>CCDU</b>	Community Capacity Development Unit
<b>CDPO</b>	Child Development Programme Officer
<b>DFID</b>	Department For International Development
<b>DoH</b>	Departments of Health and Family Welfare
<b>FGD</b>	Focus Group Discussion
<b>GoB</b>	Government of Bihar
<b>GoI</b>	Government of India
<b>ICDS</b>	Integrated Child Development Services
<b>IEC</b>	Information, education and communication
<b>INR</b>	Indian National Rupee
<b>IPE</b>	Infrastructure Professionals Enterprise
<b>Mins</b>	Minutes
<b>MLTC</b>	Middle Level Training Centre
<b>MOIC</b>	Medical officer in charge
<b>NGO</b>	Nongovernmental organization
<b>NIPCCED</b>	National Institute of Public Cooperation and Child Development
<b>NHSRC</b>	National Health System Resource Centre
<b>NRHM</b>	National Rural Health Mission
<b>ORS</b>	oral rehydration solution
<b>ORT</b>	Oral rehydration therapy
<b>PHC</b>	Primary health centre
<b>PHED</b>	Public Health Engineering Department
<b>PMU</b>	Project Management Unit
<b>PRI</b>	Panchayati Raj Institutions
<b>SHG</b>	Self help group

<b>SHS</b>	State Health Society
<b>SIHFW</b>	State Institute of Health and Family Welfare
<b>SWD</b>	Social Welfare Department
<b>ToT</b>	Training of trainers
<b>TSC</b>	Total sanitation campaign
<b>UNICEF</b>	United Nations Children's Fund
<b>VHNWSC</b>	Village health, nutrition, water and sanitation committee (Gaon Kalyan Samiti)
<b>WaSH</b>	Water, sanitation, and hygiene

## Working Definitions

In order to ease understanding and to facilitate work between different groups of people involved on many levels in the BHSRP, please utilize the following definitions for terms throughout this document and in the field for systematic training and ongoing reference for all parties.

Term	Definition
<b>Advocacy</b>	process of gathering, organizing and formulating information into argument, to be communicated through various interpersonal and media channels to political and social leaders with a view to gaining their commitment to and active support of a development programme
<b>ANM</b>	Also known as “nurse didi,” key field level service provider who interacts directly with the community for reproductive child health programs; role of ANM has changed from primarily a midwife to a preventive health worker with focus on family planning and immunization. Also in charge of ASHA, AWW and Dais.
<b>ASHA</b>	Female health activist and promoter of good health practices in the community who will create awareness on health and its social determinants and mobilize the community towards local health planning and increased utilization and accountability of the existing health services; also provides minimum package of curative care as appropriate and feasible for that level and make timely referrals
<b>AWW</b>	Trained in various aspects of health, nutrition and child development; 1 worker allotted to a population of 1,000
<b>BHSRP or B-SHSRP</b>	Six- year plan to design and implement programs to improve health outcomes in Bihar through collaboration among the various state departments
<b>BTAST</b>	Consortium of agencies including CARE India, IPE and Options, which are coordinating the BHSRP
<b>DFID</b>	Government of UK department which is financing and supporting the BHSRP
<b>Disease</b>	Abnormal body condition caused by an internal (i.e. autoimmune) or external (i.e. pathogen) factor; Be careful not to confuse with <b>symptoms</b> (see definition bellow) <b>Synonyms: illness, sickness</b>
<b>DoH, SWD, PHED</b>	The three government departments which are converging for the BHSRP
<b>Excreta</b>	The mixture of urine and faeces, possibly with small amounts of anal cleansing water; does not include a mix with any flushing water.

<b>Gender mainstreaming</b>	Addresses gender in all cycles of developing, planning, implementing and evaluating a programme through two dimensions: the differences in needs and priorities of women, men, girls and boys that arise from their different activities and responsibilities; and the inequalities in access to and control over resources and access services;
<b>Hygiene</b>	The many practices that assist in keeping oneself and one's environment clean and free of infection risk
<b>ICDS</b>	Functions (under the SWD) for nutrition, education and health interventions for children from pre-natal to 6 years
<b>Latrine</b>	Usually considered inferior to a sanitation system called "toilet," an ambiguous international term that encompasses many different types of sanitation systems; in Bihar, latrine is used colloquially to describe any place, not normally within a house or other building, for deposition, retention and sometimes decomposition of excreta.
<b>Lavatory</b>	A Lavatory as in a barracks, camp etc.,
<b>Participatory Training</b>	A training approach of 'sharing', 'learning together' or acting as a 'facilitator' to encourage participation; utilizes multiple adult-learning methodologies and tools including audio-visual, group work, games, etc.
<b>Pathogen</b>	A disease causing organism; includes bacteria, viruses, protozoan, and helminthes <b>Synonym: germ</b>
<b>Pranjal</b>	The organization created in 2008, to re-train ASHAs on Gol modules 2-4
<b>Programme Participants</b>	individuals, families, communities and various partners to whom the communication programme or service is aimed and with whom it needs to work to achieve desired outcomes; this module uses the terminology of "programme participant" in line with UNICEF's rights-based programming approach (connotes that individuals and groups are not just passive recipients of communication messages but are actors and stakeholders who play a critical role in the change process). <b>Previous Synonyms: target audience(s), beneficiary group(s)</b>
<b>Sanitation</b>	The principles and practices relating to the collection and management of different types of "waste" including, human excreta, wastewater and solid waste as they impact upon communities, users, operators and the environment
<b>Sanitation-related disease</b>	disease that spreads through contact with water or food containing human or animal excreta. <b>Previous term: water-borne disease</b> but in this three-part Workshop, we do have shifted the paradigm and refer to resultant morbidity and mortality as only as sanitation-related disease
<b>Service Providers</b>	Community based, front-line health and nutrition workers responsible for bringing about a sustained behaviour change at community and household level and to establish hygienic practices especially among mothers and children

<b>Stakeholders</b>	The various NGO, governmental, and private sector officials who are involved with planning and implementation of work conducted by service providers
<b>Symptom</b>	signs or perceived change in some function, sensation or appearance of a person that indicates a disease such as fever, headache or rash; Be careful not to confuse with <b>disease</b> (see definition above)
<b>Toilet</b>	A fixture for defecation and urination, consisting of bowl fitted with a hinged seat and connected to a waste pipe and a flushing apparatus; a privy. Toilet is another word for <b>Lavatory</b> (see definition above)
<b>WASHi</b>	Consultant NGO contracted to prepare modules for training of ANM, AWW, and ASHA on WaSH issues as they relate to the roles of these front-line health and nutrition service providers; work will take place in phases as the training, workshop and community-level contents are developed and tested in various settings and by various stakeholders
<b>Water-based disease</b>	disease that spreads through water contaminated with parasites (worms), either when you drink it or when it penetrates the skin, usually through an open wound.
<b>Water-borne disease</b>	Definition commonly used around the world for disease that spreads through water containing human or animal faeces and urine, either when you drink such water directly or you eat food that has been contaminated with it. Therefore, in this three-part Workshop, we do not refer to water-borne disease, and rather, have shifted the paradigm and refer to them as <b>sanitation-related disease</b>
<b>Water-related insect disease</b>	disease that is carried by insects that breed in or near dirty water, such as mosquitoes
<b>Water-washed disease</b>	disease that spreads as a result of poor personal hygiene and skin or eye contact with dirty water

# PART 1

## NOTES TO TRAINERS

### Introduction

Front-line health and nutrition service providers are expected to perform a number of tasks in the communities they work with to bridge the gap in health outcomes in areas with weak public health indicators. However, they themselves have not been well trained in how to educate community members to bring about sustained behaviour change. This WaSH Workshop presents practical information and resources for those involved in training front-line health and nutrition service providers and for the service providers themselves to utilize at the grassroots level.

### Why train front-line service providers on WaSH?

The main goal of work as a front-line service provider is to lead the community to adopt and sustain behaviour change for improved health and nutrition outcomes. Countless studies have shown that in the poorest, most marginalized communities, water, sanitation and hygiene are vital determinants in the health and nutrition of the community. Training can be effective in preparing health workers to carry out key WaSH tasks, but the effectiveness of training depends upon how well it is planned, the methods used, and whether or not there is refresher training, as well as follow up visits to personnel in the field. It takes time to plan good workshops, and planning should be done one step at a time.

### ToT Module Goals

The overall goal of the ToT Module is to prepare and equip a critical mass of trainers throughout Bihar to have the knowledge and skills required to design and conduct practical WaSH training courses for Bihar's front-line health and nutrition service providers.

This is achieved through

- Guiding training delivery in terms of conceptual and practical content and process
- Building the capacity of their respective organizations and individuals to develop, implement, support, and advocate for WaSH
- Proficiency in communication, facilitation, and skills required to assist service providers in learning how to improve WaSH in their communities
- Capability to prepare and deliver WaSH Workshops as training events for respective service providers, including effective communication skills in line with adult-learning principles
- Be able to properly evaluate training and workshop outcomes for ongoing improvement

# Determining WaSH Workshop Goals

## All participants in the WaSH workshop should:

- ↳ Develop WaSH knowledge, improved attitude, life skills and hands-on skills
- ↳ Understand the WaSH issues facing communities in Bihar
- ↳ Become competent in methods and technologies to address WaSH related issues in Bihar
- ↳ Explain and replicate in the community the various WASH activities demonstrated during the workshop
- ↳ Become more effective at persuading individuals, families, and groups in their communities (programme participants) to adopt new and healthier behaviors to reduce the incidence of WaSH related morbidity and mortality
- ↳ Develop theoretical and practical skills needed to outline how they will move forward with activities once the workshop is over (prepare an action plan)
- ↳ Use appropriate monitoring tools to record their progress

## Training Methodology

This training module is written in simple language so it can be modified, adapted and translated by respective organizations as per their needs. As much as possible, resource materials have been provided to guide trainers on the implementation of the workshop. **Please note, it is expected that each trainer understand the needs of their class and be capable of formulating a useful education around those needs.** The end result of this concise, yet detailed curriculum is to open the dialogue between service providers and their communities to incite sustained behaviour change. The personal, familial, and communal benefit of WaSH education will be seen through the appropriate utilization of this curriculum. Likewise, personal, familial, and communal consciousness gained will allow for sustained knowledge and good health practices.

Please note, throughout the ToT module, "trainer" is used but make adjustments as follows:

- with 1-15 participants 1 trainers minimum is recommended
- 16-30 participants 2 trainers minimum are recommended
- 31-45 participants 3 trainers are minimum recommended

Class sizes larger than 45 are not recommended. For classes of 5 or less, group work should be done in partners or adjusted to the trainer facilitating the exercise. As much as possible, variations in activities used in the ToT module are provided within the text.

## Framework

Based on adult learning strategies/techniques /principles, each session in the WaSH Workshop training package is structured according to the following seven steps that incorporate the “experiential learning cycle”:

- Introducing the session (some kind of icebreaker or climate setter)
- Presenting the session's objectives
- Offering a structured experience to the participants (such as a role play)
- Processing (talking about) that experience
- Drawing new learning and conclusions from the experience and the processing
- Planning how to use the new skills and knowledge (take-home activities)
- Summarizing the session (wrap up game or post-test) and linking it to the next session

General references and additional resources are inserted as appropriate or listed in Annexe 5. Further updating of the reference list and additional resources with new material is welcome, which makes the training package a living tool.

The contents of the WaSH Workshop training package are summarized below.

## Part 1: The ToT Module

The ToT Module is a guide to developing and implementing WaSH workshops for trainers of Bihar's front-line health and nutrition workers. This ToT Module provides easy-to-follow, detailed instructions to the trainer on how to conduct the WaSH Workshop. Before beginning a workshop, the trainer should become familiar with the guide and its contents. This ToT module consists of two parts- Part I includes purpose and uses of the ToT Module, the skills necessary to make the trainer a more effective teacher, and opening session with basic facts about WaSH which the health worker should be taught.

The second part consists of four chapters, one on empowering service providers to effectively promote sustainable behaviour change in WaSH related activities, and three chapters addressing the most urgent WaSH related problems seen in Bihar. Within each chapter, sessions focus on single topics and each session includes information on learning objectives, basic training content, and the various training methods appropriate for that topic. Each chapter concludes with a set of practical training exercises (interactive activities) that can be used for the practising of newly learned attitude and life-skills and also assessing knowledge gained to tell how well these skills have been mastered. If preferred, a post-test can be used instead (located in *Part 2: Service Provider's Handbook*).

## Part 2: The Service Provider's Handbook

During the workshop the *Service Provider's Handbook* will be the source of complementary information that the trainer can use as deemed necessary. The *Service Provider's Handbook* also contains a section where the outreach workers can take notes on their reactions, new knowledge, and action planning steps.

Following the workshop, the service providers will take their *Handbook* with them for continued use in their communities. It will serve as a resource to support them in carrying out their WaSH related activities. In addition to the complementary technical information and the journal, the *Service Provider's Handbook* contains several job aids.

The job aids are one-page instruction sheets on how to carry out the various WaSH related demonstrations that are featured as part of the training of community outreach workers, as

well as tools to facilitate communication between an outreach worker and the community. Thus, the outreach workers who wish to repeat the awareness-raising demonstrations in the community will have a step-by-step guide for doing so and will not have to rely on only recall from the workshop.

## Part 3: Resource Materials

The resource materials guide contains samples of games, group work, visual aids, audio-video and other resources to be used in the training as well as for use by service providers at the community level. The sample materials need to be adapted for the Bihar context *before* any trainings are held.

The *Resource Materials* is referenced throughout the *ToT Module* and the *Service Provider's Handbook*.

## Opening Session

Session Outline
<p><b>Time:</b> 1 hour</p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• Flip Chart page or blackboard for “Workshop Agenda “</li> <li>• Pens, notebooks, markers for participants</li> </ul> <p><b>Objectives: After completing this chapter, it is expected that service providers will</b></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Have an introduction to the WaSH capacity building concepts for Front-line health and nutrition service providers in Bihar</li> <li>• Learn about different teaching and learning methods (such as icebreakers and energizers)</li> </ul> <p><b>Attitudes</b></p> <ul style="list-style-type: none"> <li>• Become comfortable with their peers</li> <li>• Level off expectations for the course and link it with the course content and overall program schedule</li> </ul> <p><b>Life Skills</b></p> <ul style="list-style-type: none"> <li>• Build rapport and team spirit among participants</li> <li>• Be able to use different approaches to adult education and learning effectively</li> </ul> <p><b>Hands-on Skills</b></p> <ul style="list-style-type: none"> <li>• Have established workshop norms and form teams for each day</li> </ul> <p style="text-align: center;"><b>Trainer Introduction</b></p> <p>This section serves as an introductory session to the Training of Trainers (ToT) Course. It provides for participant introductions, leveling of expectations, setting of workshop norms, and a general introduction to the importance of water, sanitation and hygiene for sustainable behavior change in their communities and the course content and schedule</p>

## Process

Time  
(mins)

**Step 1 Welcome Address by keynote speaker or course organizer**

**5**

Introduce yourself, the ToT and other facilitators (if present). Welcome the participants to the training program and tell them that they have their organization's approval and support. Explain how this WaSH Workshop is not to burden them with new tasks, but to give them the skills to help meet current organizational goals and objectives through their roles and responsibilities in the community. Our shared goal is to improve household and community practices that will prevent disease and death, what (in general) they will do to improve WASH, what kind of support they can expect once in the field, etc.

### Step 2

**Activity- Participant Introduction Icebreaker** (refer to Part 3: Resource Materials)  20 mins

know each other's names etc., just use the question "How many years of experience do you have in training and in which areas?" as the icebreaker. The exercise will give you an idea of people's backgrounds and experience in training and alert you to the skills level of the group you are working with. This information might also help you should you need to make changes to the rest of the module.

End by acknowledge the emerging general characteristics of the group. Thank all for the introductions.

### Trainer Notes

Remind all participants that everyone that everyone should wear a name tag throughout the 3-day workshop. Also state that because everyone is wearing a name tag, it is nicer to call people by their names, let us all become familiar with each other so we can learn more from each other!

Trainers, you also should only call participants by their names. It will 1) make them feel more special, 2) put more accountability on them when you call on them, and 3) allow you to be more personal and approachable to participants.

**Step 3 Introduction to the WaSH Workshop**

**10**

#### WHY WaSH?

Action on water and sanitation, including hygiene education, is relatively inexpensive but has a huge impact. It saves lives. It reduces disease. It means that time people used to spend collecting water and caring for ill relatives can be spent on education and providing for families. Water-related diseases are easily preventable, so what excuse can there be for people continuing to suffer and die from them



<b>Step 4</b>	<b>Optional Pre-test</b>	<b>10</b>
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<b>Step 5</b>	<b>Leveling of Expectations</b>	<b>10</b>
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Each participant will be given two meta cards of different colors, preferably green and yellow.

On the green card, they are to write in bold letters one expectation for the course. Remind them that the rule in the use of the meta card is one keyword or one idea per card, written in big bold letters so that all can see, and no more than three lines per card.

On the yellow card, they are to write their fear.

Trainer collects all the cards and posts them together on a flip chart or paper on the wall – all green cards on one side and all yellow on the other side. Mark the pile – a green card with EXPECTATIONS written on it and a yellow card with FEARS written on it.

Discuss and cluster common ideas. Summarize expectations. Summarize fears.

### Trainer Notes

It is recommended that trainers take the following steps to support the participants while the workshop is in progress:

- Link the expectations to the objectives of the course.
- Give an overview of the WaSH Workshop and is applicable, the ToT aspects (i.e. if you are teaching the WaSH workshop at the ground level to service providers, you would not teach the training methodology).
- Allow time for questions, clarifications and comments.

<b>Step 6</b>	<b>Workshop Norms</b>	<b>10</b>
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a. Generate suggestions on the norms that the group would like to subscribe to during the course and list them on a flip chart. These could include agreements in terms of schedules, breaks, participation and respect for each other's opinions etc. Post the flip chart in the session hall so that others can refer to it at any time.

b. Divide participants into teams (3-5 persons) and assign days to the host teams. Make sure that each team selects a team leader from among themselves. To build comroderie and carry it on throughout the workshop, you can tell teams to pick a "team name" and then each team can send a representative to the front of the class to post the name on the wall for future reference.

**Determining WaSH Workshop Agenda** *(create on large, poster-size paper or on chalkboard. Keep posted in room, visible throughout training)*

<b>Day 1</b>	9:00 - 10:00 am	Opening Session
	10:00 – 1:15 pm	1 Empowering Front-line Service Providers
	1:15 - 1:45 pm	Lunch Break
	1:45 – 3:30 pm	1 Empowering Front-line Service Providers
	3:30- 3:45 pm	Chapter evaluation (with tea break)
	3:45 - 6:15 pm	2 Water
<b>Day 2</b>	9:00 - 1:00 pm	2 Water cont'd
	1:00- 1:15pm	Chapter evaluation
	1:15 - 1:45 pm	Lunch Break
	1:45 - 6:15 pm	3 Sanitation
<b>Day 3</b>	9:00-11:30 am	3 Sanitation cont'd
	11:30- 11:45 am	Chapter evaluation (with tea break)
	11:45 - 1:00 pm	4 Hygiene
	1:00 - 1:30 pm	Lunch Break
	1:30 - 6:00 pm	4 Hygiene
	6:00- 6:20pm	Module evaluation

\*\*This is an example of how a 3-day WaSH Workshop could be set-up. Times need to be adjusted dependent upon class size and sessions/topics chosen

<b>Step 7</b>	<b>Conclusion of Session</b>	<b>5</b>
a.	Training Host makes announcements in terms of accommodation, reimbursements (if any) and other logistical matters.	
b.	Trainer concludes the introductory session and segue to Chapter 1.	

# PART 2

## Chapter 1

### EMPOWERING FRONT-LINE SERVICE PROVIDERS

#### Chapter Outline

**Time:** 5 hours

**Resources:**

- Flip chart
- Markers
- Goal setting worksheet
- ....

**Objectives:** After completing this chapter, it is expected that service providers

**Knowledge**

- Understand how to systematically interact with the community and at the household level
- Know how to incite sustained behaviour change in the community

**Attitudes**

- Appreciate the importance of their roles and responsibilities in the overall wellbeing and quality of life of their community
- .....

**Life Skills**

- Become comfortable talking to men, women and children
- Enhance participants' facilitation and presentation skills.
- .....

**Hands-on Skills**

- Acquire tools for working with the community
- Be able to reach out to the Panchayat, PHED, ICDS, and various other government departments to raise awareness of the needs of the community and try to bring about change

**Trainer Introduction**



The WaSH Workshop begins with the empowerment chapter because without a personal foundation as a service provider, it is impossible to be prepared to work with the community on any WaSH topic-specific actions. This section is extremely important to the work of front-line health and nutrition service providers. By building their leadership skills, it will empower them to take more active, beneficial roles in the lives of their community members.

Properly conveying the messages in this section will give women the knowledge, attitude, and skills necessary to immerse themselves in their community's overall wellbeing and effectively convey their important WaSH messages.

## Introduction and Chapter Overview

### Process

Time (mins)

<b>Step 1</b>	<b>Introduction to Chapter</b>	<b>5</b>
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This chapter covers the important tools you have as a front-line health and nutrition service provider. Though you may not have heard it before (but we hope you have) YOU are the most important tool in the community! You are the eyes and ears to let PHC doctors and nurses know the health requirements of your community and you are the engineer and specialist on the ground that can let the Panchayat and different government departments know the needs of the people.

Here is a quick overview of how we can develop your skills as a front-line health and nutrition worker, and help make your roles and responsibilities in the community more convergent and better facilitate your work!

### CHAPTER OVERVIEW

Session		Time (mins)
	Introduction and Chapter Overview	10
1	Importance of Front-line Service Providers	20
2	Socioeconomic and Cultural Sensitivity	30
3	Gender Mainstreaming	45
4	Empowering the Community	60
5	Integrating WaSH into Daily Scope of Work	30
6	Offering Practical Solutions	30
7	Goal Setting and Evaluation	60
8	Participatory Methods of Interaction with the Community	30
	Conclusion and Evaluation	15

<b>Step 2</b>	<b>Introductory Exercise</b> (optional choose from Part 3: Resource Materials) <b>or</b> <b>Pre-test</b> (optional, located in Part 2: Service Provider's Handbook) <b>Or proceed to Session 1</b>	<b>10</b>
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# 1. Importance of Front-line Service Providers

Process

Time (mins)

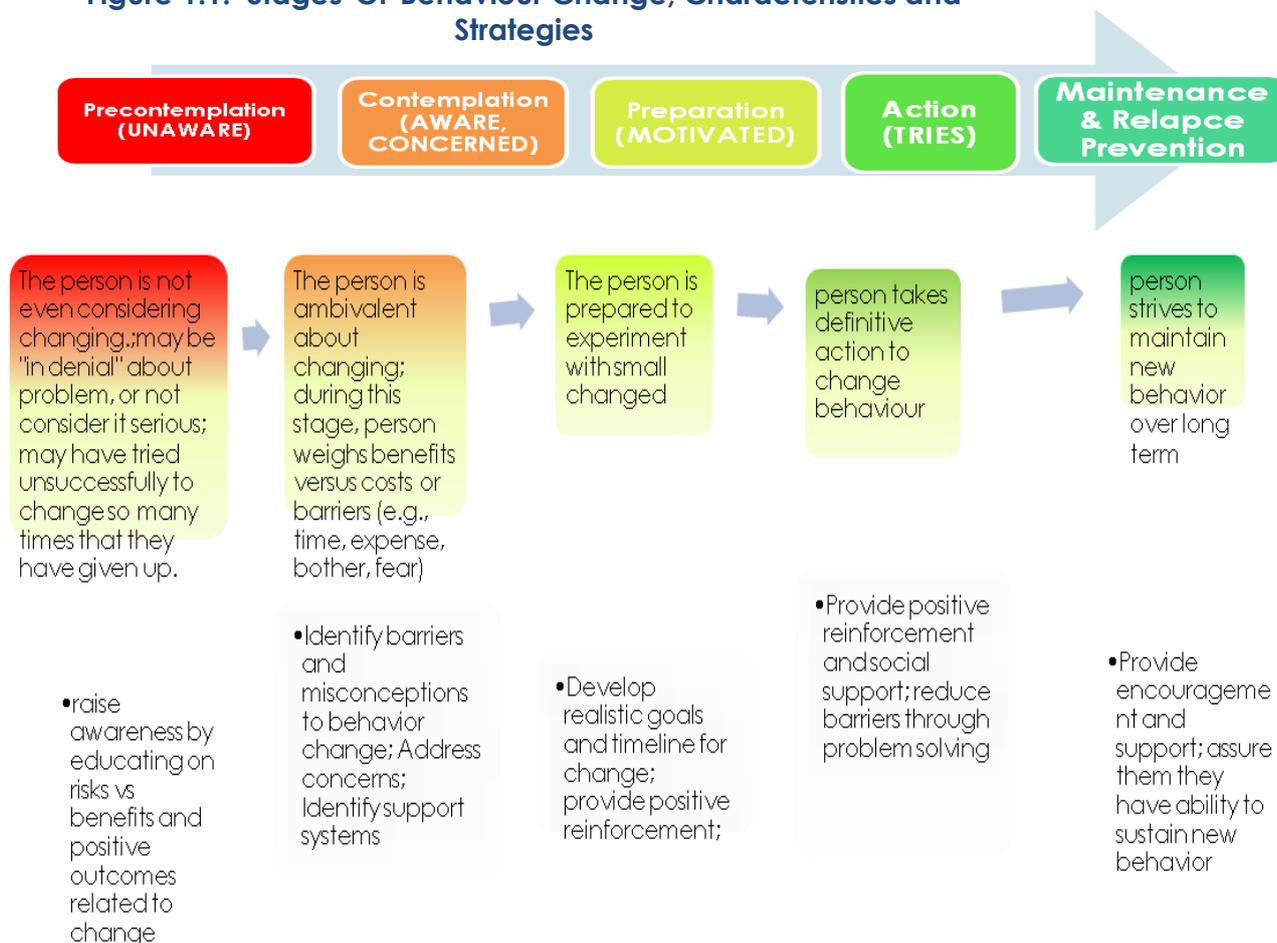
<b>Step 1</b>	<b>Introduction to Session: Why you are so important!</b>	<b>5</b>
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Front-line health and nutrition service providers in Bihar are crucial to the success of global health efforts because of their unique understanding of local problems. Their close community ties allow them to identify areas of need and to effectively navigate potential barriers that others may not be positioned to understand. One of the pleasures and challenges of a front-line health and nutrition service provider's jobs is that it is an ongoing learning process! If you keep your eyes and ears open while working in the community, you can learn new things while also practically improving the lives of your community and making your job easier and more fun!

<b>Step 1.1</b>	<b>OUR GOAL: Behaviour Change!</b>	<b>5</b>
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Front-line health and nutrition service providers have difficult tasks. The villages under their care spread out on 8-10 km area. They have to often walk distances, and be on move. They visit houses to conduct provide some services like give immunizations, conduct clinics in the village, make reports of monthly health activities and attend meetings at PHCs.

**Figure 1.1: Stages-Of-Behaviour Change, Characteristics and Strategies**



*SOURCE: Adapted from Zimmerman et al., 2000; Tabor and Lopez, 2004, The World Bank, 1996*

An assumption can be made that generally, there is some knowledge about WaSH and resultant disease transmission in the community, so then why do people not change their behaviours? Research has found that there are economic, social, cultural and personal issues that create barriers to behaviour modification

People will adopt a recommended behaviour if:

- they know about it
- they can easily access it
- they feel it will do them some good
- they perceive it is cheaper to practice it than not to practice it
- they perceive friends and neighbours are in favour of it
- they see friends and neighbours using it
- they can understand how to use it
- they feel competent and comfortable using it
- they are confident that this behaviour will bring the desired results
- they will not lose what they have (resources and prestige) by adopting it
- they are included in the decision-making about implementing (e.g. Identifying the problem, looking for solutions, etc.)

*SOURCE: UNICEF (1999) A Manual on Communication for Water Supply and Environmental Sanitation Programmes*

## Step 1.2 Relationship Building

5

A service provider's work in the community should be ongoing interaction and monitoring of the situation, not a one-off meeting. One key role of any service provider is to coach community members to achieve their best. As a "coach", you will typically help your team members to solve problems, make better decisions, and learn new skills or otherwise progress in their lives.

People have the most direct influence on our behaviours, either directly or when the mass media demonstrate other people like ourselves practising recommended behaviours. This may seem obvious, and it is. The question is: why don't we use the obvious in development interventions? Humankind is influenced by friends, neighbours, people we admire, the groups we join. Therefore, these are valuable and – more important – available resources that should be used to encourage people to develop recommended behaviours.

This is why the most successful efforts to develop sustained recommended behaviours have been those that have enlisted satisfied acceptors, local networks, local influential people, community training programmes and, the most important factor of all: that which has encouraged communities to participate in planning, implementing, monitoring and improving their own interventions. The literature is extremely rich in successful examples of this and should be a very relevant resource to you as a front-line worker.

### Two-way communication

If you are teaching members of the community, you need to be extra sure that your teaching is appropriate. Is this training needed and wanted? For example, if you have been asked to teach mothers about ORT, you need to understand their needs before you can teach them anything. To do this:

- Ask what they want to know, and why
- Find out what they think about diarrhoea and its causes, and learn about local words and customs
- Find out how much they know already about prevention and treatment
- See how much time they can spare for learning
- Try to adapt your training to local knowledge and customs
- Decide how much you can cover in the time available (do not attempt too much)

Do not just tell mothers only what you think they should know. Listen to them, and let them know that you are listening. Only when you do this, can you provide teaching that is useful and likely to be acted upon. In two-way communication, methods that focus on collective action & individual changes can be blended (i.e. ORT is important but so is working with the community to build an adequate latrine to stem diarrhoea in a preventative manner).

### Trainer Notes

Make sure trainers and service providers alike are aware of the simple methodology for teaching someone something, and truly making them understand. The best way to convince anyone about what you are saying is

1. tell them, (they may hear, but they also may forget)
2. Show them (they can see and remember)
3. Let them try it for themselves! (If they do it themselves, they may understand)



In the end, remember change may be slow. However in every community there are some innovators who are open to new ideas. You need to encourage them, have them on your team! Encourage them to also pursue community work or to even be a service provider. Sometimes new generation takes up changes faster than old people. Change is often slow. People cannot give up traditions easily since they find it easy to work with. New things need adjustment.

## 2. Socioeconomic and cultural sensitivity

### Objectives

- become comfortable talking about social and economic differences in our communities
- become aware of local differences between how different people or groups are treated
- be able to develop emotional intelligence to cope with socioeconomic issues in our communities

### Process

Time (mins)

<b>Step 2</b>	<b>Introduction to Session</b> Share the objectives for the session	<b>5</b>
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Part of a life skills and human rights-based education is that people should become aware of social, economic and cultural differences present in their communities and the inequalities and discrimination that are often associated with them.

Be assertive with your message, but acknowledge where the person is coming from. DO NOT simply tell them they are wrong and then tell them what you think is right, this will never get the proper message across, and will almost never lead to behaviour change

Gender aspects and social differentiation aspects should be included systematically to foster social equity and solidarity. The technique you can develop to handle this in your work is emotional intelligence.

### Activity~ Recite exercise with the class:



**Question:** "And what is the goal of all of our work class?"

**Answer: "BEHAVIOR CHANGE!"**

<b>Step 2.1</b>	<b>Emotional Intelligence</b>	<b>15</b>
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We all have different personalities, different wants and needs, and different ways of showing our emotions. Navigating through this all takes tact and cleverness - especially if we hope to succeed in life. This is where emotional intelligence becomes important.

**Emotional Intelligence** – an awareness of your actions and feelings – and how they affect those around you. It also means that you value others, listen to their wants and needs, and are able to empathize or identify with them on many different levels

Emotional intelligence is the ability to recognize your emotions, understand what they're telling you, and realize how your emotions affect people around you. Emotional intelligence also involves your perception of others: when you understand how they feel, this allows you to manage relationships more effectively.

People with high emotional intelligence are usually successful in most things they do. Why? Because they're the ones that others want on their team. Because they make others feel good, they go through life much more easily than people who are easily angered or upset.

Although "regular" intelligence is important to success in life, emotional intelligence is key to relating well to others and achieving your goals.

### **Five elements that define emotional intelligence:**

1. **Self-Awareness:** People with high emotional intelligence are usually very self-aware. They understand their emotions, and because of this, they don't let their feelings rule them. They're confident – because they trust their intuition and don't let their emotions get out of control.  
  
They're also willing to take an honest look at themselves. They know their strengths and weaknesses, and they work on these areas so they can perform better. Many people believe that this self-awareness is the most important part of emotional intelligence.
2. **Self-Regulation:** This is the ability to control emotions and impulses. People who self-regulate typically don't allow themselves to become too angry or jealous, and they don't make impulsive, careless decisions. They think before they act. Characteristics of self-regulation are thoughtfulness, comfort with change, integrity, and the ability to say no.
3. **Motivation:** People with a high degree of emotional intelligence are usually motivated. They're willing to defer immediate results for long-term success. They're highly productive, love a challenge, and are very effective in whatever they do.
4. **Empathy:** This is perhaps the second-most important element of emotional intelligence. Empathy is the ability to identify with and understand the wants, needs, and viewpoints of those around you. People with empathy are good at recognizing the feelings of others, even when those feelings may not be obvious. As a result, empathetic people are usually excellent at managing relationships, listening, and relating to others. They avoid stereotyping and judging too quickly, and they live their lives in a very open, honest way.
5. **Social Skills:** It's usually easy to talk to and like people with good social skills, another sign of high emotional intelligence. Those with strong social skills are typically team players. Rather than focus on their own success first, they help others develop and shine. They can manage disputes, are excellent communicators, and are masters at building and maintaining relationships.

### Trainer Notes~ Life-Skill

Emotional intelligence can be a key to success in your life (trainers and front-line workers) – especially in your career. The ability to manage people and relationships is very important in all leaders, so developing and using your emotional intelligence can be a good way to show others the leader inside of you.



#### Step 2.2 How to improve you emotional intelligence

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The good news is that emotional intelligence CAN be taught and developed. Determine your current EI, and identify where you may need to do some work. You can also use these tips:

- Observe how you react to people. Do you rush to judgment before you know all of the facts? Do you stereotype? Look honestly at how you think and interact with other people. Try to put yourself in their place, and be more open and accepting of their perspectives and needs.
- Look at your work environment. Do you seek attention for your accomplishments? Humility can be a wonderful quality, and it doesn't mean that you're shy or lack self-confidence. When you practice humility, you say that you know what you did, and you can be quietly confident about it. Give others a chance to shine - put the focus on them, and don't worry too much about getting praise for yourself.
- Examine how you react to stressful situations. Do you become upset every time there's a delay or something doesn't happen the way you want? Do you blame others or become angry at them, even when it's not their fault? The ability to stay calm and in control in difficult situations is highly valued in life. Keep your emotions under control when things go wrong.
- Take responsibility for your actions. If you hurt someone's feelings, apologize directly – don't ignore what you did or avoid the person. People are usually more willing to forgive and forget if you make an honest attempt to make things right.
- Examine how your actions will affect others – before you take those actions. If your decision will impact others, put yourself in their place. How will they feel if you do this? Would you want that experience? If you must take the action, how can you help others deal with the effects?

### 3. Gender mainstreaming:

#### Objectives

- become comfortable talking about gender
- become aware of local differences between women and men
- understand that local decisions and actions have different implications for women and men
- work to integrate

#### Process

Time (mins)

<b>Step 3</b>	<b>Introduction to Session</b> Share the objectives for the session	<b>5</b>
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In addition to social, cultural and economic sensitivity, in Bihar and in India, we as front-line service providers need to be aware of gender and the inequalities and discrimination that can come from this.

Women are an important part of the community at the individual level (what we can each do) at the family level (what we can offer our families) and at the community level (what we contribute to the community). That is why we will discuss separately how you can use water, sanitation and hygiene as a basis of achieving equitable gender balance in the communities you work with. (Recognizes differences and the disparate priorities they create for women and men)

#### Activity~ Identify Issues Women Face in our Communities

 20 mins

Unfortunately, many women in Bihar and throughout India are suffering from multiple inequalities in their personal, home and community relationships.

Breakout into groups and have each group create a list of the issues they think women are affected by in their communities.

After 5-10 minutes, tell the class to wrap up their lists and then to pick their top 5 out of the list and have reason why those are the most important.

Give them 5 more minutes to do this.

Have the classes reconvene and ask each group to present their top five and then quickly run down their full list. Allow class discussion on the pros and cons of each point at the end of each group presentation. Remember, there are no "right or wrong" answers in this exercise, it is what you feel and what you see in your life and work.

Examples of what is seen in Bihar and in India among women: People in our society consider women inferior than men. Diseases amongst women and young girls are not taken up seriously. Women's health problems are often ignored or treated late. They have to get permission of the in-laws or husband's even for health check up. They often have no money to pay for health care on their own. Our health services are also not fully sensitive to women's health care needs. Women work both at home and outside. Women have to spend considerable time and effort for child care. Fetching water and firewood take many hours of hard work by women. Women get less food at home. In fact they eat at the end when everyone in the family has eaten. Most women are anaemic and weak. Their weights are too low to be healthy. Women are given less opportunity for education. Women have less say in decisions in the family.

**Gender Mainstreaming** - a commitment to ensure that women's as well as men's concerns and experiences are integral to the design, implementation, monitoring and evaluation of *all* legislation, policies and programs so that women and men benefit equally and inequality is not perpetuated.

The ultimate goal of mainstreaming gender equality is to achieve gender equality

### Trainer Notes

Trainers need to be capable of organizing and delivering culturally specific regional ToT WaSH Workshops and in turn those trainers need to be capable of training the front-line service providers. This module has been developed in a participatory, pro-poor, pro-environment and gender-sensitive manner but it is the responsibility of trainers to facilitate this approach properly.

**Throughout this module, we will focus on aspects of gender as it relates to water, sanitation and hygiene so service providers can be aware of how to work with the situation. For example,** there are fewer amenities for toilets for women. In the village, they have to go to answer nature's call either early morning or evening. We will be addressing that issue in Chapter 3- Sanitation.

However in this section, be able to give participants an introduction to WHY gender needs to be mainstreamed into all activities. Help participants become aware of local differences and understand that local decisions and actions have different implications for different people and groups. They also notice social problems in their immediate environment: their class, school, home and neighborhood.

Be able to express one's own views and to listen to and respect others.

Offer different tools throughout the module on how you can mainstream gender into water, sanitation, hygiene and eventually all the work you do! Imaginative and creative teachers can bring up social and gender differences and problem-solving actions in many ways as part of various types of lessons,



## 4. Empowering the Community

Objectives

- Identify motives for behaviour change and replacement practices:

Process

Time  
(mins)

<b>Step 4</b>	<b>Introduction to Session</b> Share the objectives for the session	<b>5</b>
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Reasons for pursuing good WaSH practices may not always be linked to health, such as proper disposal of child’s faeces may create greater respect among the neighbours. Therefore working with the target population can help identify a motivational strategy for behaviour change.

Influencing safe and sustainable behaviours and practices

Work you already do such as immunization awareness or dehydration therapy is in response to a specific need and does not require sustained behaviour change. However, behaviours for water supply and environmental sanitation activities mean that **individuals and communities must develop daily practices sustainable throughout a lifetime**. In order to sustain these practices, it is necessary to not only provide knowledge and skills to individuals and families and to reinforce and monitor those behaviours locally, but also to establish community and national systems of supply and maintenance of materials and equipment. Thus, interventions don’t begin and end with an individual or with a family. Interventions must involve districts, regions and countries

“Marketing” behaviour change

What is the important message that you can get across to community members so that they care about what you have to say and are willing to adopt new attitudes and behaviours in order to practice what you have taught them?

Relate hand washing, proper bathing, food sanitation, etc. with other technologies in their life that they may enjoy.

For example when you work in the community and you outreach to people about the dangers of open defecation, most community members may not care about the health problems or may not be able to understand how open defecation causes bad health. They may say to you “our forefathers have always defecated in the open, this so why does it matter, why should we change: you can state “you forefathers also tilled the ground without any machines, they did not have radios/ TV/mobiles but as the world changes we have things that make our lives easier, better, make us happy and keep us healthy. You have the opportunity that your forefathers did not have! Let us take advantage of that and try to progress!

## 5. Integrating WaSH into Daily Scope of Work

### Objectives

- Identify
- Be able to

### Process

Time  
(mins)

<b>Step 5</b>	<b>Introduction to Session</b>	<b>5</b>
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Share the objectives for the session

This workshop's goal is to develop your skills as a front-line health and nutrition worker, and help make your roles and responsibilities in the community more convergent in order to better facilitate your work! Therefore, we are not burdening you with WaSH responsibilities, but rather, teaching you how to adjust your current work in the community to integrate WaSH into your daily activities. You will find once the community is able to master WaSH related aspects, your work in many other areas will become easier, or even non-existent!

### Holistic approach to public health and community service

Health information and communication is more important than pills and injections. Proper information and advice help people to avoid diseases and stay healthy. Health information is a lasting asset. Currently villagers, especially poor women, men and adolescents do not have access to information on health issues. You can fill this gap and act as a local resource on health issues. Availability of information will trigger changes in health promoting behaviors and adoption of healthy practices.

- We should select issues close to people's hearts and needs. Attend to more important problems first.
- See what people already know and build on existing knowledge base.
- Understand the problems from their viewpoint also.
- Share health information with them and find possible actions.
- Find effective ways of how people learn to change their ways.
- Use any of these occasions for BCC: group discussion, personal discussion, demonstration, village meetings, clinic contacts, exhibition, camps, Self
- Help Group (SHG) meetings, meetings of adolescents, religious gatherings, *haat-bazaar* days etc.
- Use aids for BCC: *Chitrakatha*, flip charts, booklets, posters, *prabhat pheris*, songs, models, puppet shows, street plays etc
- Look for innovative methods in communication. For instance, one voluntary organization painted all the bulls in the village with health slogans on the traditional *bail-puja* day. The moving slogans stayed for weeks.
- Assess impact of BCC efforts. Has it changed how people think? Has it changed the way they do things? Has it improved utilization of health services?

1. *Examine Current Reality:*

ask your community members to describe their Current Reality. This is a very important step: Too often, people try to solve a problem without fully considering their starting point, and often they are missing some of the information they need to solve the problem effectively. As the person tells you about his or her Current Reality, the solution may start to emerge.

Useful coaching questions include:

"What is happening now?"  
"What, who, when, how often"  
"What is the effect or result of that?"

2. *Explore the Options:*

Once you have explored the Current Reality, it's time to explore what is possible - meaning, all the many possible options you have for solving the problem. Help your team member generate as many good options as possible, and discuss these. Offer your own suggestions. But let your team member offer his or hers first, and let him or her do most of the talking.

Typical questions used to establish the options are:

"What else could you do?"  
"What if this or that constraint were removed?"  
"What are the benefits and downsides of each option?"  
"What factors will you use to weigh up the options?"

3. *Establish the Will:*

By examining Current Reality and exploring the Options, you will now have a good idea of how he or she can achieve their Goal. That's great - but in itself, this may not be enough! So your final step as coach is to get you team member to commit to specific action. In so doing, you will help the team member establish his or her will and motivation.

Useful questions:

"So what will you do now?"  
"What could stop you moving forward?"  
"And how will you overcome it?"  
"Will this address your goal?"  
"How likely is this option to succeed?"  
"What else will you do?"

**Tip 1: Practice by Coaching Yourself**

A great way to practice using the model is to address your own challenges and issues. When you are 'stuck' with something, you can use the technique to coach yourself. By practicing on your own challenges and issues, you will learn how to ask the most helpful questions. Write down some stock questions as prompts for future coaching sessions.

**Tip 2: Ask Great Questions and Listen Well**

The two most important skills for a coach are the ability to ask good questions, and effective listening. Don't ask closed questions: "Did that cause a problem?" Do ask open ones: "What affect did that have?" Be prepared with a list of questions for common community interactions.

Listen well and let programme participants do most of the talking. Remember that silence is valuable thinking time: You don't always have to fill silence with the next question.

## 6. Offering Practical Solutions

### Objectives

- Identify motives for
- Be able to offer alternatives to "best practices" that the community can actually use

### Step 6.1 Life-skills based approach

5

It will not be a surprise to learn that people react differently to adopting new behaviours. The empirical evidence on this phenomenon is vast, encompassing many cultures. This research is important to know because it helps us determine strategic communication approaches to large population groups.

The primary characteristic is the rate at which various groups within a society adopt a practice. It is useful to know that some groups of people tend to adopt new ideas and practices more readily than others (Innovators & Early Acceptors) and some are more cautious than others (Late Acceptors or the Resistors). The most cautious, certainly, will have some very good reasons for not readily accepting new behaviours. These are the people with the most to lose, the fewest resources to invest. Unless we can guarantee that our water and environmental sanitation programmes will not cause them to squander the few precious resources they have AND will ultimately benefit them – they will not be interested.

Further, each of these groups responds to communication inputs in different ways.

Thus it is essential for every intervention programme to know how people thus far have received an intervention: (1) **how many** of the total population are using it (practising the recommended behaviour), (2) precisely **who are those** who have been practising it and (3) **what characteristics** these people share.

It is obvious that an information programme through the mass media will affect the behaviours of the Innovators and perhaps the Early Acceptors. It will not have much influence on the behaviours of many other groups in the population. Thus, in order to communicate effectively with the Late Majority you will have to use a communication strategy that is very different.

For readers with a public health background, it will be obvious that immunization programmes that achieved “herd immunity” - i.e.: 85 per cent of a population – had reached the Innovators, of course, the Early Acceptors, the Early Majority and most of the Late Majority. In the 1980s and early 1990s many people were satisfied with that result. Now this outcome is no longer sufficient since it excludes the people who have the greatest need for the benefits of development (the most difficult to reach or most disadvantaged).

Emphasis should be on

**Step 6.1.1 Practical solutions** **5**

**Practical solutions** - must be low-cost, locally available, simple solutions. They cannot be a burden to execute.

Use of practical, locally available and acceptable low-cost materials. When the methods and materials in life skills-based education are inexpensive and culturally acceptable they are the most feasible to implement, and also more familiar and likely to be available to students in their everyday lives. The use of learning tools and games should not require a great deal of external materials, such as printed and plasticised tools. Use what is already available in the school, such as slates, chalk, a blackboard, paper, sand, water, local seeds, etc. Using activities that do not require any extra materials is more affordable and creative.

**Step 6.1.2 PREVENTION if first priority** **5**

People often think health means medicines, doctors and hospitals. **This is not true.** When a person needs medicines, doctors or a hospital, they are not healthy, they are sick and in need of treatment. The way to stay healthy is through PREVENTION!

If we FIRST take care of our bodies, then we can prevent disease, and therefore save money and reduce stress to live a longer and happier life,

**Trainer Notes**

REMEMBER: you may not know these problems fully. But you can always help guide people to the proper resources. You may also explain them as what kinds of solutions are available in a given situation. You may also follow up with them and find out how they are using the help. If there are any problems, you can suggest alternative ways.



**Activity: Recite exercise with the class:**

**Question:** “How can we be and stay healthy?”

**Answer:** It is EASIER, CHEAPER, and SAFER for us to PREVENT sickness and be HEALTHY!

Properly handling community misconceptions, taboos, myths, etc. through education to build capacity to understand risks and make informed decision. Education materials include everything that helps people to learn. They are also materials that help teachers to teach. Life skills-based education materials may be sets of questions that students are asked to reflect on, discuss and answer; they may be textbooks; or they may be games, activities and practical exercises through which the students learn. Many natural and low-cost materials can be used for educational purposes in a life-skills approach.

When developing life skills-based education materials, a number of important principles should be taken into account.

**Table 2: Life skills for skills-based WaSH Education**

Communication and Interpersonal Skills	Decision-Making and Critical Thinking Skills	Coping and Self-Management Skills
<p><b>Interpersonal Communication Skills</b></p> <ul style="list-style-type: none"> <li>• verbal/non verbal communication</li> <li>• active listening</li> <li>• expressing feelings; giving feedback (without blaming) and receiving feedback</li> </ul> <p><b>Negotiation/Refusal Skills</b></p> <ul style="list-style-type: none"> <li>• negotiation and conflict management</li> <li>• assertiveness skills</li> <li>• skills to be able to refuse</li> </ul> <p><b>Empathy Building</b></p> <ul style="list-style-type: none"> <li>• ability to listen, understand another's needs and circumstances, and express that understanding</li> </ul> <p><b>Cooperation and Teamwork</b></p> <ul style="list-style-type: none"> <li>• expressing respect for others' contributions and different styles</li> <li>• assessing one's own abilities and contributing to the group</li> </ul> <p><b>Advocacy Skills</b></p> <ul style="list-style-type: none"> <li>• influencing skills and persuasion</li> <li>• networking and motivation skills</li> </ul>	<p><b>Decision-Making/Problem solving Skills</b></p> <ul style="list-style-type: none"> <li>• information-gathering skills</li> <li>• evaluating future consequences of present actions for self and others</li> <li>• determining alternative solutions to problems</li> <li>• analysing skills regarding the influence of values and of attitudes about self and others on motivation</li> </ul> <p><b>Critical Thinking Skills</b></p> <ul style="list-style-type: none"> <li>• analysing peer and media influences</li> <li>• analysing attitudes, values, social norms, beliefs and factors affecting them</li> <li>• identifying relevant information and sources of information</li> </ul>	<p><b>Skills for Increasing Personal Confidence and Abilities to Assume Control, Take Responsibility, Make a Difference, or Bring About Change</b></p> <ul style="list-style-type: none"> <li>• building self esteem/confidence</li> <li>• creating self-awareness skills, including awareness of rights, influences, values, attitudes, rights, strengths and weaknesses</li> <li>• setting goals</li> <li>• self-evaluation/self assessment/self monitoring skills</li> </ul> <p><b>Skills for Managing Feelings</b></p> <ul style="list-style-type: none"> <li>• managing anger</li> <li>• dealing with grief and anxiety</li> <li>• coping with loss, abuse, and trauma</li> </ul> <p><b>Skills for Managing Stress</b></p> <ul style="list-style-type: none"> <li>• time management</li> <li>• positive thinking</li> <li>• relaxation techniques</li> </ul>

SOURCE: Postma, Getkate, and van Wijk, (2004)

## 7. Goal setting to monitor and evaluate progress. So how are you doing?

### Objectives

- Identify motives for

### Process

Time (mins)

<b>Step 7</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>5</b>
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### Trainer Notes

The acronym and word "SMART" and what each letter stands for may not translate properly into all languages. Therefore, try to create a similar acronym in whatever language you are working in. As long as you keep the same connotations of each word and the overall acronym, the message will be conveyed to participants.

<b>Step 7.1</b>	<b>Set SMART goals!</b>	<b>5</b>
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Goal setting is a powerful process for thinking about your ideal future, and for motivating yourself to turn this vision of the future into reality. The process of setting goals helps you choose where you want to go in life. By knowing precisely what you want to achieve, you know where you have to concentrate your efforts. You'll also quickly spot the distractions that would otherwise lure you from your course.

They give you long-term vision and short-term motivation. They focus your acquisition of knowledge and help you to organize your time and your resources so that you can make the very most of your life.

By setting sharp, clearly defined goals, you can measure and take pride in the achievement of those goals. You can see forward progress in what might previously have seemed a long pointless grind. By setting goals, you will also raise your self-confidence, as you recognize your ability and competence in achieving the goals that you have set.

<b>Step 7.1.1</b>	<b>S- Specific</b>	<b>5</b>
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**Specific** - A specific goal has a much greater chance of being accomplished than a general goal. To set a specific goal you must answer the six "W" questions:

- \*Who: Who is involved?
- \*What: What do I want to accomplish?
- \*Where: Identify a location.
- \*When: Establish a time frame.
- \*Which: Identify requirements and constraints.
- \*Why: Specific reasons, purpose or benefits of accomplishing the goal.

EXAMPLE: A general goal would be, "Get in shape." But a specific goal would say, "Join a health club and workout 3 days a week."

**Step 7.1.2 M- Measurable****5**

**Measurable** - Establish concrete criteria for measuring progress toward the attainment of each goal you set. When you measure your progress, you stay on track, reach your target dates, and experience the exhilaration of achievement that spurs you on to continued effort required to reach your goal.

To determine if your goal is measurable, ask questions such as.....How much? How many? How will I know when it is accomplished?

Set a precise goal, putting in dates, times and amounts so that you can measure achievement. If you do this, you will know exactly when you have achieved the goal, and can take complete satisfaction from having achieved it.

**Step 7.1.3 A- Attainable****5**

**Attainable** - When you identify goals that are most important to you, you begin to figure out ways you can make them come true. You develop the attitudes, abilities, skills, and financial capacity to reach them. You begin seeing previously overlooked opportunities to bring yourself closer to the achievement of your goals.

You can attain most any goal you set when you plan your steps wisely and establish a time frame that allows you to carry out those steps. Goals that may have seemed far away and out of reach eventually move closer and become attainable, not because your goals shrink, but because you grow and expand to match them. When you list your goals you build your self-image. You see yourself as worthy of these goals, and develop the traits and personality that allow you to possess them.

**Step 7.1.4 R- Realistic****5**

**Realistic** - To be realistic, a goal must represent an objective toward which you are both *willing* and *able* to work. A goal can be both high and realistic; you are the only one who can decide just how high your goal should be. But be sure that every goal represents substantial progress. A high goal is frequently easier to reach than a low one because a low goal exerts low motivational force. Some of the hardest jobs you ever accomplished actually seem easy simply because they were a labour of love.

Your goal is probably realistic if you truly *believe* that it can be accomplished. Additional ways to know if your goal is realistic is to determine if you have accomplished anything similar in the past or ask yourself what conditions would have to exist to accomplish this goal.

It is important to set goals that you can achieve. All sorts of people (employers, parents, media, and society) can set unrealistic goals for you. They will often do this in ignorance of your own desires and ambitions. Alternatively you may set goals that are too high, because you may not appreciate either the obstacles in the way or understand quite how much skill you need to develop to achieve a particular level of performance.

**Step 7.1.5 T- Timely****5**

**Timely** - A goal should be grounded within a time frame. With no time frame tied to it there's no sense of urgency. If you want to lose 10 lbs, when do you want to lose it by? "Someday" won't work. But if you anchor it within a timeframe, "by May 1st", then you've set your unconscious mind into motion to begin working on the goal.

**T** can also stand for **Tangible** - A goal is tangible when you can experience it with one of the senses, that is, taste, touch, smell, sight or hearing. When your goal is tangible you have a better chance of making it specific and measurable and thus attainable.

Plan, execute, monitor and Information is required on the outputs (radio spots, house visits etc.) and evaluate hygiene promotion population covered regularly. Also, indicators for the impact of behaviour carefully change should be collected and fed back into the planning process.

**Activity** 20 mins

Continuing with the group dynamic, separate back into groups and have the women spend 15 minutes discussing their SMART goals

In the end, they should have on paper (the form is provided in *Service Provider's Handbook* (p 12 ). their specific goals with timelines

## Trainer Notes

**After participants settle into their groups and find the paper in their *Handbook*, but before women begin the exercise, offer these “tips for SMART Goal Setting:”**

1. *State each goal as a positive statement:* Express your goals positively – 'Execute this technique well' is a much better goal than 'Don't make this stupid mistake.'
2. *Prioritize Goals:* If you have several goals, give each a priority so you have a guide on where to direct your attention to prevent feeling overwhelmed.
3. *Set goals over which you have the power:* you can control your performance, but not always the outcome. Therefore, be careful to set goals which are within your power
4. *Satisfaction in goals:* when you achieve a goal, take time to enjoy your success and reward yourself! Build the self-confidence you deserve.

Advise the participants that goal setting is dynamic (not one-off) so do not get discouraged! With the experience of having achieved this goal, review the rest of your goal plans:

- If you achieved the goal too easily, make your next goals harder.
- If the goal took a dispiriting length of time to achieve, make the next goals a little easier.
- If you learned something that would lead you to change other goals, do so.
- If you noticed a deficit in your skills despite achieving the goal, decide whether to set goals to fix this.

Failure to meet goals does not matter as much, as long as you learn from it. Feed lessons learned back into your goal setting program.

Remember too that your goals will change as time goes on. Adjust them regularly to reflect growth in your knowledge and experience, and if goals do not hold any attraction any longer, then let them go.

5. Think carefully about the goals you set, and make sure you adapt them to circumstances in a reasonable way. If you're too rigid with your goals, you may motivate members of your team to "cut corners" in order to reach them.

### Step 7.2    Develop strategies and activities for SMART goals

5

Develop strategies and activities to realize those SMART goals

We achieve our communication objective by developing strategies and activities. A strategy is a short statement or phrase indicating general methodology to be used to achieve the objective. An activity amplifies a strategy giving it the details needed to make it implementable.

Activities would give the strategy greater definition and are broken into individual units to be scheduled and implemented on an action plan. For example two activities to support the above mentioned strategy could include: Activity 1: Train health workers to disseminate messages at health facilities and in the community. Activity 2: Using formative research, develop print materials to be displayed and distributed at relevant locations and health facilities.

A sub-objective and media input should be constructed for each communication activity within each of the communication strategies: Advocacy, social mobilisation and programme communication. Often this is overlooked, relegated to an appendix or dismissed without the rigor that is required when it comes to these implementation details. This is a very important step in developing the details of your communication activities. Without this step your implementation becomes sloppy.

For example, a communication sub-objective for two clinic posters designed for rural mothers who come to clinics could be:

Sub-Objectives: Seventy-five per cent of rural caregivers in the clinics who notice the poster recall two media inputs (poster and slogan):

Poster 1: Hand-washing prevents spread of bacteria from faeces;

Poster 2: The three instances in which hand-washing is most essential are:

- a) Before preparing meals,
- b) Before eating meals,
- c) After using the toilet.

Poster 1

Slogan: "Protect yourself and your family. Wash your hands after using the latrine."

Visual: Poster of woman washing her hands outside a latrine.

Poster 2

Slogan: "Protect yourself and your family. Wash your hands before preparing meals; before eating; and after using the toilet."

Visual: Picture of food on the table and family washing hands at the basin.

### Activity

 20 mins

Continuing with the group dynamic, separate back into groups and have the women spend 15 minutes building on their previous SMART Goals set by adding strategies and activities

In the end, they should have on paper their specific goals with timelines

### Step 7.3 Monitoring

5

Need to monitor our progress. Keep record of your work in a journal/diary. Keep noting your experiences, difficulties and thoughts as often as possible so it is easier to refer back to rather than try to recall.

**Monitoring- ASK: What is happening and how?**

### Step 7.4 Evaluation

5

Once in a while you must look back on what has been accomplished or not accomplished. This is called evaluation. To do it properly, you should evaluate yourself on a fixed schedule (i.e. every 3 months so you do this 4 times a year) so that you are keeping short term goals and trying to meet them and then checking if you are meeting them for long-term progress.

**Evaluation- ASK: What are the results of the intervention?**

- Do a self-evaluation. What are your weaknesses? Are you willing to accept that you're not perfect and that you could work on some areas to make yourself a better person? Have the courage to look at yourself honestly - it can change your life.
- This gives you the opportunity to look at your skill level and to start planning some personal strategies for your work in the community. s

REMEMBER- unless you can see the changes over time, you have no way to know the effects of what you are doing! Therefore, keep track of what you see in your community, both good results and bad outcomes, and keep a daily log of activities you undertake so you have a better understand of the overall picture of health and wellbeing in your community

## 8. Participatory methods of interaction with the community

Objectives

- Identify ways to motivate the community
- Describe the range of participatory training methods and materials for use in adult learning.

Process

Time (mins)

<b>Step 3</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>5</b>
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<b>Step 8.1</b>	<b>Motivating the community</b>	<b>5</b>
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People perform better if they are motivated effectively. This is why you need to be able to motivate your team if you want to create a productive work environment. By combining good motivational practices with meaningful work, the setting of performance goals, and use of an effective reward system, you can establish the kind of atmosphere and culture that you need to excel.

The better you are able to link these factors together, the higher the motivation levels of your team are likely to be. That's a win-win for you, them, and the organization.

Specific tools that will help you improve your motivation skills.

<b>Step 8.2</b>	<b>Positive versus negative interaction and methods</b>	<b>5</b>
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Make messages positive (supportive motivation) : People's attention would last longer if they are entertained and recall better when they laugh.

Instead of negative teaching techniques (ridicule, anger, and cocky attitude) it is demotivational. Programmes attempting to frighten the audience may alienate them

### Step 8.3 Choose appropriate learning activities

5

These methods and specific games, videos, etc. will be used throughout the ToT module so service providers gain experience on how to administer participatory methods

Discuss the various ways of selecting a method for holding different types of learning sessions with adult learners.

– Understanding different roles of adult educator and learn the ways to plan self-development.



#### Always remember:

**As a teaching method, DEMONSTRATION is more effective than description!**

Trainees learn more through active participation than just watching or listening. Make sure that learning activities are as similar as possible to the tasks which will be expected of the trainees in their own work environment. For example, practice in mixing ORS will be more effective than talking about it. Think about which learning activities would be best for achieving different objectives. A knowledge objective could be dealt with using a lecture, a text, a film plus discussion, or several of these activities combined. Activities where trainees are personally involved - group discussions, role plays and practical experience - would be more effective in getting participants to think about their present attitudes and to consider adopting new ones. For skill objectives, practical experience: for example, preparing and giving ORS to a dehydrated child; conducting a group CDD education session with mothers, would be most effective.

Identify appropriate channels for communication - Traditional and existing channels are easier to use than new ones. Therefore understand how the target audience communicates, e.g. percent of population attending religious functions, listening to radios etc.

Develop cost effective mix of channels- The same messages given by a number of channels can reinforce the messages. Also, while mass media may be cheaper, face to face communication may be more effective though expensive.

- Health workers can teach using a one-to-one approach
- Negotiation Counselling- Negotiation techniques in counselling sessions:
  - End up with **feasible behaviours**
- Ask - current behaviours & context
- Explain - ideal behaviours
- Discuss/Negotiate - behaviour to try
- Strategize - how carry out behaviour

- *Record* - behavioural commitment

Tailoring the counselling- designing a diverse set of recommendations that can be used in settings with families of varying levels of resources and among counselling recipients with children of different ages and health conditions. When counselling is tailored, counsellor suggest technically effective practice improvements that are relevant to a specific mother, motivating her and discussing how she can overcome constraints and negotiating practices that she agrees she can and will do.

### Step 8.3.1 Small group work or meetings

5

You have to match the group, topic and method of communication. Mismatch of these three will not produce any impact. For instance for bringing behavioural change about sanitary latrine, we need to talk to women and men. Get a group of 5-10 women/men (not more) in somebody's house. It is good to select a venue which is accessible to all especially women from scheduled castes/ tribes are comfortable. It is useful to select a house, which already have a sanitary latrine.

You need to communicate to people in advance about the venue and timing of this meeting. You can also talk with members of self help group in the village.

We can start about health hazard and problems due to open defecation. Just provide the beginning or let someone begin. Gradually other members of group will also start participating in the discussion and share their problems.

If we have a model or flip chart about sanitary latrine, we can share it now. If someone in the village has got a sanitary latrine to a smokeless one that can be a demonstration.

Explain the basics of the sanitary latrine, and how one can make it. A good flip chart will have all that explained in pictures.

Discuss ways of how Panchayat can help families in constructing sanitary latrines and what assistance is available.

While conducting a group meeting:

- Set up some ground rules in the beginning.
  - All the people in the group work together. Cooperation is important, not competition.
  - Each member of the group helps the others to feel that they belong to the group.
  - All participants in the group are equal and have the same rights. This can be stressed by sitting in a circle.
- Talk with participants with full interest and eye contact. You should be convinced of the topic yourself for full confidence.
  - It is important to nurture trust in the group
- Let your audience participate in the discussions .Encourage them to ask questions. Some people will come out with good ideas. Never scold or ridicule anyone. Let things proceed in democratic manner. Let people suggest solutions.
  - A group is doing well when all the people are involved in the activities and no person dominates, although different people will ‘participate’ in different ways. To help the groups do well, the trainer should observe the process of

each group and provide encouragement/positive reinforcement noting where each of them is doing well.

- Do not open up topics which are ambiguous; the message should be clear and doable for the group.
- You may not complete the topic in the same meeting. One can follow it up in the next opportunity.
- Do not underplay the complexity of the problem. We need to understand the factors and the interplay. For instance some people say that there is no water to use in sanitary latrine. Now you have to come up with solutions.

Participatory learning and teaching methods such as games, role-plays group discussions, can be carried out with the whole group or with several small groups. Working with a whole group is best when dealing with a method in which participants give each other positive feedback. Working in small groups is recommended when every person has to participate more than once or if the method takes longer. Use of small groups gives every person a chance of fully participating and encourages participation and exchange of opinions. At the same time, the group work helps each other develop cooperation and teamwork skills. The spokesperson of each group then responds back to the class about what the group was doing and what conclusions and results they reached. To make sure working in small groups is successful, there are a few basic rules that the teacher should establish with the students:

At the end of small-group work at least a few minutes should be dedicated to work with the whole group. Before breaking up the meeting, sum up the results, what was decided, and what the next steps are.

## 9. Conclusion and Evaluation

### Activity: Empowerment Wrap up Game

 20 mins

**TBD** – look through detailed notes on conducting participatory trainings and all IEC material available in *Part 3: Resource materials*;

Wrap up chapter’s objectives and things learned by going around the room and asking the class to



End the chapter with a planned post-test

Remember, with any pre or post test, if illiteracy is an issue in the class, the questions may be answered orally and the consensus answers recorded by the trainer (or a volunteer from the class) on flipcharts.

### Trainer Notes

Remember to administer and collect the **Chapter Evaluation**

## PART 3

### Chapter 2

## WATER

### Chapter Outline

**Time:** 6 and 1/2 hours

**Resources:**

- Flip chart
- Pens, Markers
- Sample water in bottles/jars

**Objectives:** After completing this chapter, it is expected that service providers will

**Knowledge**

- Know the importance of clean/safe water
- Know the microbiological and physicochemical things that make water sources dirty/unsafe
- Aware of the different aspects of managing water resources for both quality and quantity

**Attitudes**

- Appreciate water sources are finite, and therefore must be properly cared for (avoid polluting sources) and managed (avoid misuse)
- Desire to manage water sources better so there can be mitigation of extremes (drought and flood)
- Are willing to change their behaviour in order to prevent contamination of water sources in the community
- Appreciate the importance of interchanging gender roles in taking preventive measures

**Life Skills**

- Become comfortable talking to others about not polluting water sources
- Are aware that unsafe/dirty water can cause diseases and are willing to communicate this to others

**Hands-on Skills**

- Able to demonstrate methods to pre-treat and treat water
- Able to properly collect, handle and store water

**Trainer Introduction**

The chapter on water is important, but one that is easier to teach than sanitation and hygiene, so we will begin with it in order to build the gradual flow of the workshop. Remember, however, though all humans have familiarity with water, we have this familiarity on different theoretical and practical levels. Therefore, the point of teaching this chapter is to help service providers look more technically at water because it is these technical aspects that are missing in communities in Bihar, and therefore injuring the health and wellbeing of so many. Make sure you adequately prepare for the activities ahead of time, and arrange for field trips, etc. as needed.

## 1. Introduction and Chapter Overview

**Objectives: (If optional Pre-test given)**

- Assess participants' understanding of water and water related issues in their communities
- Assess participants' expectations of Chapter 2

**Process**

	Time (mins)
<b>Step 1 Introduction and Chapter Overview</b> (facilitate review of the previous day's sessions if necessary) Share the objectives for the Chapter Note If chapter taught as independent workshop, begin with icebreakers from Opening Session	<b>10</b>

Let us begin by learning about how we can access water, what different water sources can consist of, how you can teach households to safely collect and store water, and finally, how we can work together as a community to better manage water to prevent floods and droughts.

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**CHAPTER OVERVIEW**

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Session		Time (mins)
	Introduction and Chapter Overview	10-25
1	What is Water	10
2	What are Water Sources	100 (with optional field visit 200)
3	Water Quality	120
4	Household Level Water Management	80
	Conclusion and Evaluation	30-45



<b>Step 2 Pre-test</b> (optional, Or proceed to Session 1	<b>10</b>
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Remember, with any pre or post test, if illiteracy is an issue in the class, the questions may be answered orally and the consensus answers recorded by the trainer (or a volunteer from the class) on flipcharts.

**2. What is Water**

**Step 1 Introduction and Session Overview****10**

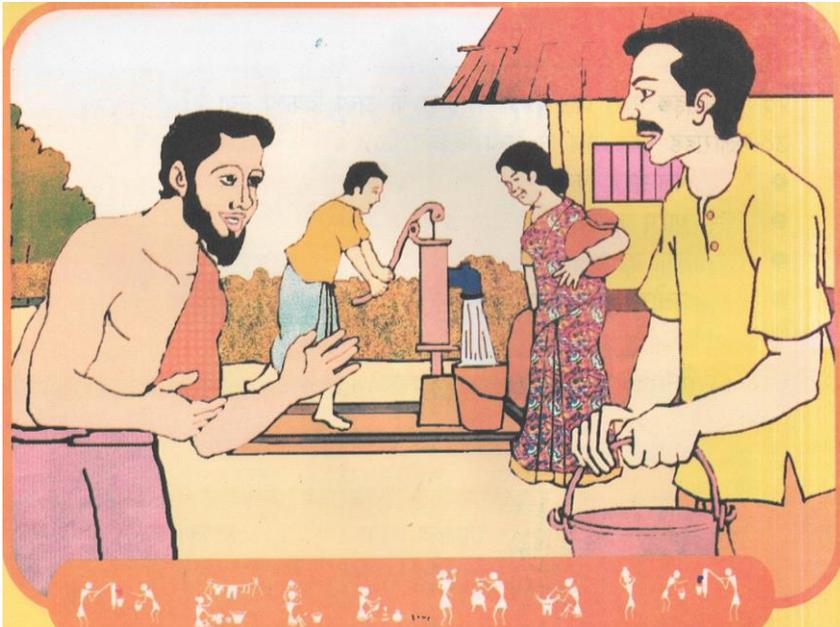
WOW, this question seems like common sense! What an easy answer. Water is... what we drink, but.... it can make us sick; it falls from the sky ..... but not always.... we need it to live... but...

**So what is water?****Trainer Notes**

Ask the class, "**So what is water?**" and allow them to shout out answers. React to what they are saying, for example, if one participant says "it's what we drink" answer "yes but you drink milk too, so WHAT is water?" Let people keep shouting out answers until you think there has been enough feedback to drive in the point of HOW HARD it is to define water!

When we discuss water, too often, we are not thinking about it as health and nutrition workers! Water is so important to the communities you work with who use it to wash clothes, bathe, and most importantly DRINK!

Water is so important to our lives. Our bodies are 70% water and important things like our blood, saliva, and sweat are made with water. In fact, a human can survive without food for many days, even weeks. But without water, humans can survive for very little time. So let us learn about at how we can access safe water, what different water sources can consist of, how you can teach households to safely collect and store water, and finally, how we can work to better manage our water sources so our communities are not harmed by floods and/or droughts



### 3. What are Water Sources

#### Objectives:

- Be able to identify all the water sources used by members in your community
- Know for what purpose each water source is used
- Know the minimum safety aspects of these water sources

<b>Step 2</b>	<b>Introduction and Session Overview</b>	<b>10</b>
	<i>Share the objectives for the session</i>	

We will discuss briefly all the different types of sources from which we can access water. It is important to know where water comes from for many reasons, all having to do with *safety*. By “safety” we mean *if and when you use water in any way, you will not be harming your body*. For this session we will focus on the *safety of accessing the water*, such as, if the water source convenient for the community to get to and is it safe to be there to collect water? Additionally, in this session we will also introduce the different aspects of safety of each water source. More details on water safety will be provided in the following session.

**Safe water**- if and when you use water in any way, you will not be in danger of harming your body through disease or injury.

#### Trainer Notes

Remember- as a trainer you need to know your audience! There may be different local situations that will influence what is taught and how it is taught. Be aware of who you are teaching as different areas use different water sources (i.e. if you are teaching a group of AWWs in an urban area, they will be aware of piped water sources but those in rural areas may not be, so they may require extra focus on such topics. Make adjustments as necessary.

<b>Step 2.1</b>	<b>Natural water sources</b>	<b>10</b>
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First, we will discuss sources of water that are naturally available, meaning the community can access them with minimum to no infrastructure/engineering involved. Additionally, natural water sources are those which we take straight from the source; the water does not first go to another location before we collect it. Natural water sources have their benefits (freely available) and problems (may be far from home to access, may be polluted) which we will go into detail with each type of water source.

<b>Step 2.1.1</b>	<b>Surface water</b>	<b>5</b>
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Water sources that are shallow, or accessible without anything any digging into the ground include rivers, lakes, ponds, streams, etc. The water that fills these sources comes from rain and over time, from the melting of snow and glaciers from the Himalaya.

Although it is beneficial to have access to surface water sources, it is also dangerous to use these sources improperly. Rivers and streams are open to the environment (what we will from

now call throughout the WaSH Workshop as “unprotected”) and can therefore get germs in them. Especially when these surface sources pass through human settlements or factories, they can easily become polluted. Water from shallow wells and ponds can also easily become contaminated with germs for the same reason that human activity close to water sources makes these water reservoirs contaminated.

<b>Step 2.1.2</b>	<b>Deep (ground) water</b>	<b>10</b>
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In many of our communities, there are no nearby rivers, lakes, or other sources of surface water. Therefore, we must dig bellow the ground to find a water source. These sources can be called tube well, dug well, or bore well and very in degree of safety. The types of sources that have to be engineered will be talked about in a few minutes.

In India, 80% of our drinking water comes from a type of ground source because this is one of the best ways to access clean, safe water. Compared to the surface water sources we talked about, ground water is more likely to be clean because the water has passed through the earth which acts as a natural filter to take out many impurities of germs. However, there is still a chance that different contamination types can be in the water, which we will talk about in the next section.

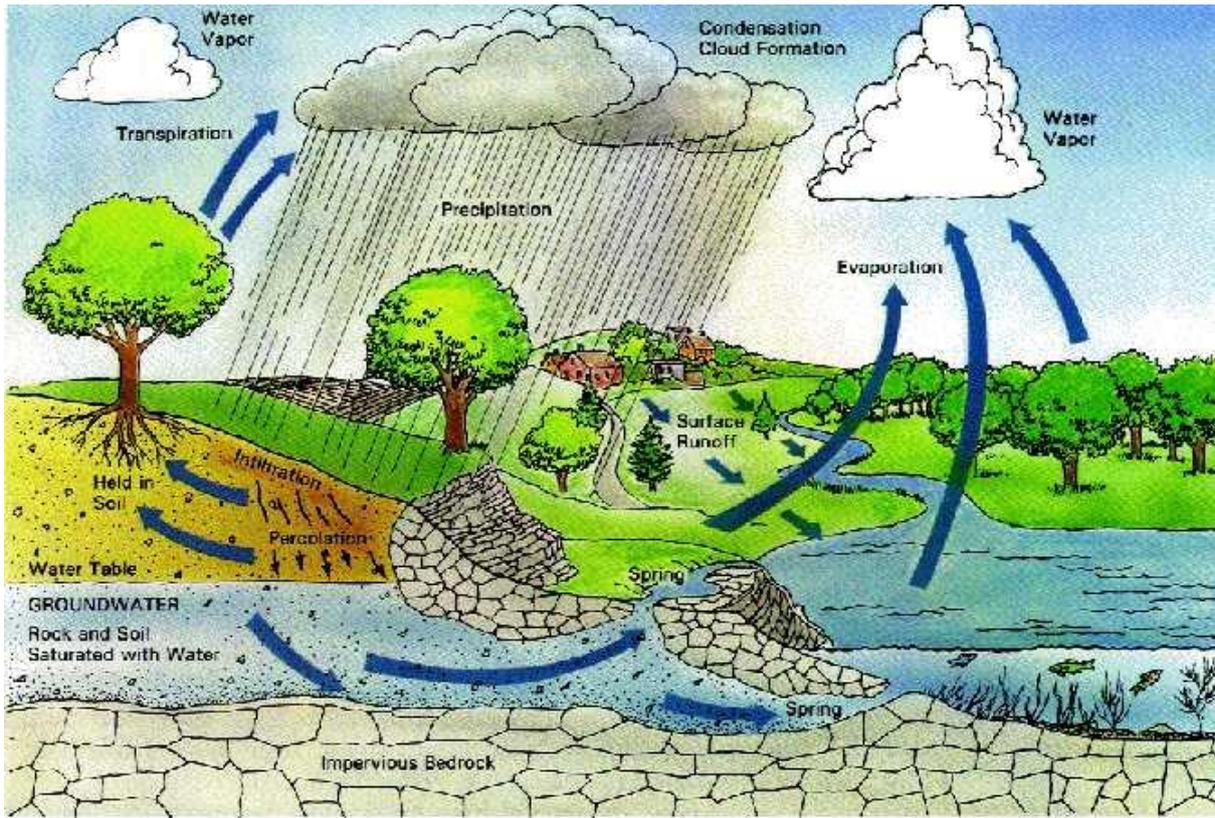
<b>Step 2.1.3</b>	<b>Rainwater</b>	<b>40</b>
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It seems like common sense that rain is water, but, we need to start thinking of rain on a deeper level as a water source.

### Trainer Notes

Have a poster-size display of the “Rain-water cycle,” (example available in Part 3: *Resource Materials*) and walk the class through all the steps. Make sure to do this in a non-technical manner, but to provide only facts and true information on the process.

Some points to remember: Rain is the first form of water that we know in the hydrological cycle, hence is a primary source of water for us. Rivers, lakes and groundwater are all secondary sources of water. Currently, our communities are almost completely dependent on secondary sources of water and it is forgotten that rain is the ultimate source that feeds all these secondary sources. We need to re-learn the value of rain water as a SOURCE.



Now that we know how and why it rains and we also know what happens to rain after it falls, we can learn about ways to “harvest” rainwater as a household or as a community, so we can use it as a water source, how and when we please, including

1. Domestic harvesting for
  - 4 drinking water
  - 4 Personal water needs (washing, shower, cooking etc.)
2. Community harvesting for
  - 4 Increase groundwater (aquifer) recharge
  - 4 Reduce storm water discharges, urban floods and overloading of sewage treatment plants
3. Harvesting for agriculture
  - 4 irrigation water
  - 4 erosion control
  - 4 Reduce seawater ingress in coastal areas.

**What is rain water harvesting?**

In general, when we talk about “harvesting” rainwater, it means to directly collect the rain when it falls and where it falls in our own homes and/or communities. We must take measures to keep that water clean by not allowing polluting activities to take place in the catchment (we will learn more about what can pollute our water in the next session).

Community based rainwater harvesting is a simple technology that people in India have been using for centuries to survive in water scarce areas and also to supplement their current water sources. Here is an overview of some methods to catch and keep rainwater. Rain water

harvesting is flexible and adaptable to a variety of conditions, so if you would like more information on how to bring this to your community, speak to your Panchayat or local PHED personnel

- catch the rain drop directly
  - ↳ From rooftop runoff, collect water and store in tanks built in private courtyard
  - ↳ From open community lands, collected the rain and stored it in artificial wells.
- harvest monsoon runoff by capturing water from swollen streams during the monsoon season and store various forms of water bodies



### Trainer Notes

Any number of these methods or more technological methods can be explored in detail to expand the section (see some sources in Annexe 5 and also ask your local PHED for help). Especially focus on methods currently used in Bihar. If any participant shows interest in bringing rain water harvesting to their communities, make sure you spend time with them after the session or at the next break to offer your support or refer them to who can help them. **OUR SHARED GOAL IS BEHAVIOUR CHANGE** so we must all work together to bring the technologies necessary to our communities to facilitate behaviour change!

## Step 2.2 Man-made/provided water sources

5

Now that we know of all the natural water sources available to us, we also know that this is not always enough to provide for all of our communities water needs. Therefore, let us discuss the man-made water sources we will find in our communities. First, as we mentioned earlier, deep ground sources of water are available to use if we know how to reach them.

### Step 2.2.1 Dug wells

5

In an area where the ground water table is shallow, approximately 10 to 20 feet from the ground level, a well can be dug which can be used to extract water. This well can be open but in order to protect the water from contamination, the surrounding areas must be kept clean, the platform used to access the well should be raised, and a proper bucket system to access the water must be available.

### Step 2.2.2 Tube wells/ Bore wells

5

If the ground water level is too deep, it cannot be accessed by a dug well. Therefore, we need to build something called a tube well or bore well (depending on the depth, a Tara, Kumar Pump (shallow), India Mark II, India Mark III, etc. can be used). In this bore well, a 4 ½ to 6 inch wide hole is drilled into the ground until it reaches the water. Then a hand pump will be fixed to the hole which we can use to extract water. Sometimes, if there is going to be a large amount of use of the bore well, a power (electrical) pump can also be used.

For the most part, the bore well as a source of water is fairly safe. We will learn about problems found in bore well water later. However, also remember that the community must play a major role in the maintenance and management of these pumps.

**Step 2.2.3 Piped from municipal water source****5**

Water available from the surface sources such as streams, ponds, etc. can only be used for drinking and cooking after applying various treatment methods to make the water safe as we will discuss later in this chapter. Additionally, not everyone lives in an area where we can easily access surface water sources or there may not be enough space to dig wells or bore wells.

In this situation, such as life in a city like Patna or Muzaffarpur, the technology of choice is to collect the water at a plant and using a network of pipes to send the water to different homes, offices, public areas, etc. Sometimes, the water can be cleaned and made safe by the municipality and then that water is transported throughout the area and distributed to the community through a pipe network either at household connection or community taps. If the city is not properly cleaning the water before distributing it, when we take water from the tap we need will still need to clean it. Remember- just because water comes out of a tap does not mean it is clean!

**Step 2.2.4 Tankers****5**

In case certain communities just do not have access to the water they need because any of the above water sources have not been provided (such as cramped urban slums) or if there has been an emergency such as a flood or earthquake, people's needs for water must be fulfilled through alternative measures. One such way is to transport water to the people close their community through tankers filled with either drinking water or water for other purposes. Providing water supply through tankers is only a temporary solution, but it is one we need to be aware of because in times of drought or emergency, especially, it may be our only option.

**Step 2.2.5 Bottled/package water****5**

It is possible to buy water in packages, including bags, small, and big plastic bottles. Buying bottled/package water is useful in emergencies because it is an easy way to ensure the quality of the water, and it is readily available in many areas in Bihar. However, we must also look at the negative side to bottle waste. First, buying water in these small packages is expensive and creates so much plastic trash. All this trash can be difficult to handle properly, and our communities will begin to become overwhelmed by the trash. We will discuss this in detail later. Now that we know all the sources of water a community could possibly have, let us try this exercise!

**Activity – Community mapping**

🕒 20 mins

**Individual activity:**

Participants are asked to create a map of their community showing places that are important to them including water sources (i.e. this provides a useful entry point for discussions about community water sources, safety, and access needs).

**When you return to your communities:**

The community water source mapping exercise should also be conducted more in depth once the service provider returns to their respective communities. It should again be emphasized here that it is a top priority for service providers to know what water sources are used by community members and how water taken from that source is used. If we do not know where people are getting water, how far the water source is, if it is easy to get to, if the source is clean, etc. we cannot ensure that our community members have the MOST BASIC things they need for a healthy life!

NOTE- community mapping can be combined with topics learned in Chapter 2 to also include mapping of sanitation points (toilets, trash bins, dump sites, hand-washing facilities, shower facilities, etc.) Eventually, each service provider should be able to explain where all the resources are in their community so they can identify the needs of the people and then advocate for those needs to the proper authorities who should provide them.

## 4. Water Quality

### Objectives:

- Be able to identify and explain which water sources are clean/safe for drinking and which have the potential to be dirty
- Be able to make a educated decision on which water sources your community should use for what purpose
- Are able to recognise and distinguish between natural pollution of water sources (arsenic, fluoride, chemical waste, etc.)and the environment and pollution by people and animals
- Are aware of the different ways through which they can contribute to the contamination of the different water sources
- Know measures for preventing different water sources in the community from becoming contaminated by people and animals
- Appreciate the importance of well-functioning systems for providing good water quality and dislike misuse of the facilities
- Know that it is important to use clean and safe water sources for drinking, cooking and washing purposes

### Process

Time  
(mins)

<b>Step 3</b>	<b>Introduction and Session Overview</b> <i>Share the objectives for the session</i>	<b>10</b>
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### Trainer Notes



#### In the workshop

As you go through this section have sample bottles filled with water taken from some of the sources we discussed (if you cannot gather them, make different examples by mixing water and dirt in clear, small containers such as some of the plastic bottle trash we can find in our communities: 1) clear water; 2) water with floating debris; 3) cloudy water with some dirt/particles floating in it, but you can still sort of see through it; and 4) muddy water so dirty/muddy that it looks like coffee or dark tea. Keep containers hidden until you are ready to show them to the participants.

By showing examples of what we are discussing, it will help the participants better understand what the water sources are and what their compositions are so they can comprehend the possible substances in the water that makes it unsafe.

**Optionally**, this can be conducted as a **field visit during the workshop!**

Take the class out after the end of Session 1 to gather water from each of the area's water sources (as many as possible from what we talked about in Session 1). Make sure you explain to the class at each source pros and cons of the water source. Point out real-life examples (i.e. at an unprotected well, point this out; at a river bank, point out the soil falling into the water bugs, etc.). Then return to the classroom area and start on Session 2. Each time refer back to the sources we bottled together as an example to make the lessons more tangible.



So now we know the different places water can come from and a little about what it goes through to get to us (pipes, river beds, or straight from the sky!) But how do we know if the water is safe? By safe we mean *if you use the water in any way, you will not be in danger of harming your body through disease.*

**Safe water-** if and when you use the water in any way, you will not be in danger of harming your body through disease.

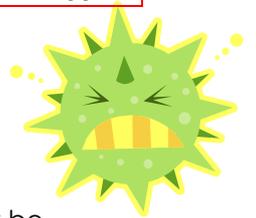
### So what can be in water that makes it unsafe?

There are 2 different types of things that can enter water, or already be in water to make it unsafe for humans to drink, use in cooking and use for personal or household hygiene.

#### Step 3.1 Microbiological

30

We cannot see, smell, or taste them. You may say that water appears to be clean but there may be deadly germs inside not visible with naked eyes.



#### Bacteria

A type of microscopic organisms (that is, living things that are so small they can only be seen with a microscope), many of which cause diseases; need moisture, warmth, food and time to multiply and survive.

Not all bacteria are bad. Think about when we make yogurt (curd). We take milk and then allow good types of bacteria that are in it that react and make the milk sour! What would life be like without curd? Also, there are types of bacteria that can exist in our bodies that help us. The main point is, **we need to know what things to keep OUT of our bodies and allow our bodies to stay healthy!**

#### Viruses

Are very small (microscopic) just like bacteria, and live inside of other animals and humans in order to live.

#### Protozoa

Are single celled small organisms that can move on their own

#### Worms (Helminthes)

Can be small when they enter your body, and can grow large inside of you body by stealing the food and nutrients you eat and drink. Worms do not survive for long outside a person's body. However certain types of worms can lay eggs and these eggs are very good at surviving even in harsh conditions.

### Trainer Notes

**Understanding microscopic organisms is extremely difficult**, especially without the aid of a microscope! You need to work to make this section (and again in chapter 3) more tangible for service providers and in turn, the community.

It is NOT necessary to use the proper vocabulary and advanced academic facts for diseases or the names of different pathogens. However, it is important for service providers to UNDERSTAND that microscopic organisms (germs, small bugs, whatever locally acceptable word is used) are all around us in our homes and environment and are harmful to our bodies. We cannot let them enter!

**Understanding microscopic organisms is extremely difficult**, especially without the aid of a microscope! You need to work to make this section (and again in chapter 3) more tangible for service providers and in turn, the community.



**Activity~ understanding microscopic organisms** 🕒 20 mins

TBD- possibly a "gulal" in water experiment



<b>Step 3.2</b>	<b>Physio-Chemical</b>	<b>30</b>
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#### Water Clarity/Turbidity (water that looks dirty)

Water that is cloudy or has tiny visible particles (small pieces that when grouped together make a large, easily identifiable thing) is called turbid. The different particles such as mud, sand, dust or other rubbish makes water appear "dirty."

#### Chemicals

Chemicals are things that can naturally exist in our earth or are man-made. Unfortunately, many times chemicals end up in our water either naturally or through pollution. Certain chemicals like Arsenic, Fluoride, and Iron can contaminate our water. In Bihar, chemicals have been found in dangerous levels in many districts.

### Trainer Notes

Show map of Bihar during this discussion. You MUST make this tangible for service providers. When we say 'district' sometime we do not pay attention to what it really means. Therefore, we need to translate the maps showing the contamination areas into words and real life discussion. Ask around the room by shouting out the names of the districts affected, etc. To get the point across and make a connection that YOU live in an area where the water is contaminated by arsenic, etc.

When you return to your specific districts (assuming cascade training), be prepared with more details about the Area specific related to arsenic, fluoride and iron pollution in different districts in Bihar



**Step 3.3 How to test for water safety****30**

So now we know the different water can get dirty, but how do we keep it clean? Or, if it is already dirty, what can we do to clean it before we use it?

First, if all these different harmful things like bacteria and worms can be in our water, and we cannot see, smell, or taste them, how do we know if our water is safe to drink and use personally?

**Step 3.3.1 Microbiological testing****10**

Although we cannot see them, the germs we just talked about all have different body types, colours, etc. That means, people who have the proper equipment and technology can find out which type of germ is in the water. Remember, this take proper tools to understand and is not something we can just guess at. It is necessary for you the service provider to work with the PRI and the staff they have hired to test water so we can help the community understand their water quality.

The Government of India envisages involving ASHAs, AWWs and other grassroots level workers to collect and test water samples at the community level. However, because the testing undertaken by government agencies is often unreliable and plagued with problems like inadequate water sample collection, irregular supply of reagents, and untrained staff, there is a large gap in the clean water needs of the people. That is why front-line service providers can assist the community by ensuring reliable and usable data on water quality and could increase the sense of ownership and alertness of village people about water quality issues.

**Step 3.3.2 Physio-Chemical testing****10**

Luckily, the testing for physical things in water is not hard at all, usually, we can just see it! Good quality water is supposed to be clear so if there are particles in the water making it dirty, we can see it and know it has to be cleaned.

Like with bacteria again, each of the different chemicals that can be in water have different characteristics that properly trained people can understand. The Panchayat has kits that are appropriate to test water for chemicals and they should also have staff that is trained on how to use them. It is your job to work with the Panchayat and the water testers to make sure your community's water sources are being tested!

It is a good idea for you to get the support you need in your work by involving local SHGs in water quality testing. Work with SHG's to run community demonstrations of the water testing and therefore raise awareness about the need to test water quality as well as involve the community in their own wellbeing. This will not only get people more interested in the work you do, but it will help when you have lessons to test. For example, if you test the water and you find a high bacteria count, when you go to the community to tell them about it, they may not believe you or care because they do no' know what bacteria is. However if you involved them in the test, and they saw you taking the water, saw you mixing the reagents, and saw that the water turned yellow in reaction to the bacteria, then you can work with the community to also think of ways to keep the water source clean or to treat the water before it is drunk at the household level!

### Activity – interactive teaching methods with the community varies

When you return to work in your community, there are a number of ways you can teach the community these difficult topics you have now learned.

- Putting on plays for the parents/community in which the children communicate the preventive measures and encourage the people to help to prevent contamination
- Group work: Brainstorming with each other about clean and dirty sources and the consequences of the use of dirty water; brainstorming about what they can do to protect the sources to keep the water safe; presenting their findings to each other
- Excursion to water sources in the community to investigate which water source in the community is used for which purpose and finding out the reasons



### Step 3.4 Water-related disease (morbidity) and death (mortality) 60

Share the objectives for the section

#### Objectives:

- Know the most important possible consequences of poor water quality for people's health
- Know why it is important to use clean and safe water sources for drinking, cooking, bathing and washing
- Know the effects on people's health of using unsafe water for different activities such as drinking, cooking and bathing
- Know diseases that can be associated with the use of or playing in unsafe/ dirty water

#### Step 3.4.1 Water-based disease 30

**Water-based disease:** a disease that spreads through water contaminated with parasites (worms), either when you drink it or when it penetrates the skin, usually through an open wound

Aquatic organisms that spend part of their life cycle in water and part as parasites on animals cause water based diseases. These organisms survive both in polluted and unpolluted waters. They directly infect human beings either by boring through the skin or upon consumption of water or food in which they are present. Well known water based diseases includes guinea worm and schistosomiasis.

Diseases caused by these water based organisms are not fatal, but they can be extremely painful and sometimes permanently disable people.

Many parasites penetrate through feet and legs. Avoid these by not entering infected water bodies such as stepped wells, rivers or lakes. Wash vegetables/fruits thoroughly before consumption, cook food items well. Also, use safe water for drinking and prevent open defecation to keep the water based diseases away. Test the water quality at an interval of every 3 months.

### Step 3.4.2 Water-washed disease (skin and eye diseases)

30

**Water- washed disease:** disease that spreads because of poor personal hygiene, the lack of water and the absence of proper waste removal facilities. Because of water scarcity people cannot wash themselves, their clothes or home properly or regularly.

#### Activity: Recite exercise with the class:



**Question:** How can we prevent skin and eye infections?

**Answer:** To properly wash ourselves with clean water

**Question:** “And how can we do this in our communities?”

**Answer:** “**BEHAVIOR CHANGE!**”

### Trachoma

*What is it:* an eye and skin disease which is the main cause of preventable blindness in the poor communities caused by a parasitic worm.

*How do we get it?* It is common in areas that are hot, dry and dusty and where there is not enough water for people to wash regularly. It is transmitted to humans through the bite of black flies that breed in fast-flowing streams and rivers. Trachoma is spread, especially among young children, by flies, fingers and clothing coming into contact with infected eyes, spreading the infection to other people's eyes.

*Effect on health:* The infection causes a sticky eye discharge with soreness and swelling of the eyelids. After repeated infections that scar of the inner eyelid, the eyelashes turn inwards and begin to painfully scratch the eyes.

*Prevention:* Trachoma can be prevented through regular hand and face washing with a good supply of clean water, along with hygiene education to help prevent flies from breeding.

*What else you can do?* If you think someone in the community has trachoma, take them to the PHC immediately. Trachoma can be treated with medication. **KEY-** Afterwards, make sure you take time to educate them, one-on-one about proper hygiene!

## Scabies

*What is it:* It is caused by the scabies mite which infests the surface layer of the skin. The mite can spread from one person to another through personal contact.

*How do we get it?* Occurs in areas where there is a lack of water and people are unable to wash themselves, their clothes, bedclothes or houses regularly.

*Effect on health:* Scabies causes itchy sores and lesions mainly between the fingers, wrists, elbows, breasts and pubic areas. In younger sufferers more areas, including baby's feet and the head, can be infected. Because sufferers often scratch the sores and lesions they become prone to other infections.

*Prevention:* Washing regularly with soap and keeping clothes, bedclothes and houses clean prevents scabies.

*What else you can do?* Actively observe people, especially babies in the community for scabies infection. If you think someone in the community has scabies, take them to the PHC immediately. **KEY-** Afterwards, make sure you take time to educate them, one-on-one about proper hygiene!

### Step 3.4.3 Water-source disease

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Not everywhere in Bihar, but in certain places as we talked about earlier, there are chemicals in the water that can make us sick if we drink them.

## Arsenic<sup>1</sup>

*What is it:* It is a natural element of the earth's crust. Arsenic enters in the drinking water supplies either from natural deposits in the earth or from industrial and agricultural pollution.

*How do we get it?* Drinking Arsenic contaminated drinking water leads to various health issues. Higher concentration of Arsenic is found in ground water sources in the states of Bihar and West Bengal.

*Effect on health:* Consuming arsenic contaminated drinking water causes: Bladder, lung and skin cancers and can cause kidney and liver cancer.

*Prevention:* being hurt by arsenic is easy to prevent- DO NOT DRINK WATER THAT HAS ARSENIC IN IT. If your community's water has been tested, the PHED has labelled arsenic water by painting the tap red. DO NOT DRINK WATER FROM THIS TAP OR USE IT IN COOKING!

*What else you can do?* Work with the PHED to get a proper filter for the arsenic water sources so the community can use that water! Educate the community on not using these water sources. Using rain/roof water harvest technique is a good option for Arsenic contaminated zone.

More resources are available in *Part 3: Resource Materials*

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<sup>1</sup> Guide for Better Water Quality for Better Health



## Fluoride

**What is it:** a naturally occurring chemical on our earth

**How do we get it?** When it is added to toothpaste or some water in small amounts, it is actually good for your teeth. However, if Fluoride is present in water in too high levels it is poisonous for us.

**Effect on health:** If we drink or use this water for cooking, we will end up with too much fluoride in our bodies which will cause stained teeth, bone damage, bone malformations and even death. It is common in areas that

**दन्तीय फ्लोरोसिस**

दूरी का खरोंद संगमरमर जैसा दिखना एवं गूदे पड़ना।

दूरी पर समानांतर का पॉइंट में खड़े पड़ना

मसूरी से दूर दूरी पर पीले बूँद खड़े पड़ना एवं समानांतर खरोंदों जैसे दिखना पड़ना

**कंकालीय फ्लोरोसिस**

हड्डियों एवं पैरों की हड्डियों का टेढ़ा होना

हड्डियों का टेढ़ा होना

(4)

*Prevention:* can be prevented through not using the water for drinking or cooking

*What else you can do?* Work with the PHED to get a proper filter for the fluoride water sources so the community can use that water! Educate the community on not using these water sources and why,

**Iron<sup>2</sup>**

*What is it:* Iron is a natural element of earth crust.

*How do we get it and Effect on health:* Water sources for over 1,30,000 hamlets in India have excess iron. Though it does not cause major health problems directly, water with higher concentration of iron have a bad odour. Usage of iron contaminated water may cause discolouration of cloth and changes the colour of cooked food.

*Removal:* Can be removed through oxidation and reverse filtration.

**Step 2.3.3 Water-related insect vector disease<sup>3</sup> 30**



Mosquitoes breed and live in or near both unpolluted and polluted water are capable of transmitting infections to human beings. Millions of people suffer from water based vector related diseases such as malaria, dengue, chickun Guniya, yellow fever, sleeping sickness, japanese encephalitis (JE) and filariasis. House flies are important agents that transmit many diseases to human beings.

**Dengue fever**

*What is it and how do we get it?* Aedes mosquitoes spread dengue fever. Fresh water / rain water stagnated in the depressions, broken bottles / used tyres, air cooler, water tank are the breeding spots of Aedes.

*Effect on health:* Globally 20 to 50 million cases of dengue infections occur every year and the numbers are growing. Usually infants and young children are affected. The symptoms are: severe headache, severe joint pain and muscle pain, pain in the eye, nausea and vomiting, rash tiny red spots on the skin, high fever.

*Prevention:* Drain stagnated water to prevent mosquitoes breeding. Dispose of broken bottles, discarded tyres, containers etc. safely to prevent mosquito breeding.

**Malaria**

*What is it and how do we get it?* On an average, in India, roughly 1 in every 1,500 people will get malaria. Children are most vulnerable. Malaria parasites are transmitted by female Anopheles mosquitoes. These mosquitoes breed from the stagnated water.

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<sup>2</sup> Guide for Better Water Quality for Better Health

*Effect on health:* Malaria is a killer disease. Lack of timely treatment can lead to death. Malaria symptoms are: light headedness, shortness of breath, severe headaches/body aches, fever, shivering, nausea, flu like illness, chills and chattering of teeth.

*Prevention:* Drain stagnated water to prevent mosquitoes breeding. Spray insecticides in the water body to prevent mosquito breeding.

More resources and details to teach this section are available in *Part 3: Resource Materials*

At this point, some participants may be wondering why we haven't talked more about diarrhoea, cholera, dysentery, etc. Since we have learned that one of the main pollutants of our water is human faeces which contain a majority of the bacteria, viruses, worms and other germs, we will go into more detail about the contamination of water in chapter 2- Sanitation.



### Trainer Notes

Given the usual focus on water and less focus on sanitation, in this module, there has been an attempt to rectify that.

In this chapter, we will focus ONLY on diseases related to water, and not mix the concepts of water and sanitation. It is our belief that that will help service providers differentiate between the ways they can aid the community by showing them where their different focuses and interventions can have direct impacts.

Countless studies have shown that lack of adequate and appropriate sanitation leads to water contamination and other types of environmental contamination and consequently morbidity and mortality. Therefore, this module will focus on diseases caused by sanitation, and polluted water in Chapter 3 in order to draw a stronger correlation to feces and sickness instead of water and sickness. This will also help you, the trainer, emphasize the primary prevention point for illness is with a toilet, proper feces management, and not water, which has only secondary effects. Let us begin to shift attitudes in Bihar and in turn, improve the health of the population!

## 5. Household Level Water Management

Objectives:

- raise public knowledge and awareness of the properly hygienic, low-cost methods of water management
- ensure proper practices of water disinfection using the chosen methods
- Self and community are able to decide to use only safe water for drinking, cooking and bathing activities
- Be capable of pre-treating water to make "dirty" water clear (but not drinkable)
- Identify community barriers to implementing the five methods.

## Process

Time (mins)

<b>Step 4</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>10</b>
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As service providers, we have learned about vaccines in previous trainings, and how amazing they are! That one little shot can prevent you from ever getting the disease it was made for! However, there are 1,000s of diseases in our world, and not enough vaccines to prevent them all. That does not mean we cannot prevent other illnesses, it just means we do not need medicine to prevent it. Instead, we need to learn good water management practices. Think of good water management behaviour change as the vaccine to prevent water problems!

Say that during this session the participants will explore the various ways in which water can be pretreated (or clarified) to remove particles, mud, or other debris that makes the water appear “dirty.” Stress that after pre-treatment it is ready for further treatment to make it drinkable. Remind the participants that water can look clear, but is in fact, contaminated, so even if you pre-treat it to make it look clear, it still needs to be treated to make it safe for drinking. Share the objectives for the session.



### Activity: Recite exercise with the class:

**Question:** “And what is the goal of all of our work class?”  
**Answer:** “**BEHAVIOR CHANGE!**”

<b>Step 4.1</b>	<b>Methods to ensure safe quality drinking water</b>	<b>10</b>
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First, it is important that as much as possible, you only collect water from safe sources - a clean hand pump or covered sanitary well or piped water supply and also a source that preferably has been tested and shown to be clean. Just think- if we can draw water from a clean water source, then we do not have to worry about making the water clean. **PREVENTION IS KEY!** Then we just need to make sure we continue to keep the water clean (safe collection and handling of water are points we will take about in the next section).

However, many of us live in communities where the water sources are NOT clean and safe. Therefore, depending on the quality from the water source we use, we must use one or more of the following methods to ensure our water is safe for ourselves and our family!

<b>Step 4.1.1</b>	<b>Primary treatment</b>	<b>10</b>
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Earlier we talked about water that is turbid- visibly “dirty” looking. If turbid water is not an issue in your location, you can skip this step when treating your water at home. If there is a problem with turbidity make sure you use this pre-treatment step, but remember, clarifying water only improves water clarity; it DOES NOT make it safe to drink because the tiny germs we cannot see might still be in there.

### Trainer Notes

Only include the pre-treatment methods that are used or are available in your area: different types of cloth, a sand filter, containers for settling and decanting, and some examples of locally available flocculants (if available). Remember to EMPHASIZE with participants that after clarifying turbid water, the water STILL NEEDS to be treated using one of these four methods: boiling, filtering, chemical (chlorinating), or solar disinfection.

The general surface water treatment system includes sedimentation, coagulation, slow/rapid sand filtration and disinfection.

If the water is turbid, it is necessary to strain the water through a filter such as a clean piece of cloth. It will remove bigger particles and insects but will not remove the microscopic germs we discussed earlier. This primary step of cleaning the water should be done any time you have water that is not reasonably clear.

Investigate if flocculants ("settling-out agents" such as alum, moringa, racket, or any commercial product for pre-treating water) are available. If yes, collect samples of each. Flocculation a water-cleaning process in which small sticky particles clump together to make larger and heavier particles (floc). The larger particles eventually sink to the bottom of a containment area and can then be removed

### Activity~ practicing and demonstrating pre-treatment methods

 20 mins



**Break out into groups** (the number of groups should correlate to the number of different pre-treatment options you have taught the class and they will now test). Assign each group a method of pre-treatment that was learned. They can then take wither the water you harvested during the field visit, or water you the trainer have brought along for the exercise. They must 1) Practice the method so they are able to successfully execute it, and 2) present the method properly to the class, as if they were teaching it to the community.



<b>Step 4.1.2 Pasteurization/boiling</b>	<b>10</b>
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What happens to us when it gets hot in the summer? We get tired fast, we need more water to survive, we don't feel good at all. Well this is the same for bacteria. If it gets too hot where they live, they get sick, and if it gets really hot, they die! So the germs living in our water can be killed this way.

One of our objectives as front-line service providers is to help the community with **low-cost solutions so they can change their behaviour positively**. Pasteurization is one low-cost method to clean our water of all the harmful germs living in it.

### Trainer Notes

Pasteurization is a difficult vocabulary word. Think carefully about a local language equivalent. Some suggestions- high heat or before boil. You can explain the process- heat to 65 degrees centigrade, but remember, without a thermometer, this cannot be estimated. Therefore, brig not a boil, but do not waste too much of your fuel to "over boil" the water!

**Step 4.1.3 Filtration****10**

If water is contaminated, it is possible to use a device called a filter that allows liquid through but stops solids/particles of a certain size, so the fluid is cleaned. The filter is precise enough that it can stop bacteria and viruses that are so small. It can even stop chemicals

**Take home Activity~ Simple Clay Water Filter**

🕒 60 mins



This simple technology has been used throughout the Indian subcontinent to have clean drinking water for families for hundreds of years. Now you can learn to do use it at the household level for filtering, treating and storing drinking water too! A simple clay water filter consists of a porous clay "pot" suspended in a 20 litre plastic receptacle with a tap located close to the bottom, through which the clean water is drawn. Its operation is straightforward: The plastic lid is removed and the clay pot is filled with water of uncertain quality. This gravity fed water passes slowly through the pores in the sides and bottom of the pot and is collected in the plastic receptacle.

**Step 4.1.4 UV/SODIS disinfection****20**

Say that during the previous session participants learned how to boil their water as a method for making it safe. Continue by saying that now they are going to learn about another (alternative) way for making water safe (potable) to drink. It is called SODIS and that stands for solar (sun) disinfection. It is another way to make water safe for drinking and cooking (besides chlorination, boiling, and filtering). It requires clear and clean plastic (PET, not PVC) or glass bottles, clear water (without visible particles or colors) and sunlight.

Remember that a key practice is having safe water to drink and that one way to do this is using SODIS.

Details for the SODIS, including drawings to teach the community are available in *Part 3: Resource Materials*

**Trainer Notes**

SODIS should be offered as an alternative only if PET plastic bottles are widely available. You can identify PET bottles because, unlike PVC-type plastic bottles, they burn easily (with a sweet smell). If PVC bottles are also available, the participants need to understand that they should not be used for SODIS. Glass bottles can be used for SODIS, as long as they have a reusable lid.

**Step 4.1.5 Chemical****20**

**Chlorine** a chemical that is added to water to kill off some germs and make water safe for drinking. If you have no chlorine drops, we can make a stock solution from bleaching powder readily available to ASHA's AWWs and through the Panchayat or PHED.

There are multiple different chemicals that can be used (pills, liquids, different composition, etc.). You must teach what is locally available and the best options for service providers to use and teach in the community. See part 3: Resource materials for more details

### Activity~ practical water quality improvement 🕒 25 mins

#### Personal Brainstorming

List advantages and disadvantages of the different methods for making dirty water drinkable in your community. Think about this from the perspective of the household level where you will teach them about these methods.

If **some members of class are illiterate**, perform this exercise as a group brainstorming. If **all are illiterate**, conduct exercise as a class.



### Activity: Recite exercise with the class

🕒 10 mins

How long can water be kept after it has been treated, and still be safe? (also known as "stale water"). Make sure you repeat asking till a majority of the class can answer correctly, keep shouting out in different order.

Pasteurization/Boiling-      Filtration-      Chemical treatments (name each type separately) -  
UV/SODIS -

## Step 4.2 Safe and hygienic storage and handling

10

Share the objectives for the section

Objectives:

- Plan, implement, and utilize a method of safe water storage practices, and gain an awareness of this necessity through promotion of safe water systems. To ensure consumption of clean drinking water.

Even if we collect clean water from a clean source, or if we treat our water to clean it, it can still get contaminated by germs, chemicals, or other particles. Often water we drink and cook with gets contaminated at home because of the way we collect it, store it, and/or handle it. Clean water can easily get contaminated if not handled safely.

#### It is touched by dirty fingers

Do not dip hands in the water container when collecting water, transferring water from one vessel to another, or when drinking water. Remember your hands may be dirty! Children are often in habit of taking water from vessel by dipping their hands in, especially when they are rushing.

- Wash Hands before collecting water and before handling water
- Pour water out of the water storage container without touching it or use a clean long handled dipper to take the water out

### **It is poured into a dirty container**

Virtually every type of tank or container imaginable has been used for household water collection and storage. Unfortunately, most do not adequately protect water from contamination. Used 55-gallon oil drums and open plastic and metal buckets are commonplace. Many people obtain or buy previously-used containers because they are cheaper. However, sometimes these containers have held poisonous substances such as pesticides. Families have become ill or have even died after drinking water stored in them.

- Use only clean containers to store water
- Wash the inside of this container often so it does not get dirty
- Use only clean cups or mugs for drinking water

### **Dirt or dust gets into the water if the container is uncovered**

There are many characteristics that need to be considered about the storage vessel used so that it will prevent contamination of the water inside and facilitate disinfection of water. Many are open, without a lid or cover during collection and transport. You as a service provider can recommend a local vessel to community members for water storage. The community can also search for possible vessels in common sizes that are widely available and used in the area.

- Keep water storage containers covered
  - immediately after collection,
  - during transport, and
  - at all times during storage

### **Dirt or dust gets into the water if the container is improperly stored**

Safe storage and handling behaviours to prevent water contamination at home. Do not keep the drinking water container near a place where the lid can easily fall off, people can knock it over, etc.

- Keep the storage containers above the ground level

<b>Step 4.3</b>	<b>Water security- methods to ensure sustained water access</b>	<b>10</b>
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*Share the objectives for the section*

Objectives:

- Learns means by which community can implement plans to secure their water resources
- Ways to access clean water to prevent recontamination

Begin with this quick question and answer participation game with the class.

**Activity: Question/Answer with the class**

⌚ 5 mins

Let's set the climate for this section. What are all the different things we need water for?

- We need to drink 8 glasses of clean water a day to stay well hydrated and healthy
- We need water to
  - wash our clothes
  - bathe
  - wash dishes
  - cook

But can too much water can be a bad thing? Why?

And can too little water and can a bad thing? Why?

Part of water security is making sure you maximize the use of your water resources so there is little to no waste. Therefore, even water we have already used once may be able to be used again. We will discuss this in the next chapter, sanitation, in more detail.

## 6. Conclusion and Evaluation

**Activity: Water Wrap up Game**

⌚ 20 mins

The point of this game it allows the class to actively recap on all points learned in the water chapter.

**Positive, negative, neutral-** Play as a moving exercise

Place "POSITIVE" "NEGATIVE" and "NEUTRAL" separately signs in along a wall...

Trainer holds up poster/flip chart of a hygiene practice illustration. hen shown each picture, students must move around the classroom until they are under the sign they feel represents the picture.

Call on someone from each group to defend their reasoning. Class discusses as whole pros and cons of each reasoning.

Detailed notes on conducting exercise and all hygiene poster examples available in *Part 3: resource materials*;

Optional end of chapter post-test (located In *Part 2: Service Provider's Handbook*)

Remember, with any pre or post test, if illiteracy is an issue in the class, the questions may be answered orally and the consensus answers recorded by the trainer (or a volunteer from the class) on flipcharts.



## Chapter 3

# SANITATION

### Chapter Outline

**Time:** 8 hours

**Resources:**

- Flip chart
- Markers
- Tape
- F-diagram poster, cards, and props
- Rice kernels or other small yet countable item

skills!

**Objectives:** After completing this chapter, it is expected that service providers will

**Knowledge**

- Gain knowledge on different types of sanitation systems a community can utilize
- Know the various faecal-oral transmission routes
- Understand the danger of animals roaming in our community and not cleaning up after them
- Know the components of solid waste and simple methods of managing them
- .....

**Attitudes**

- Appreciate the benefits of different sanitation systems
- Accepts that “waste,” either water, faeces, or kitchen scraps, if properly handled and treated, can be an asset to the community
- Appreciate solid waste management as a necessary aspect to community health and hygiene
- .....

**Life Skills**

- Be capable of immediately practicing simple alternatives to open defecation
- Become comfortable talking to others about not littering
- Be able to distinguish between basic first aid home remedies and the need for a doctor and prescriptions

**Hands-on Skills**

- Able to demonstrate digging a compost pit
- Be able to create ORS and different feeding/drinking options for people with diarrhoea

### Trainer Introduction

Be aware that there may be reluctance to talk about this subject. This is a complex section because sanitation is a broad subject and one that is largely ignored by health and nutrition service providers in Bihar and around India. It is very important throughout this section you use the proper terminology for “sanitation” and do not allow it to become synonymous with “hygiene” or made less important than “water” by accidentally referring to topics in the context of water if they are clearly sanitation related. Also make sure you find the locally appropriate words that are used to refer to feces, defecation, etc.

Sanitation is usually seen as very “technical” so you must ensure you stay focused throughout the chapter on the key message- “faeces is everywhere in our communities and can use many vehicles to make us sick. Since we all poop, we are all accountable for ways to properly handle the faeces.” Sanitation DOES NOT HAVE TO BE technical- ensure service providers understand that they are capable of tackling the sanitation needs of their communities with their own knowledge and

**Objectives:** (If optional Pre-test given)

- Assess participants' understanding of sanitation and sanitation related issues in their communities
- Assess participants' expectations of Chapter 3

**Process**

Time (mins)

<b>Step 1</b>	<b>Introduction and Chapter Overview</b> (facilitate review of the previous day's sessions if necessary) <b>Share the objectives for the Chapter</b>	<b>15</b>
Note	If chapter taught as independent workshop, begin with icebreakers from Opening Session	

When you begin discussing sanitation, first ask around the room if someone can tell you what "sanitation" is. Try to draw the definition out of the participants (lead them on positively).

**Sanitation-** The principles and practices relating to the collection and management of different types of "waste," human excreta and wastewater, as they impact upon communities, users, operators and the environment

This is not something we may talk about every day, but it is actually something that affects our lives in so many ways, so often, that we need to start talking about it! Human excreta and rubbish is piling up all around us! It is in our AWCs, schools, homes and the community. It is EVERYWHERE, and ALL around us!

These types of "wastes" differ in terms of cleanliness and risks to health. The lessons can build upon local knowledge but should also address locally incorrect or incomplete perceptions. Many cultures distinguish, for example, between cleanliness of water from different sources, with usually rain and spring water recognised to be cleanest. Some common perceptions are not correct, e.g. the belief that infant excreta are harmless.



The weaknesses found in the sanitation knowledge, attitude and skills of service providers in Bihar have attempted to be corrected here. There is a need to strengthen the theoretical division between water, sanitation and hygiene so that there is a greater connection made to the cause and effect of specific things. For example, currently among front-line service providers, sanitation is usually seen as synonymous with “hygiene” and therefore only hand washing is discussed and not the importance of using a latrine. Or, when we talk about what makes us sick and gives us diarrhoea, water is often mentioned, but rarely the lack of appropriate or adequate sanitation.

Therefore, we will attempt to remedy the current gaps and lack of awareness on sanitation needs of Bihar’s communities in this module by focusing on sanitation and its components **in detail, separately from other topics**. You must help the class see that in the field, there is overlap, especially when you are applying practical skills, but this understanding can only come as a sum of all the parts. Each chapter, water, sanitation, and hygiene must be learned thoroughly and independently of the others.

## CHAPTER OVERVIEW

Session		Time (mins)
	Introduction and Chapter Overview	15
1	Components of Human Sanitation	60
2	Components of a Complete Sanitation System	60
3	Why We Need Adequate and Appropriate Sanitation Systems	100
4	Impacts of Inadequate or Inappropriate Sanitation	100
5	Environmental Sanitation	60
	Conclusion and Evaluation	45

<b>Step 2</b>	<b>Pre-test</b> (optional, located in <i>Part 2: Service Provider's Handbook</i> ) Or proceed to Session 1	<b>10</b>
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Remember, with any pre or post test, if illiteracy is an issue in the class, the questions may be answered orally and the consensus answers recorded by the trainer (or a volunteer from the class) on flipcharts.



## 2. Components of Human Sanitation

### Objectives:

- Be able to identify and explain the pros and cons of faeces
- Understand the difference between urine and faeces
- Be capable of distinguishing between different types of waste water

### Process

Time (mins)

<b>Step 1</b>	<b>Introduction and Session Overview</b> <i>Share the objectives for the session</i>	<b>10</b>
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Transition to the components of sanitation (the sanitation definition) by saying humans are an important part of our community and environmental sanitation, perhaps the most important part because we can control ourselves and the things around us. Therefore, let us begin with the human component of sanitation. So what does that mean?

### What is human “waste?”

Allow someone in the class to answer (urine and faeces). Make sure you DO NOT accept any other answer; we are looking for the real, live, actual stuff, not words to cover it up! Next ask the question “*Has anyone thought about our bodies and how well they are designed?*” Just think, human bodies are designed so that our urine and faeces come out separately! There is a reason that urine and faeces are separate as they travel through our bodies and even when they exit our bodies. As such, we must discuss the two separately also. Then we will go on to learn the “educational” aspects of poop, i.e. bacteria, worms, and wastewater to make it all physical and connected.

<b>Step 1.1</b>	<b>Faeces</b>	<b>10</b>
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### Trainer Notes

This section is perhaps the MOST important section in sanitation. If people do not understand the basic facts about poop (where it comes from, why we pass it, what happens to it after it passes, etc.) they will never understand why it is so important. DO NOT be embarrassed in this section (if you are uncomfortable teaching this section then imagine how hard it will be for participants). Be objective, calm, and cheerful and make the discussion FUN when teaching this section to make participants feel comfortable and

Begin with the simple question posed to the class, “*We have many silly names for it, but what is poop?*”

Wait to see what answers class gives you, keep prodding them to describe poop. Tell the class to use our senses -touch, sound, smell, etc. - to truly understand “What is poop?” The goal here is to see if we are able to describe faeces in a theoretical manner, one that

acknowledges the important components of faeces. If we do not understand the basics of faeces, we cannot move on in this sanitation chapter!

Run the class through the following questions. Encourage the class to callout the answers do not just read through this section. It should be interactive and all the participants should be allowed to share their opinions on each question. Your aim should be to dispel any cultural myths that are hurting the service providers and their community (i.e. children's faeces is not dangerous, you should only poop in the morning before prayers, etc.).

### Step 1.1.1 WHO poops?

10

## Trainer Notes (mainstreaming gender and children)

Do not accept "everyone" as an answer here. Make sure participants clearly mention men, women, and children. It is imperative to name all the types of people so we are all made equals and this subject does not remain a secret or embarrassment for just women. Of the most significance is that participants acknowledge that children's faeces is also part of human sanitation because it is too often ignored in the community. Children's faeces are actually the most dangerous because it has a higher proportion of germs. By ignoring the fact that children poop (i.e. it is so common in daily life you do not notice it) this puts mother's at higher risk than others because they are most likely to deal with children's and dependent family member's faeces.

### Step 1.1.2 WHERE does poop come from?

10

Food is an important part of our lives because it gives our bodies the fuel we need to survive. We call the good parts of food, that which our bodies use to grow and stay healthy, nutrition. However, not everything we eat is nutritious. The parts of food that are not needed in our body, which is the largest portion of the food we eat, has to be expelled or else it would pile up in our bodies and we would get sick. The food we eat takes 2-3 days from the time we eat it until it finishes its journey and comes out as poop,

### Step 1.1.3 WHY do we poop?

10

Poop is the end result of your body taking the nutrients it needs from the food you eat and eliminating what's left. Poop is important for your health because it is the body's natural way of excreting waste from the body.

### Step 1.1.4 WHAT is "normal" poop?

10

Allow class to answer, but it will most likely be general answers. Therefore, lead them through the following:

#### Colour:

Ever wonder why no matter what you eat, your faeces almost always looks the same? Poop is generally brown in colour, for almost all adults, because of the waste our bodies create from digesting food and processing nutrients in the liver.

Colour can be a red flag when there is a drastic change. For example, if stool is black, it can mean that you are bleeding internally, possibly as a result of an ulcer or cancer. Stool that is light in colour -- like grey clay -- can also mean trouble if it's a change from what you normally see. Very light-colour stool can be reflective of liver disease. Green stool can mean your body is digesting food too fast and is not taking all the nutrients out of the food.

### **Size and shape:**

Size and shape do not matter as long as YOUR normal practice does not see a big change.

### **Odour:**

Bowel movements smell- some can be very bad, and some not so bad. There is a range to bad smell, and that is normal. Your intestines are swarming with trillions of bacteria that enhance digestive and metabolic processes. They are also the reason why poop smells -- a direct result of the bacterial activity in your GI tract. So it is a good sign that your gut is abundant with bacteria that is working hard to keep you healthy.

## **Step 1.1.5 WHEN do we poop?**

10

### **Timing**

Depending on how routine your diet is, that is how routine your need to defecate will be. Additionally, the time when you have to poop will vary if you are sick (i.e. have diarrhoea) are stressed, have had a change in diet, or any number of things. Do not worry if you do not defecate like clockwork- how many other things in our life run that perfectly? Just as we sleep at different times, wake up at different times, and do many of our daily activities slightly different every day, our bodies also do not run on fixed times. Although our bodies work in amazing ways, we are not machines!

### **Frequency**

There is no normal when it comes to frequency of bowel movements, only averages. It is average to go once or twice a day, but people can go more or go less. You have to be aware of your own body and how it is functioning to understand "what is normal." Maybe you poop every other day, and or as infrequently as once or twice a week. As long as you feel comfortable, you do not need to worry about this. When you see a major change, then it is time to worry.

And finally, the most important question,

## **Step 1.1.6 HOW do we poop?**

10

Answers can start off general (i.e. we squat) and then work toward practical (i.e. safe manner or unsafe manner).

When a participant mentions we squat, lead them with, "ok, why do we defecate like this? Look for answers that talk about comfort, makes it easier to pass stool (because your colon is open and point down this way) makes it easier to wash yourself, etc.

Lead the discussion then to ok, where do you squat? Then lead to "why do you squat there?"

## Trainer Notes

End this section by reiterating to the class that there is NO SUCH THING as “normal” faeces. Just as every human is slightly different, or very different, you have to find what is “normal” for you. DO not think you must go daily and only in the morning or any other forced routine. Do what your body is asking you to do, respond to your needs.

When it comes to frequency, colour, shape, and size, a general rule of thumb is that normal bowel movements are defined as what’s comfortable for you. But being knowledgeable about your digestive process can help you identify when normal goes awry.

Now segue into- “but what is 100% of the time true, for all people and for all faeces, is that it is made of similar things- GERMS!”



### Step 1.1.8 What is poop made of?

10

There is a large portion of our faeces which is just an excess that we ate coming out. It is not bad in and of itself, but there are so many germs in faeces that it makes everything bad. Think about a glass of water. If you put one spoon of salt in the water, all of the water becomes salty. Just like that salt, when germs are present in something, they spread out and pollute the entire thing! But, unlike salt, these germs are alive so they grow and multiply!

Therefore, since all of the faeces are infected/polluted, every single little piece of faeces is harmful to ourselves and others from the second it leaves our body. We must learn ways to “treat” faeces and handle it properly or else it will remain harmful and even spread its danger. We need to make poop harmless before it can be beneficial to humans. We will discuss how we can utilize the non-dangerous part of faeces in agricultural production by allowing all the dangerous germs to die and then turning it into fertilizer more detail later in this chapter. For now, let us focus on the dangerous part of faeces- the harmful things in it!

**Bacteria**- a type of microscopic organisms (living things that are so small they cannot be seen without a microscope), many of which cause diseases; need moisture, warmth, food and time to multiply and survive.

**Viruses** are very small just like bacteria

**Protozoa** are micro organisms that are larger than bacteria and viruses, and they are capable of moving on their own (almost like very small animals).

**Worms** (Helminthes): these different types of worms can be large and do not survive for long outside a person’s body. However they can lay eggs, some of which are very good at surviving harsh conditions.

## Trainer Notes

While some of this is a repeat of information from Chapter 2, you need to make sure you present it in a different matter. Concepts such as microbiology are very difficult to understand and must be discussed in multiple ways to aid in understanding. Also, do not think this is a repeat of the same information, look carefully, in chapter 2 we discussed the microbiology of water; in Chapter 3 we are discussing the microbiology of feces!



Make the connection of faeces to nutrition, before and after (i.e. food when processed in the body separates nutrients for our body, and sends what is not needed back out). Therefore, if our bodies are trying to get rid of this stuff, and if we somehow let it get back in, it will make us sick!

So just HOW MUCH of this bad stuff, the germs, is in our poop?

One gram of faeces can contain 10,000,000 viruses, 1,000,000 bacteria, 1,000 parasite cysts and 100 parasite eggs. HUGE numbers like this can be difficult to understand so let us do an activity to better picture the number of germs in our faeces.

### Activity ~ Micro organism growth, what do these numbers mean? 10 mins

Use the famous "exponential" Indian parable. A long time ago in a kingdom in India, a servant had saved the king's life. So the king said I will pay you for your service to me. I have a chessboard and I can give you Rs. 1,000 for each square on this board. The servant being very intelligent asked instead, "King, can you give me one penny on the first square and then multiply it by itself from there? I will take the sum of this." **The king thinking he had saved so much money quickly agreed. However, let us count for ourselves to see whether the servant or the king was smarter!**

This activity can be done with rice kernels or other similar small items that are locally available. Have each group get a bowl of rice. Place bowl in center of group so all members have access to it. Instruct each participant to begin with 1 kernel of rice. As participants reach into the bowl to get one kernel, mention it is hard to grab just one, how small one kernel is, etc. and relate it to how small bacteria viruses, protozoa, and worms can be.

Ask participants that if one of this rice were alive like germs it would reproduce/make a copy of itself, so how many would be have? (Answer 2) At first this may be difficult to understand so use the chessboard story and say if on the first square you have 1 paisa, and you multiply it by itself, that is  $1 \times 1$  so on the second square you have 2 paisa.

So now to move from the second square to the third square, each one of these germs would be able to reproduce/make a copy of itself. So we start with our 2 kernels and each copies itself so we have how many? (Answer 4). That is  $2 \times 2$  so the third square would have 4 paisa. Continue like this ( $1 \rightarrow 2 \rightarrow 4 \rightarrow 16 \rightarrow 256$  (Rs. 2.56)  $\rightarrow 65,536$  (Rs 655.36)  $\rightarrow$  too large to count (Rs. 4.29 lakh)!) and continue to relate the growth in number of kernels/paisa to the number of bacteria. Participants much reach into the bowl each time to pull out the right number of kernels and add it to their pile. You can stop when the pile is visibly large and counting is difficult.

It is a good idea for the trainer to use a chalkboard/marker board/poster paper to draw a checkerboard and then each time the class counts out the square's value, you write the number in the square so the class can keep track.

Urine is not something most people talk about, and many people (men especially) barely give it more than a thought when they have to go- they just go! Urine is mostly harmless (does not contain many germs that we discussed are living in faeces) but it is still something that smells and you pass (or especially for women) want to pass in privacy.

But we must pay attention to our urine because it is an important part of the way our bodies work (or if they are not working properly also). For hundreds of years, urine has been one of the ways doctors have looked at health. Changes in the urine – its colour, odour, and consistency – can provide important clues about our health. Your urine can reveal what you've been eating, how much you've been drinking, and what diseases you have.

Urine is an important part of the body's disposal process. Its job is to remove the extra water and wastes the kidneys filter out of the blood. The urine is there primarily to get rid of toxins or things that would otherwise build up in the body that would be bad for the body.

Here are a few urine changes to look out for, and what they might be saying about your health.

### **Colour Changes**

Urine is usually yellow colour, varying from pale yellow to deep amber, depending on the concentration of the urine. Darker urine is usually a sign that you're not drinking enough fluid. Your body needs a certain amount of fluids to function, so the body will hold on to fluid and the urine will become very strong and concentrated. When that happens, it will turn a darker colour.

Seeing red is typically a sign that there is blood in the urine. Just a little blood in the urine can be a sign of something serious, like an infection or cancer, and you must go to a doctor. If you're seeing blood and your urine is also cloudy, there's a good chance you've picked up an infection, Smith says.

### **Odour Changes**

When you pee, your own urine should not smell too strong. (Note, if where you are peeing is a dirty area, make sure you are paying attention to the smell of your own pee). If you smell something particularly pungent, you could have an infection or urinary stones, which can create an ammonia-like odour. Diabetics might notice that their urine smells sweet, because of excess sugar.

### **How Often Do You Need to Go?**

How often you need to go can be as important an indicator of your health as the colour or smell of your urine. Most people take bathroom breaks about six times a day, but you might go more or less depending on how much fluid you drink. If you're constantly feeling the urge to go and it's not because you're not drinking extra fluid, causes can include:

- ↳ Overactive bladder -- involuntary contractions of the bladder muscle
- ↳ Urinary tract infection
- ↳ Benign prostate enlargement that squeezes the urethra and block the normal flow of urine out of the body
- ↳ Neurological diseases, including stroke and Parkinson's disease
- ↳ Diabetes

The opposite problem -- not going to the bathroom enough -- can occur when there is a blockage or infection. Or, it can be the result of bad bathroom habits. Some people -- especially teachers, surgeons, and anyone else who doesn't have time for regular bathroom breaks throughout the day -- tend to hold it in.

Delaying urination can be problematic. If you hold your urine too long, you stretch your bladder too much and it after a long time, it may not be able to bounce back.

**Developing Healthy Toilet Habits**

Take good care of your bladder, and it will thank you by helping you urinate regularly. To avoid having to make too many bathroom visits, stay hydrated, but not over hydrated. Drink whenever you're thirsty, but don't feel as though you have to adhere to the eight-glasses-a-day recommendation (unless you have kidney or bladder stones, in which case you'll need to increase your fluid intake).

Finally, don't hold it in. As soon as you feel the urge to go, excuse yourself from whatever you're doing and find a bathroom.

**Step 1.3 Wastewater 10**

Pools and streams of wastewater are common scene in a village. Nobody likes it. This dirty wastewater is from our baths, kitchens and cattle sheds. Mosquitoes breed in such stagnated pools. They make us so itchy and even worse can give us many deadly diseases. The good news is that this is easy to avoid, with little cost and effort.

Wastewater pools also stink. They make life difficult for those staying nearby. It is a hazard for small children. Children can fall in these cesspools and hurt themselves.

Let us talk about the different types of waste water, starting from the worst kind, and going to the least dangerous.

**Step 1.3.1 Black/Brown 10**

This is if you mix your faeces and urine with water. Those who have flush toilets have black/brown water. Also, the water you use to wash your anus can be considered black water. This type of water is FULL of germs because as we learned, even a few germs can make everything dirty because they breed so fast!

Black water has to be handled carefully. Do not allow it to pool up because this will breed disease and bugs to spread the disease.

**Step 1.3.2 Grey 10**

From washing dishes, clothes, hands, etc. Water that has mostly detergents in it, very little pathogen risk. Can be reused safely for certain activities



### Activity –

#### Develop a plan for tackling sanitation problem in village 🕒 20 mins

Let village teachers, Nursedidi, Anganwadi behen, artisans, Panchayat members, NGO workers meet and form a core group. You will be one of the members of this group.

This group should go around village observing village sanitation and other problems. You may involve students in village rally so as to raise awareness of sanitation issues inform about time and venue of planning meeting. Songs and street plays also invite attention of people.

Then gather in a central place open to all. Draw a village map on a big paper or a wall. Ask people to draw their house in the map. Map waste water cesspools in village. Discuss about problems. The village planning may take 2-3 days also.

Ask people sources of wastewater flowing in the street or in cesspools. Mark the house with things like tamarind seeds, small stones etc. Mark houses having fever cases. The Nursedidi, and the Anganwadi behen and MPW will check the houses. They will discuss about malaria with villagers and talk of solutions. Think of solutions to eliminate breeding sites for mosquitoes. You can handle more problems in the same meeting. Think of handling problem of malnutrition amongst children in your village and how such exercises can be useful.

(Source: ASHA book 1)

### 3. Components of a Complete “Sanitation System”

**Objectives:**

- Understand why it's especially important that the faeces of children, animals, and sick/handicap be properly disposed.
- Assess

**Process**

Time (mins)

<b>Step 2</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>10</b>
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Begin by quickly asking around the room for people to give examples of types of toilets and sanitation systems they have seen in the communities they live in and work in.

After about 5 or 10 examples, ask for people to say some positive things about the systems they use. Then ask for people to give some negative aspects of systems they use. This should be a quick exercise, do not spend too much time on it and do not go into too much detail. If a participant asks you a question, state that it is a good question and we will talk about that topic shortly.

**Trainer Notes**

Always ask for the positive and negative or pros and cons of each topic. By asking about people's "opinions" there is no judgment implied about the behaviour. We can discuss anything logically if we present our argument properly, and that will prevent unnecessary anger or distrust. Reinforce the idea that we are not working in the community to judge others and their practices. We are working in the community to help educate people on different, safer behaviours and to help them adopt those behaviours.

<b>Step 2.1</b>	<b>What is adequate and appropriate</b>	<b>10</b>
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Community members need *adequate sanitation*  
It has to keep you and your environment safe from the dangers of faeces and the annoyance of smell.

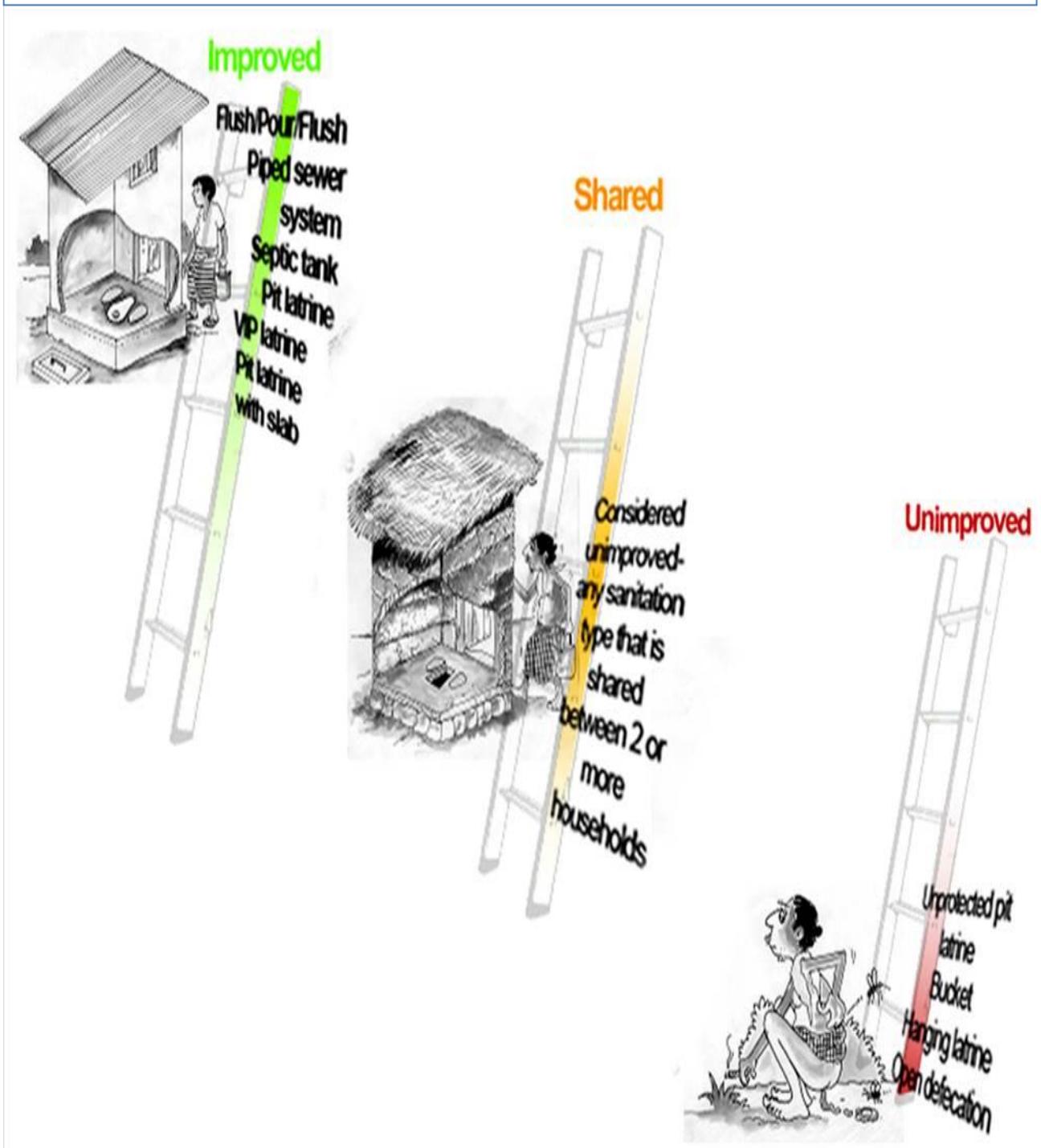
**Trainer Notes**

Have the sanitation ladder IEC materials posted in the front of the class. Refer to it repeatedly as you go through this section

Community members need *appropriate sanitation*  
You have to feel safe, comfortable, and happy with your toilet choice.

## Trainer Notes (mainstreaming gender, children, and handicap)

Women and men should have separate toilet facilities. If possible, even children and handicap people have additional needs that require modification to many current toilet and latrine designs. Make sure you work with your community to create the best possible solution for everyone. Especially, do not allow the normal discriminatory behaviour against women, children and handicap to continue (we will discuss this in more detail later in the chapter).



**Step 2.2 User Interface****10**

Lets us begin by talking about the immediate technology with which we interact when we use a sanitation system. What we see, feel, experience when you access the toilet/latrine is called the user interface.

**Trainer Notes**

Trainers- go through different locally available latrine/toilet types such as dry latrine, urinals, pour flush toilets, sitting and squatting toilets, etc. REMEMBER, this is NOT a technical section; rather it is to familiarize service providers and community members with different sanitation options available and help them eventually pick what is best for their needs.

Since many people in the community (and sadly many service providers also) may not be aware of latrines/toilets in general, let alone the different types that exist, it is important to use plenty of IEC materials for this section. Each time you describe a technology, make sure you have a picture or poster to show exactly what it is so you can accurately and vividly describe the characteristics and components.

Allow participants to voice their pros and cons and ask questions, but wait until the end to do the activity to go into more depth with the topic. Remember in this section you are only focusing on the user interface component of the sanitation system. Do not try to do everything at once! Systematic teaching means separating complicated things down to their minor parts so it is easier to understand.

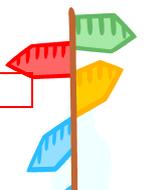
Infant and children's faeces are usually left in the open or are disposed in a refuse pit in the temporary relief centres. This may be linked to a misconception that child faeces are safe. Whilst young children cannot be expected to use an adult toilet, a number of steps can be taken:

! Educate mothers/child caretakers on safe disposal of infant and children's faeces. These must be put in a latrine pit and covered in soil to minimise fly breeding. This may have to be linked with a system in which the centre is cleaned up on a daily basis.

! Show caregivers how to train older children to use a toilet. Clearly, the toilet design must encourage access and use by children.

**Step 2.4 Treatment or reuse of excreta****5**

Remember earlier we said that it is not that everything in faeces is bad; it is just that the small germs make everything dirty. Well there are a few different ways you can reuse your urine and poop if you are careful to follow the proper procedures and safety precautions.

**Step 2.6.1 Ecological Sanitation****10-60** (varies according to details offered)**Faeces**

If you can kill those germs and make sure there are no bacteria, viruses, or worms of any sort in the poop, it can be reused. There are toilet technologies we can use to make it easier to treat our faeces.

## Urine

Since it is mostly (99%) harmless, almost nothing has to be done to urine to make it manageable for agriculture reuse

Full details of Ecosan, including simple ecosan toilet designs are available in *Part 3: Resource Materials* and in Annexe 5 references for further information.

### Step 2.6.2 Biogas

20

All over India, biogas reactors are used to control sanitation and provide additional benefits. In fact, the first biogas reactor in the whole world was built in Bombay in 1859.

Biogas can provide a clean, easily controlled source of renewable energy from organic waste materials for a small labour input, replacing firewood or expensive fossil fuels like propane or gas. During the conversion process pathogen levels are reduced and plant nutrients made more readily available, so better crops can be grown while existing resources are conserved.

Biogas is generated when bacteria degrade biological material in the absence of oxygen, in a process known as anaerobic digestion. Since biogas is a mixture of methane (also known as marsh gas or natural gas, CH<sub>4</sub>) and carbon dioxide it is a renewable fuel produced from waste treatment. Anaerobic digestion is basically a simple process carried out in a number of steps that can use almost any organic material as a substrate - it occurs in digestive systems, marshes, rubbish dumps, septic tanks and the Arctic Tundra. Humans tend to make the process as complicated as possible by trying to improve on nature in complex machines but a simple approach is still possible.

Since small scale units can be relatively simple to build and operate. The biogas should be used directly if possible (for cooking, heating, lighting and absorption refrigeration), since both electricity generation and compression of gas (for storage or use in vehicles) use large amounts of energy for a small output of useful energy. This concept is suited to "distributed" systems where waste is treated near the source, and sludge is also reused locally, to minimise transport and initial capital cost compared to a "centralised" system. As the distributed system will need a support network biogas contributes to the "triple bottom line"; benefiting the environment, reducing costs and contributing to the social structure.

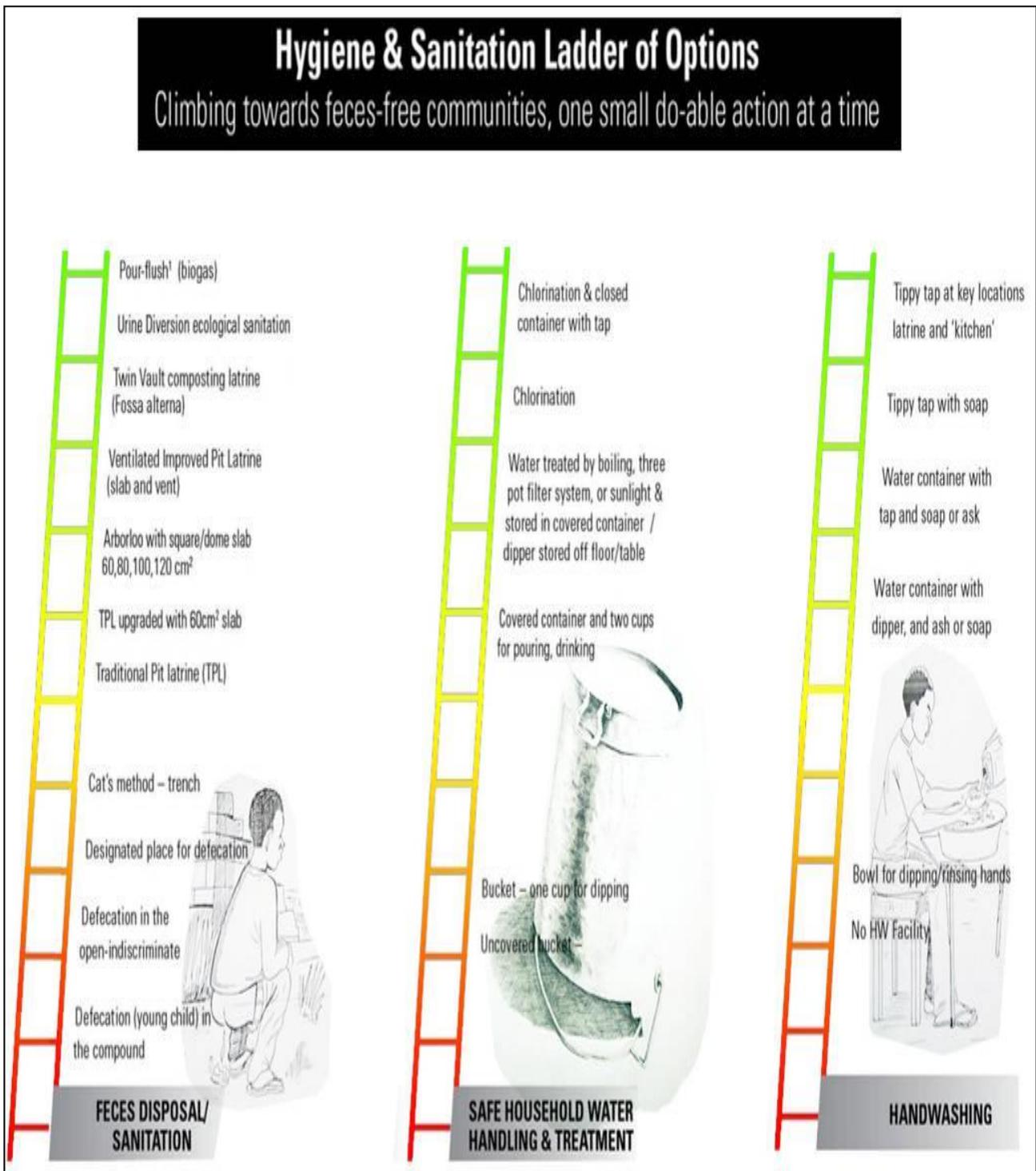
There are many advantages of biogas over wood as a cooking fuel:-

- Less labour than tree felling; Trees can be retained for environmental benefit
- Safer than using cow-dung (reduce disease risk if you do not have to collect and handle cow dung for cooking fuel but can instead add it to the biogas reactor)
- Biogas is a quick, easily controlled fuel
- No smoke or smell (unless there is a leak - then you need to know anyway!) so reduced eye/respiratory irritation
- Note- respiratory infections are the number one killer of children around the world. Much of this comes from the irritating smoke from cooking fuel!
- Sludge is a better fertiliser than manure or synthetic fertilisers (and is cheaper than manufactured products)
- Reduced pathogen transmission compared to untreated waste

Full details of Biogas, including simple designs are available in *Part 3: Resource Materials* and in *Annexe 5* references for further information.

### Trainer Notes

In Ecosan and Biogas, only teach to the level of technicality that participants can handle. These are very specialized subjects that can be weeklong classes on their own! If a participant expresses interest in bringing this technology to their community, make sure you follow up with them to put them in contact with the NGO or government department that can help.



## Activity -Sanitation ladder

 20 mins

### As group work

A series of up to ten pictures illustrating different methods of disposal of faeces is sorted by the group into a 'ladder' showing what they perceive as the worst method at the bottom progressing to the best at the top. As the sanitation type is ranked, the picture can be taped vertically along a wall to create the visual of the ladder.

### As a class

A series of up to ten pictures illustrating different methods of disposal of faeces is sorted by the group into a 'ladder' showing what they perceive as the worst method at the bottom progressing to the best at the top. (Note these can be taped vertically along a wall to make this more interactive and get the participants up and moving). Then participants can return to their seats and look across the room at the other group's ladders. The group identifies where the community is now on the ladder, where it would like to be, what the constraints are to reaching that level and how such constraints can be overcome.

Trainers- ensure you are facilitating proper dialogue and debate in this exercise. There are not necessarily "right" answers (i.e. one person may think Ecosan is lower on the ladder than another so allow them to defend their positions and discuss pros and cons, do not quickly interject with your opinions or what you think the answer should be!)

### Take home to the community

The idea of the sanitation ladder is useful to help outreach workers assess current feces disposal practices and give them options for working with families to promote improved practices. The ladder indicates, from most dangerous to safest, the options for how people dispose of feces. Using the ladder concept can help a family take small, incremental steps up the ladder.

Sanitation ladder graphic, poster, and more information provided in *Part 3: Resource Materials*

## 4. Why We Need Adequate and Appropriate Sanitation Systems

### Objectives:

- Be able to identify and explain the faecal-oral transmission routes
- Be able to identify prevention methods along the different transmission routes

### Process

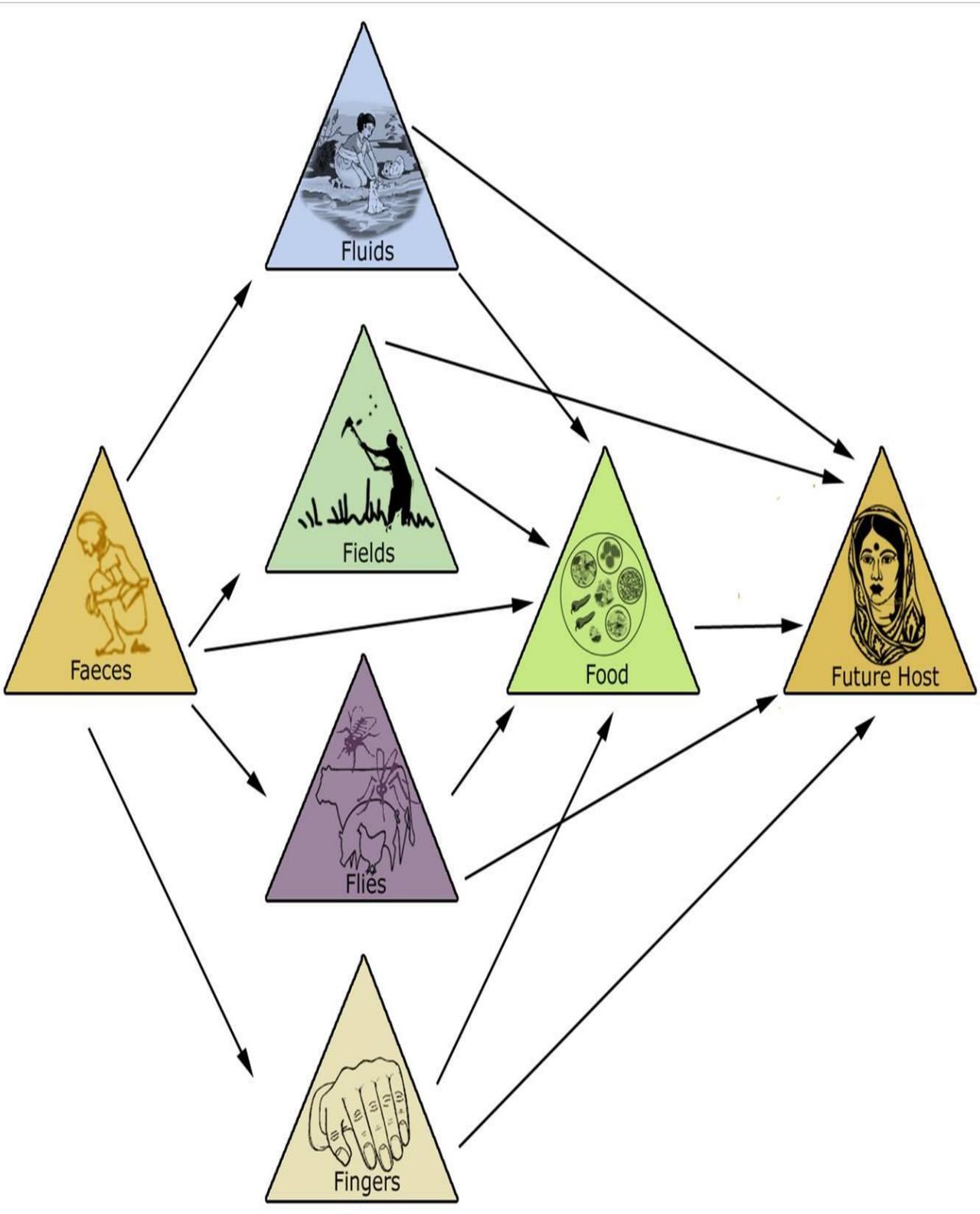
Time (mins)

<b>Step 3</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>5</b>
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Remember all the disgusting and harmful things we just talked about (bacteria, parasites, and viruses). You must be thinking, "how does it get from our faeces, which has left our body, back into our bodies!?!". How come when one person in the community gets sick, others start to get sick too?

<b>Step 3.1</b>	<b>Faecal-Oral Transmission routes (F diagram)</b>	<b>40</b>
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What you are asking has to do with transmission- the way things pass from one source to another.



When translating this section to different languages, the “f” may not translate. Try your best to use terminology that can somehow tie all the words together and make it easy to remember (all same first letter, all rhyming, etc.)



## Trainer Notes

Make it physical- When you teach this subject, you must be animated! This seems like obvious knowledge, but truly understanding transmission routes means truly understanding the difficult to imagine concept of microbiological organisms taking a trip along different vehicles and getting back into your body or stuck on your body!

Exhibit proper disgust when you talk about how feces particles travel from point A to B and eventually back in your mouth and into your stomach! However be careful not to use judgmental tones, this transmission process happens to all of us. Do not teach this section as "in your community, your feces, etc." but rather make it a communal issues, one that each of us contributes to and one that each of us must work to stop. Emphasize that it does not HAVE to be like this. We have the power to stop it!

### Activity ~ 'F' Diagram

⌚ 20 mins

To make the important message of the F-diagram really sink in, trainers need to make every part of the transmission routes come to life! Here is an example of interactive games/activities you can play with the class to teach the faecal-oral transmission routes.

#### Game

Take brown coloured paper or similarly coloured, locally available material which can be used to represent faeces. Give every participant one sheet/item and tell them this represents REAL poop.

Explain that the room we are in represents our community. In our community, there are no toilets so we all defecate in the open. Therefore each participant has to find a spot in the room to "go to defecate" as if this was real-life situation. Make sure each participant "follows social norms" i.e. you would never defecate right on top of someone else's deposit, so do not allow the women (perhaps because of shyness) to just dump all the prop-faeces in one area. Make sure the women are up and moving around the room, looking for "private" places to do their business.

As they are moving about the room, encourage them and guide them. Make sure you keep reiterating points of how horrible it is to defecate in the open, using examples of what the women are doing as they go around the room. For example, if you see two women being shy, lagging behind, not looking for a spot to deposit their faeces, call out the fact that "look, those poor women have to hold their faeces all day while they wait for privacy to go poop." Continue to use real life examples and attach them to the game until all the women have defecated- found a place to dump their faeces.

Tell the participants to stop where they are and to look around the room. Do they see the LARGE amounts of poop piled up everywhere? Leave it there for the remainder of this section, and occasionally refer back to it such as "look class, the flies are landing in the faeces over there and now they just landed on Champa!" Or another example is while walking around the class teaching a session, accidentally step in some and make a point that your foot is covered in Minal's faeces! Draw it back to real life, how stepping in your neighbour's or friends, or brother's faeces must happen to each of us every day...

Use large flies, etc. from F-diagram props as examples throughout the remainder of the sanitation chapter to constantly bring attention back to how polluted our classroom has become and how there is no way for us to ensure we are safe.

**Step 3.2 Emphasis on prevention to stop each transmission route****10**

We have been taught since we were little to appreciate food and drink and how good it is for our bodies! We all love food, mango juice, curd, etc. right? In your other trainings, you have been taught about vitamins, minerals and all the good things that exist in food and fluids that our bodies need to grow and be healthy and strong. Especially with children, we often focus on nutrition and how to feed them so they are healthy.

BUT

Did you know that food and drinks are the second step in helping our bodies grow strong and be healthy and our minds stay sharp.? The food we eat is only beneficial to us if our bodies are able to use the food. That is why the first, MOST important part of a good diet and nutrition is keeping the dirty pathogens out of our bodies!

Not only does the food we eat not help us if it is dirty, or if we already have all the bad germs in our bodies, it can even hurt us! So HOW can we make the food we eat be ONLY good for us?

PREVENTION!

In children in Bihar, we often see anaemia, stunted growth, malnutrition and other debilitating conditions. You may also hear mothers say “but I have been feeding my child,” or you may even have been providing nutritional supplements. Yet, you see child after child remain unhealthy. Let's make your job better and easier- lets prevent this malnutrition and stunting before it happens so all the food and drink a person has helps them, not hurts them!



### Trainer Notes~ Open Defecation

These points NEED to be emphasized when discussing open defecation

#### Why it is bad

Instead of just answering this question with the normal “bacteria, and worms, and blah blah blah, try instead to ask the participants (or community) the following questions.

- Where do the feces go once you defecate in the open?
- What happens to them when it rains?
- How do people feel about stepping in feces?
- Does the smell of feces in the community bother people?
- What is the perception of someone who defecates in open areas?

Based on their answers, prod them toward understanding how we are spreading our feces all over the community and actually all over our bodies (because of flies and fingers)

What to say to the community when they ask “**What else can we do?**”

The “cat method” is a temporary solution, but still better than open defecation. It is something you can do that costs nothing and will be a stopgap measure while you advocate for an improved system. You can also work together as a community, pool your knowledge and resources, and build your own low-cost toilets. Remember, investing a little bit of money upfront in sanitation will save you MORE on medicines, sickness, time off of work, and even death.

### Activity ~ 'F' Diagram, prevention points

⊕ 20 mins

To make the important message of the F-diagram really sink in, trainers need to make every part of the transmission routes come to life! Here is an example of an interactive activity you can play with the class to teach prevention along the fecal-oral transmission routes.

#### Group game

Have flipchart pages with the five F's on them. Give copies of the 5 "F's" on regular paper size or card size to each group. Ask each group to write one action on each of their cards that the community could take to help stop the spread of feces by that particular method. (For example, on the fingers card, the group might write "make sure everybody washes his or her hands following defecation.")

After 10 minutes of group work, reconvene the class. You hold up 1 "F" on the flipchart and then go around the room and have a few of the groups give their answer for that card.

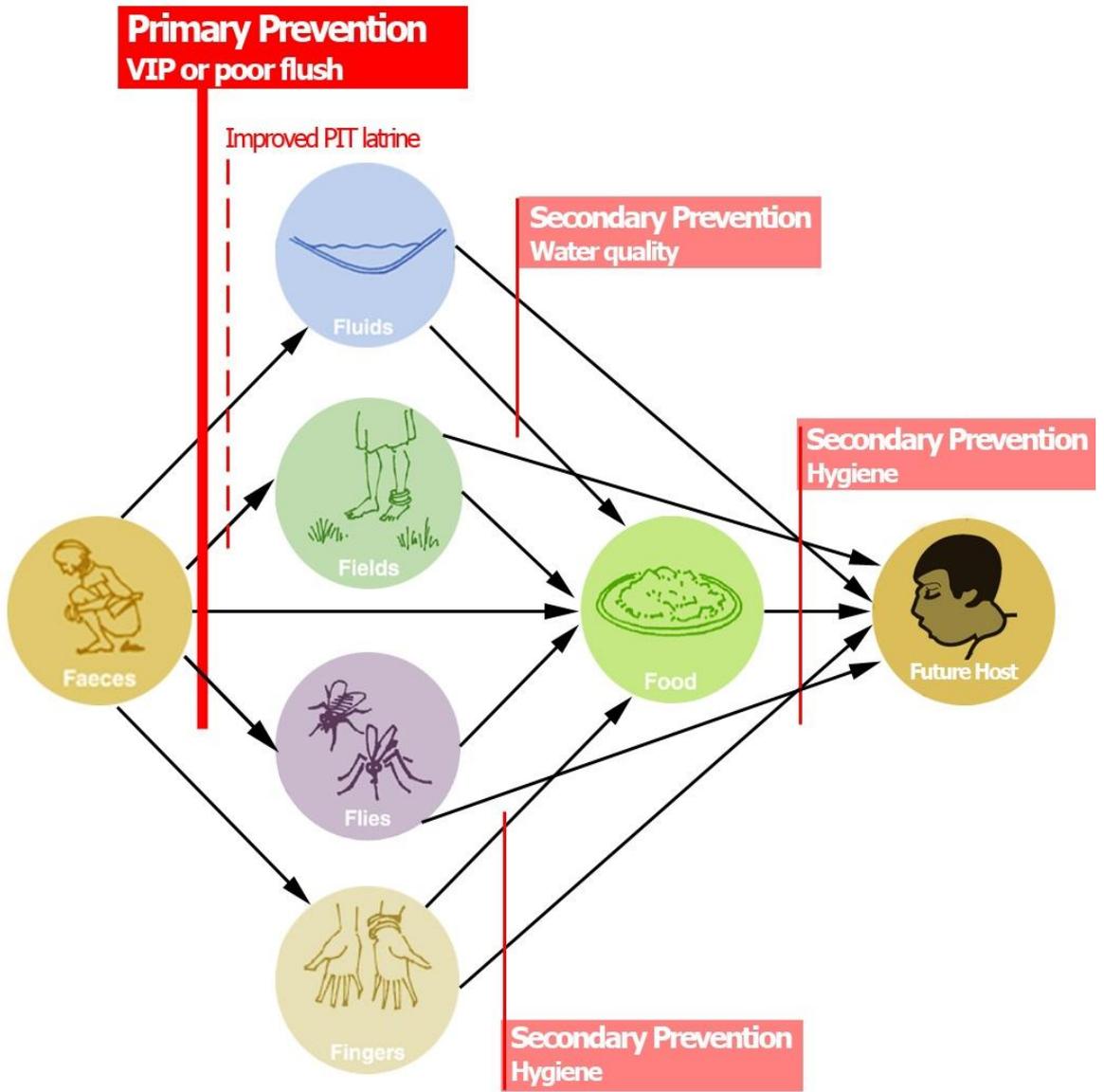
Open the discussion and let people add suggestions. Push the group to come up with as many different ways as possible

Continue through the "F's" and call on different groups and different participants around

### Trainer Notes

Make sure you tell participants not to worry about memorizing the information they are learning right now. It is more important that they understand how to think theoretically and logically about these topics. Then when they return to their communities, they can use the *Service Provider's Handbook* for all of their reference needs.

Basically, they do not have to memorize all this material, but should know where to find it in their notes and *Handbook* for future reference.



## 5. Impact of Inadequate or Inappropriate Sanitation Systems

Process

Time (mins)

<b>Step 1</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>10</b>
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So now we know why we need adequate and appropriate sanitation because of the various F-transmission routes. But now we must consider, what happens if we are not careful about the faecal-oral transmission routes? In this session we will discuss sanitation-related diseases that have an impact on our health. Incidence, transmission and prevention of the most critical sanitation-related diseases in the local environment need to be addressed, including skin and eye infections, worm infestations, diarrhoea, and other locally specific diseases.

<b>Step 4.1</b>	<b>Morbidity and mortality</b>	<b>15</b>
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This section should not be technical, the notes are provided here for reference and discussion sake only. Participants should not be overwhelmed with a lot of technical information about all the diseases but should realize how many diseases are associated with the oral-faecal routes.

**Table 1.1: Common Pathogens in Faeces and Resultant Morbidity (Humphrey 2009, WHO 2003, CDC 2009, WHO 2009)**

Picture	Classification	Casual Agent	Morbidity
	Bacteria	<i>Campylobacter</i>	diarrhoea
		<i>Chlamydia trachomatis</i>	Trachoma (blindness)
		<i>Escher coli</i>	Gastroenteritis, Tropical Enteropathy
		<i>Salmonella typhi</i>	Typhoid fever
		<i>Vibrio cholerae</i>	cholera
	Helminth	Ascariasis	Malnutrition, obstruction
		Schistosomiasis	Anaemia, malnutrition
	Protozoa	<i>Cryptosporidium parvum</i>	gastroenteritis
		<i>Entamoeba histolytica</i>	Amoebic dysentery
		<i>Giardia lamblia</i>	giardiasis
	Virus	Adenovirus	Respiratory illness, gastroenteritis
		Hepatitis A	Jaundice, diarrhoea
		Poliovirus	poliomyelitis
		Rotavirus	Severe diarrhoea in children

## Trainer Notes

Understanding microscopic organisms is extremely difficult, especially without the aid of a microscope. You need to work to make this section (like in chapter 2) more tangible!



### Activity

 20 mins

TBD- if not done previously, the rice kernel chessboard counting activity; otherwise, a worm-related activity would also be good



### Step 4.1.1 Body diseases (limited focus, already MUCH publicity in Bihar)

5

#### Polio

*What is it?* A disease caused by a virus

*How do we get it?* Polio is mainly spread through human faeces so it is common in areas that do not practice safe, adequate sanitation (i.e. communities with open defecation)

*Effect on health:* Polio infection can damage the nervous system and cause paralysis (inability to move), particularly in the legs

*Prevention:* can be prevented through community-wide, adequate sanitation. Also, ensure all people are vaccinated for Polio

*What else you can do?* There is no cure, but there are different treatment options. If you think a child in your community has polio, immediately take him/her to the PHC. Also, since Polio is easy to prevent, you should focus on teaching community members about the benefits of sanitation (especially those who do not allow you to vaccinate their child).

### Step 4.1.2 Skin and eye diseases (limited focus, more in hygiene)

10

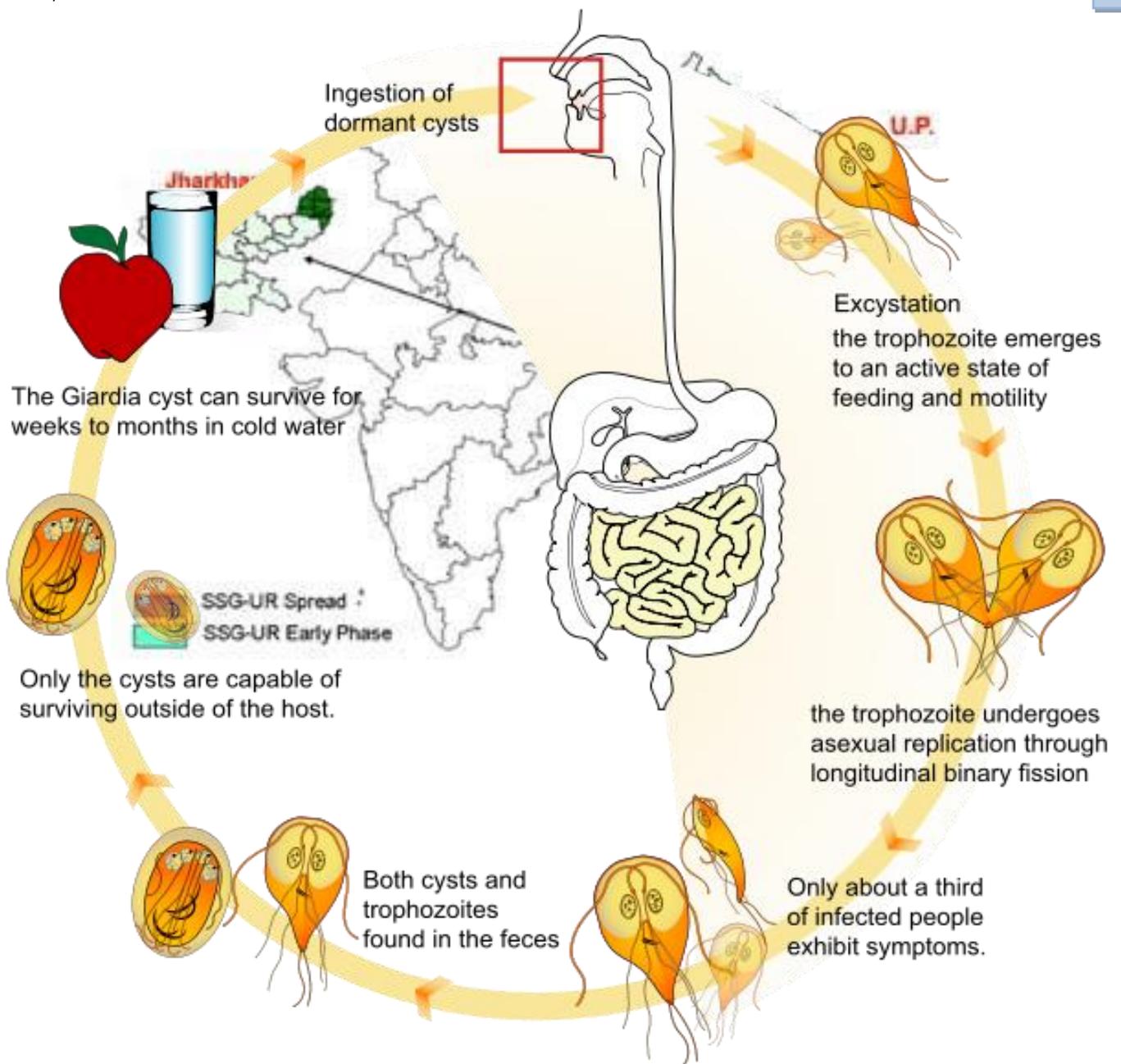
#### Kala Azar

*What is it?* A disease caused by the bite of a sand fly

*How do we get it?* Kala Azar is common in rural areas because of the high presence of animal dung in the community where people live. Sand flies land in the cow dung, then land on people and bite them.

*Effect on health:* The infection causes skin sores but other consequences, which can manifest anywhere from a few months to years after infection, include fever, damage to the spleen and liver, and anaemia.

*Prevention:* can be prevented through washing and bathing, and keeping clean, clearing of cow dung. *What else you can do?* Community awareness of the symptoms of Kala-Azar and when to seek treatment



**Step 4.1.3 Worm infestation (strong focus) 10**

There are many different types of worms that can enter your body and make you sick. Most often, it is children who get infected with worms. We will talk about the most common worm and protozoa infestation

First, let us begin by setting the record straight! There is much confusion and misunderstanding in our communities and amongst our service providers about diarrhoea. The first point to make is that diarrhoea is NOT a specific disease. We are going to talk about it under diseases and death because diarrhoea is a very important **symptom** of many different diseases and is one of the leading causes of death in Bihar.

Diseases that cause diarrhoea are the most deadly, and are caused by more than 100 different bacteria, protozoa, worms or viruses. These are spread through the “f-diagram” (ask class to restate faecal-oral transmission routes)

### Trainer Notes

When teaching diarrhoea, reiterate how humans were created so that our urine and faeces come out separately. Therefore, when a person has diarrhoea, we know that the bacteria, viruses, protozoa or worms inside their bodies are making things not work properly. As we know, the water that should either stay in the body or be a part of urine only. If it is coming out in the faeces instead, this is a sign we are sick.

If someone in the community says this to you, acknowledge that diarrhoea is too common now, but that it doesn't have to be that way! Let us instead talk about the ways it is bad for our health and our lives.

- Diarrhoea is an inconvenience. When you have to go poop so many times in a day, it makes work difficult, makes you have to stay close to home or a toilet, etc.
- Mention what happens to crops when they don't get enough water. You would never allow your crops to go without water because they could wither and die. When a person has diarrhoea, it is the same concept. You are not able to get enough water to your body and you can potentially hurt yourself.

Build on watery faeces being diarrhoea- NOT dehydration! If you wait to see dehydration results, the child or person is already very sick! Dehydration is a symptom of the result of the sickness!!!!!! Diarrhoea itself is not a disease; rather it is a symptom of many diseases.



### Activity~ Recite exercise with the class

**Question:** “What is diarrhoea?”

**Answer:** “Watery poop!”

**Question:** “Is it normal?”

**Answer:** “NO!”

Although anyone can be affected by diarrhoea, we will focus now on infants and children because they are more likely than adults to suffer from diarrhoea and more like to die.

### Special focus: infants

Service providers often have to deal with cases of diarrhoea associated with lack of breastfeeding, but then it is often too late to re-establish breastfeeding. By promoting exclusive breastfeeding during the first months of life, health workers can help to discourage early supplementation and use of bottles.

In ORT, bottles should not be used; spoon feeding of ORS should be the only method so that

mothers will not think that bottles are endorsed by the medical community. Service providers can also use this opportunity to encourage mothers to continue breastfeeding at home, and to use spoons rather than bottles for giving ORS. Ensure that breastfeeding mothers are not separated from their infants.

## The right start

Encouraging breastfeeding instead of bottle-feeding can help to prevent diarrhoea. CDD programmes can promote breastfeeding by training health professionals and improving hospital practices.

Education about diarrhoea management should stress the role of breastfeeding, both in preventing diarrhoea, and as a component in ORT and feeding during and after diarrhoea. Breast milk helps protect infants against diarrhoea; it can be an important food source after the first six months of life.

Teaching health workers about the advantages of breastfeeding, and how to help mothers breastfeed, has been productive. Although many programmes have emphasised the benefits of breastfeeding, they have not been aware of the need to include techniques to help mothers to breastfeed - an equally, if not more, important part of training. It is important: to encourage proper positioning of the infant at the breast; to help the mother in cases where the infant does not want to suck or sucks with difficulty; to advise on how to prevent engorgement, infection, and other breastfeeding problems.



### Special Focus: children

Why are children so affected?

- lack of immunity
- increased exposure to pathogens
  - playing in fields
  - putting dirty fingers in their mouths
  - putting objects on the floor and things they find into their mouths
  - are not careful like adults

Rotavirus – one of the most common causes of diarrhoea, especially during late fall and winter months. It causes very foul smelling, watery, green or brown diarrhoea that can persist for weeks. Fever and vomiting are common at the onset of the illness.

The diarrhoea itself is highly contagious so you as the mother and caretaker need to be extra careful to practice proper hygiene (as you will learn in chapter 4) and to ALWAYS dispose of the faeces properly. Also, do not reuse any cloths that have faeces on them. Instead wash immediately with soap and properly allow drying in sun before reuse.

Children can become dehydrated more quickly so it is important to catch diarrhoea as soon as the first loose-motion and react with proper treatment. If not, diarrhoea is also a major cause of child malnutrition and even death.

Diarrhoea causes the rapid depletion of water and sodium in the sufferer. If these are not replaced quickly, the body starts to become dehydrated and the body's salt balance is severely damaged. If more than 10% of the body's fluid is lost the sufferer dies. Children who are malnourished suffer the most, becoming even weaker and more malnourished as diarrhoea progresses.

All of the diseases which cause diarrhoea can be stopped by the same preventative methods, so if the three most deadly were eliminated the others would be too.

Emphasize that during flood, for example, there may be higher incidence of diarrhoea, and you can recognize this if you are keeping track of what is going on in your community, also, this can help you SOTP the spread.....

Before we talk about treatments for diarrhoea, we will talk about a special type of diarrhoea, dysentery, which is another word commonly used but not always understood.

#### Step 4.1.5 Dysentery

10

Inflammatory disorder of the intestine, especially of the colon, that results in severe diarrhoea containing mucus and/or blood in the faeces

**Amoebic** - Passage of mucous with stool, preceded by griping pain is common symptom.

**Bacillary** - usually stools are tinged with blood and there is high fever. The person loses his/her appetite and becomes very weak. In chronic amoebic dysentery, liver gets affected and then patient loses considerable weight.

#### Step 4.1.5.1 Methods of at-home treatment

20

If prevention methods are not employed properly, there is a danger a person can develop diarrhoea. However, diarrhoea does NOT have to be a serious illness. We all can learn to handle it quickly and properly to eliminate the need for useless and potentially harmful drugs. Do not think that once a person has diarrhoea they need to go to a hospital. You can manage the illness at home easily and for cheap, but you must do so wisely. Let us start by discussing common myths and practices in our community that we as service providers should work to stop!

Preventive Measures:

- Giving freshly prepared foods, prepared hygienically, and clean drinking water;
- Many episodes of diarrhoea are triggered by ingesting contaminated food or water; hence avoid contaminated food and water.
- Avoid eating raw or undercooked meat and seafood.
- Avoid eating raw fruits and vegetables unless the washing it properly
- Avoid eating foods or drinking beverages purchased from street vendors or other establishments where unhygienic conditions are present.
- For any child with diarrhoea, remember to educate the family members about prevention, home treatment, adequate nutrition and the need to return if child does not get better.
- Giving only breast milk for the first 6 months and continuing to breastfeed for at least 2 years;
- Giving nutritious complementary foods at 6 months;
- Giving milk and other fluids by cup instead of feeding bottle.
- Having the child fully immunized at the recommended age.
- Having all family members' wash hands after passing stools and before preparing or eating food;
- Having all family members use a latrine;
- Putting a young child's stools in a latrine or burying them;
- Try to eliminate any food allergies or sensitivities as a cause of diarrhoea.
- Common allergens include citrus fruits, wheat, sugar, and dairy products.

## 8 What NOT to do

Medicine can help us, but only if used properly. Therefore, do not take false hope and spend so much money looking for a “quick cure” through medicine. We will discuss later cheap and easy things you can do yourself that can make you feel better when you are sick!

### 8 Avoid self-medication

Some people buy drugs for illnesses without information. Some people use medicines lying in the house for illnesses. This can be unsafe. Do not take unnecessary medicine and do not overuse medicines. Especially be careful when the chemist tell you if you are sick to just take an antibiotic. We learned previously that not only bacteria, but viruses, and worms can make us sick. SO if you keep taking medicine to kill bacteria but you are not sick from that, it is very dangerous.

**REMEMBER-** do not give antibiotics because you cannot be sure what organism has caused the illness!!!

Make sure you teach the community the dangers of going to the chemist and buying medicine that they don't know how to use!

Use a real life example, perhaps cooking if you are speaking to women such as if you put too much salt in the *subzi* you are making you are not going to add more *haldi* to fix this. Same goes in our bodies! If you have a virus which is making you sick, you cannot take an antibiotic because it will not do anything to stop the virus. Even worse, like the *haldi*, you may create a different problem all together!



## 8 Tonics

Tonic bottles are very popular in Bihar. Many healers prescribe and patients ask for tonics. Tonics are NOT necessary, they so NOT give us strength as promised! No medicine book prescribes tonics. Tonics are just water, sugar, and some vitamins and some minerals. The cost is often very high which patients in our communities cannot afford. In the same cost one can take an egg daily or a glass of milk for a full month. **This is a much better buy for the money.** Tonics also create a false sense of cure. Many parents want their doctors to prescribe tonics for their children. You need to educate people on the futility and costs of tonics. It will save peoples' money being wasted. It will also help them in improving their diet.

## 8 Injections and saline

Injections and saline are necessary only in some situations. Injections and saline used in clinics are not so often necessary. Frequently injection and saline are given for profit and not for cure. False beliefs about injections and saline are rife. We become poorer by paying the hard earned money for many needless injections and saline. We can save these expenses with help of simple remedies and raising health awareness. But peoples' attitudes take time and efforts to change. Patients are being charged anything like 50 Rs more for one bottle. It is just water and salt and some sugar. If we prepare and drink at home it, the cost is just fifty paisa. Its effect by mouth is also equal to saline. Some patients insist on injections and bottles and doctors also are driven by profit motives. You can educate people about utility/futility of injections and bottles.

## 4 What you CAN do

**Mild diarrhoea** – defined as 2 – 4 loose stools in a 24-hour period.

- BRATY diet – this is an age old, time-tested
  - Bananas
  - Rice or rice cereal
  - Apple sauce
  - Toast, unbuttered
  - Yogurt

Cereal may also be used to replace lost fluids. Offer 0.5 cups (118.3 ml) to 1 cup (236.6 ml) of the cereal mixture after each diarrhoea stool.

Give your child frequent small meals, at least 6 a day, while he or she is having diarrhoea.

- The best foods for your child are easily digestible foods, such as rice cereal, breads, cooked beans, mashed potatoes, cooked carrots, and bananas.
- Salty crackers can help your child replace the salt lost from diarrhoea.
- Foods containing large amounts of sugar or fat should be avoided.

**Moderate diarrhoea** – defined as 4 – 8 loose or watery stools per day, but child is generally not acting sick.

- BRATY diet, but only very small amounts
- White grape juice, oral electrolyte solution

**Severe diarrhoea** – defined as 10 or looser, watery, foul stools and child is acting sick. Consult doctor.

To prevent too much liquid being lost from the child's body, an effective oral rehydration solution (ORS) can be made using ingredients found in almost every household. One of these drinks should be given to the child every time a watery stool is passed.

### Activity~ Recite exercise with the class



**Question:** "How can we prevent death from diarrhoea?"

**Answer:** "Everyone in the community, especially mothers, need to know about ORT"

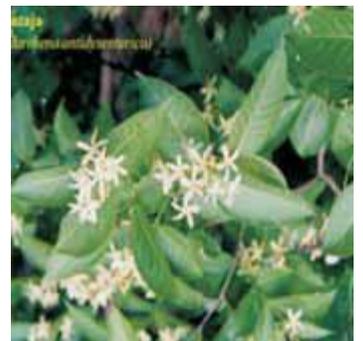
**Question:** "How can we teach them?"

**Answer:** "Clear demonstrations and practical experience are the best way."

Dysentery is managed initially just like any other form of diarrhoea. Therefore intake plenty of clean fluids such as water, fruit juice, coconut water and take ORS as the best method of treatment.

#### 4 Kuda (*Holerrhena antidysenterica*)

This is a forest tree with typical fruits. The fruit is black in colour when fully ripe. The fruit is like thin double drumstick but in twins. The bark or cover of the tree-stem is used for medicine. This is a good medicine for loose motions and dysentery. You can simply grind a piece of bark and mix with a spoon of honey and give as medicine. Kadha (Kawatha) also is useful. For this take a 10 gm (2 teaspoon full) of bark powder, add one glass (200 ml) of water and boil. Boil it till ¼ water remains. Cool and bottle it. For an adult 20 ml kadha (Kawatha) for 3 times a day is useful to stop dysentery.



## Activity~ making ORS

 20 mins

Measuring the correct amount of fluid to mix up ORS can be difficult. Additionally, practicing the proper hygiene practices before, during and after a mother makes the ORS also needs practice. Therefore, when you teach this in the community, train mothers on all parts, especially measuring proper amounts of each component to make the ORS. Practice the steps with her properly, all the way from beginning to end. Do not feel embarrassed to be doing this, it may seem like common sense but it is difficult to do if you have never practiced and give oral rehydration solution,

When you do this with a mother one-on-one or with a group of people in the community, it will take longer, so make sure you give yourself at least 30 minutes to complete this properly.

See detailed notes and IEC materials in *Part 3: Resource Materials*



Ideally these drinks (preferably those that have been boiled) should contain:

- starches and/or sugars as a source of glucose and energy,
- some sodium and
- Preferably some potassium.

The following traditional remedies make highly effective oral rehydration solutions and are suitable drinks to prevent a child from losing too much liquid during diarrhoea:

**What to eat.** Rule of thumb for G.I. upsets: eat half as much twice as often. Offer food and fluids more frequently but in smaller amounts. Try sips and chips: frequent sipping and white grape juice, or Popsicles made with oral electrolyte solution. Suck on these all day long.

- Apple juice, pear juice and cherry juice – the high sugar content of these juices can worsen diarrhoea. White grape juice is a good alternative.

- **Breast milk**
- **Gruels** (diluted mixtures of cooked cereals and water)
- **Carrot Soup**
- **Rice water - congee**

A very suitable and effective **simple solution** for rehydrating a child can also be made by using salt and sugar, if these ingredients are available.

If possible, add ½ cup **orange juice** or some mashed **banana** to improve the taste and provide some **potassium**.

Molasses and other forms of raw sugar can be used instead of white sugar, and these contain more potassium than white sugar.

If none of these drinks is available, other alternatives are:

- **Fresh fruit juice**
- **Weak tea**
- **Green coconut water**

If nothing else is available, give

- Water from the cleanest possible source (if possible brought to the boil and then cooled)

**Proper therapy for diarrhoea is practised on a routine basis.**

- Mothers stay with their children to give ORT and continue breastfeeding
- Mothers are taught how to give ORT, continue ORT at home, feed during and after diarrhoea, and recognise the signs indicating that a child should be brought back to a health worker. They are given other relevant health education messages on prevention of diarrhoea
- ORT is used appropriately; intravenous therapy is not used when ORT would be effective
- Antibiotics are used only as needed; anti-diarrhoeal drugs are never used

### Trainer Notes

What example can the class think of to relate to men when speaking and educating about this topic?



#### Step 4.1.5.2

#### When to consult a health professional

20

First, never forget, **BLOODY DIARRHEA REQUIRES IMMEDIATE MEDICAL ATTENTION.**

It is not possible to treat bloody diarrhoea at home, advise the person, or take him/her yourself to the Primary Health centre immediately! Assure the person that he/she will be OK with simple, non-painful treatment that can be given at the PHC. They will need treatment that only a doctor can provide

If this treatment cannot be adequately maintained due to vomiting or the profuseness of diarrhoea, hospital admission may be required for intravenous fluid replacement.

**Doctors, nurses and other staff members should use the same diarrhoea treatment methods.**

Diarrhoea cases are assessed to:

- determine the extent of dehydration
- identify other problems (e. g. dysentery, fever, severe malnutrition), complications (e.g. paralytic ileus), or associated diseases (e. g. measles)
- Identify other diseases (e. g. meningitis) that may require treatment elsewhere.

Decide which cases need to be sent to the ORT area or diarrhoea ward.

Teach each mother management of diarrhoea at home (fluids, food and signs that indicate a child should be brought to a health worker), and educate her about prevention of diarrhoea.

- Note: *If it is the policy to give ORS packets to mothers, service providers should demonstrate and teach mothers how to mix and give ORS.*

Before the child is discharged from the diarrhoea ward, be sure that the mother is taught how to continue caring for her child at home and the signs that indicate she should bring her child back. Tell the mother that if her child starts passing many watery stools, has frequent vomiting, becomes very thirsty, does not eat and drink normally, develops blood in faeces, or seems not to be getting better; she should bring him or her back. Also explain what she can do to prevent and treat diarrhoea.

### Activity- testing for dehydration

 10 mins

When your body does not have enough water, there will be physical signs you can see and other aspects you can touch and feel. Have the class try this out on themselves

- Pinch your own skin, how does it feel.
- Close your mouth and move your tongue around. How does the inside of your mouth feel?
- What happens when you lick your lips?
- Close your eyes and move your eyeballs around. How does it feel?

All of these interactions should be smooth if you are properly hydrated. In your mouth especially, you should be able to feel saliva.

Finally, diarrhoea can be caused by so many different organisms, and usually, it is not necessary to know the cause because it can be easily treated properly at home like we discussed.

However, it can sometimes be useful to discover the cause of the diarrhoea - especially if the spread of the disease is to be prevented. However, it can sometimes be useful to discover the cause of the diarrhoea - especially if the spread of the disease is to be prevented. We will talk about this in the next section. The quickest way to find out about the type of germs causing diarrhoea is to use simple, low technology laboratory techniques. But this is only possible if trained staff are available as part of a local primary health care team.

On an ongoing basis, you should discuss with the doctors at the PHC about problems you see in the communities you work with. Inform them about unusual health problems in your communities as soon as you see them. That is the most important step to preventing the spread of disease and death.

### Trainer Notes

Make sure you tell participants not to worry about memorizing the information they are learning right now. It is more important that they understand how to think theoretically and logically about these topics. Then when they return to their communities, they can use the *Service Provider's Handbook* for all of their reference needs.

Basically, they do not have to memorize all this material, but should know where to find it in their notes and *Handbook* for future reference.

#### Step 4.1.6 Social and cultural factors

10

We spoke earlier about "appropriate" sanitation which included many diverse issues which are all important bases for health (dignity, privacy, respect). So we now know what happens when we cannot access an adequate sanitation system, but what is the result when we are unable to access an appropriate sanitation system?

**Children**

Children are a special group because they require sanitation in a number of areas in order for them to grow healthy and happy. First, like the rest of the family, children need access to sanitation at home, but it has to be appropriate for children. Certain technologies (user interfaces) will not be adequate for At home at schools

**Handicap**

Need to be able to easily access sanitation and hand washing facilities

**Women**

Privacy is important; close to the house incase of childcare responsibilities

**Step 4.1.7      Water safety and quality      10**

As we discussed yesterday, when faeces gets into rivers, on our hands and feet, and especially on flies, the bacteria, viruses, worms, and protozoa spread all over too. Not only are all of these bad germs able to survive in water, they can also grow rapidly in water and contaminate everything!

Think of when you put salt in a glass of water. It will disappear and you cannot see it, but it will make the entire glass of water salty.

## 6. Environmental Sanitation

**Objectives:**

- Know that an environment (home, AWCs and community) where waste is disposed of safely is important for their health
- Know what type of waste materials, apart from human excreta, are harmful at home, school and in the community
- Know the safest practices for waste management related to the specific conditions at home, school and the community
- Know how to assist in keeping the environment free of solid and liquid waste
- Know the risks of the disposal of different kind of rubbish (e.g. glass, organic materials, waste water) at unspecified places at home, in the school compound

**Process**

Time (mins)

**Step 5      Introduction and Session Overview      10**  
Share the objectives for the session

First, please remember, if we learn to reuse things, we would have less trash to begin with. Additionally, if we buy less packaged things that create trash, we can prevent making trash in the first place also!

So what is trash? Where does it come from? What is the best way to handle it so it our communities are not surrounded and covered by trash!!!!

**Step 5.1 Solid Waste management****20**

Not everything we throw away has to become "trash." Just like what we talked about with faeces, if certain types of trash are handled and treated properly, they can become harmless and even beneficial for our communities!

**Trash Burning- Dangerous and unnecessary!**

Many of you may have seen trash being burned in the communities you work in. This practice is harmful to humans, the environment, and completely unnecessary! Instead let us learn about segregating our solid waste so we can learn about different types of trash and then, why it is NOT trash, but can actually be reused or recycled!

Since there are different types of trash, we can easily separate our trash and then handle the 2 piles properly.

**Step 5.1.1 Organic****20**

Can breakdown and eventually turn into harmless or even beneficial product.  
Composting techniques

**Step 5.1.2 Inorganic****20**

Cannot break down quickly or easily, may release harmful chemicals and pollutants into our environment

**Step 5.1.2.1 Recyclables****20****Plastic**

Often in our communities, we see the same types of trash piled up EVERYWHERE. One such type is Plastic. How can you avoid using plastic?

**Reusable bags**

What is an easy way for us to cut down on trash in our community? What is an easy way for us to save shopkeepers money, and if we are shop owners to save ourselves money? Make it a habit to bring your own, reusable bags with you for shopping. It can be made of Jute, cloth, whatever you prefer. If you must use a plastic bag, do not knot the handles so you can reuse the bag over and over again. Plastic bags rarely get dirty, so why should we only use them once?

**Glass (bottles)**

Recycle what you can to earn money for your community and to keep it clean. Be careful when doing this however. Broken glass can cause serious cuts, loss of blood and infected wounds. The house and play area should be kept free of broken glass. Dispose of any broken glass safely.

## Newspaper and other types of paper

### Activity~ making Bags out of recycled paper

 20 mins

Earlier we talked about not using plastic bags. But if we want to have some readymade bags in our shops, what can we provide people that will not hurt our environment and communities? Try these simple designs of making bags out of newspaper!

Pitch this project to SHGs in your community. It's a great way for them to make money and work with you to keep the community clean and responsible!



### Step 5.2 Safe disposal or reuse of wastewater

20

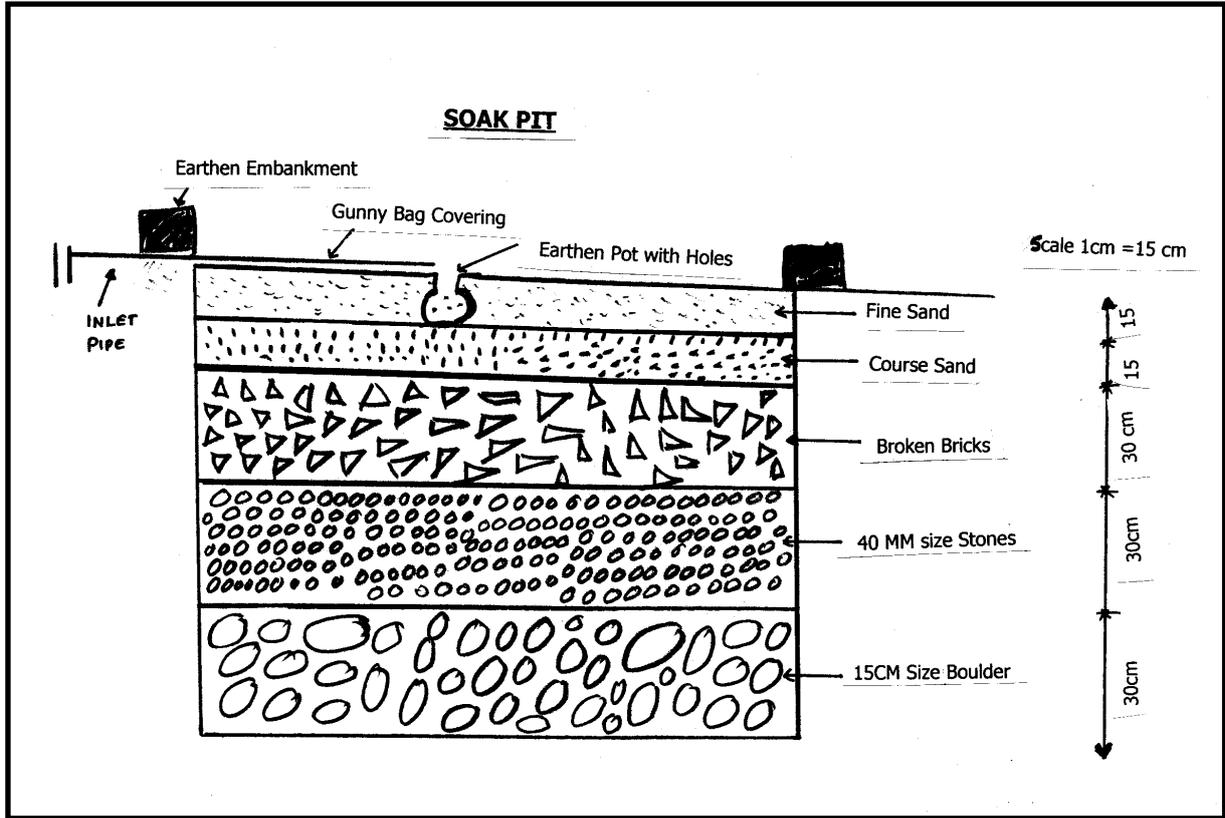
Waste water, if handled properly does not have to be a health hazard but can even be an asset! We can put the wastewater to good use and avoid creating standing water which breeds mosquitoes.

#### A Kitchen garden

Kitchen garden is a way to use wastewater to produce vegetables for ourselves. The plants use up the water and we get fresh vegetables at no extra cost. What we need is only some place to do this. The vegetables we can grow are: fenugreek, spinach, *dhaniya*, carrots, tomatoes, gourds, lentils etc. We can have about 20 varieties of vegetables. We should also grow commonly available medicinal herbs such as *Tulsi*, *Kumari*, *Podina* etc. along with vegetables for use of common ailments. If we have more waste water, perennial trees, fruits and plants like drumstick, mango, guava, lime, papaya and banana Most people like fruits and we certainly need them for vitamins and minerals.

If kitchen garden is not possible we can dispose wastewater through a Soak pits.

**Soak pit** must be used to avoid pools of water, particularly in the streets and common pathways. We can construct a soak pit near our house and around public places. This will absorb so much water without forming a pool. This will avoid breeding places for mosquitoes. Dig a pit of 1.5 meter length, breadth and depth. At the bottom put loose stones and brickbats. After filling 1/3 of the pit put smaller half size brickbats. Fill 1/3 of the pit thus. Fill the top third of the pit even smaller brickbats.



We need to avoid rain water from entering the pit. For this raise its borders by 10 centimetres above the ground level. Fill it with dry grass or coconut coir on top. Better put a used earthen pot at top, with hole in bottom.

This helps in straining. Connect the wastewater into this pot by using a pipe. Cover entire area with coir. The coir works like a filter. Clean or change the coir every month. You can learn and teach people by demonstrating a soak pit construction. You may also get more information from Panchayat. Explain people about nuisance of waste water. Motivate people to develop kitchen garden in their houses.

Discuss this issue in the village planning meeting. People can help each other in constructing soak pits.

**Step 5.3 Animal faeces management 20**

We spoke earlier about how Kala-Azar, a disease occurring in parts of Bihar, spreads in our communities because of a fly that sits in cow dung and then lands on our bodies and bites us. There is good news for those of us who live in areas where so many of our community members have Kala Azar- this disease is easy to prevent!

Due to bad sanitation and waste left uncollected in streets, allowing parasite-spreading sand flies an environment they find favourable

## 7. Conclusion and Evaluation

### Activity~ Sanitation behaviours three pile sorting 20 mins

Can be done as group work with end of group work report-out to class or as a class together.

Show 20 pictures that illustrate a mixture of good and bad sanitation practices that are relevant to the community. Participants are told to sort the pictures into categories ranging from very common to uncommon and bad to good.

The group then discusses the common good and bad practices to establish why they are good or bad, why people practice good behaviours, what prevents people changing bad practices, which practices the community should change, what should happen next and how, when and by whom these changes should be made.

Individual groups should report out to the entire class at the end.

Allow for pro con discussion and open communication. There are NO right or wrong answers, rather we want to understand where the community is coming from in the way they behave and what we can do to change this given the knowledge we have on safety and wellbeing improvement.

#### Optional end of chapter post-test

Remember, with any pre or post test, if illiteracy is an issue in the class, the questions may be answered orally and the consensus answers recorded by the trainer (or a volunteer from the class) on flipcharts.



#### Trainer Notes

In the end, administer and collect the **Chapter Evaluation** (located in *Part 2: Service Provider's Handbook*)

## Chapter 4

### HYGIENE

#### Chapter Outline

**Time:** 6 and ¾ hours

**Resources:**

- "F-Diagram" Flip chart or poster
- Markers
- "How Do We Wash Our Hands" poster

**Objectives:** After completing this chapter, it is expected that service providers will

**Knowledge**

- Can describe/ demonstrate how to take care of the hygiene of different parts of their body (hands, face, bottom, feet)

**Attitudes**

- Appreciate solid waste management...
- Feel responsible for the cleanliness of their own body, hair, teeth and nails
- Understand the need to integrate hygiene across gender roles

**Life Skills**

- Are able to communicate respectfully to those not handling food and water safely, but refuse to buy from food vendors not utilizing hygienic food handling
- Become comfortable talking to others about littering
- Are able to wash their hands and face correctly and at critical times

**Hands-on Skills**

- Can mention ways to practice good hygiene in hardship situations (e.g. little water, no soap)
- Able to demonstrate organic composting and inorganic recycling

#### Trainer Introduction

Hygiene is both a fun chapter and a nice way to end the WaSH workshop by combining the points made in water and sanitation. Ensure you do not let participants "off easy" in this section by glossing over what seems to be common sense points on hygiene.

The unfortunate thing seen in many communities in Bihar is that many hygiene points have been taken for granted, and therefore, the community is never taught the proper way to practice behaviours to keep themselves disease free. Do not assume that participants and in turn the community already know proper bathing methods, anal cleaning methods, household cleaning methods, etc. This is a chance for us to learn, or re-learn the proper hygiene practices that will not only make our bodies, our houses, and our community aesthetically (visibly) clean, but also free of infection risk which is our top priority!

Let us change hygiene behaviours to ensure our community's good health!

## Introduction and Chapter Overview

### Objectives:

- Assess participants' expectations of Chapter 4

### Process

Time (mins)

<b>Step 1</b>	<b>Introduction and Chapter Overview</b> (facilitate review of the previous day's sessions if necessary) <b>Share the objectives for the Chapter</b>	<b>15</b>
Note	If chapter taught as independent workshop, begin with icebreakers from Opening Session	

Hygiene, this is the subject we all love! Who does not want to smell good, look nice, and be more attractive? Hygiene is also a subject that probably all of us think we already know. However, as we will learn, there is so much more to hygiene that is more important than our looks. In this chapter, we will learn the health aspects of hygiene and how hygiene affects our lives from everything to our nutrition intake to our social life, to the ability for our communities to progress!

## CHAPTER OVERVIEW

Session		Time (mins)
	Introduction and Chapter Overview	15
1	What is Hygiene	90
2	Importance of Hand Washing	60
3	Menstrual Hygiene	30
4	Maintenance of Water Sources	30
5	Toilet Demand Creation and Maintenance	30
6	School and Anganwadi Centre Hygiene	30
7.	Diarrhoeal Management	60
	Conclusion and Evaluation	45

<b>Step 2</b>	<b>Pre-test</b> (optional, located in <i>Part 2: Service Provider's Handbook</i> ) Or proceed to Session 1	<b>10</b>
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Remember, with any pre or post test, if illiteracy is an issue in the class, the questions may be answered orally and the consensus answers recorded by the trainer (or a volunteer from the class) on flipcharts.



# 1. What is Hygiene

## Objectives:

- Appreciate the inter-relatedness of water, sanitation, and hygiene
- Become aware of hygiene and hygiene related issues in our communities
- Be able to identify and explain the different aspects of personal hygiene and why it is so important
  
- Be capable of practicing all the different hygiene aspects on a regular basis
- Be able to teach and practice ways to maintain good hygiene in hardship situations (e.g. little water, no soap)

## Process

Time  
(mins)

<b>Step 1</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>10</b>
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**Hygiene-** The many practices that assist in keeping oneself and one's environment clean and free of infection risk

Although we must learn to prioritize hygiene for good health and not aesthetics, in our lives, there will be times when we do not have the resources we need to practice good hygiene. **Therefore, we will also learn about ways of maintaining good hygiene practices in the difficult conditions of real life.**

<b>Step 1.1</b>	<b>Relation of hygiene to water and sanitation</b>	<b>10</b>
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Begin with Bihar statistics on WaSH related morbidity and mortality; estimates if available of high cost of diseases.

Without clean water, we cannot practice proper hygiene. Without adequate and appropriate sanitation, we cannot ensure clean water. Without hygiene, we cannot ensure the water we drink stays clean. Can you list more examples of how each of the three subjects are related?

Allow the class to offer examples, as specific as possible, for about 5 minutes.

Summarize the points as follows “Each one of these on its own is ineffective. **Without all three pieces to the BIG puzzle, water AND sanitation AND hygiene, we cannot ensure disease prevention for sustained health.**”

Hygiene is a way to practice the good water and sanitation aspects we have already learned. By doing so, we will prevent disease and increase health.



### Trainer Notes



Life skills to practise with WaSH work in the community are

- **empathy** (being able to put yourself in another person's position (i.e. imagine being that person),
- **respect** and
- Giving and receiving constructive **criticism** (feedback)

It is crucial that service providers do not blame, ridicule or otherwise stigmatise community members with lesser hygiene and that they prevent other people from doing so also. Poor hygiene is often related to poverty since people may lack the means for hygiene (i.e. do not have toilet, cannot afford soap), and the nature of the person's work, (i.e. working with cattle and in the fields). Addressing such aspects with understanding, tact and kindness, without embarrassing the person demands sensitivity and skills in handling delicate issues.

### Activity~ Recite exercise with the class



**Question:** How can we prevent disease and increase health and nutrition?

**Answer:** To practice good water, sanitation and hygiene skills

**Question:** “And how can we do this in our communities?”

**Answer:** “**BEHAVIOR CHANGE!**”

#### Step 1.2 Personal hygiene practices

10

We will now discuss personal hygiene practices. Take a second to think about this. What are all the different parts of your body that you have to keep clean and germ-free so that you stay healthy?

Allow the class to answer briefly, then state “Our bodies are so complex it takes many different practices to keep ourselves clean and healthy” and jump into the sections.

#### Trainer Notes

Do not approach these topics as if it is “common sense.” You must understand that depending on socioeconomic factors, some people have never been properly taught these basic hygiene methods. Therefore, what you think of as common sense may not be so for these service providers, and same goes for the community members they serve. Carefully and sensitively approach each topic so that you are not babying or belittling the class, but that you also are proving all the important information in a systematic manner. If you can be open, honest and respectful of them, they can learn to do so in the community with the people they work with also.

#### Step 1.2.1 Bathing

10

Did you know that skin is our body's largest organ! It covers us literally head to toe and protects all the precious body parts inside that we need to keep free of bacteria, viruses and other germs. This is only possible because of how excellent our skin is. When we get cut, skin can heal; skin is stretchy so that we can bend and twist our arms and legs; skin is soft so we like the feel of it; when we get hot skin sweats to cool us down; skin gives us eyelids to protect our sensitive eyes.... There are so many aspects of skin that it may be considered the most flexible and all-encompassing part of our body!

Wow, what amazing things skin can do! But that means we must also know how to take care of our skin so it is capable of doing all the things we need it to. This requires good hygiene knowledge, attitude and practice!

Our Bihari culture regards daily bath as a ritual. But what are the different things we need to do when we bathe so that our bodies stay clean and free of infection risk, inside and out?

- First, you should bathe in water sources that you know are clean. If the water you are using to wash yourself is NOT clean, then how do you expect to clean your body? Also, if the water you are using to bathe is dirty, there is risk you can get the water in your mouth, eyes, ears, nose, or other parts and that can cause many types of infections.

The summer in BIHAR is HOT! We sweat a lot, and during the rains we are often wet. This can cause many problems for our bodies!

Remember to use water properly, as it is a precious resource.

After retiring from daily work, we should wash feet, hands and face with water to remove dirt and sweat.

If it is hot, make sure you bathe your children 2 times per day. Kids get into dirty things and sweat more also so their skin needs special attention.



### Trainer Notes~ Gender Mainstreaming

Service providers need to assess how women in your community are able to bathe. Do they have privacy? Do they have to bathe with their clothes on? What are problems they feel they face when needing to bathe?

In order to fully and completely clean your body, skin, all openings, etc. you need ample water, soap, and ability to scrub and clean all parts of your body. Ensure women in your community have the things they need to practice personal hygiene. This is Not a luxury, it is their HUMAN RIGHT!

#### Step 1.2.2 Washing after defecation

10

Children, they must be taught how to properly wash their anal area after defecation. For little girls especially, they must understand that when they wash their anal area they should not wash back to front, only front to back or back separately. This is because girls can get faecal particles into their vaginal area and it can cause infection if not properly washed. Prevention is to wash yourself properly after defecation and also when bathing to gently but properly cleanse the anal and vaginal area with soap.

The proper cleaning of oneself after defecation is, for example, important to avoid urinary infections, especially in girls,

If you have used a latrine or area that is dirty (besides needing to work with the community to fix this problem) when you leave the latrine, as soon as possible, wash your feet also so you do not track the germs everywhere with you. We will learn more about toilet maintenance in the next Chapter, 3- Hygiene.

#### Step 1.2.3 Washing our scalp and combing our hair

10

Hair washing- under our hair is our scalp, which is like any other skin on our body. It has to be washed and cleaned properly or else we can get sick.

Ticks are **parasite** (adjective parasitic) an animal or plant that lives in or on another 'host' animal or plant, taking nourishment from the host without giving anything in return  
For louse, we need fine combs. Avoid using somebody else's comb as it may have louse.

Combing the hair everyday is necessary for its health.

### Trainer Notes

Just as water alone is not enough to clean your body, water alone is not enough to clean your hair. If you cannot purchase a shampoo, try to make one for yourself and your family.

Take a mixture of Shikakai, Reetha and Amla soaked in water is a simple, cheap and safe way for washing oily and sticky hair. If you have soap, you can use that. Create lather in your hands and then use the take your hands and finger to scrub and massage all parts of your scalp. Make sure to rinse out all the soap!



#### Step 1.2.4 Cleaning our mouths and teeth

10

Sometimes it is easy for us to forget that such a small part of our body has such a big impact on our health and wellbeing! We will now talk about your mouth. When we discuss the mouth we are focusing on 1) teeth, 2) gums, 3) tongue, and 4) lips. All of these parts work together for various jobs (chewing, speaking, etc.) so we must keep them all clean too!

#### Teeth and Gums

Our teeth and gums can only stay healthy if we clean them every day. Food particles collect on teeth, on the gums, and in the gaps in our mouths which leads to tooth problems and swollen gums. A few easy steps can save us the pain and trouble of teeth and gum infections.

First, after every meal, rinse your mouth thoroughly (a rough gargle with water). This will remove most food particles from sticking to teeth and gums. Just imagine what would happen to a utensil, which was used for cooking food if it was left overnight and not cleaned. All the food would dry up and get stuck on the utensil. It would also stink badly. Similarly if we don't clean our mouth after meals it will also stink.

Second, regular and proper tooth and gums brushing will remove dangerous germs from our mouths. Brushing is a cheap way to keep the teeth and gums healthy. Use a soft bristled brush that is the right size- it must fit comfortably in your mouth and be able to fit between your teeth and the inside of your cheeks. Place the brush angled to the teeth. Brush the teeth toward the gums. Brush gently so that any plaque growing under the gum will be removed. Brush the outside, the tongue side and the chewing surfaces of your teeth.

Try to Brush at least twice every day, after dinner and in the morning when you wake up. This will prevent bacteria from getting the chance to grow and rot your teeth. Change the brush if the bristles look spread. A worn out toothbrush will not clean our teeth. If you can use toothpaste, this makes brushing more effective (the same way soap makes washing your body more effective). If you cannot afford toothpaste, try to make a natural paste out of *Neem* leaves. If you have nothing, using a little bit of salt is good to scrape away the germs. Just make sure you do not swallow it because you do not need the extra salt in your system.

### Trainer Notes~ Datoun

People in the village often use datoun, which is 8-10 inch long and as thick as a finger, twig of neem, babool or Karanj etc. This practice is good. After chewing the twig a bit, the end becomes bristly. The bristles can clean gaps between teeth.

The medicinal properties of datoun keep the gums healthy. Datoun should not be used if there are any ulcers in the mouth. Gargles with lukewarm water are good for mouthwash after meals and particulars after eating sweet food



Germs can live on everything! That is why we have to be conscious about what we put in our mouths, but equally conscious what we touch to our lips. Just think how many times you unknowingly lick your lips, but what about all the germs you have let touch your lips too! Remember to never put anything that you are not sure is clean into your mouth or on your lips. That includes rubbing your lips, wiping your lips or holding things in your lips. For example, how many of us, if our hands are full, put things in our mouth to hold them?

#### Class raises hands

Well we need to stop that- it is a very dangerous practice. You can use a latrine, wash your hands, etc. But if you are putting things that are dirty in your mouth, even for a short time, you can still allow dangerous bacteria and harmful germs to enter your body!

The final part of oral hygiene you have to consider is related to different forms of tobacco. Many people in our families and communities may smoke, chew tobacco, rub snuff on their gums, or chew other *paan* mixtures. We must work to discourage use of chewing or smoking tobacco because it is extremely dangerous for your mouth and lungs. Not only are these habits very dangerous to health, but they cost lots of money. Imagine if we could use that money to do good things for ourselves and our families instead!

### Trainer Notes

Remember, you have to carefully pick and choose your argument when working in the community to convince people to change their behaviour. You must know what they think is important and try to educate from that perspective! Like smoking, for example, it may be easier to convince people to quit based on cost rather than health.



#### Step 1.2.5 Cutting feet and finger nails

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Start by saying "everyone in here raise your hands, show me your hands. OK, wiggle your fingers around, I want to see your finger nails!"

Long nails may be fashionable, but are an easy way to hide germs if not properly cleaned. Cutting nails regularly removes space for collection of dirt. Another reason to cut your finger nails is so you are not able to scratch yourself. This is important because sometimes, no matter how strong we are and how hard we try, we scratch ourselves if we have a mosquito bite or other skin infection of rash. This can lead to raw, cut skin and make it easy for us to get other infections or spread the disease.

**Step 1.2.6 Washing our clothes, footwear, bedding****10**

Our undergarments and other clothes must be clean to keep away skin infections and louse infestation. Underwear especially should be changed daily so that any bacteria from your anal area do not have a chance to infect you.

Bedding, if not kept clean and dry can be a place where bugs hide. It is good practice to wash your bedding and dry it in full sunlight routinely to ensure you are not allowing bugs to breed. The bugs that lie in bedding can bite and the itch is very bad!

Proper footwear is necessary to keep away germs and worms in the dust from getting onto your feet. Many people walk or children play barefooted in the fields. Sometimes these fields are also used for defecation. The worms present in the faeces may get entry in the body when we walk bare footed.

Some people buy shoes, only to use them during festivals or when going out to meet their friends and relatives. This is not good.

In Bihar, we take our shoes off before entering our houses. This is a good custom, but have you ever thought about WHY we do this? (Allow class to answer)

Yes, the stuff outside of our homes on the ground is very dirty. Not only is it dirty, but it can harm us through the presence of human and animal faecal germs and other germs. So our parents taught us to always remove our shoes and that is a great practice! But we need to think in the opposite way also. If shoes should not be worn in the house, then they should always be worn outside of the house to protect your feet. Otherwise, how will you take your feet off before entering your home!

Everyone, especially children, should always wear shoes when going outside their houses. Especially remember, never go to a latrine or defecation area without proper footwear. If possible, when washing hands, also wash footwear and feet after walking in an area with faeces present (i.e. after leaving a dirty latrine or open defecation field).

**Trainer Notes**

Reiterate the need for children to wear shoes since we talked yesterday, in Chapter 2 sanitation, about worms and how they enter children's bodies through their feet. Also reiterate how shoes protect us from stepping in dirty things and causing skin infections. Finally, emphasize the importance of spending on proper, comfortable footwear rather than decorative clothing or jewelery (give example of women who wear beautiful jhumer on their feet but not shoes)

### Trainer Notes~ socio cultural sensitivity

Again, do NOT treat food hygiene like common knowledge. In our communities, the burden of food hygiene falls on women, yet they are not always capable or prepared to handle this stress.

Moreover, many women may feel they have been cooking for years so they know what they are doing. You must exercise caution and communicate respectfully to those not handling food and water safely. This will make the person more receptive to what you have to say and not defensive. If they get defensive they will not want to listen to your message and you will not be able to help them CHANGE THEIR BEHAVIOUR!

The first and most important thing about food hygiene, as we talked about in the water chapter, is that we should only use safe, clean water to cook. No matter how big or small the meal you are cooking is you should ONLY USE CLEAN WATER! If you do not have access to a clean water source, use one of the methods we learned to clean the water before you use it to cook.

Even when washing fruit and vegetables use water that is drinking quality because what you eat is the same as what you drink. The faecal-oral transmission is the same.

Washing and then cut vegetables so everything remains hygienic. Use only clean utensils, pots and pans to cook. Clean pots and pans come from properly washing them with soap, ash, or *mithi* after every use. Plain water will not clean a pan properly!

As we learned in the water chapter, germs cannot handle heat. Therefore, if you cook food thoroughly the heat will also kill any possible germs. But if you let food cool again, some germs can land on it and then start to grow. So if we make hot food, we should eat it while it is hot. Do not let it cool then reheat it, this may spoil the food.

Finally, always keep food covered so that flies cannot land on top of the food and contaminate it. Dirt can also easily land in food so it must remain covered from the time you prepare it until we are ready to eat it.

Do not eat food on your bed so that you do not accidentally drop any food which would attract bugs to come onto your bedding.

### Community Activity~ Educating Food Vendors

 1 hour if many instructed in group. On-on-one can take longer

In the community, many people make money by selling food item on the street. However, many of these food vendors do not practice safe hygiene standards and the food they sell can make us sick. It is a good idea for you to work with these food vendors to teach them good hygiene practices so your community members can be healthier.

One way to motivate food vendors is to make them understand that if they do not improve their food and personal hygiene practices, people in the community will refuse to buy from food from them.

**Step 1.4 Household and community hygiene****20**

Methods for keeping home and community environment clean

Sweeping floor, mopping floor

Do not let animals into your house Animals do not practice hygiene the way humans do! They are covered with germs and we can always see how many flies are buzzing around the dirty animals!

As we said earlier, always remove your shoes before entering your home. If your feet have gotten dirty because of open sandals or during the rainy season from walking in the mud, make sure you wash your feet before entering your home.

As we discussed yesterday in sanitation, solid waste has a big impact on how clean our community is.

**Trainer Notes**

Make sure you tell participants not to worry about memorizing the information they are learning right now. It is more important that they understand how to think theoretically and logically about these topics. Then when they return to their communities, they can use the *Service Provider's Handbook* for all of their reference needs.

Basically, they do not have to memorize all this material, but should know where to find it in their notes and Handbook just incase.

## 2. Importance of Hand Washing

### Objectives

- know blocking of faecal-oral transmission by hand washing at required times with effective techniques
- appreciate the linkage of hand washing with socio-economic conditions (poverty, gender)
- able to advocate to others to wash their hands
- Able to demonstrate and explain effective techniques of hand washing.

### Process

Time (mins)

<b>Step 2</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>10</b>
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So we have learned about the transmission routes of faeces to our (have the class answer along) 1) Fingers, 2) Flies, 3) Fields and feet, 4) Fluids, 5) Future hosts

We already learned that having a latrine to properly separate faeces from ourselves and our environment is the first way to stop the faecal-oral transmission routes. We also learned about cleaning our fluid and food sources so we can stop the faecal-oral transmission route there too. Now let us go into more depth on hand washing as a prevention methods to stop transmission.

<b>Step 2.1</b>	<b>Proper methods of hand washing</b>	<b>20</b>
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#### Location

Close to the latrine/toilet

As close to home as possible (so you do not have to be too bothered to wash hands the many times it is necessary)

#### Timing

As soon as possible after your hands get dirty so you do not spread the germs

#### Components

Wash and rinse with running water/ stream of water thoroughly

If soap is not available or affordable, people can use ash, sand, or even mud as an alternative to soap, as long as they use running water. The sand or ash act as an abrasive and “rub off” the dirt and germs.

## Trainer Notes

In many districts of Bihar, *mithi*, a type of dirt that is finely ground, is used to create friction when washing hands. This is a free, locally available way for community members to practice safe hand washing practices. Focus on locally appropriate aspects of hand washing such as the fact that poor people might not be able to buy soap and will therefore need to be taught about free resources such as mud or ash. Also, ways that people clean their hands when water is not available (sand, ashes, cinders, wiping with Dettol-soaked cloth, etc.).



### Community Activity~ learning the importance of soap

⌚ 20 mins

The need for the use of soap can be illustrated with a very graphic exercise involving two buckets and a piece of soap. Two small groups of participants line up behind each bucket to wash their hands in the bucket with and without soap. The children washing their hands using the bucket without the soap could see that the water remained relatively clear with dirt staying on their hands, while the children using soap could see that the dirt from their hands was all coming off into the water. Simple experiment, but very convincing. The exercise can be expanded by adding two glasses, filling them with water from either bucket and holding them up next to each other to see the difference.

### Step 2.2 Critical times to wash hands

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Now that we know HOW to wash our hands, we will learn about the critical times for washing our hands.

### Activity~ hand washing warm-up

⌚ 15 mins

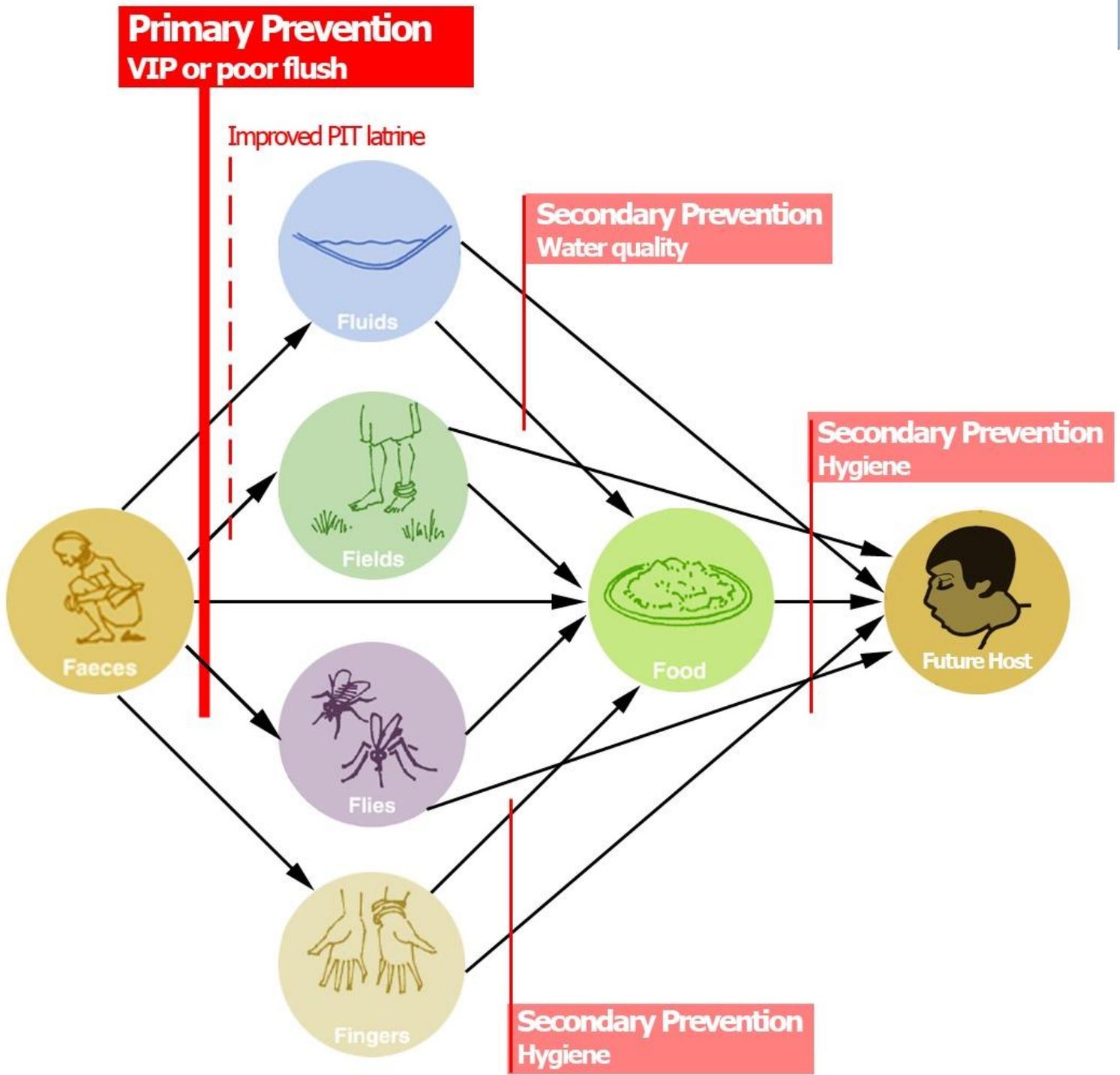
Use a poster or large flip chart version of the F-diagram, or have a copy available for each group.

Ask the class to think of times (from all the transmission routes of faeces to their bodies) that it would be helpful to properly wash their hands to break the transmission route.

Allow the class to shout out answers, or this can be done in group work, allowing each group to come up with all the times they think it is necessary to wash hands to break faecal-oral transmission routes.



As you can see, there are “before” times (washing hands *before* something) and “after” times (washing hands *after* something). By the end of the session, they will have a chance to take a look at some of the conditions and practices regarding hand washing in our own communities and how we might help people use improved hand washing techniques.



**Step 2.2.1 After going to latrine/toilet** **5**

After you go to the latrine or toilet you should wash your hands. Whether you defecate or urinate, you should still wash your hands because the latrine is the area where germs live so if you have touched the handle, pots, etc. it is safest to wash your hands. Also, consider that after you urinated, even if urine does not have germs, you may have touched your anal area so you could still have germs on your hands.

<b>Step 2.2.2 After handling baby's or dependent's faeces</b>	<b>20</b>
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Babies and children have very dangerous faeces. After you clean your baby's anal area properly, immediately dispose of the faeces in the latrine. Then while you are at the latrine, wash your hands.

<b>Step 2.2.3 After touching animals or working in the fields</b>	<b>20</b>
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Besides faeces, animals are covered in all kinds of germs. If you touch any animal your hands are most likely dirty. Even if you work with the animals all day and you think it is natural, you should still wash your hands immediately before returning to your home or eating. Also remember while you are working with the animals and in the fields, do not put your hands in your mouth or too near your lips.

<b>Step 2.2.4 After interaction with sick people</b>	<b>20</b>
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If you have come into contact with a sick person or are caring for a sick person or child, you should wash your hands often so you do not also get sick.

<b>Step 2.2.5 Before handling food</b>	<b>20</b>
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When we handle food to prepare it for meals, we are potentially contaminating it with germs. Even if we cook food properly, it is still best to minimize the risk of spreading poop-germs all over the food by washing our hands before cooking or touching food.

<b>Step 2.2.6 Before eating</b>	<b>20</b>
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Germs can enter our mouths when we eat so we must wash our hands before eating any food (big meal or small snack, to germs it is all the same!)

<b>Step 2.2.7 Before breast feeding</b>	<b>20</b>
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Breast milk is a baby's most important food. So when we think about the "f-diagram" we can imagine there that food is also breast feeding. So if our hands are dirty and you feed our children, or if our hands are dirty and we touch our breast, we are transmitting faeces particles to our children!

<b>Step 2.3 Promoting good hand washing in the community and everywhere!</b>	<b>20</b>
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It is not enough that you know when and how to wash your hands. You must be able to practice the proper hygiene no matter where you go. For example, if you go to the AWC and there is no hand washing station, we need to do something about it. Also, if you go to the PHC and there is no soap in the toilets. We need to do something about it.

It is up to us to stand up for what is right and make sure that all the places in our community have the proper facilities and people are practicing proper hand washing.

### Activity~ learn to help others practice good hygiene

🕒 10 mins

The recommended teaching methods for this exercise are brainstorming and role-playing.

Participants volunteer to play the three roles and the rest of the class observes the play and observes the knowledge, attitudes and life skills-of the “older and younger sister. “ After the play, all participants discuss their observations in plenary and draw conclusions from it. The trainer can then summarise the lessons learned.

Situation	Knowledge	Attitudes	(life) skills
A girl and her sister are playing on the ground. Their mother comes back from the market and gives them cakes. The young sister wants to take the cake without washing her hands. If you were an older sister, what would you do?	Dirty hands can bring infectious disease	Give importance to washing hands before handling food	Ability to say no to offering of food if your hands are not clean



### Activity ~ ‘F’ Diagram role play

🕒 40 mins

To make the important message of the F-diagram really sink in, allow participants to make it come to life! Materials: a basin, water, a kettle, soap, ashes, sand, natural scrubbing sponge, bucket, towel, plate, local fruit; Materials to show transmission, for example: dark coloured sand

Ask three groups to prepare and perform a role-play, pantomime or plays in which they: **(Group 1)** act out ways an infection passes through the stool of a diseased person via the hands of that person or someone else, to an uninfected other person; **(Group 2)** act out how hands are washed in different circumstances in the community; **(Group 3)** act out when hand washing is important

The groups perform their plays. After all groups are done, evaluate the plays as a class and discuss the following:

- Identification of the transmission risks and types of diseases transmitted and their symptoms and treatment
- Identification of conditions and practices of hand washing in the school
- Discussion of the implications of hand washing behaviour for the work of mothers and daughters, and responsibilities of fathers and sons
- Discussion of the tasks of mothers, fathers and the students themselves in the promotion of hand washing
- Ways in which students can do an inventory of hand washing materials and practices in their homes
- Discussion of the nutrition consequences of diarrhoeal disease for children's weight, growth, physical and mental development, resistance against illness and school attendance

## 3. Menstrual Hygiene

### Objectives:

- Understand that menstruation is natural and therefore must be handled like other bodily functions
- Work to sensitize the community o mainstream gender issues like menstruation
- Be comfortable dispelling community myths and taboos related to menstruation

### Process

Time  
(mins)

<b>Step 3</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>10</b>
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First of all, we need to make sure we understand that menstruation is a completely natural process that all women go through. It is just a simple difference between men and women, it is not something that makes women dirty or makes men better than women. Women should not be made to be embarrassed or feel ashamed because of their menstruation. It is a natural process without which no one would be alive if women did not menstruate.

<b>Step 3.1</b>	<b>Why is it important</b>	<b>20</b>
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A woman's vagina has a larger surface area, delicate skin, and longer time to hold fluids, moistness which allows germs stay alive for longer. This is why it is easier for women to get infections than men, especially from dirty water used to wash or poor hygiene.

<b>Step 3.2</b>	<b>Hygiene practices during menstruation</b>	<b>20</b>
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There are a few different personal hygiene practices that women have to ensure they maintain and even modify during the time they menstruate. REMEMBER, a woman is not "dirty" when she is menstruating. Passing menstrual fluids is not different than how everyone passes urine and faeces. It is natural and necessary for our bodies to stay healthy.

#### Bathing

Maintain your daily bathing routine.

#### Clothing

Change your underwear daily. If it gets soiled, change it more often. Wash all cloth and clothing with proper soap. Always allow your menstruation clothes to dry thoroughly before reusing. Using a wet cloth can cause infection because bacteria like to grow in moist environments!

#### Management in the community or during travel

Do not think that because you have your period you cannot go out of your house. You are perfectly free to continue your life like normal; you must just take some extra precautions so that while you are away from your home, you can keep clean and maintain your privacy.

### Trainer Notes ~ dispelling taboos and cultural myths

It is very important that in this session you do not allow the participants to perpetuate negative cultural taboos and myths. More importantly, ensure that participants (men and women) truly understand, with cultural and gender sensitivity, the need to menstrual hygiene to be mainstreamed. Women are 50% of the world's population and are equals to men. As service providers we need to work extra hard to make sure everyone understand this!



## 4. Maintenance of Water Sources

### Objectives:

- Understand that water sources have to be hygienically maintained or else they will become dirty
- Work with community members to maintain water sources together

### Process

Time (mins)

<b>Step 4</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>10</b>
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Even if the water that comes out of a source is clean, it can become contaminated if we allow human and animals to make it dirty. Therefore, hygienic maintenance of water sources is important to prevent sickness in our community.

<b>Step 4.1</b>	<b>Protected and unprotected hand pumps</b>	<b>10</b>
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A hand pump that is protected should have a well constructed platform and drainage so that no water stagnates near the platform. The simple care and maintenance services should be undertaken by use of simple tools for tightening nuts and bolts and applying grease to chain of the head assembly of the hand pump.

<b>Step 4.2</b>	<b>Protected wells and bore wells</b>	<b>10</b>
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In order to protect the dug well water from contamination, sanitary surveillance of dug well surroundings, raised platform, proper cover and common bucket system are to be considered.

<b>Step 4.3</b>	<b>Special case: floods</b>	<b>10</b>
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During floods, there is potential that well water sources can become contaminated. Only draw water from protected sources during floods. If you cannot ensure that the water source is safe, it is a good idea to treat your water with one of the methods discussed in chapter 2 just to be safe. During floods, there is a higher chance water has become contaminated with germs from faeces running into the source.

<b>Step 4.4</b>	<b>Managing high iron, fluoride or arsenic water sources</b>	<b>10</b>
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Do not feel pressured to use these polluted sources and do not think that "just a little bit" will not hurt you! It is not possible for us at the community level to manage water sources that have been found to be contaminated with chemicals. We must be disciplined and NOT use those sources until the PHED and the Panchayat has installed the proper filters on those sources. In the mean time, as we learned in chapter 2-water, we can use alternative sources or harvest rain so we have access to clean, fresh water all year round.

## 5. Toilet Maintenance and Demand Creation

### Objectives:

- Appreciate the need for everyone in the community to have a toilet/latrine (need for 100% coverage)
- Be capable of advocating for communities to have access to Total Sanitation Campaign financing and toilet construction assistance

### Process

Time (mins)

<b>Step 5</b>	<b>Introduction and Session Overview</b> Share the objectives for the session	<b>10</b>
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The most important thing you should **REMEMBER- there will always be someone after you when you use any toilet (community or family). Leave the toilet better than how you found it because it is not fair or nice to the person who will come after you. Think of how you would feel if someone ruins the toilet for you, so do not do that to others.**

<b>Step 5.1</b>	<b>Community toilet maintenance</b>	<b>10</b>
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When we live together in a community, we are accountable to each other to treat each other with respect and the things we share with the community should also be treated properly. So in addition to roads, public areas, etc. our community toilets have to be properly treated and maintained. Assign someone to take care of the toilet/latrine and the surrounding compound. If this is not possible, form a committee and assign members of the committee the task of maintenance. Switch the person every week, month or some other convenient, yet systematic method.

<b>Step 5.2</b>	<b>Personal toilet maintenance</b>	<b>10</b>
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## Trainer Notes~ Gender Mainstreaming

**Hygiene work and responsibilities are often the role of women in the community, and this is so common it is ignored or not even noticed.** Just telling people to change will NEER result in change. What we must do is help people understand what is right and proper by allowing them to build knowledge attitudes and skills accordingly.

For this section, have participants start thinking about gender and hygiene by asking questions such as follows:

How is the work on sanitation and hygiene divided in the home? Who helps to fill the water storage tank? Who cleans the latrines? How much work is involved? How equitably is the work divided? What effects may inequitable division have?

Now draw together the point that women are burdened with hygiene work and as service providers we can do something about this!



### Step 5.3 Addressing misconceptions and motivating the community

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In Bihar many people go to open fields for defecation. You need to help them in getting sanitary latrines installed, and the first step will be to help them understand the need for a toilet. Use the "F-diagram" and all the different things you have learned from the WaSH workshop. Mention (prominently) the benefits to them personally- health and wealth! And, to the community- pride, comfort, and security.

The best way to convince people to do anything is to talk to them! You are in the community everyday and you interact with people every day. Build a good relationship with them so they trust you and understand and believe what you advise them.

Refer to Chapter-1 empowerment for more tools to help you work with the community. Additionally, IEC for motivating the community and relaying knowledge are available in *Part 3: resource Materials*.

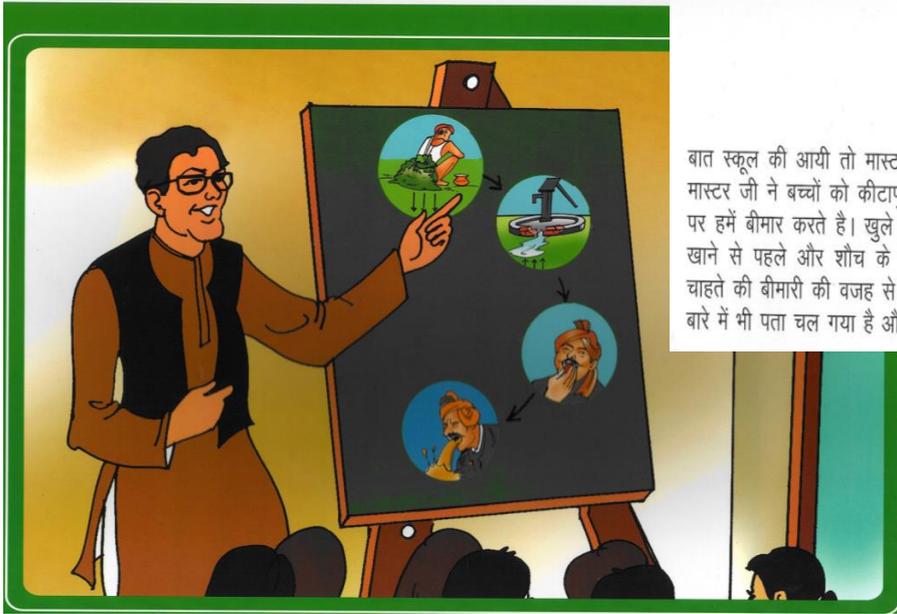
#### Activity~ Nirmal Gram Purushkar “Aak Gaon ka Sach Kahani “

 20 mins

If entire class is illiterate, you should read the story to participants, but take many pauses to allow the class to digest and discuss the developments in the story and keep the class entertained.

If there are volunteers to help read, have multiple volunteers read one page at a time. This will allow you to keep the class awake during the story but also to make this activity participatory. Discuss each page briefly during the change out of readers.





बात स्कूल की आयी तो मास्टर जी ने स्कूल में सफाई और उसके फायदे भी बताये। मास्टर जी ने बच्चों को कीटाणु के बारे में समझाया। "कीटाणु यूँ तो दिखायी नहीं देते पर हमें बीमार करते हैं। खुले में शौच करने से बीमारी फैलना तय है"। उन्होने खाना खाने से पहले और शौच के बाद साबुन से हाथ धोने के बारे में बतलाया वो नहीं चाहते की बीमारी की वजह से उन्हें घर पर बैठना पड़े। बच्चों को अब कीटाणु चक्र के बारे में भी पता चल गया है और वो इस के बारे में सबको बतायेंगे।

#### Step 5.4 Mobilizing resources to reach 100% sanitation coverage

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It takes resources, money, intelligence, willpower, etc, to work in the community to help all people have toilets.

## ऑफ द पिट शौचालय

इस शौचालय में एक सुविधा यह है कि शौचालय का चबूतरा और मल संग्रहण वाला गड्ढा अलग-अलग होता है। यदि 2-3 वर्षों में एक गड्ढा भर जाये तो मात्र एक और अलग गड्ढा खोदकर उसे शौचालय से जोड़ा जा सकता है। इस तरह एक ही शौचालय के दोनों गड्ढों को बारी-बारी से मल संग्रहक के रूप में उपयोग किया जा सकता है।

### ₹. 2500/-



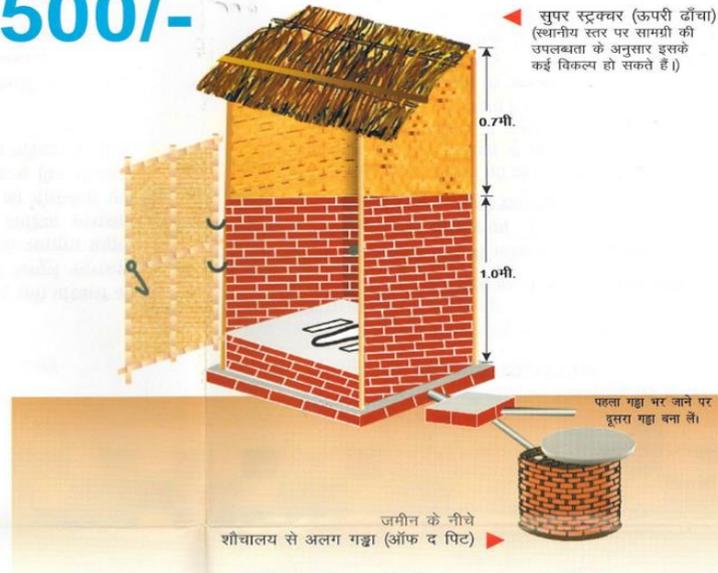
1 मल संग्रहण के लिए गड्ढे का निर्माण



2 शौचालय के चबूतरा का निर्माण



3 सुपर स्ट्रक्चर का निर्माण



### सामग्रियों की मूल्य तालिका

गड़दा करना	=	98.00 ₹.
ईंट की जालीदार जोड़ाई	=	322.00 ₹.
ढक्कन	=	294.00 ₹.
पैन जलबंद के साथ	=	190.00 ₹.
ईंट की जोड़ाई से बना चबूतरा और जंक्शन (पाईप के साथ)	=	719.00 ₹.
सुपरस्ट्रक्चर		
ईंट की जोड़ाई 3" 1.0 मी ऊँचा	=	880.00 ₹.
बाँस / स्थानीय सामग्रियों की दीवार (0.70 मीo)		
+ बाँस / पुआल का छत एवं दरवाजा		
कुल	=	2503.00 say
		2500.00 ₹.

## सुपर स्ट्रक्चर (ऊपरी ढाँचा) के कुछ विकल्प

लाभार्थी द्वारा अतिरिक्त राशि लगाकर



### Activity~ Advocate for your RIGHT to a toilet

🕒 ongoing

The PHED, government of Bihar and Government of India have money set aside to help poor people build proper toilets and plan for construction at home and in the community. USE YOUR RESOURCES! You can get more information about construction of sanitary latrines from the block Panchayat office.

When planning the design, location, etc. of the community or household toilet, involve women in the planning so their needs are considered and used. Also consider the needs of children and handicap so that all members of the community have equal rights and access to the toilet.

**Step 5.5      How to teach children to use toilets      10**

Parents- mothers and fathers both- need to teach children as soon as possible to have proper hygiene practices. That includes the proper way to go to a toilet to defecate and urinate. It will not be easy for a child to learn this so it will take patience from the parents' part. So not give us and just let the child defecate in the open- remember how dangerous that is!

Training a child to use a toilet is a great accomplishment that all parents can work with their kids to achieve.

## 6. School and Anganwadi Centre Hygiene

**Objectives:**

- Understand that water sources have to be hygienically maintained or else they will become dirty
- Work with community members to maintain water sources together

**Process**

Time (mins)

**Step 6      Introduction and Session Overview      10**  
*Share the objectives for the session*

Children are so special. They are curious and love to learn. It is our job to make sure that we teach them good things so they learn only the right behaviours and do not grow up doing the wrong things. If we can influence children by teaching them properly, in a few years, we will not have to worry about behaviour change in the community, because the community will be behaving well from the things they learned as children!

**Step 6.1      Involving teachers and children      10**

The children and teachers have special relationships. AWWs and their kids have special relationships too. Additionally, it is up to teachers and AWWs to form the proper relationships with the parents of the children they serve so all of us are working together and not against each other to raise the best child possible.

One way to get parents more involved in their kids' lives and to help teachers with this work is to form a WaSH PTA and strengthening their role

Advocating to get WaSH facilities  
 Form WaSH children groups or committees in schools and AWCs

This WaSH workshop can be taught to children too! Just make sure to alter the ToT module to adjust to the knowledge and skill level of children, but all the topics are equally important. Water, sanitation, and hygiene affect us all and will do so for our entire lives. It is good to start young by learning the proper techniques and practices before you get a chance to learn the wrong ones!

### Step 6.2 Filling the WaSH gaps for children through schools and AWCs

10

Some children may not have proper facilities in their homes or community, so when they are at the AWC or School, they have the unique opportunity to learn good hygiene practise and actually exercise them.

#### Activity~ Hygiene “train” at schools or AWCs

 ongoing

Example of an easy activity including knowledge, attitudes and skills related to personal hygiene to utilize in schools and AWC's.

##### Train exercise

It can be used to monitor the cleanliness of children in the morning when they enter the classroom or if meals are offered, in the compound during breakfast. It gives children the skills to critique others with respect, to deal with criticism, to make decisions and to practise hygiene skills.

The teacher asks five children to become stationmasters. The teacher will be the stationmaster of the final station. Each stationmaster checks one part of the body (nose, ears, hair, etc.) and at the final station the teacher makes the final check, checking all the body parts that have been checked at the previous stations.

If one of the children has, for example, dirty hands, the child will be asked to clean these and then pass the stationmaster once again before continuing on its way. The teacher will need to make sure that the materials to clean hands, ears, nose, etc. are available when doing the exercise.

At the end of the activity, the teacher can ask the students to discuss and explain the consequences of not having each station clean.

Possible stations are:

1. Nose station
2. Nails station
3. Hands station
4. Hair station
5. Ear station
6. Final check station

Add or delete stations according to what is deemed acceptable, what is available to help children correct, and able to be checked without risk to one's own health. Remember to emphasize that children exercise empathy (being able to place oneself in the position of the other, or 'step in that person's shoes'), respect and giving and receiving feedback. It is crucial that teachers do not blame, ridicule or otherwise stigmatise children with lesser hygiene and that they prevent other children from doing so.

*SOURCE: Postma, Getkate, and van Wijk, (2004) developed by Ministry of Education, Nepal*

## 7. Conclusion and Evaluation

### Activity ~ Hygiene wrap up

 20 mins

#### Concentric circles

The point of this game is to review all the hygiene aspects we have learned in this chapter (and practice the participatory skills we have learned throughout the WaSH Workshop)

For this activity the teacher forms two equal groups. One group stands in a circle facing out and one group stands in a circle facing in, so that everyone is facing a partner. The class is asked a question. The students in the inner and outer circle discuss this question in pairs. After a few minutes the outer circle rotates to the left, so that each student is facing someone new. The process is then repeated, with either the same question or a new one.

The types of questions that can be asked include anything from this chapter such as,

- “Do you like to wash your hands, or your face, or take a bath?” “Why/why not?”
- “Is hand washing after using the latrine important?” “Why/why not?”
- “Are latrines only affordable for ‘rich’ people?” “Why/why not?”
- “Is it necessary to cook with clean water?” “Why/why not?”
- What is menstruation?

To review, after each question, trainers can call on the participants to volunteer to share the ideas their pair came up with. The participants can then discuss this, acknowledge it as a good idea, etc. Remember to facilitate the discussions and solve any problems that come up (i.e. students cannot decide whether “clean” water, i.e., pure or treated water, is necessary for washing hands? Answer- No, washing your hands with any water makes them cleaner if you also use a cleaning agent such as soap, sand, or ash. It is better to rinse your hands with running water.).

Optional end of chapter post-test (located in *Part 2: Service Provider's Handbook*)

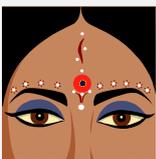
Remember, with any pre or post test, if illiteracy is an issue in the class, the questions may be answered orally and the consensus answers recorded by the trainer (or a volunteer from the class) on flipcharts.



### Activity: Recite exercise with the class:

**Question:** How can we prevent disease and increase health and nutrition?

**Answer:** To practice good water, sanitation and hygiene skills



**Question:** “And how can we do this in our communities?”

**Answer:** “**BEHAVIOR CHANGE!**”