

Water Treatment: SODIS**45 minutes total****Lesson Description**

This lesson focuses on the use of SODIS to treat water. This lesson will also focus on how a Community WASH Promoter can verify that a household is using SODIS correctly, consistently, and continually.

Learning Outcomes

At the end of this session participants will be able to:

1. Demonstrate correct use of SODIS.
2. Describe how a Community WASH Promoter can verify the correct, consistent, and continued use of SODIS.

Materials

- Different types of plastic bottles found locally. One of the bottle should be a PET bottle used for SODIS, and the others should be examples of bad types of bottles to use for SODIS.
- Regional Poster “SODIS”. Posters can be found here: https://resources.cawst.org/poster_set/f7050959/water-sanitation-and-hygiene-poster-set-images-only
- Flipchart paper
- Markers

Preparation

- Bring different types of plastic bottles found locally. One of the bottle should be a PET bottle used for SODIS, and the others should be examples of bad types of bottles to use for SODIS
- Print copies (1 per 4 people) of ‘SODIS’ poster.
- Optional: Write the learning outcomes on flip chart paper

Introduction**5 minutes**

1. Ask the participants to discuss with a partner: “What do you know about SODIS?” If they don’t know what it is, ask them to discuss what they think it could be.
2. Ask the larger group: “What can you tell me about SODIS?” *SODIS stands for solar-disinfection. It is a water treatment method that uses the power of the rays from the sun to kill pathogens in water with low turbidity. You fill transparent, non-coloured plastic bottles made from polyethylene terephthalate (PET) and place them in direct sunlight. Water can be used directly from the bottle to avoid recontamination.*

3. Present the lesson description or learning outcomes.

How to use SODIS

20 minutes



1. Divide the participants into small groups of 3-4.

2. Handout a "SODIS" poster to each group.



3. Ask the participants to look at the poster, discuss, and write down on flipchart paper how to correctly use the SODIS method, and a list of rules that user should obey to make sure SODIS is effective.

4. Give each group 5-10 minutes to write their answers.

5. Discuss the answers as a larger group:

- I. The bottle has to be PET, clear, no colour, no dents, no handle, and not dirty.



Trainer Note: show the participants the different types of bottles that can and cannot be used for SODIS

- II. Disinfection will not work if the bottle is dark or scratched.

- III. Clean a PET plastic bottle with soap and water before using it

- IV. Place the bottle in direct sunlight for 1 day before drinking (minimum 6 hours)

- V. Place the bottle in cloudy, indirect sunlight for 2 days before drinking

- VI. You can drink the water directly from the bottle.

- VII. A few rules not in the poster (write these on flipchart paper):

- i. Fill the bottle to the top to avoid any air bubble

- ii. During rainy days, SODIS does not work

- iii. The water has to be completely clear, if turbid, sedimentation is required.

How a CWP can verify the correct use of SODIS

15 minutes



1. Explain to participants that they should now know how to use SODIS to effectively treat drinking water. In their role as community WASH promoters, it will be up to them to motivate beneficiaries to use SODIS correctly, consistently, and continually.

2. Explain to participants that for any water treatment technology to be effective, it needs to be used correctly, consistently and continually. We call this the 3 'C's.

3. Write the words: correct, consistent, and continued on a flip chart paper and explain their meaning:



- Correct: the household is using and maintaining the technology, following the instructions by the manufacturer.

- Consistent: all members of the household are using water treated by the technology throughout the day and from season to season.

- Continued: all members of the household are using treated water every day over the long-term.

4. Explain to participants that as Community WASH Promoters, they need to also be “WASH Detectives”. As a “WASH Detective” they need to try to find out if the user is using SODIS correctly, consistently, and continually. Explain to participants that you will be practicing being a WASH Detective later in the week.
5. Ask participants: “What are some ways that we can check if the user is using chlorine correctly, consistently, and continually?” *To collect that information, you can either make observations or ask questions.*
6. Put two flipchart papers on the wall in front of the group. At the top of the two papers draw an eye for the first paper and an interrogation mark for the second one.
7. Explain to participants that sometimes, asking people questions is not enough. Many people may want to tell you information that is not necessarily true because they want to impress you on how well they have been using SODIS. At this point it is important to acknowledge that you are there to help them use SODIS correctly. You will need to make observations to make sure that the user is using it correctly, regardless of what the user is telling you.
8. Divide the participants into 2 large groups. Assign 1 group ‘observations’ and the other ‘questions’.
9. Ask participants to work with a partner to make a list of either: things you can observe, or possible questions (depending on their assigned group) to ask the user that would indicate if the user is using SODIS.

Ask the participants to share their answers with the larger groups. Write their answers down on the respective flipchart papers. *Possible answers:*

<i>Observations</i> 	<i>Questions</i> 
<ul style="list-style-type: none"> -They have the right bottle -They have many bottles currently in the sun -The bottles are not scratched or old -Observe potential sedimentation or filtration before the use of SODIS 	<ul style="list-style-type: none"> -How long do you keep your water on the roof? -How has the weather been the last few days? Has the weather affected your water treatment recently? -How often are you using your bottles? -Have you been feeling ill lately? -What water do you drink when you are not at home? -What water do your children drink when they are at school? -What source of water do you use? (during the wet / dry season?)

Review
5 minutes


1. Take down the posters of the observations and questions.
2. Ask the participants to work with a partner and discuss how SODIS works to treat water effectively.

Reflections on Lesson