

Considerations for Sanitary Inspections for household systems

Sanitary inspections (SI) are standard checklists for identifying possible problems with water systems. A set of “yes” or “no” questions help find out if the water supply is at risk of contamination.

Why conduct sanitary inspections?

- Increase correct, consistent and continued use of household water treatment
- Improve water quality and reduce waterborne diseases
- Increase all stakeholders’ understanding of the risks that affect water quality and health
- To provide enough information to target resources and follow-up actions for continuous improvement

Who are sanitary inspections for?

- Implementers of household water treatment programs to improve the quality of their programs and increase water safety for the communities where they work
- Community health promoters (whether government employees, community members or NGOs) who support households that practice household water treatment
- District-level government staff responsible for WASH in communities where household water treatment is practiced
- Regulators who assess the state of water systems
- Suppliers of water technologies who want to check the operation of their devices

When should we conduct sanitary inspections?

- Implementers of household water treatment should conduct a sanitary inspection within 1 year of the installation, preferably in the first 3 months. This inspection will help the implementer understand common problems that may need to be addressed in their program. If significant problems are identified, then more inspections should be scheduled until the problems are resolved. If all is well, then future inspections can occur less frequently.
- It is useful to conduct them during different seasons, as different risks will be present (for example leaks or standing water).
- Sanitary inspections are also useful after disasters and extreme weather events to identify and address risks caused by those events and help households adapt.
- Conduct sanitary inspections if there are complaints about the water such as changes in taste, smell, or appearance or if the user is asking for assistance.
- WHO recommends 1-2 times per year, with at least one of those times being after heavy rain because that’s when there is the highest risk of contamination.

What materials are included in a sanitary inspection package?

1. **Technical information** - describes the design parameters of a particular household water treatment technology (how well it performs, how easy it is to use and in what situations it is appropriate)
2. **Operation & maintenance** - describes the set-up of a household water treatment technology, how it is used and what maintenance or replacement is required
3. **Sanitary inspection form** - used to check for risks to water quality for a particular household water treatment technology
4. **Considerations for conducting sanitary inspections** (the document you are now reading) - suggests the things you should think about when planning sanitary inspections and what to do after the inspections

Planning sanitary inspections

Decide who will conduct the inspections

The people conducting the inspections are sometimes called enumerators. They need specific skills to interact with households, ask questions, and provide information in an open way. Enumerators should know how to ask questions that do not imply a correct answer. No matter how people answer, the enumerators should remain helpful and not judgmental. Train your team to ask questions in this way.

Make sure that there is someone in each team visiting each household who is familiar with the water sources and household water treatment technologies used in this community. It could be a community WASH promoter, district level WASH staff, or WASH program officer.

How many households will you inspect?

Think about the following things in making your decision:

- The total number of households in the settlement or in the project.
- Try to visit a mix of different types of households: some at the centre of town and some at the edge, some wealthier and some poorer, some women led and some not. Consider a household's location in relation to their water source - people further away from a source will have different collection and storage practices than those who live close by.
- The purpose of doing sanitary inspections.
 - Is it routine? Is it in response to a disease outbreak or a disaster?
 - Are you trying to understand the common risks in a community to improve your program? If so, inspect enough households to know what the common risks are and to know whether the same risks are occurring in each household, or whether there are different ones. Sometimes 5 inspections can be enough to see the trends, if they are similar in each household.
 - Are you trying to ensure each household has safe water? In this case, you may start with a smaller number of sanitary inspections, but over time you may want to visit every household.
 - Are you doing research? This process is not meant to be statistically significant nor a method of designing research.
 - Depending on your purpose, a detailed understanding of the water system for 5 very different households might be of more value to you than a rushed, partial sanitary inspection of 20 households.
- How much time can you commit to sanitary inspections? Think about:
 - Travel time to the community
 - Cultural considerations - for example, will you need to take time to drink tea and visit with each household before the inspection? Are there times of the day when households are unlikely to be available?
 - Break times for people doing the inspections
 - A single inspection should take 20-45 minutes, depending on the enumerator's experience.

Select sanitary inspection forms

Sanitary inspection forms are important tools to identify contamination risks. Contamination can happen at any stage of the water system, from the source up until when someone drinks the water:

- A. Water catchment/source
- B. Collection and transportation
- C. Water treatment
- D. Water storage and use

To do a thorough inspection of a system that includes household treatment, you need three forms.

1. The sanitary inspection form for the **household water treatment** technology that the household uses. This will be the first form that is filled out.
2. The **Household Practices** sanitary inspection, which covers water collection, storage and handling. This inspection is also conducted while in the household.
3. The sanitary inspection form for the **water source** (which could be handpump, spring, rainwater collection, etc.) Each type of water source has a different form. If the household uses more than one water source, you will have to decide whether to inspect each source or just visit the one they use most. You may want to do this inspection last because you must first ask the household which water source they collect water from.

Note: If you don't know what water sources the community uses, you may need to bring the sanitary inspection forms for different types of water sources with you.

Where can I find sanitary inspection forms?

Sanitary inspection forms are available as documents that can be printed and filled out by hand or on mWater to be used on a mobile device. Choose whichever is most convenient for you and your team.

WHO's standard sanitary inspection forms for water sources and household practices are available here: <https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/water-safety-and-quality/water-safety-planning/sanitary-inspection-packages>

CAWST has developed sanitary inspections forms for some common household water treatment technologies, which are available here: <https://www.hwts.info/network/sanitary-inspection-forms>

Note: household water treatment sanitary inspections require a combination of observation and asking the user questions about their behaviour. Where possible, check if what households are saying matches with what you see.

Note: *this document is not intended to teach someone everything they need to know to conduct sanitary inspections. Basic training or familiarity with the technologies in use in the community is needed. The people conducting the inspections also need skills to interact with households, ask questions and provide information in an open way. If the people conducting the sanitary inspections do not already have these skills and knowledge, we recommend training.*

After the sanitary inspections - reducing risks

Address the risks identified during the sanitary inspections

Through the sanitary inspections, you identified the risks of contamination at each stage of the water system. Now it is time to take action. You can make the biggest impact on water safety by addressing the issues that are higher risk, but also those that are easier to change.

1. **Start by addressing the risks identified in the households that you inspected.**
2. **Decide who is responsible for each action** (for example a technician or a community health promoter). The actions will probably be a combination of repairs/replacements by your team and behaviours that households need to change. When behaviour change is needed in households, they will probably need support from community health promoters, your team, local health ministries, or other organisations.
3. **Prioritize which actions you are going to take first.** There may be too many to do right away, or some may require funding that you do not currently have. Prioritize actions that address the biggest risks and are realistic to change in the near future. You might want to circle them on the form so you remember.
4. **Determine whether any community-wide interventions are needed.** Some risks are best addressed through larger interventions. For example, organizing a community training session on how to use and maintain the household water treatment technology.
5. **Address risks to other households in the community.** Keep in mind that you only inspected a sample of households. Similar risks probably exist in the other households in that community that weren't inspected. Make a plan to address those. Do you need to do an inspection in every house to determine which risks to address, or are they easier to identify now that your team has some practice?

Make improvements to the program to reduce these risks in the future

Conducting sanitary inspections gives you an opportunity to improve your program in all the communities where you work. If certain risks are common, that probably indicates a consistent gap in your program. Think about how you could modify your program to reduce these risks from the start. What are the common challenges? What program modifications can address them? Here are some examples:

- **Risk:** The household water treatment technology is often placed where it gets damaged or contaminated
Modification: When households purchase or receive the technology, recommend where to put it.
- **Risk:** One component is often broken.
Modification: If possible, make the component more durable, or make replacement parts more available.
- **Risk:** Users are forgetting an important part of how to use or maintain their technology.
Modification: Change user training or plan to do follow-ups after a few months when they need that knowledge and may be more likely to remember it.
- **Risk:** Water is not being stored safely and is at risk of recontamination.
Modification: Provide safe storage containers as part of the program.

Plan the next sanitary inspections

Now that you've conducted one round of sanitary inspections and taken action to minimize risks, make a plan for future inspections. When will the next inspections be done? Remember that above it says sanitary inspections should be done 1-2 times per year and during different seasons.