

# The CDC 52.12 form for NORS, Module 2: Water – General

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## 1 INTRODUCTION

This module will show you how to complete the Water-General pages. After you finish the General section, you will need to complete Water-General section to continue entering the report. In this section, you will select the type of water exposure that was involved in the outbreak and then enter epidemiologic data and results for clinical specimens.

For each waterborne disease report, you will complete the General section, a Water-General section, and one of the four sections about the type of water exposure. Please review the trainings for each section before completing it for the first time.

If you have additional questions about this form, a guidance document for the paper form is available online. This document also contains pick-lists to help you complete several of the fields. Please contact your agency or reporting site administrator if you have questions about the reporting process for your site.

## 2 WATER-GENERAL - PAGE 1

For the Water-General tabs, we will review data from a practice report that describes an outbreak of cryptosporidiosis after a wedding. The first section is Type of Water Exposure, which is used to indicate the type of water exposure that led to the waterborne disease outbreak or illness. For this report, treated recreational water has been checked off. The other options in this section are untreated recreational water, such as a lake or stream in a natural setting, water intended for drinking, which includes drinking water used for showering and bathing, and water not intended for drinking or without a known intent.

Next, go to the Geographic Location section. We see here that the 78 percent of the primary cases in this outbreak live within the reporting state.

Then go to the Associated Events section. In this example, the exposure was associated with a wedding, so ‘yes’ is checked off for the question that asks if exposure was associated with a specific event or gathering. ‘Wedding’ is listed in response to the following question, which asks what type of event was involved. The Start Date and End Date fields show that the wedding event began on July 12, 2008 and ended on July 13, 2008. Enter dates directly into the start date and end date fields using the numeric formats for Month, Day, and Year.

Next go to the Symptoms section, which describes groups of symptoms in the way that CDC summarizes them in MMWR Surveillance Summaries. Most, if not all, of the categories you will need are already listed. Here, the table shows that 18 people had gastrointestinal symptoms, such as nausea, diarrhea or vomiting.

The next section is Route of Entry. Select one or more routes of entry by checking the box next to the appropriate route. Here, the selection is 'Ingestion'. If you do not know, or only slightly suspect a particular route of entry, select 'unknown'.

The Epidemiologic Data section contains questions and a data table to summarize epidemiologic activities or findings. The first question asks for the 'Estimated total number of persons with primary exposure'. This is regardless of whether or not they all became ill. Use the actual number, if known.

If an epidemiologic study, such as a cohort or case-control study was completed, check the box next to 'Yes' for question one.

Here, the response is 'Yes', so we can go directly to the Epidemiologic Data table. If the answer is ever No or Unknown, complete the second question, which asks if water was the only common source shared by persons who were ill. Check the box next to the appropriate answer to answer this question. If it is only suspected that water was the only common source, select 'unknown'.

The Epidemiologic Data table contains a row of data. This row indicates that the exposure of interest was a hotel pool, and tells us the total number exposed, the total number of exposed who became ill, the total number not exposed, and the total number not exposed who became ill. It also tells us the attack rate, the odds ratio and the p-value. It is important to enter an exact p-value into this table because NORS will not accept the symbols for 'greater than' or 'less than'. If a study produced a relative risk or a confidence interval, the data could also be entered into this table.

The last two fields for this section are used to report the attack rates for residents of the reporting state and non-residents of the reporting state. If you have entered more than one row of data in the epidemiologic data table, the last two fields will refer to the exposure you reported that was most strongly associated with the outbreak.

The last thing we will do on this page is begin the laboratory results section for clinical specimens.

The Clinical Specimens section is used to describe the etiology of the outbreak, meaning what pathogens were involved in making people ill. If no clinical specimens—for example, blood or stool specimens—were collected during the outbreak, answer 'no' to the first question, at which point you are finished the Water-General section. In this example, the box next to 'yes' is checked and the number of people who provided specimens has been provided in the field below, so we will go to the next page to report the results.

### **3 WATER-GENERAL - PAGE 2**

The Specimen Description table at the top of the next page summarizes the types of specimens collected and the types of etiologic agents they were tested for. Here, the 'Specimen Type' field shows that only stool specimens were collected. The 'Specimen Subtype' field is blank. You will only fill in this field if 'autopsy' or 'biopsy' specimens are collected. The 'Tested for' field indicates that the stool specimens were only tested for parasites. Refer to the pick lists below the table to help you complete the fields in this table.

Next, let's look at the etiology table. We will focus some extra effort on this table, to show you exactly how it should be completed. Although an outbreak can have more than one etiology, let's

use an example with only one etiologic agent. We will look at three rows of data that show test results that came back positive for *Cryptosporidium hominis* and negative for *Giardia*.

You can see here that there are two rows of data for *Cryptosporidium*. The first row reports only the most general test results, which did not try to determine a species or subtype. The genus is '*Cryptosporidium*' and the rest of the table is blank until Specimen Type. 'Concentration' and 'Unit' were not filled in because the data represent multiple specimens and a single concentration would not apply. In some other examples, such as test results for a single specimen or in a report about a case with a chemical exposure, 'Concentration' and 'Unit' should be entered.

Why isn't 'Confirmed as etiology checked off?' If we only knew the genus in this outbreak, we would want to check the box in this field; however, the next row reports the species that was determined to be the etiologic agent. When you confirm the etiologic agent for an outbreak, confirm only the most detailed description of the etiologic agent that is available.

Finally, the 'Specimen Type' is 'stool' and the 'Test Type' that the laboratory used is 'microscopy'. 'Total number of people tested' is 12, and the 'total number of people positive' is 12.

The second row of data shows that a subset of samples was speciated. '*Cryptosporidium hominis*' was determined to be the etiologic agent and the box in 'Confirmed as etiology?' has been checked off. The Specimen Type is again 'stool', and the Test Type is 'DNA or RNA Amplification/Detection'. 7 people were tested and 7 of them tested positive.

The final row shows that some of the specimens were also tested for *Giardia*. In this data row, note that the data are entered using the process described above, but that the field for 'Total Number People Positive' is 0.

If clinical specimens were tested and PFGE or other test methods produced DNA 'fingerprints', the results would be reported in the Isolates Table. Data may be available for some non-parasitic pathogens via labs involved with the foodborne disease PulseNet program. CDC is currently working to expand its capacity for molecular surveillance of parasitic pathogens. The State Lab Isolate ID needs to be filled in or an error message will appear when the data are entered in NORS. As an example, we will list the ID as 55a, the Specimen Profile 1 as la28R4 and the Specimen Profile 2 as GP60 PCR.

Thank you for reviewing the information contained in this module. This is the end of the training for the Water-General section of the CDC 52.12 waterborne disease outbreak reporting form. Please refer to the guidance document for the form or the other online training modules before completing additional sections of the form.