One Health Harmful Algal Bloom System (OHHABS)

Human Form Guidance

Updated 08/30/2021

Centers for Disease Control and Prevention
National Center for Emerging and Zoonotic Infectious Diseases

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This document was prepared by CDC OHHABS staff.
For general questions on reporting or the guidance document, email OHHABS@cdc.gov.
To access more information about OHHABS, visit the OHHABS public website available at https://www.cdc.gov/habs/ohhabs.html.

1. Introduction

This is the One Health Harmful Algal Bloom System (OHHABS) guide for the Human Form. This guidance document is a reference manual for local, state, and territorial public health professionals who will report cases of human illness associated with a harmful algal bloom (HAB) or a HAB event (e.g., waterborne exposures to a HAB or HAB toxins, foodborne intoxication with HAB toxins). For the purpose of providing guidance in this document, the term "HAB event" will be used to describe both HABs and HAB toxins in water or food.

This guidance document provides an overview of how to complete the Human Form and descriptions of each field in the Human Form. The Human Form contains five sections:

- General Information
- Human Exposure Information
- Signs/Symptoms of Illness and Health Outcomes
- Clinical Testing
- Supplemental Information
    - No personally identifiable information is collected within the Human Form. Supporting documents related to the human illness (e.g., a picture of a rash after a HAB exposure, clinical specimen testing for the case) can also be attached to the report via the Attachments section in the righthand column.
- Author and Agency Information

HABs can affect people through a variety of exposure pathways (e.g., dermal contact, inhalation, ingestion) making it important to identify exposure activities to better understand HAB-associated signs and symptoms of illness and health outcomes. The Human Form is intended to capture exposure and illness information for single cases of human illness as a result of a HAB-associated exposure. HAB-associated outbreaks (≥ 2 human cases of illness) may still be reported to the National Outbreak Reporting System (NORS) at www.cdc.gov/nors.

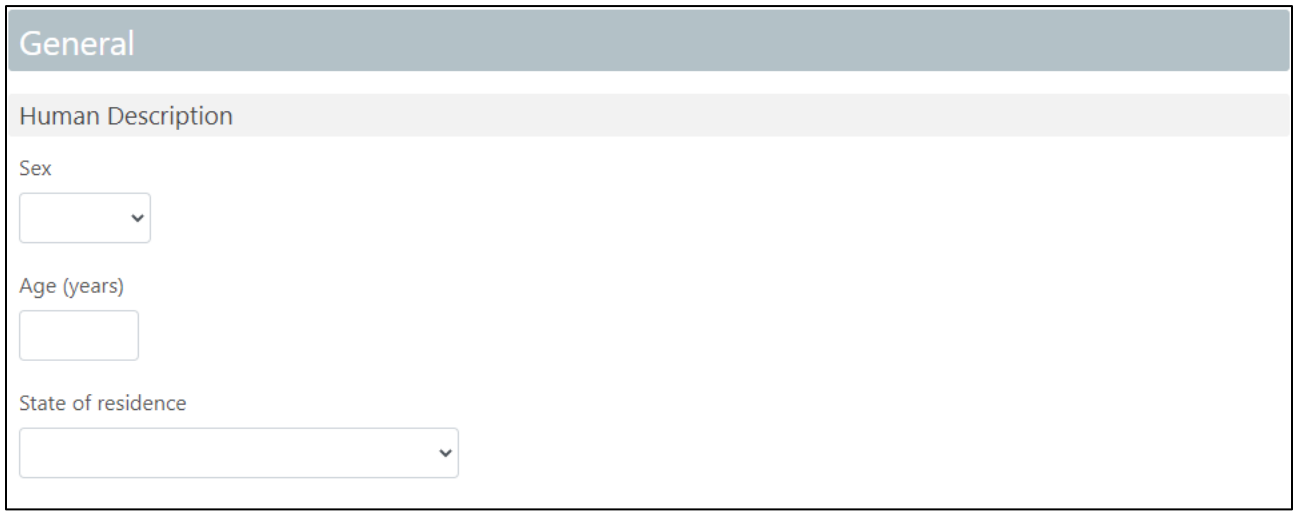
A guide to getting started with OHHABS, along with other OHHABS resources can be found at www.cdc.gov/habs/using-ohhabs.

2. General Information

OHHABS collects general information about the human case in two sections: the Human Description section and the Dates section. **There is one required field in the General section: "Date of illness onset" (Dates section).**

2.1. Human Description Section

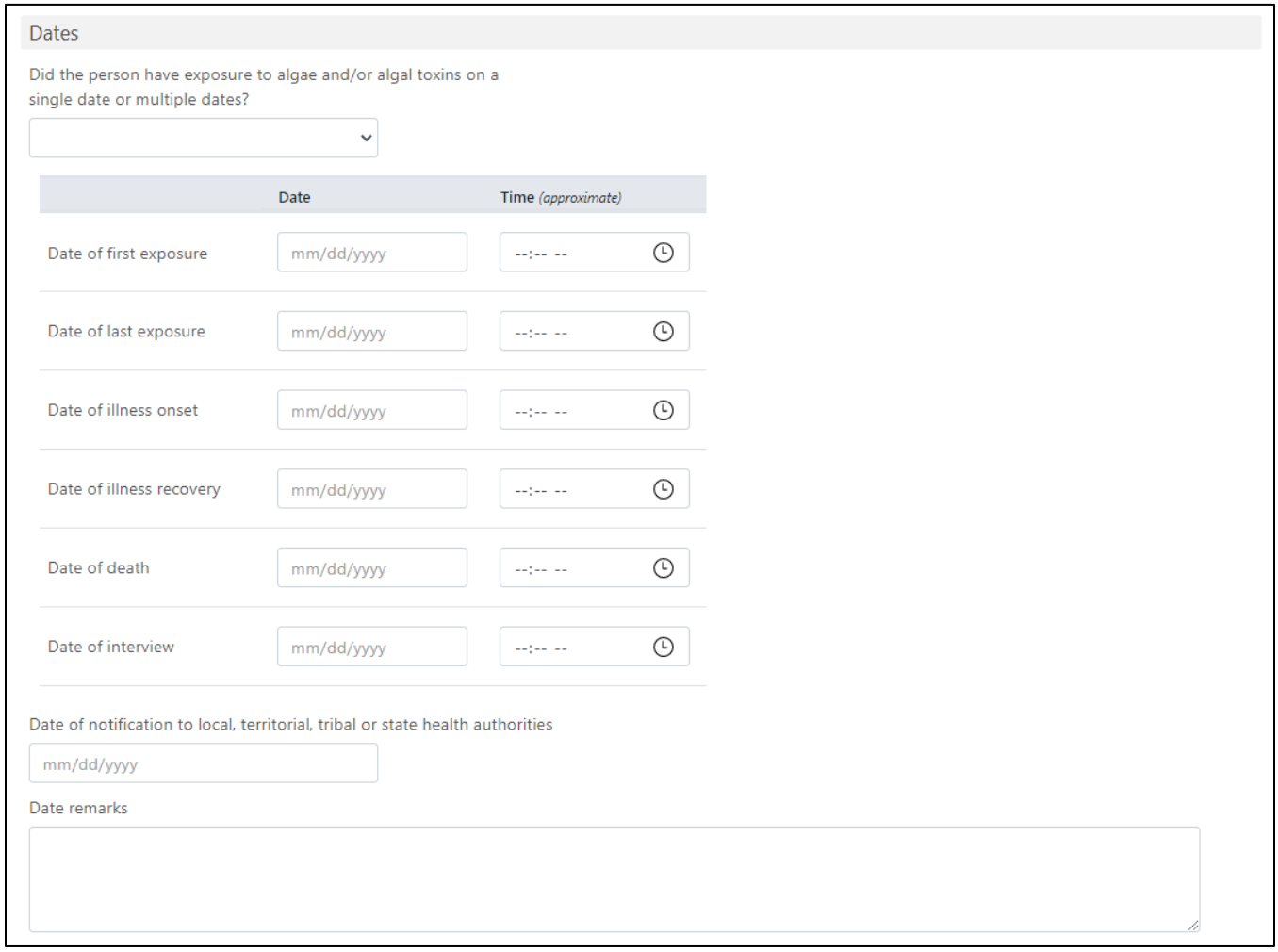
Information about the sex, age, and the state of residence is collected in the Human Description section. No personally identifiable information is collected about the human case.



- **Sex** – Indicate the sex of the human case.
- **Age** – In years only (i.e., a whole number), indicate the age of the human case.
- **State of residence** – The state of residence is the state in which the human case lives and has a permanent address.

2.2. Dates Section

The Dates section collects date and time information about the human case and the HAB-associated exposure. **The "Date of illness onset" is a required field.**



- **Did the person have exposure to algae and/or algal toxins on a single date or multiple dates?** – Distinctions between single date and multiple date exposures are provided to improve our understanding of exposures and outcomes. Check the option that best describes the exposure to algae or algal toxins. If the person was exposed on a single day, check "Single Date". Multiple exposures within a single date (e.g., swimming in a lake twice in one day) would be a "Single Date" exposure. If the person was exposed multiple times over several days (e.g., boating in a lake on 2 separate days), check "Multiple dates".
- **Date of first exposure (DD/MM/YYYY)** – Indicate the date when the person had their first exposure to algae or algal toxins. For a person with multiple exposure dates, indicate the first exposure date.
    - **Time** – If the time of the first exposure was known, please indicate the time.
    - **AM/PM** – Select "AM" or "PM" for the time of first exposure. If the exact "Time" is unknown, "AM" or "PM" may be selected without a "Time". AM is from midnight to noon, and PM is from noon to midnight.

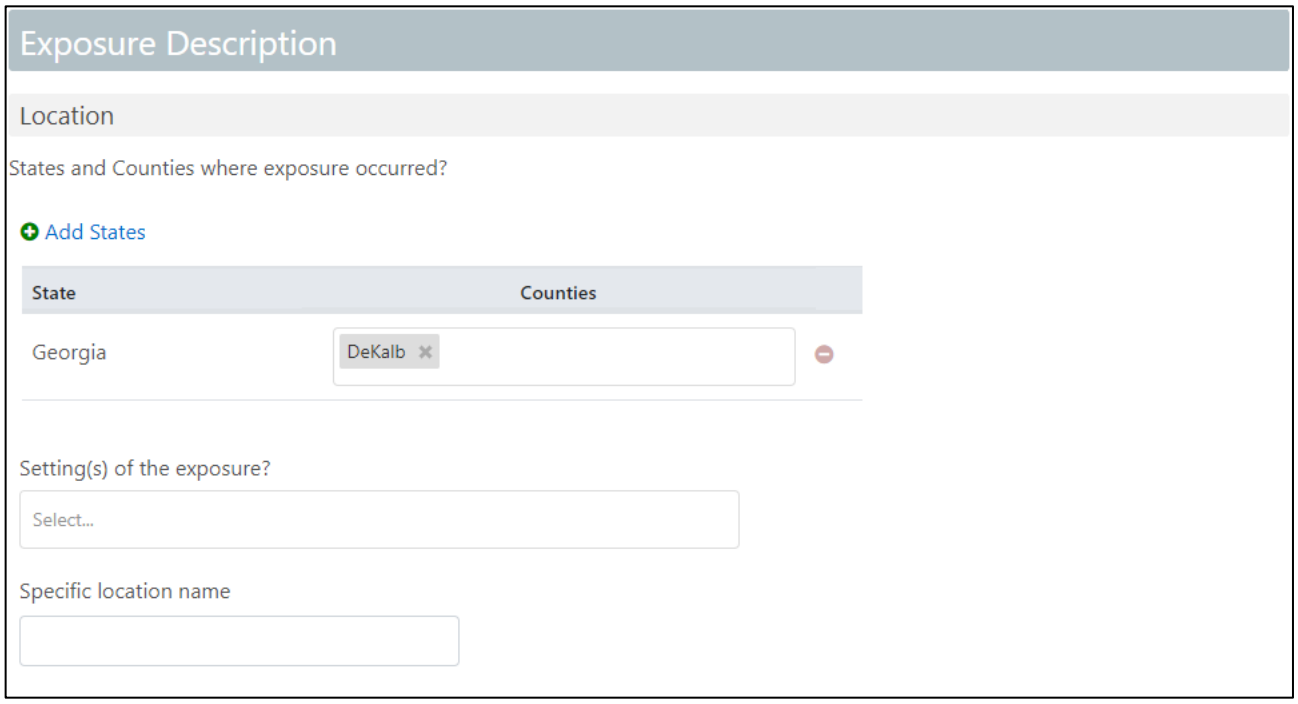
- **Date of last exposure (DD/MM/YYYY)** – Indicate the date when the person had their last exposure to algae or algal toxins. For a person with a single exposure in a single day, this will be the same as the "Date of first exposure". For a person with multiple exposures within a single day, report the date and the time of the last exposure if known. For a person with multiple exposure dates, indicate the last date of exposure.
    - **Time** – If the time of the last exposure was known, please indicate the "Time".
    - **AM/PM** – Select "AM" or "PM" for the time of last exposure. If the exact "Time" is unknown, "AM" or "PM" may be selected without a "Time". AM is from midnight to noon, and PM is from noon to midnight.
- **Date of illness onset (DD/MM/YYYY)** – Indicate the date when the person began to feel ill or when symptoms started. **This field is required.**
    - **Time** – If the time of the illness onset was known, please indicate the time.
    - **AM/PM** – The time of day may be indicated if the exact "Time" is unknown. Select "AM" or "PM" for the time of illness onset. If the exact "Time" is unknown, "AM" or "PM" may be selected without a "Time". AM is from midnight to noon, and PM is from noon to midnight.
- **Date of illness recovery (DD/MM/YYYY)** – Indicate the date when the person recovered from any illness or symptoms.
    - **Time** – If the time of the illness recovery was known, please indicate the time.
    - **AM/PM** – Select "AM" or "PM" for the time of illness recovery. If the exact "Time" is unknown, "AM" or "PM" may be selected without a "Time". AM is from midnight to noon, and PM is from noon to midnight.
- **Date of death (DD/MM/YYYY)** – If the person died, indicate the date of death.
    - **Time** – If the time of death was known, please indicate the time.
    - **AM/PM** – Select "AM" or "PM" for the time of death. If the exact "Time" is unknown, "AM" or "PM" may be selected without a "Time". AM is from midnight to noon, and PM is from noon to midnight.
- **Date of interview (DD/MM/YYYY)** – If the person was interviewed about HAB-associated exposure and illness, indicate the date of the interview.
    - **Time** – If the time of interview was known, please indicate the time.
    - **AM/PM** – Select "AM" or "PM" for the time of interview. If the exact "Time" is unknown, "AM" or "PM" may be selected without a "Time". AM is from midnight to noon, and PM is from noon to midnight.
- **Date of notification to Local, Territorial, Tribal, or State Health Authorities (DD/MM/YYYY)** - If a notification of the human illness or human case was sent to a health authority, indicate the date the notification was sent to a public health authority.
- **Date remarks** – Describe any relevant date information that was not documented above.

3. Exposure Description

OHHABS collects exposure information about the human case in three sections: the Location section, the Activities section, and the Exposure Routes and Remarks section. **There is one required field in the Human Exposure Description section: "State(s) where the exposure occurred". (Location section).**

3.1. Location Section

The Location section collects information on where the human case was exposed to a HAB or HAB event.



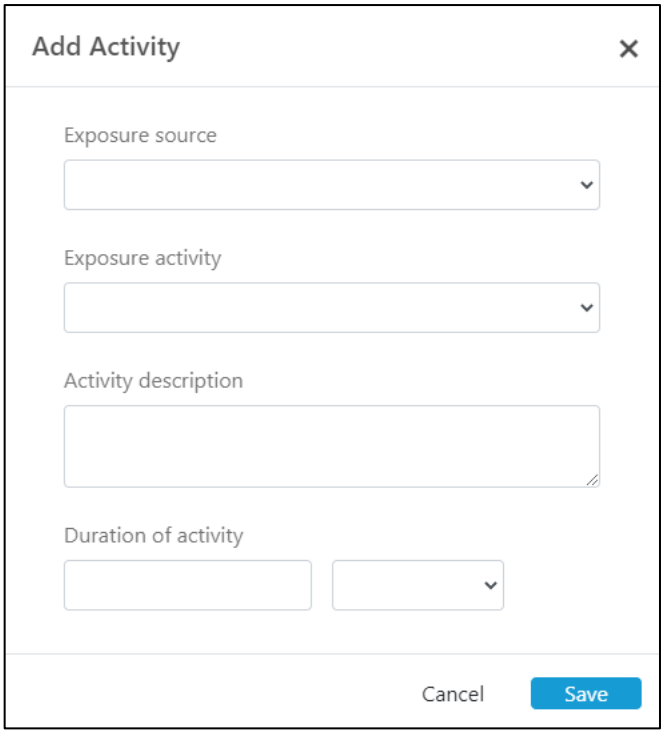
- **States and Counties where exposure occurred?** – Indicate the state(s) or jurisdiction(s) where the person's exposure occurred. If the exposure occurred in multiple states, select all states that apply. **This is a required field**. Afterwards, please select the counties in which the exposure occurred**.** For guidance on multistate exposures or foodborne exposures, please refer to the OHHABS Multistate Guidance document or the OHHABS Foodborne Guidance document at www.cdc.gov/habs/using-ohhabs.
- **Setting(s) of the exposure?** – Indicate the setting(s) where the person may have been exposed to algae or algal toxins. Select all settings that apply.
- **Specific location name** – The "Specific location name" is the specific name of a beach, park, or water body where the person may have been exposed to algae or algal toxins.

3.2. Activities Section

The Activities section collects information on activities resulting in exposure to algae or algal toxins for the human case. If an "Exposure source" is selected, please complete the corresponding fields in the row. If there is more than one "Exposure activity", please create and complete a new row to collect information about each

"Exposure activity". A new row for the "Exposure activity" can be created by clicking on the "Add" button. To delete a row and all of the corresponding information in that row, click on the "Delete" button. A pop-up will appear to confirm deletion—data cannot be retrieved once deleted.

- **Exposure source** – Indicate a single source of exposure (e.g., food, water) to algae or algal toxins. The following fields in this section further characterize the exposure source and related activities. More than one row can be created for the same "Exposure source" if the exposure activity is different for the same source (e.g., boating and swimming in the water may be reported as two rows). The "Exposure source" must be selected if an "Exposure activity", "Exposure activity description, "Water type", "Food type" or "Duration" is entered.



- **Exposure activity** –Select the "Exposure activity" related to the "Exposure source". For example if a person swam in a lake, the "Exposure source" is "Water" and the "Exposure activity" is "Recreation activities". If detailed information about activity duration is available, create a new row for each activity in a given category (e.g., enter a row for swimming for 2 hours and a row for boating for 4 hours). If this level of detail for the "Exposure activity" activity is unavailable, a single row can be created (e.g., a row for swimming and boating for 6 hours total).
    - **Aquaculture** – Select "Aquaculture" if the exposure activity was related to cultivating fish or shellfish for harvesting purposes.
    - **Commercial agriculture/Farming** – Select "Commercial agriculture/Farming" if the exposure activity was related to agricultural or farming purpose. This includes farming crops or livestock.
    - **Food consumption** – Select "Food consumption" if the exposure activity was related to eating or ingesting food items potentially contaminated with HAB toxins. Food items may include but are not limited to fish, shellfish, dietary supplements, or other food items that incorporate algae (e.g., juice, yogurt).

  - **Non-personal use** – Select "Non-personal use" if the exposure activity was related to activities with water not used for personal or household use (e.g., car washing, lawn care).
  - **None** – Select "None" if the exposure activity was not related to activities listed. "None" may also be selected if the exposure activity was related to "Air" as an "Exposure source".
  - **Personal use** – Select "Personal use" if the exposure activity was related to activities with water used personally by the human case (e.g., drinking, cooking, bathing).
  - **Recreation activities** – Select "Recreation activities" if exposure activity was related for leisure uses (e.g., swimming, boating).
  - **Other** – Select "Other" if the human case participated in an exposure activity not listed in the picklist. Please briefly describe the "Other" activity in the "Exposure activity description field" or provide an explanation in the Remarks section.
  - **Unknown** – Select Unknown if the exposure activity for the human case was not known.

- **Exposure activity description** – Provide a brief description of the "Exposure activity" in the "Exposure activity description" field (e.g., Swimming, Eating shellfish). Descriptions for multiple activities can be entered but must be under or at the 50 character limit.
- **Water type** – If applicable, select the "Water type" that best describes the "Exposure source". For example if the exposure occurred in a lake, select "Lake/Reservoir/Impoundment".
- **Food type** – Indicate the "Food type" for the food item implicated. This list supports reporting general and more specific reporting of types of fish. For example, if an exposure occurred from eating grouper but the specific type is not listed, select "Grouper, other". However, if the fish was determined to be tiger grouper, a specific type of grouper, select "Grouper, tiger". If the type of food is not listed, select "Other" and explain in the "Exposure Remarks" field. If the food item is unknown, select "Unknown" and explain in the "Remarks" field.
- **Duration** – Indicate the amount of time the person performed the "Exposure activity". Estimates of duration may be included. For repeated exposure activities in a single day (e.g., ate oysters twice in one day), the total duration time may be reported. For exposures that occurred on multiple days, create a new row to document each day's duration (e.g., boating on one day (4 hours) and boating a second day for (6 hours), if known. If only the total duration time is known, report the total duration time (e.g., boating on 2 different days for a total of 6 hours) and describe further the in the "Remarks" field.
  - **Number** – Indicate the number for duration in this field up to two decimal places (e.g., 2.25)
  - **Unit** – Indicate the unit of time for duration in this field (e.g., Minutes, Hours, Days).

3.3. Exposure Routes and Remarks Section

The Exposure Routes and Remarks section collects information regarding the route(s) of exposure for the human case.

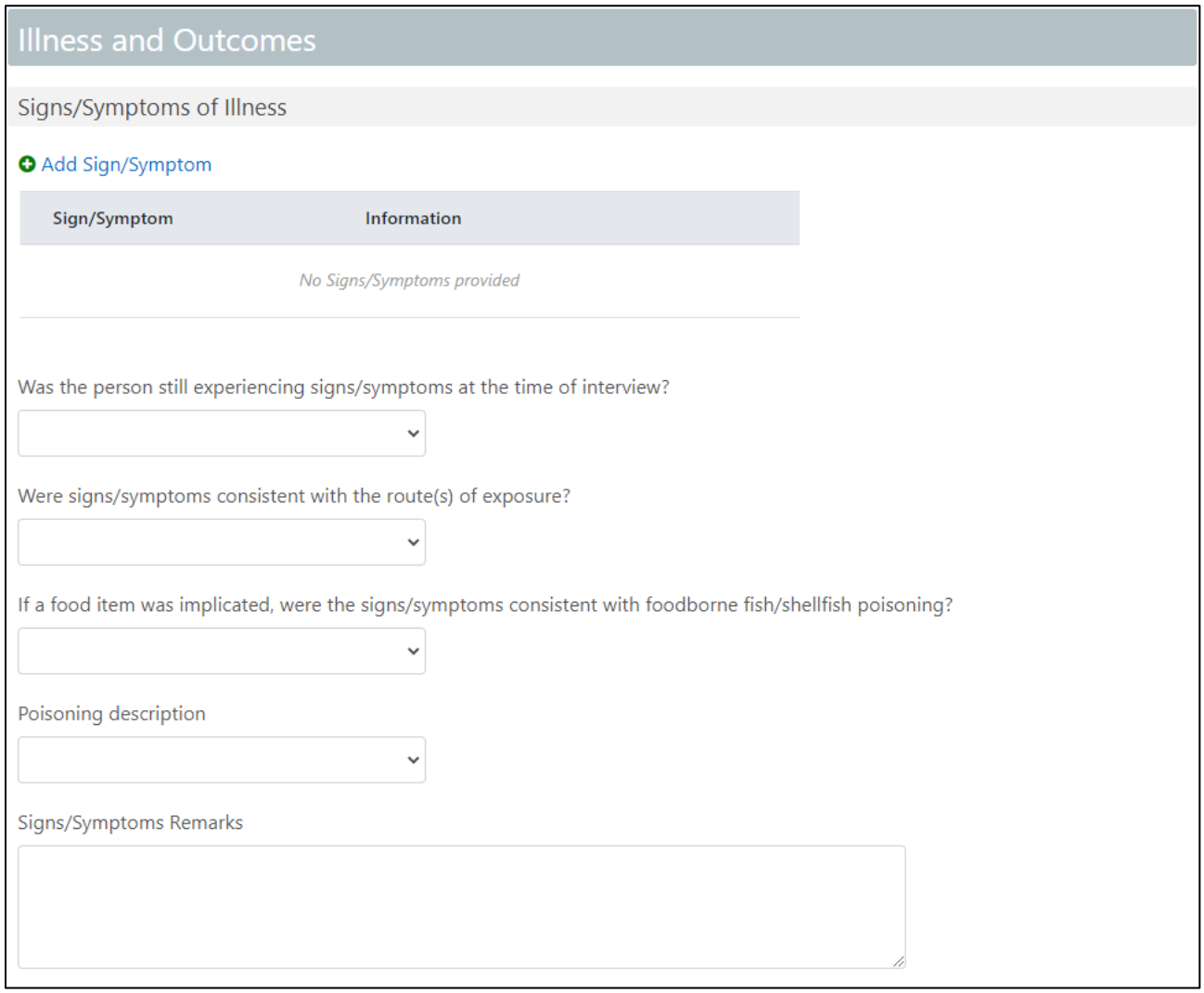
- **What were the routes of exposure?** – Identify all known and suspected routes of exposure that may have occurred. Select all that apply.
    - **Ingestion** – "Ingestion" includes eating food contaminated with algae or algal toxins, eating supplementary dietary pills contaminated with algae or algal toxins, or swallowing water that contained algae or algal toxins.
    - **Inhalation** – "Inhalation" includes breathing in any mist or airborne particles that contain algae or algal toxins.
    - **Skin contact** – "Skin contact" includes any direct skin contact with algae or algal toxins or with water containing algae or algal toxins.
    - **Other** – "Other" may include any other route not listed above. If "Other" is selected, please describe the other route of exposure in the remarks**.**
    - **Unknown** – Select "Unknown" if the human case had an exposure to algae or algal toxins but the route of exposure was not identified.
- **Exposure Remarks** – Describe any additional information regarding the human case's exposure (e.g., known exposure, suspected exposure, multiple exposures)**.**

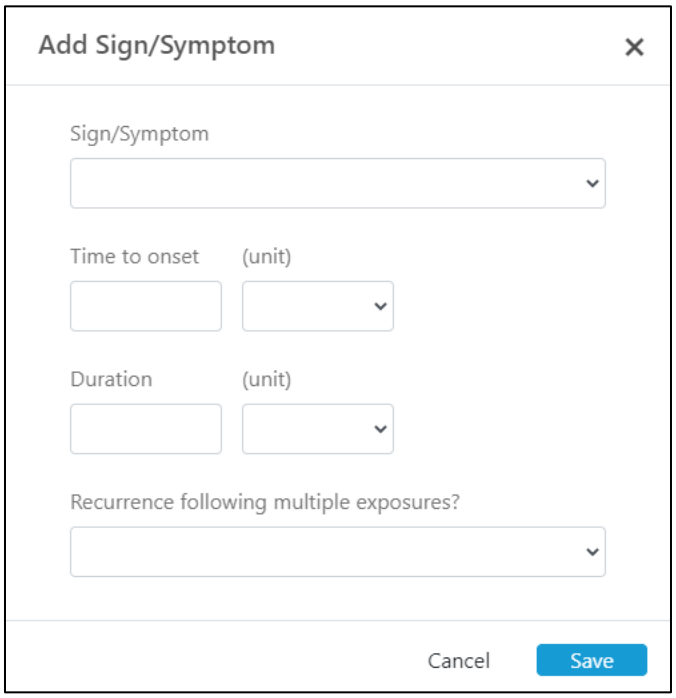
4. Signs/Symptoms of Illness and Health Outcomes

OHHABS collects information about any illness or health outcomes experienced by the human case in three sections: The Signs/Symptoms of Illness section, the Medical Care and Health Outcomes section, and the Health History and Differential Diagnosis section.

4.1. Signs/Symptoms of Illness Section

The Signs/Symptoms of Illness section collects information about signs or symptoms of illness experienced by the human case in a table and in four questions. In the table, please fill out the subsequent fields in a row for each "Sign/Symptom" of illness. If more than one "Sign/Symptom" was experienced by the person, add a new row to report more information about a different "Sign/Symptom". In the table, a new row for a "Sign/Symptom" can be created by clicking on the "Add" button. To delete a row and all of the corresponding information in that row, click on the "Delete" button. A pop-up will appear to confirm deletion—data cannot be retrieved once deleted.





- **Sign/Symptom –** Select the sign(s) (e.g., visible rash) or symptom(s) (e.g., self-reported nausea) the person experienced. If the "Sign/Symptom" is not listed, please select "Other" and describe the sign or symptom in the "Remarks" field.
- **Time to onset** – Enter the numeric value of "Time to onset" in this field. "Time to onset" is the time between exposure to algae or algal toxins and when the signs or symptoms of illness began in minutes, hours, or days.
- **Onset unit** – Indicate the unit of time for the "Time to onset" (i.e., Minutes, Hours, Days).
- **Duration of symptoms** – Enter the numeric value of the duration of a sign or symptom up to 2 decimal places for the duration in this field (e.g., 2.15). "Duration of symptoms" is the length of time the sign or symptom of illness lasted. For example, a patient had neurological symptoms that appeared on July 4th that resolved on July 7, the duration of illness would be 4 days (July 4–7).
- **Duration unit** – Indicate the unit of time for the "Duration of symptoms" (i.e., Minutes, Hours, Days).
- **Recurrence following multiple exposures?** – If the sign or symptom recurred with repeat exposures (e.g., a rash that appeared after swimming in a lake reappeared after swimming on a different day, respiratory symptoms that occurred while visiting a beach in the morning recurred on a return visit that afternoon), report "Yes" and describe in the "Medical Care and Health Outcomes Remarks" field.
- **Was the person still experiencing signs/symptoms at the time of interview?** –Indicate whether the person was still experiencing any signs or symptoms of illness when sign/symptom data were collected for this report. If "Yes," please describe in the "Signs/Symptoms Remarks" field.
- **Were the signs/symptoms consistent with the routes of exposure?** – Indicate whether the sign(s) or symptom(s) were consistent with the route(s) of exposure. For example, if a person waded in the water and then developed a rash on their legs. If it is not possible to determine whether the signs/symptoms were consistent, select "Unknown"
- **If a food item was implicated, were the signs/symptoms consistent with foodborne fish/shell poisoning?** – If food was identified as an exposure source during the investigation, indicate if the signs or symptoms were consistent with those known to occur in fish or shellfish poisoning.
- **Poisoning description** – Regardless of whether a food item was implicated, if the human case experienced signs or symptoms consistent with foodborne fish or shellfish poisoning, indicate the type of poisoning.
    - **Amnesiac Shellfish Poisoning (ASP)** – ASP is caused by eating shellfish contaminated with domoic acid, a toxin produced by diatoms of the genus *Pseudo-nitzschia*, *Nitzschia*, and

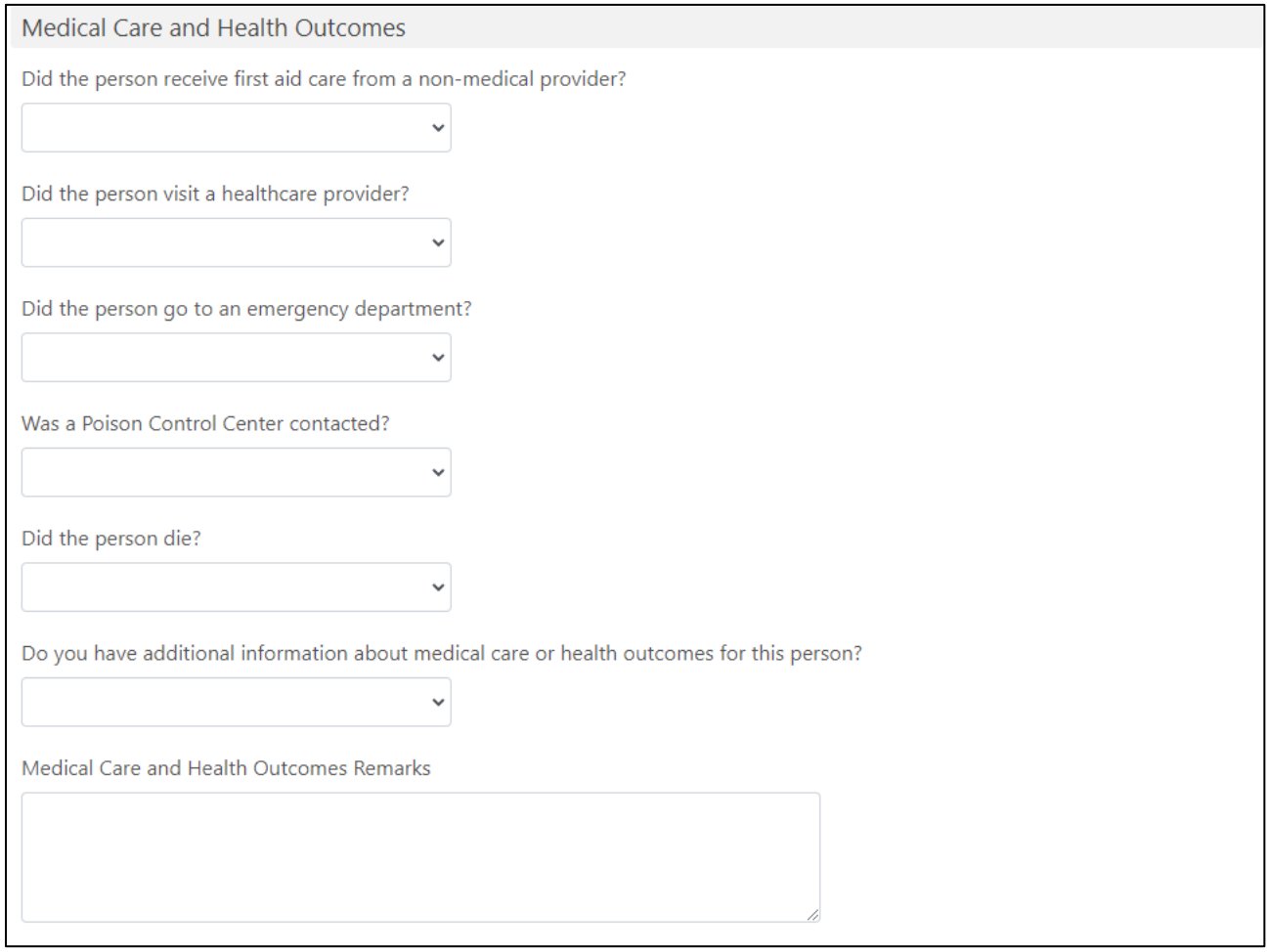
Amphora. Symptoms can vary and may include: vomiting and diarrhea within 24 hours of eating, dizziness, headache, disorientation, short-term memory loss, seizures, weakness, paralysis, and death may occur in severe cases.

- **Azaspiracid Poisoning (AZP)** – AZP is related to eating contaminated shellfish with an algal toxin believed to be produced by a dinoflagellate species. The species has not yet been identified. AZP is the most recently discovered human illness related to algal toxins. Symptoms may include: nausea, vomiting, diarrhea, stomach cramps.
- **Ciguatera Fish Poisoning (CFP)** – CFP is caused by eating fish contaminated with ciguatera toxins. Ciguatera toxins are produced by the dinoflagellate species, *Gambierdiscus toxicus*. CFP can cause gastrointestinal and circulatory symptoms including: diarrhea, abdominal pain, nausea, vomiting, numbness in extremities, dizziness, muscle aches, decreased heart rate, low blood pressure, or heightened response to hot or cold temperatures. Symptoms often begin within 12-24 hours of eating the contaminated fish and might last up to 4 days.
- **Diarrhetic Shellfish Poisoning (DSP)** – DSP is caused by eating shellfish contaminated with okadic acid and dinophysistoxins, toxins produced by the dinoflagellate genus *Dinophysis* and *Procentrum.* DSP can cause gastrointestinal symptoms usually within 30 minutes to a few hours after eating contaminated shellfish and can last up to 3 days with or without medical treatment. These symptoms can include: vomiting, severe diarrhea, nausea, abdominal cramps, or chills.
- **Neurotoxic Shellfish Poisoning (NSP)** – NSP is caused by eating shellfish contaminated with brevetoxins produced by a dinoflagellate species *Karenia brevis*. Symptoms are often related to the nervous or gastrointestinal system and usually resolve within 2-3 days. Symptoms may include: numbness; tingling in the mouth, arms, and legs; loss of coordination, vomiting, diarrhea, or heightened response to hot or cold temperatures.
- **Paralytic Shellfish Poisoning (PSP)** – PSP is caused by eating shellfish contaminated with saxitoxins produced by the dinoflagellate of the genus *Alexandrium.* Saxitoxins, also known as PSP toxins, cause symptoms related to the nervous system. PSP toxins can be found in shellfish. PSP symptoms usually begin within 2 hours of eating contaminated shellfish but can start anywhere from 15 minutes – 10 hours after a meal. The symptoms are generally mild and can include: numbness or tingling of the face, arms, and legs, headache, dizziness, nausea, loss of coordination, or a floating sensation. In rare but severe cases of PSP, symptoms may include muscle paralysis and respiratory failure.

- **Signs/Symptoms Remarks** – Describe any relevant information not captured above regarding signs or symptoms that the human case experienced.

4.2. Medical Care and Health Outcomes Section

The Medical Care and Health Outcomes section collects information on any medical care that the human case received and health outcomes of the person.



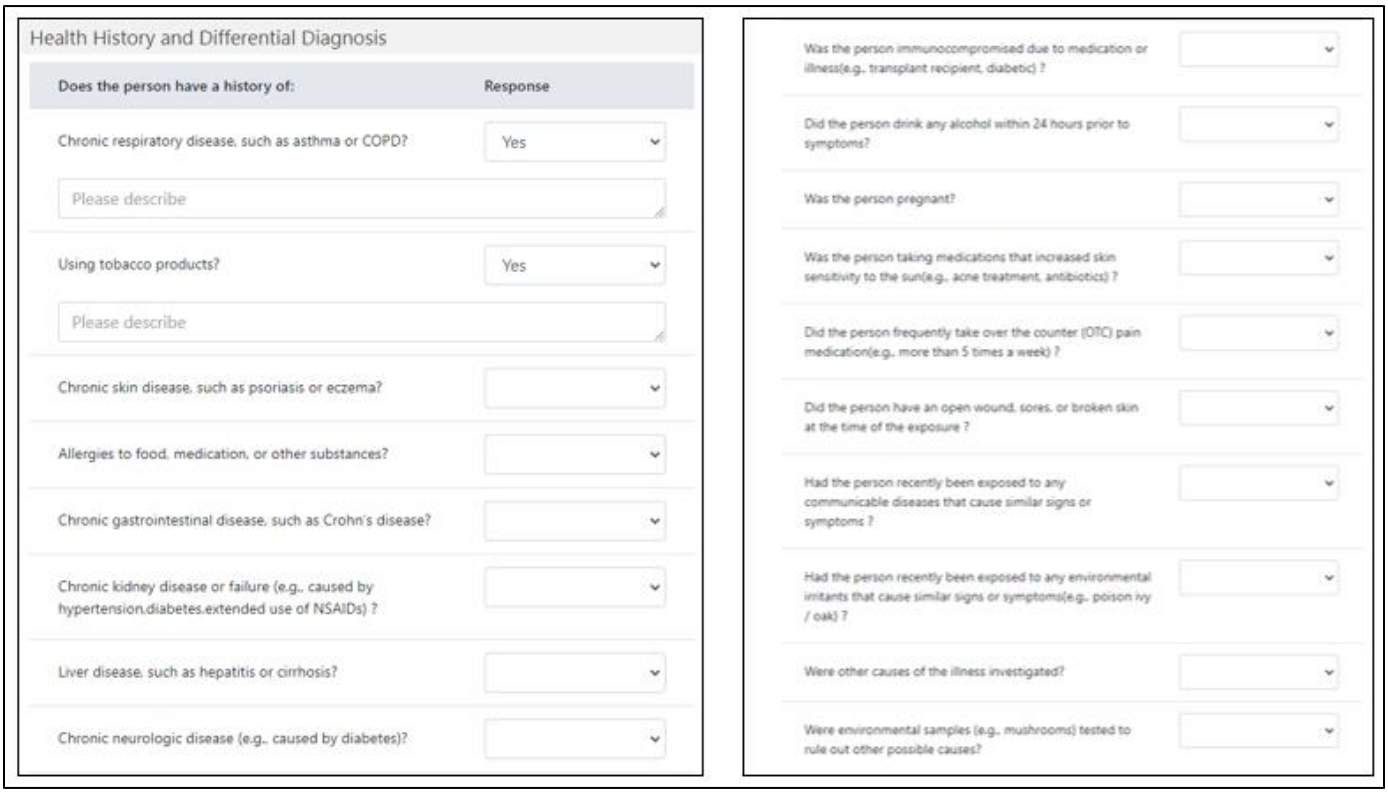
- **Did the person receive first aid care from a non-medical provider?** – Indicate if the human case received any assistance or first aid care provided to preserve life or prevent the condition or illness from worsening. Non-medical providers may include individuals who are not licensed medical staff (e.g., park rangers, lifeguards, public). If "Yes", please describe details in the "Medical Care and Health Outcomes Remarks" field.
- **Did the person visit a healthcare provider (non-emergency)?** – Indicate if the human case visited a healthcare provider including medical practitioners involved in primary care, nursing care, or specialty care. This does not include emergency rooms or emergency care facilities. If "Yes," please describe details in the "Medical Care and Health Outcomes Remarks" field.
- **Did the person go to an emergency department?** – Indicate if the human case visited an emergency department including emergency rooms or urgent care facilities. If "Yes," please describe details in the "Medical Care and Health Outcomes Remarks" field.
- **Was a Poison Control Center contacted?** – Indicate if a Poison Control Center was contacted for the human case. For example, the human case may have called a Poison Control Center for assistance with

symptoms, or a physician may have contacted a Poison Control Center regarding a case of fish poisoning. If "Yes," please describe details in the "Medical Care and Health Outcomes Remarks" field.

- **Did the person die?** – Indicate if the outcome of the illness was death. Additional comments regarding the death may be included in the "Medical Care and Health Outcomes Remarks" field.
- **Do you have additional information about medical care or health outcomes for this person?** – Indicate if additional information regarding medical care or the health outcome of the human case is available. If "Yes", please describe details in the "Medical Care and Health Outcomes Remarks" field or attach additional information to this form. Do not include personally identifiable information (e.g., name, date of birth, medical records).
- **Medical Care and Health Outcomes Remarks** – Describe any relevant information not captured above regarding medical care and health outcomes about the human case. Do not include personally identifiable information (e.g., name, date of birth, medical records).

4.3. Health History and Differential Diagnosis Section

The Health History and Differential Diagnosis section collects information on the human case's health history and differential diagnosis. If the response is "Yes" to any of the questions in this section, please briefly describe the condition or history in the description field adjacent to the question.



- **Chronic respiratory diseases, such as asthma or COPD?** – Indicate if the human case has a history of chronic respiratory diseases including but not limited to asthma, COPD, lung cancer, cystic fibrosis, or occupational lung diseases.
- **Using tobacco products?** – Indicate if the human case has had a history of tobacco use or is currently using tobacco products.
- **Chronic skin disease, such as psoriasis or eczema?** –Indicate if the human case has a history or chronic skin diseases or conditions including but not limited to psoriasis, eczema, rosacea, vitiligo, acne, or hives.
- **Allergies to food, medication, or other substances?** – Indicate if the human case has a history of allergies including but not limited to food allergies, medication allergies, or allergies to other substances or chemicals.
- **Chronic gastrointestinal disease, such as Crohn's disease?** – Indicate if the human case has a history of chronic gastrointestinal diseases including but not limited to Crohn's disease, irritable bowel syndrome (IBS), diverticulitis, or colon polyps.
- **Chronic kidney disease or failure (e.g., caused by hypertension, diabetes, extended use of NSAIDs)?** – Indicate if the human case has a history of chronic kidney disease including but not limited to kidney

disease caused by hypertension or diabetes, polycystic kidney disease, kidney failure, dialysis treatments, or kidney transplants.

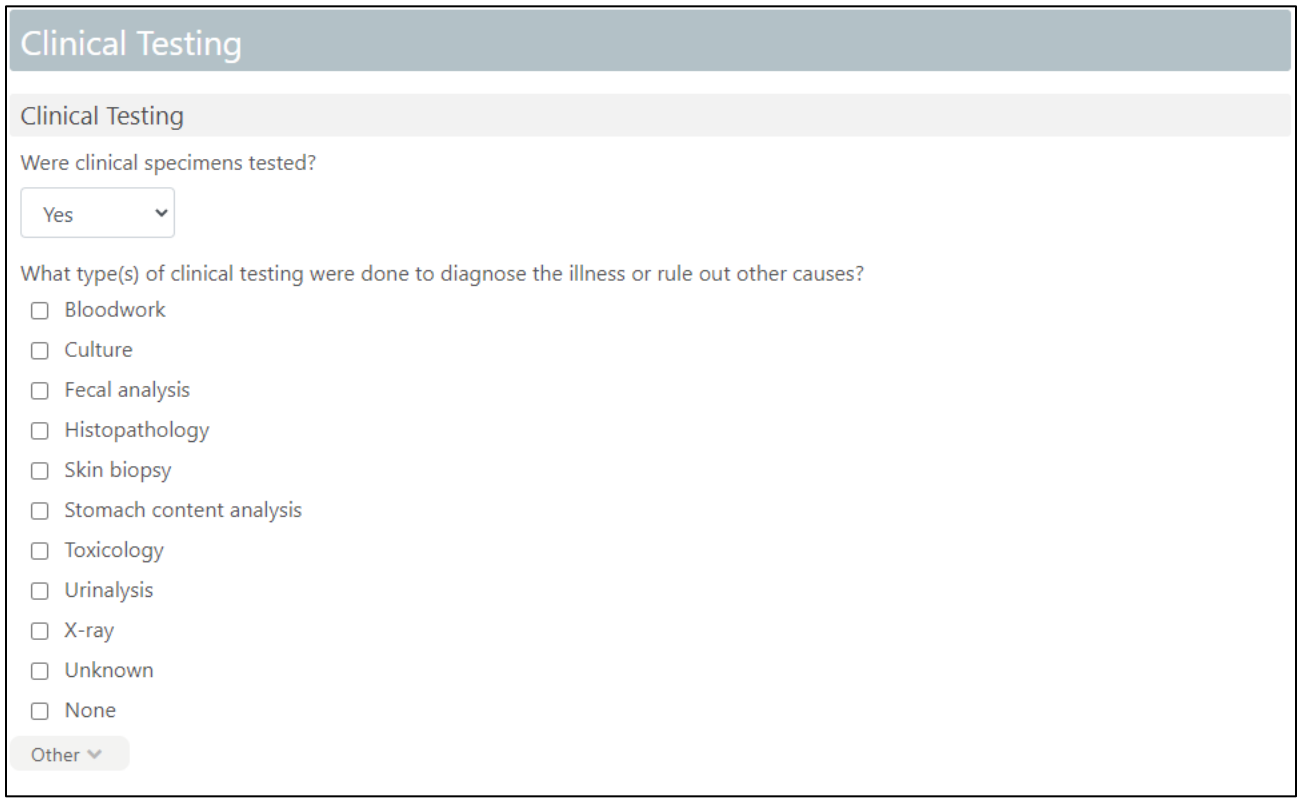
- **Was the person immunocompromised due to medication or illness (e.g., transplant recipient, diabetic)?** – Indicate if the human case was immunocompromised including but not limited to certain medications, medical treatments including radiation therapy, or existing illness.
- **Did the person drink any alcohol within 24 hours prior to symptoms?** – Indicate if the human case drank alcohol within 24 hours of the illness or symptom onset.
- **Was the person pregnant?** – Indicate if the human case was pregnant at the time of exposure and illness.
- **Was the person taking medications that increased skin sensitivity to the sun (e.g., acne treatment, antibiotics)?** – Indicate if the human case was taking any medication that would increase skin sensitivity to the sun. This includes but is not limited to oral and topical acne treatment medication and some antibiotics such as tetracycline or amiodarone.
- **Did the person frequently take over the counter (OTC) pain medication (e.g., more than 5 times a week)?** – Indicate if the human case was taking an OTC medication (e.g., more than 5 times in a week). OTC pain medications include any pain medication that can be purchased without a prescription (e.g., acetaminophen, ibuprofen).
- **Did the person have an open wound, sores, or broken skin at the time of the exposure?** – Indicate if the human case had an open wound during the time of exposure. This includes but is not limited to cuts, scrapes, sores, or any form of broken skin.
- **Had the person recently been exposed to any communicable diseases that cause similar signs or symptoms?** – Indicate if the human case had recently been exposed to any communicable disease that causes any similar signs or symptoms as HAB-associated illnesses. This could include—but is not limited to--diseases that cause similar gastrointestinal symptoms as HAB-associated illnesses from the consumption of shellfish or seafood.
- **Had the person recently been exposed to any environmental irritants that cause similar signs or symptoms (e.g., poison ivy/oak)?** –Indicate if the human case had recently been exposed to any environmental irritants that cause similar signs or symptoms to HAB-associated illnesses. This could include exposures to naturally occurring irritants that produce rashes similar to dermal HAB exposures.
- **Were other causes of the illness investigated?** – Indicate if other causes of illness were investigated for the human case other than a HAB-associated illness. This can include testing for other pathogens such as bacterial or viral testing.
- **Were environmental samples tested to rule out other possible causes (e.g., mushrooms)?** – Indicate if the environmental samples were tested to investigate other possible causes of illness. This may include testing for other toxins or water sampling tests for other pathogens (e.g., mushroom toxins, water-related pathogens).

5. Clinical Testing

OHHABS collects information about any clinical testing performed for the human case in three sections: the Clinical Testing section, the Test Results section, and the Clinical Testing Remarks section.

5.1. Clinical Testing Section

The Clinical Testing section collects information on any testing performed on clinical specimens collected from the human case.

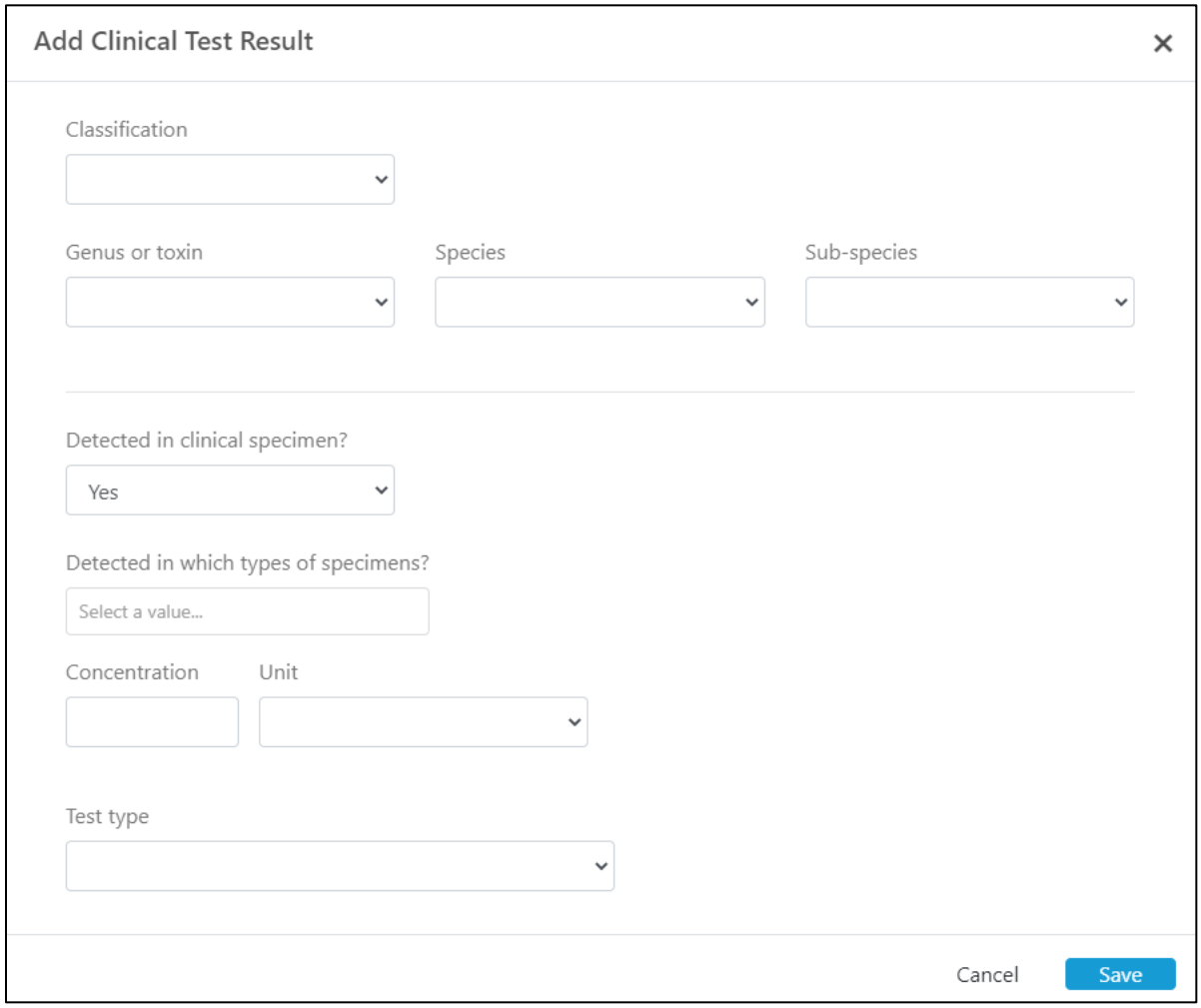


- **Were clinical specimens tested?** – Indicate if clinical specimens from the human case were collected and tested.
- **What type(s) of clinical testing was done to diagnose the illness or rule out other causes?** – If clinical specimens from the human case were tested, check all clinical testing that was performed.

5.2. Test Results Section

The Test Results section includes a table to collect detailed information about test results for clinical specimens. Refer to laboratory result data for specimen testing results. In the absence of routine clinical testing for algae and algal toxins, users may report test results for other pathogens as this information can further help to rule out other causes of illness.

The fields in a single row describe one test result. If there is more than one clinical specimen test result, please create and complete a new row to document the test result. In the table, a new row for the test result can be created by clicking on the "Add" button. To delete a row and all of the corresponding information in that row, click on the "Delete" button. A pop-up will appear to confirm deletion—data cannot be retrieved once deleted.



- **Classification** – Indicate the "Classification" or the broadest description of the algae, algal toxin, or other pathogen tested for in a clinical specimen. For more information on the classification of algae, toxins, and other pathogens, please refer to the OHHABS Algae and Toxin document at www.cdc.gov/habs/using-ohhabs.

  The options for classification include:
  - Cyanobacteria
  - Diatoms
  - Dinoflagellates
  - Gonyaucales
  - Gymnodiniales
  - Peridinales
  - Prorocentrales
  - Raphidophyceans
  - Toxin –Algal toxins
  - Other – Other microbial pathogens, chemicals, and non-algal toxins

- **Genus or toxin** – Indicate the "Genus or toxin" name for the algae, algal toxin, or other pathogen tested for in clinical specimen. This field is dependent on what is selected in in the Classification field. For more information about the Genus list in OHHABS, please refer to the OHHABS Algae, Algal Toxins, and Other Pathogens Lists at www.cdc.gov/habs/using-ohhabs.
- **Species** – Indicate the "Species" name for the algae or other pathogen tested for in a clinical specimen. This field is dependent on what is selected in the Genus or toxin field. For more information about the Species list in OHHABS, please refer to the OHHABS Algae, Algal Toxins, and Other Pathogens Lists at www.cdc.gov/habs/using-ohhabs.
- **Sub-species/Serotype/Genotype** – If applicable, indicate the "Sub-species/Serotype/Genotype" name for the algae or other pathogen tested for in a clinical specimen. This field is dependent on what is selected in the species field. For algae, here are various abbreviations for subspecies or taxonomic rankings below the algae species for botanical nomenclature:
  - **var.** –variety
  - **f.** – forma
  - **subsp.** – subspecies

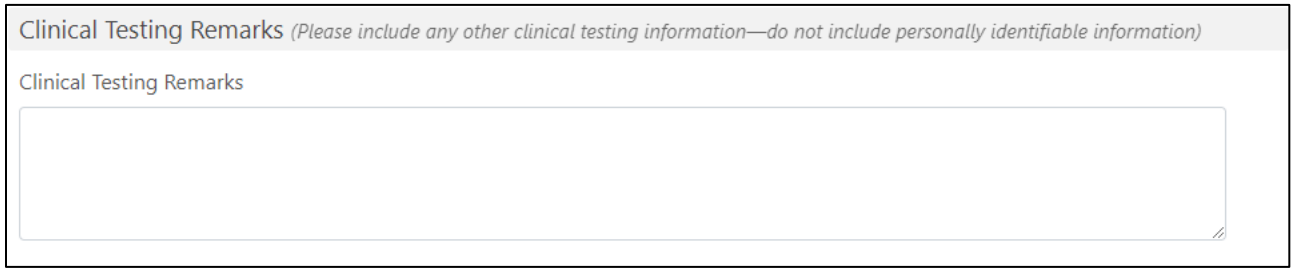
  For more information on algal nomenclature, visit the International Code of Nomenclature for algae, fungi, and plants website at www.iapt-taxon.org/nomen/main.

  For more information about the sub-species list in OHHABS, please refer to the OHHABS Algae, Algal Toxins, and Other Pathogens Lists at www.cdc.gov/habs/using-ohhabs.
- **Detected in clinical specimen?** – Indicate if the algae, algal toxin, or other pathogen was detected in a clinical specimen.
- **Detected in which types of specimens?** – Identify the type of clinical specimen in which the algae, algal toxins, or other pathogens was detected. Multiple specimen types can be selected.

- **Concentration –** If applicable, indicate the concentration of the algae, algal toxin, or other pathogen detected in the clinical specimen up to 3 decimal places (e.g., 0.123).
- **Concentration Unit –** Indicate the concentration unit of the algae, algal toxin, or other pathogen detected in the clinical specimen.
- **Test Type** – Indicate the type of clinical test used to detect the algae, algal toxin, or other pathogen in a clinical specimen. If more information about the "Test type" (e.g., the specific name of the kit, the lot number) or testing performed on the clinical specimen is available, please describe in the "Clinical Testing Remarks" field. "Test type" options include:
    - **Culture** – Indicate "Culture" if testing was performed to detect algae, algal toxins, or other pathogens through microbial growth in a nutritional solid (e.g., agar) or liquid medium (e.g., liquid nutrient broth).
    - **DNA or RNA Amplification/Detection (PCR, RT-PCR)** – Indicate "DNA or RNA Amplification/Detection" if testing was performed to detect algae, algal toxins, or other pathogens through the amplification of DNA or RNA specific sequences (e.g., amplifying a DNA sequence of a specific algae in a blood sample) with PCR and RT-PCR methods.
    - **DNA or RNA sequencing** – Indicate "DNA or RNA sequencing" if testing was performed to detect algae, algal toxins, or other pathogens by identifying the specific DNA or RNA sequences with sequencing techniques including, but not limited to, next-generation sequencing (NGS), whole genome sequencing (WGS), or Sanger sequencing.
    - **Microscopy (Fluorescent, EM)** – Indicate "Microscopy" if testing was performed to detect algae, algal toxins, or other pathogens in clinical specimens through imaging methods including but not limited to bright field microscopy, phase contrast microscopy, fluorescent microscopy, confocal microscopy, or electron microscopy.
    - **Other** – Indicate "Other" if testing was performed to detect algae, algal toxins, or other pathogens but the type of test is not listed as on option. If "Other" is selected", please describe in the "Clinical Testing Remarks" field.
    - **Serological/Immunological Test (ELISA, EIA)** – Indicate "Serological/Immunological Test" if testing was performed to detect algae, algal toxins, or other pathogens through the use of antibodies including but not limited to ELISA or EIA testing (e.g., ELISA for anatoxin-a or microcystins).
    - **Unknown** – Indicate "Unknown" if testing was performed but the "Test Type" was not known.

5.3. Clinical Testing Remarks Section

The Clinical Testing Remarks section collects any additional information regarding testing performed on clinical specimens from the human case.



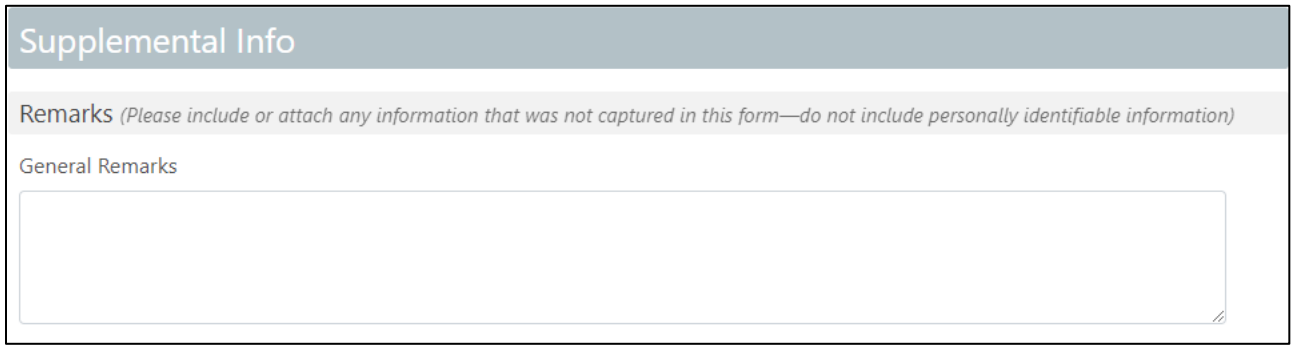
- **Clinical Testing Remarks** – Describe any relevant information not captured above regarding clinical testing. Do not include personally identifiable information (e.g., name, date of birth, medical records).

6. Supplemental Information

This section collects supplementary information for the human illness that may not have been captured elsewhere in the form.

6.1. Remarks Section

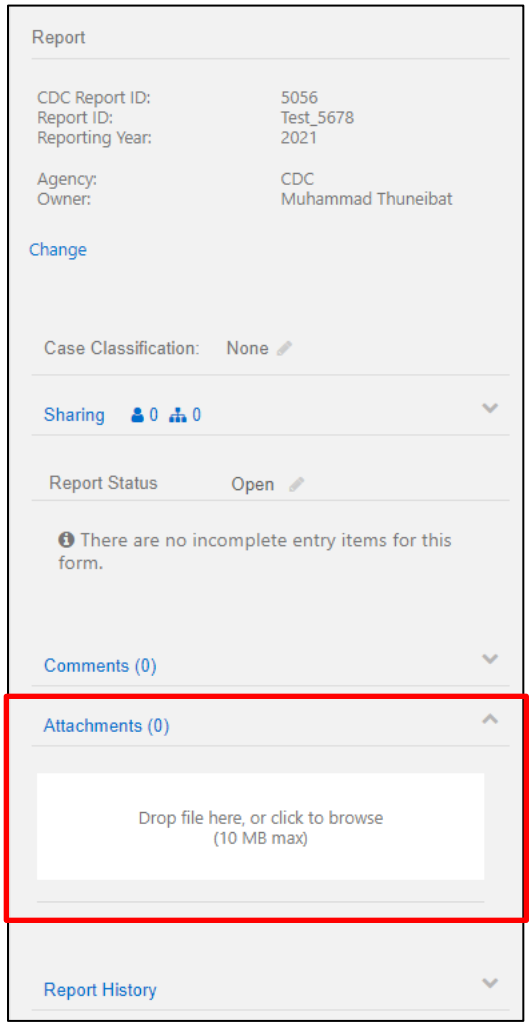
The Remarks section collects descriptive information that may not have been collected elsewhere in the form.



- **General Remarks** – Describe any relevant information not captured in the Human Form. Do not include personally identifiable information about the human case (e.g., name, patient ID).

7. Attachments

Attachments may be uploaded via the Report panel on the right side of the interface. Please attach any relevant information about the human case not captured in the form. Do not include any personally identifiable information (e.g., name, date of birth, medical records). Attachments may include information that further characterizes the case of illness (e.g., information about exposures, illness, clinical findings, health outcomes, etc). File types that can be attached include images (e.g., jpg, png), documents (e.g., Word, PDF), or other data file types such as Excel.



8. Author and Agency Information

This section is automatically populated with the author's information and does not require any additional information. Refer to the Getting Started and Technical Features guidance at www.cdc.gov/habs/pdf/ohhabs-getting-started for additional information about this section.