**Appendix B. Survey Instrument 1**

**Several Oasis of the Seas passengers who sailed on the Atlantis cruise from Miami, Fla., January 19–26, 2020, became sick with a drug-resistant strain of *Shigella* after the cruise. This highly contagious bacteria causes the diarrheal disease shigellosis. The U.S. Centers for Disease Control and Prevention is doing a survey to learn how ship passengers became infected. We are asking all passengers to take part in this survey, even if they did not get sick.**

**By taking part in this survey, you will help - us to learn how people became sick. This will help improve prevention efforts. Your participation is voluntary, and you may skip any question you do not want to answer.**

**The survey includes questions about activities you did while on the cruise. Some of these questions are sensitive in nature, but your answers will be kept confidential and private. The survey will take about 10 minutes to complete.**

**Screening**

1. Are you 18 years of age or older?
   1. Yes
   2. No (if no, end survey)
2. Have you completed this online survey before?
   1. Yes (if yes, end survey)
   2. No
3. Were you a passenger on a cruise on the Oasis of the Seas that left Miami, Florida 1/19 and returned on 1/26?
   1. Yes
   2. No (if no, end survey)
4. While on board Oasis of the Seas, or in the week after disembarking from Oasis of the Seas, did you have a stomach or intestinal illness with diarrhea? [select one]
   1. Yes [go to survey part A]
   2. No [go to survey part B]

**SURVEY PART A (only completed by those with symptoms)**

**Demographic Module**

1. What is your age?
   1. Fill in blank
2. What is your country of residence?
   1. Drop Down
      1. If United States, what is your state (or territory) of residence?
         1. Drop Down
      2. If United States, what is your zip code?
         1. Number
3. What sex were you assigned at birth, on your original birth certificate? [select one]
   1. Female
   2. Male
4. How do you describe your gender identity? [select one]
   1. Female
   2. Male
   3. Male-to-female transgender
   4. Female-to-male transgender
   5. Other gender identity (specify):)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Which of the following best represents how you think of yourself? [select one]
   1. Gay (lesbian or gay)
   2. Straight, this is not gay (or lesbian or gay)
   3. Bisexual
   4. Something else
   5. I don’t know the answer
6. Do you consider yourself to be Hispanic or Latino? [select one]
   1. Yes
   2. No
7. Which racial group or groups do you consider yourself to be in? [select all that apply]
   1. American Indian or Alaska Native
   2. Asian
   3. Black or African American
   4. Native Hawaiian or Pacific Islander
   5. White
   6. Other not listed here
8. What is your first and last initial? (If you prefer not to answer, please type “NA” in both fields below)
   1. First initial
      1. Fill in blank
   2. Last initial
      1. Fill in blank

**Cruise Activity Module**

1. While on the cruise, please indicate all the places where you ate food: [select all that apply]
2. Grande Dining Room
3. American Icon Dining Room
4. Silk Main Dining Room
5. Windjammer Cafe
6. Park Cafe
7. Cafe Promenade
8. Sorrento’s Pizza
9. Doghouse
10. Solarium Bistro
11. Vitality Cage
12. El Loco Fresh
13. Izumi
14. Playmakers Sports Bar
15. Johnny Rockets
16. Chops Grille
17. Giovanni’s Table
18. 150 Central Park
19. Coastal Kitchen
20. Portside BBQ
21. Room Service
22. Did you take any day trips?
23. Yes
    * 1. If yes, to 10. Where did you go? [select all that apply]
         1. Haiti
         2. St Maarten
         3. Puerto Rico
      2. If yes, to 10. Did you eat any food purchased during a day trip?
         1. Yes
            1. If yes, to 10ii. Where did you purchase food? [select all that apply]

Haiti

St Maarten

Puerto Rico

* + - 1. No
    1. If yes, to 10. Did you swim during a day trip?
       1. If yes, to 10iii. Yes
          1. Where did you swim? [select all that apply]

Haiti

St. Maarten

Puerto Rico

* + - 1. No

1. No
2. Did you swim while on the cruise?
3. Yes
4. If yes, to 11. Where did you swim? [select all that apply]
5. Hot tub on cruise ship
6. Swimming pool on cruise ship
7. No

**The next module asks about sexual activities engaged in during the cruise. This is because *Shigella* can be spread through sexual contact. Your answers to these questions will be kept private and may help us to identify how you became sick with a *Shigella* infection. This will also help us to prevent others from getting sick.**

**Sexual Activity Module**

1. During the cruise did you engage in any sexual activity. Sexual activity includes genital sex, anal sex, oral sex, or any other sexual contact (e.g., rimming, fingering).
2. Yes
3. If yes, to 12. Were your sex partners [select all that apply]
4. Male
5. Female
6. Transgender woman
7. Transgender man
8. Another
9. If yes, to 12. What type of sexual activities did you engage in? [select all that apply]
10. Oral sex (give)
11. Oral sex (receive)
12. Anal sex (give)
13. Anal sex (receive)
14. Vaginal sex
15. Rimming (give)
16. Rimming (receive)
17. Fingering (give)
18. Fingering (receive)
19. Sharing sex toys
20. Group sex (sex with more than 1 partner)
21. If yes, to 12. Did you have any new sexual partners while on the cruise?
22. If yes, to 12iii. Yes
    * + - 1. How many new sex partners did you have on the trip?

Number

* + - * 1. If you remember, from what countries were your partners from?

Fill in blank

* + - * 1. If you remember, from what U.S. states were your partners from?

Fill in blank

1. No
2. If yes, to 12. Did any of your sexual partners on the cruise have a stomach or intestinal illness with diarrhea?
3. Yes
4. No
5. No

**Prevention Activities**

1. While on the cruise how often did you engage in the following behaviors:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Never | Rarely | Occasionally | Frequently | Always | Not applicable |
|  | 1 | 2 | 3 | 4 | 5 | N/A |
| Wash your hands before eating | 1 | 2 | 3 | 4 | 5 | N/A |
| Wash your hands after using the bathroom | 1 | 2 | 3 | 4 | 5 | N/A |
| Wash your hands after sex or sexual activity | 1 | 2 | 3 | 4 | 5 | N/A |
| Swallow pool water | 1 | 2 | 3 | 4 | 5 | N/A |
| Swallow ocean water | 1 | 2 | 3 | 4 | 5 | N/A |
| Swallow hot tub water | 1 | 2 | 3 | 4 | 5 | N/A |
| Wash genitals and anus before sex or sexual activity | 1 | 2 | 3 | 4 | 5 | N/A |
| Use barriers when rimming | 1 | 2 | 3 | 4 | 5 | N/A |
| Use gloves or barriers when fingering or fisting | 1 | 2 | 3 | 4 | 5 | N/A |
| Use barriers during anal sex | 1 | 2 | 3 | 4 | 5 | N/A |
| Douche prior to sex or sexual activity | 1 | 2 | 3 | 4 | 5 | N/A |

**Symptoms**

1. When did your symptoms start?
   1. Calendar function
2. When did your symptoms end?
   1. Calendar function
3. For how many days were you sick?
   1. Number
4. What symptoms did you experience? [select all that apply]
   1. Diarrhea
      1. When did your diarrhea start?
         1. Calendar function
      2. When did your diarrhea end?
         1. Calendar function
      3. How many days did you have diarrhea?
         1. Number
   2. Bloody stools/bloody diarrhea
   3. Greasy stool
   4. Nausea
   5. Gas
   6. Vomiting
   7. Abdominal pain/cramps
   8. Achy joints/muscles
   9. Fever
   10. Headache
   11. Tenesmus (or feeling the need to pass stool [poop] even when bowels are empty)
   12. Another symptom not listed

**Clinical**

1. Did you seek medical care for your symptoms?
   1. Yes
      1. If yes, to 18. From where did you seek medical care? [select all that apply]
         1. Cruise ship doctor/clinic
         2. Urgent care
         3. Primary care physician
         4. Emergency department
         5. Other location not listed
      2. If yes, to 18. Did your provider diagnose you with or tell you had any of the following? [select all that apply]
         1. Traveler’s diarrhea
         2. Food poisoning
         3. Shigellosis/*Shigella*
         4. Giardiasis/*Giardia*
         5. Amebiasis/*Entamoeba histolytica*
         6. Norovirus infection
         7. Cryptosporidiosis/*Cryptosporidium*
         8. Campylobacteriosis/*Campylobacter*
         9. Other, not listed
      3. If yes, to 18. Were you hospitalized for more than 24 hours for your illness?
         1. Yes
         2. No
   2. No
2. Did you take an antibiotic?
   1. Yes
      1. If yes, to 19. What type of antibiotic did you take? [select all that apply]
         1. Ampicillin
         2. Azithromycin
         3. Ciprofloxacin
         4. Ceftriaxone
         5. Trimethoprim-sulfamethoxazole
         6. Other not listed
         7. More than one antibiotic course (Specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
         8. Do not know
      2. If yes, to 19. How many days of antibiotics where you prescribed? (Specify):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      3. If yes, to 19. For how many days did you take antibiotics? (Specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      4. If yes, to 19. What day did you first start taking antibiotics?
         * 1. Calendar function
      5. If yes, to 19. In the 24 hoursafter taking the antibiotic(s), did your symptoms
         1. Get better/improve
         2. Stay the same
         3. Get worse
         4. Other
   2. No
3. In the 30-days before your illness, did you receive or take any antibiotics?
   1. Yes
      1. If yes, to 20. What type of antibiotic did you take? [select all that apply]
         1. Ampicillin
         2. Azithromycin
         3. Ciprofloxacin
         4. Ceftriaxone
         5. Trimethoprim-sulfamethoxazole
         6. Other not listed
         7. More than one antibiotic course (Specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
         8. Do not know
   2. No

**Final Module**

1. While you had symptoms of stomach or intestinal illness with diarrhea, or in the week after you had symptoms, did you engage in any of the following activities? [select all that apply]
2. Prepare food for others
3. Swim in a public swimming pool or public hot tub
4. Have sex or engage in sexual activity
5. Work in a healthcare facility, restaurant, childcare setting, or homeless shelter
6. Can we share your survey information with your local health department?
   1. Yes
      1. If yes to 22a. Would you be willing to be contacted by your local health department to follow-up on your responses?
         1. Yes, please provide my contact information to my local health department.
            1. If yes, Fill in blank
         2. No, do not contact me again.
   2. No

**Thank you for taking this survey. For more information about shigellosis please go to www.cdc.gov/shigella**

<<<END OF SURVEY>>>

**SURVEY PART B (only asked to participants without symptoms)**

**Demographic Module**

1. What is your age?
   1. Fill in blank
2. What is your country of residence?
   1. Drop Down
      1. If United States, What is your state (or territory) of residence?
         1. Drop Down
      2. If United States, What is your zip code?
         1. Number
3. What sex were you assigned at birth, on your original birth certificate? [select one]
   1. Female
   2. Male
4. How do you describe your gender identity? [select one]
   1. Female
   2. Male
   3. Male-to-female transgender
   4. Female-to-male transgender
5. Which of the following best represents how you think of yourself? [select one]
   1. Gay (lesbian or gay)
   2. Straight, this is not gay (or lesbian or gay)
   3. Bisexual
   4. Something else
   5. I don’t know the answer
6. Do you consider yourself to be Hispanic or Latino? [select one]
   1. Yes
   2. No
7. Which racial group or groups do you consider yourself to be in? [select all that apply]
   1. American Indian or Alaska Native
   2. Asian
   3. Black or African American
   4. Native Hawaiian or Pacific Islander
   5. White
   6. Other not listed here
8. What is your first and last initial? (If you prefer not to answer, please type “NA” in both fields below)
   1. First initial
      1. Fill in blank
   2. Last initial
      1. Fill in blank

**Cruise Activity Module**

1. While on the cruise, please indicate all the places where you ate food: [select all that apply]
2. Grande Dining Room
3. American Icon Dining Room
4. Silk Main Dining Room
5. Windjammer Cafe
6. Park Cafe
7. Cafe Promenade
8. Sorrento’s Pizza
9. Doghouse
10. Solarium Bistro
11. Vitality Cage
12. El Loco Fresh
13. Izumi
14. Playmakers Sports Bar
15. Johnny Rockets
16. Chops Grille
17. Giovanni’s Table
18. 150 Central Park
19. Coastal Kitchen
20. Portside BBQ
21. Room Service
22. Did you take any day trips?
23. Yes
    * 1. If yes to 32. Where did you go? [select all that apply]
         1. Haiti
         2. St Maarten
         3. Puerto Rico
      2. If yes to 32. Did you eat any food purchased during a day trip?
         1. Yes
            1. If yes to 21v.Where did you purchase food? [select all that apply]

Haiti

St Maarten

Puerto Rico

* + - 1. No
    1. If yes to 32. Did you swim during a day trip?
       1. If yes to 32vi. Yes
          1. Where did you swim? [select all that apply]

Haiti

St. Maarten

Puerto Rico

* + - 1. No

1. No
2. Did you swim while on the cruise?
3. Yes
4. If yes to 32. Where did you swim? [select all that apply]
5. Hot tub on cruise ship
6. Swimming pool on cruise ship
7. No

**The next module asks about sexual activities engaged in during the cruise. This is because *Shigella* can be spread through sexual contact. Your answers to these questions will be kept private and may help us to identify how you became sick with a *Shigella* infection. This will also help us to prevent others from getting sick.**

**Sexual Activity Module**

1. During the cruise did you engage in any sexual activity? Sexual activity includes genital sex, anal sex, oral sex, or any other sexual contact (e.g., rimming, fingering).
2. Yes
3. If yes to 34. Were your sex partners [select all that apply]
4. Male
5. Female
6. Transgender woman
7. Transgender man
8. Another
9. If yes to 34. What type of sexual activities did you engage in? [select all that apply]
10. Oral sex (give)
11. Oral sex (receive)
12. Anal sex (give)
13. Anal sex (receive)
14. Vaginal sex
15. Rimming (give)
16. Rimming (receive)
17. Fingering (give)
18. Fingering (receive)
19. Sharing sex toys
20. Group sex (sex with more than 1 partner)
21. If yes to 34. Did you have any new sexual partners while on the cruise?
22. Yes
    * + - 1. If yes to 34vi. How many new sex partners did you have on the trip?

Number

* + - * 1. If yes to 34vi. If you remember, from what countries were your partners from?

Fill in blank

* + - * 1. If you remember, from what U.S. states were your partners from?

Fill in blank

1. No
2. If yes to 34. Did any of your sexual partners on the cruise have a stomach or intestinal illness with diarrhea?
3. Yes
4. No
5. No

**Prevention Activities**

1. While on the cruise how often did you engage in the following behaviors:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Never | Rarely | Occasionally | Frequently | Always | Not applicable |
|  | 1 | 2 | 3 | 4 | 5 | N/A |
| Wash your hands before eating | 1 | 2 | 3 | 4 | 5 | N/A |
| Wash your hands after using the bathroom | 1 | 2 | 3 | 4 | 5 | N/A |
| Wash your hands after sex or sexual activity | 1 | 2 | 3 | 4 | 5 | N/A |
| Swallow pool water | 1 | 2 | 3 | 4 | 5 | N/A |
| Swallow ocean water | 1 | 2 | 3 | 4 | 5 | N/A |
| Swallow hot tub water | 1 | 2 | 3 | 4 | 5 | N/A |
| Wash genitals and anus before sex or sexual activity | 1 | 2 | 3 | 4 | 5 | N/A |
| Use barriers when rimming | 1 | 2 | 3 | 4 | 5 | N/A |
| Use gloves or barriers when fingering or fisting | 1 | 2 | 3 | 4 | 5 | N/A |
| Use barriers during anal sex | 1 | 2 | 3 | 4 | 5 | N/A |
| Douche prior to sex or sexual activity | 1 | 2 | 3 | 4 | 5 | N/A |

**Final Module**

1. Can we share your survey information with your local health department?
   1. Yes
      1. If yes to 36a. Would you be willing to be contacted by your local health department to follow-up on your responses?
         1. Yes, please provide my contact information to my local health department.
            1. Fill in blank
         2. No, do not contact me again.

**Thank you for taking this survey. For more information about shigellosis please go to www.cdc.gov/shigella**