Form Approved
OMB No. 0920-1011
Exp. Date 03/31/2017

Unique ID (6 digits)_____

Date of Interview_____ Interviewer Name_____ CHV Name _____

County_____Sub-county_____Village/Town_____Urban/Rural

GPS Coordinates of Household: Longitude_____ Latitude_____

Hello, my name is _____. I am working with the Kenyan Ministry of Health and the Centers for Disease Control and Prevention in Kenya and the US to investigate illnesses in the community. We have a few questions about illness in the community and water issues. This may take about 30-40 minutes. May I please speak to the person in the home who usually takes care of the ill family members and brings the water for the family?

[READ ENROLLMENT SCRIPT TO GAIN CONSENT FOR PARTICIPATION. RECORD NO FOR REFUSALS.]

1. Consent to participate? 1 Yes 0 No, refusal → **END SURVEY**			
2. What is your age in years? _____ years	3. Gender	1	Male
		0	Female

Background Socioeconomic & Education

4. How many people live in your household?	#	
5. How many children less than 5 years old live in your household?	#	

Cholera General Knowledge Information

6. Have you ever heard of an illness called cholera?	1	Yes
	0	No
	99	Don't Know
7. Have you heard about the cholera outbreak in your area recently?	1	Yes
	0	No
	99	Don't Know
8. Can you tell me what the main symptoms of cholera are? ***(Do not read. Check all that are mentioned.)***	1	Diarrhea
	2	Vomiting
	3	Fever
	4	Dehydration
	5	Decreased appetite
	6	Other(specify)_____
	99	Don't Know
9. What causes cholera? ***(Do not read. Check all that are mentioned.)***	1	Drinking bad water
	2	Eating bad food
	3	Unwashed fruit/vegetables
	4	Flies/Insects
	5	Poor hygiene
	6	Open defecation
	7	Spirits/Curse/Bad Omen
	8	Other (specify) _____
	99	Don't Know

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10. Can cholera spread from one person to another?	1 0 99	Yes No Don't know
11. How can you prevent you or your family members from getting cholera? ***(Do not read. Check all that are mentioned. Prompt after each response.)***	0 1 2 3 4 5 6 7 8 9 10 99	Cannot prevent Herbs Wash hands Cook food thoroughly Reheat stored food Cover food Boil or treat water Wash vegetables and fruit Clean cooking utensils/vessels Use a latrine/Avoid open defecation Other (specify)_____ Don't Know
12. Where would you go for care if you or your family member had cholera? ***(Do not read. Check all that are mentioned. Prompt after each response)***	1 2 3 4 5 6 7 8 9 10 11 12 99	Private hospital Government Hospital Private health center/clinic Government Health center/clinic Dispensary Cholera treatment center Chemist Kiosk/shop Community health worker or volunteer Traditional healer Family or neighbor Other (specify)_____ Don't know
13. How would you treat cholera for yourself or your family members when you are at home and cannot get to a health facility? ***(Do not read. Check all that are mentioned. Prompt after each response)***	1 2 3 4 5 6 7 8 9 10 11 12 13 99	Increase liquid intake Decrease liquid intake Increase food intake Decrease food intake Use oral rehydration solution (ORS) Use sugar-salt solution Pill or syrup medicine Injection Go to church/ mosque/religious place Go to traditional healer Home remedy (specify)_____ Other (specify)_____ Do not treat Don't Know

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Cholera in Your Village/Neighborhood

14. Please tell me all the ways you heard about the cholera outbreak. ***(Do not read. Check all that are mentioned. Prompt after each response.)***	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 99	Family member Neighbor Friend Chief (*Baraza*) Community Meeting Community health worker/ volunteer Health Worker Women's group Church, Mosque or religious group School NGO or Volunteer Organization (ex. Red Cross, MSF, UNICEF, ACF) Radio Electronic media (TV, internet, facebook) Newspaper Poster or Wall Hanging Other (specify)_____ Don't know
15. Did you hear messages about how to prevent cholera from these sources of information (below)? *Family member, Neighbor, Friend* *Chief (Baraza) Community Meeting* *Community health worker/ volunteer* *Health Worker* *Women's group* *Church, Mosque or religious group* *School* *NGO or Volunteer Organization* *Radio, Electronic media (TV, internet, facebook), Newspaper* *Poster or Wall Hanging*	1 0 99	Yes → **Go to 16** No → **Go to 17** Don't know → **Go to 17**
16. What did you hear? ***(Do not read. Check all that are mentioned. Prompt after response.)***	1 2 3 4 5 6 7 8 9	Boil or treat water Build/Use latrines/Avoid open defecation Wash hands Cover food Cook food thoroughly Wash vegetables and fruit Clean cooking utensils/vessels Seek treatment if you have severe, watery or bloody diarrhea Other_____

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Cholera in Household

17. Did you or someone in your household become ill with cholera in the past 6 months? ***Household=persons who eat from same pot or live under the same roof***	1 0 99	Yes → **Go to 18** No → **Go to 27** Don't know → **Go to 27**
18. Have there been any deaths in your household due to cholera in the past 6 months?	1 0	Yes No

19. Did you use any of the following to treat yourself or others in your household when having diarrhea? ***(Ask each item. Choose Yes, No or Don't know for each item)***			
a. Herbal Treatment	Yes (1)	No (0)	Don't Know (99)
b. Fluid prepared from ORS packet	Yes (1)	No (0)	Don't Know (99)
c. Other solution prepared at home	Yes (1)	No (0)	Don't Know (99)
d. Oral medicine/Antibiotics	Yes (1)	No (0)	Don't Know (99)
e. Other (specify)_____	Yes (1)	No (0)	Don't Know (99)

20. Did you or someone in your household go for care for cholera?	1 0 9	Yes → **Go to 21** No → **Go to 27** Don't know → **Go to 27**
21. The last time (most recent time) you or someone in your household went for care for cholera, who was sick?	1 2 3	Respondent Respondent's family member Other (specify)_____

(The following questions 22-26 are about the person identified in question 21)

22. Did [you/ name of person in your household who had cholera] go for care at:			
a. Private hospital	Yes (1)	No (0)	Don't Know (99)
b. Government hospital	Yes (1)	No (0)	Don't Know (99)
c. Private health center/clinic	Yes (1)	No (0)	Don't Know (99)
d. Government health center /clinic	Yes (1)	No (0)	Don't Know (99)
e. Dispensary	Yes (1)	No (0)	Don't Know (99)
f. Cholera treatment center	Yes (1)	No (0)	Don't Know (99)
g. Chemist	Yes (1)	No (0)	Don't Know (99)
h. Kiosk/Shop	Yes (1)	No (0)	Don't Know (99)
i. Community Health Worker or Volunteer	Yes (1)	No (0)	Don't Know (99)
j. Traditional Healer	Yes (1)	No (0)	Don't Know (99)
k. Family or neighbor	Yes (1)	No (0)	Don't Know (99)
l. Other (specify)_____	Yes (1)	No (0)	Don't Know (99)

If YES to ANY Health Facility (29 a,b,c,d,e,f) → Go to 30
If NO or Don't know to ALL Health Facilities (29 a,b,c,d,e,f) → Go to 37

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23. What did they give [you/ name of person in your household who had cholera] at the health facility to treat your cholera illness? ***(Read all choices and check all that apply.)***	1 2 3 4 5 6 7 8 9 99	ORS Fluid through a needle / IV Fluids Syrup or pill medicine by mouth Injection Antibiotics Anti-motility medicine Zinc sulfate Special air through a mask / Oxygen Other (specify)_____ Don't Know
24. Did the hospital take a stool test?	1 0 99	Yes No Don't know
25. Did anyone at the health facility talk to you about preventing cholera?	1 0 99	Yes → **Go to 26** No → **Go to 27** Don't know → **Go to 27**
26. What did they talk about? ***(Do not read. Check all mentioned. Prompt after response).***	1 2 3 4 5 6 7 8 9 10 11 99	Treat water Build and use latrines Wash hands Cover food Cook food thoroughly Reheat stored food Wash vegetables and fruit Clean cooking utensils/ vessels Seek treatment if severe, watery, bloody diarrhea Diarrhea and children Other (specify) _____ Don't know

Health-seeking Behavior

Now, I would like to ask you some questions about the health facility where you mainly go for care.

27. How many hours does it take to get to the health facility from your home?	1 2 3 4 5 99	0-30 minutes 30-60 minutes 1-3 hours 3-6 hours >6 hours Don't know

Oral Rehydration Solution (ORS)

28. Have you heard of Oral Rehydration Solution or ORS?	1 0 99	Yes → **Go to 29** No →**Go to 32** Don't know → **Go to 32**

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29. What is ORS used to treat? ***(Do not read. Check all that are mentioned.)***	1 2 3 4 99	Dehydration Diarrhea Children's illnesses Other (specify)_____ Don't Know
30. Where is ORS available ? ***(Do not read. Check all that are mentioned.)***	1 2 3 4 5 6 7 99	Health care facility Chemist/Pharmacy Kiosk/Shop in Village Supermarket NGO Other (specify)_____ Not available Don't know
31. Have you received ORS for free in the past 6 months?	1 0 99	Yes No Don't know

Water and Water Treatment Information

32. What is the main source of your household's drinking water during the DRY season? ***(Do not read; Choose 1)***	1 2 3 4 5 6 7 8 9 10 11 12 13 14	Open deep well Protected deep well Shallow well/hand-dug well Spring Lake Pond/Seasonal lake River Borehole Rain water catchment from roof Piped water to house Community tap Water vendor Dam Other (specify)_____
33. What is your main source of drinking water during the RAINY season? ***(Do not read; Choose 1)***	1 2 3 4 5 6 7 8 9 10 11 12 13 14	Open deep well Protected deep well Shallow well/hand-dug well Spring Lake Pond/Seasonal lake River Borehole Rain water catchment from roof Piped water to house Community tap Water vendor Dam Other (specify)_____

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34. Where are you presently getting your water? ***(Do not read; Choose 1)***	1 2 3 4 5 6 7 8 9 10 11 12 13 14	Open deep well Protected deep well Shallow well/hand-dug well Spring Lake Pond/Seasonal lake River Borehole Rain water catchment from roof Piped water to house Community tap Water vendor Dam Other (specify)_____
35. Are there any times during the year when water is not readily/easily available?	1 0	Yes → **Go to 36** No → **Go to 38**
36. During the past 6 months, how often was water not readily/easily available? ***(Read choices. Choose only 1.)***	1 2 3 4 5 99	One week during past 6 months One month during past 6 months 1- 3 months during past 6 months Over 3 months during past 6 months Other (specify)_____ Don't know
37. Why was water not readily available?	1 2 3 4 99	Drought Water rationing Broken pipes/ water system Other (specify)_____ Don't know
38. Do you do something to your drinking water to make it safe to drink?	1 0 99	Yes → **Go to 39** No → **Go to 40** Don't know → **Go to 40**
39. What do you do to treat the water? ***(Do not read. Check all that are mentioned. Prompt after each response.)***	1 2 3 4 5 6 7 8 9 10 11 12 13 99	Boil Decanting Keep water in hot sun Filter Cloth filter Sand (shallow dug well) Alum WaterGuard PuR AquaGuard Aquatabs Use a ceramic/biosand filter Other *(Specify*)_____ Don't know

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40. In the last 6 months, have you ever received any water treatment products or hygiene products or kits for free from the government, NGO, or another organization (to prevent or treat cholera)?	1 0 99	Yes → **Go to 41** No → **Go to 45** Don't know →**Go to 45**
41. What were you given? ***(Do not read. Check all that are mentioned.)***	1 2 3 4 5 6 7 8 8 9 10 11 12 13 14 15 16	WaterGuard → **Go to 42** PuR → **Go to 42** AquaGuard → **Go to 42** Aquatabs/chlorine tabs → **Go to 42** Bottles of chlorine → **Go to 42** Drums of chlorine → **Go to 42** Hygiene kit → **Go to 42** Soap Jerrycan Bucket Ceramic water filter Medicine/Antibiotics ORS Print material Incentives Advice Other_____ **Go to 45**
42. Were you given any counseling or education on how to use these water treatment products?	1 0 99	Yes No Don't know
43. Did you use any of these products?	1 0 99	Yes → **Go to 45** No → **Go to 44** Don't know → **Go to 45**
44. Why did you not use these products?	1 2 3 4 5 6 7 99	Bad Taste Dangerous to use these products No container to treat water No need to treat water Did not know how to use the product Did not know where to get product Other (specify)_____ Don't know

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Handwashing Information

45. When do you wash your hands? ***(Do not read. Check all that are mentioned.)***	1 2 3 4 5 6 7 8 99	After using the toilet Before eating After eating When serving meals Before cooking After cleaning babies when they defecate Other (Specify) _____ Never wash hands Don't Know
46. Do you have soap in the house? ***(If possible, observe soap if say yes.)***	1 0 99	Yes → Observed? Yes (1) , No (0) No Don't know

Devolution

Now, we would like to ask you some questions about how devolution may have changed health services in your community.

47. Since devolution, which changes (if any) have you noticed in health services in your community? ***(Do not read. Check all that are mentioned. Probe.)***	0 1 2 3 4 5 6 7 99	None / no changes in health services Better services Worse services Shorter wait times Longer wait times Less fees for health services More fees for health services Other (Specify)_____ Don't know

Education/Socioeconomic/Personal Information

A number of cholera messages have been sent by the Ministry of Health and partners about this outbreak and we want to know how they reached you. We also ask a few questions about household income and religion so we can know all who are represented in this survey.

48. Can you read and write?	1 0 99	Yes No Don't know
49. What is the highest level of education you have attended? ***(Choose only 1)***	0 1 2 3 4 99	None Lower Primary Upper Primary Secondary or Higher Other (specify)_____ Don't know

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50. Does your household have the following? ***(Read all choices. Mark all that apply.)***	1 2 3 4 5 6 7 8 9 10 0	Electricity Television Radio Animal-drawn cart Motorcycle/Scooter Bicycle Car/truck Refrigerator Telephone (mobile or non-mobile) Agricultural land None of the above
51. What is the main source of family income? ***(Do not read. Choose only 1.)***	1 2 3 4 5 6 99	Small Business/Trader Fishing Farmer Employed/Salaried Unskilled labor Unemployed Don't Know
52. What is your religious denomination? ***(Do not read. Check all that are mentioned.)***	1 2 3 4 5 99	Christian Muslim Hindu None Other (specify)_____ Refused

Home Information/Observations

Now I will ask you some questions about your home.

53. May I see where you store your water? ***(Mark all that are seen.)***	0 1 2 3 4 5 99	None Jerrycan Bucket Pot Cooking pot *(Sufuria)* Water Tank Refused
54. Where do you defecate? May I see where? **(*Mark what is seen if possible. Do not read. Circle the one that applies.)***	1 2 3 4 5 6 7 8	Flush Latrine Covered pit latrine Uncovered dry pit latrine Flying toilet Bush Lake or River Other, (Specify) _____ Paid toilet

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55. May I see the products you have purchased or have received from the government or NGOs? ***(Mark all that are seen.)***	1 2 3 4 5 6 7 8 9 10 11 12 0	Soap WaterGuard PuR Aquatabs/chlorine tabs Bottles of chlorine Drums of chlorine Ceramic water filter Medicine/Antibiotics ORS Food Print material Other (specify)_____ None in the home
56. Have you treated the drinking water you are using today with these products?	1 0	Yes No
57. May I test a sample of drinking water to see if there is chlorine in it?	1 2 3 4 99	Chlorine test performed → **Go to 58** No water stored→ **END SURVEY** Test not done → **END SURVEY** Other (specify)__ _____→ **END SURVEY** Refused→ **END SURVEY**
58. HOUSEHOLD DRINKNG WATER: Free chlorine residuals		Test turned pink: Yes (1), No (0) _._ _ mg/L (#, 2 decimal places)
59. SOURCE DRINKNG WATER: Free chlorine residuals		Test turned pink: Yes (1), No (0), Not tested (9) _._ _ mg/L (#, 2 decimal places)

"The interview is now finished. Thank you for your time"

NOTE: Give soap as a token of thanks for the participant AFTER the interview.

Interviewer_____
Health Facility ID_____
Unique ID _____

Version 2: 5 July 2015

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Health Care Worker Survey

Elicit answers from all nurses, clinical officers, and medical officers working in the inpatient and outpatient section of the health center, dispensary, or hospital.

NOTE: If more than one staff in the clinic/hospital, interview the NURSE IN CHARGE first and then the rest of the medical staff who are available.

The Kenyan Ministry of Health in collaboration with the Centers for Centers for Disease Control and Prevention (CDC) in Kenya and the US is conducting a cholera assessment because of the ongoing outbreak across the country. We would like to ask you some questions about the types of cholera patients you have been attending to. We are wondering if you would be willing to answer some questions. This survey should take approximately 30 minutes to complete.

Are you willing to participate in this survey?

Yes →**continue to Section A**

No → If **NO**, thank them for their time.

County:_____

Sub-county:_____

A. IDENTIFYING INFORMATION		
1. Date of interview		_____
2. Age of Respondent		_____ years
3. GPS coordinates		_____
4. Sex of Respondent		1 Male 2 Female
5. Location Employed	1 2 3 4 5 6 7 8	National Referral Hospital County Hospital Sub-county Hospital Community Health Centre Dispensary (name:_____) Other: (specify)_____ Private facility Faith-based facility
6. What type of medical facility is this facility? (***read all options, select <u>one</u>***)	1 2 3 4 5	Government (MOH) Private Faith-based NGO Other (specify)_____
7. Does this health facility admit patients overnight?	1 0 99	Yes No Don't know
8. What days areyour facility open?	1 2 3 4 99	Every day Monday – Friday Monday – Saturday Other (specify)_____ Don't know

9. How many hours are your facility open?	1 2 3 4 99	24 hours a day 8-12 hours a day Less than 8 hours a day Other (specify)_____ Don't know
10. Which one of the following healthcare worker categories best describes your current position? (***read all options, select <u>one</u>***)	1 2 3 4 5 6 7	Medical officer Clinical officer Nurse Nurse in charge Community Health Worker/Patient attendant Lab technician Other (specify)_____
11. Please indicate the training you have completed for your chosen healthcare profession (***read all options, select <u>one</u>***)	1 2 3 4 5	No formal training Medical school Clinical officer training Nursing school Other (specify)_____
12. How many years have you been practicing in your chosen health profession?		_____ years
13. How many years have you been practicing in this facility?		_____years

Now I will ask you about cholera patients you have seen.

B. CHOLERA PATIENTS IN THE HCF		
1. Did you see any cholera (suspected or confirmed) patients at this facility in 2015?	1 0 99	Yes → Go to 1a No → Go to C1 Don't know
1a. In the past week how many patients with cholera (suspected or confirmed) have you treated?		_____patients
2. Within this facility, where are/where were suspected or confirmed cholera cases treated?	1 2 3 4 5 99	Regular ward/clinic Separate cholera ward (within hospital/center) Cholera Treatment Centre (CTC), separate from the hospital/health centre Other (specify)_____ No cholera cases admitted → go to C1 Don't know
3. Have you treated patients for cholera in this facility as outpatients?	1 0 99	Yes No Don't know
4. Have you admitted patients with cholera overnight in this facility?	1 0 99	Yes No Don't know

5. Have any patients died of cholera in this health facility in 2015?	1 0 99	Yes → Go to 5a No → Go to C1 Don't know
5a. In 2015, about how many patients have died from cholera in this health facility?	1 2 3 4 99	0 1-5 6-10 >10 Don't know
5b. Why do you think these patients died of cholera?	1 2 3 4 5 99	Late diagnosis or initial misdiagnosis Late presentation to facility Inadequate staff in the facility to manage severely-ill patients Lack of necessary supplies to treat the patient Other (specify)_____ Don't know

Now I will ask you about the disease cholera.

C. KNOWLEDGE		
1. Have you received any training on how to manage cholera patients?	1 0	Yes → Go to 1a No → Go to 2
1a. *If **YES***, what year was this training?		_____(year only)
1b. *If **YES***, from whom did you receive the training?	1 2 3 4 5 99	Ministry of Health Private organization (specify)_____ During schooling NGO (specify)_____ Other (specify)_____ Don't know/remember
2. What case definition do you use for cholera? ***(do not read, circle all that are mentioned)***	1 2 3 4 5 6 99	Severe dehydration from acute watery diarrhea (>4 episodes in 12 hours) in a patient of any age Severe dehydration from acute watery diarrhea (>4 episodes in 12 hours) in a patient >5 years old Acute watery diarrhea in a person ≥2 years old in an area where there is an outbreak of cholera Acute watery diarrhea in a person ≥2 years old Any diarrhea Other (specify)_____ Don't Know
3. Name at least one way that cholera is transmitted (***don't read, select all that apply***)	1 2 3 5 99 6	Contaminated Food Contaminated Water Other (specify)_____ Person-to-person Don't Know Fecal-oral route
4. Can cholera be prevented?	1 0 99	Yes → go to 4a No → go to 5 Don't Know → go to 5

4a. *If **YES,*** how can cholera be prevented? (***Don't read, select all that apply***)	1	Wash hands
	2	Cook food thoroughly
	3	Cover food
	4	Boil or treat water
	5	Wash fruits and vegetables
	6	Clean cooking utensils
	7	Other (specify)_____
	99	Don't know
5. What are signs of severe dehydration in a patient? (***read all options, select all that apply***)	1	Lethargic or unconscious
	2	Crying with visible tears
	3	Weak distal pulses
	4	Normal skin pinch
	5	Very sunken eyes
	6	No or decreased urine output
	7	High blood pressure
	8	Low blood pressure
	9	High pulse rate
	10	Other (specify)_____
	99	Don't know
6. When you see a cholera patient with *severe* dehydration, what type of fluids would you give them ideally? (***read all options, select one***)	1	Oral Rehydration Solution (ORS) only → go to 7
	2	Intravenous fluid and ORS → go to 6a
	0	None of the Above → go to 7
	99	Don't Know → go to 7
6a. What type of intravenous fluids would you give a patient with *severe* dehydration? (***read all options, select one***)	1	Ringer's Lactate (LR)/ Hartmann's solution
	2	Plasma
	3	0.9% Normal Saline (NS)
	4	5% Dextrose (D5W)
	5	Other (specify)_____
	99	Don't Know
7. If you see a cholera patient with *some* dehydration and no vomiting, what type of fluids would you give them ideally? (***read answers, select only one***)	1	Oral Rehydration Solution (ORS) only
	2	Intravenous fluid and ORS
	0	None of the Above
	99	Don't Know
8. If you see a cholera patient with *no* signs of dehydration, what do you do? (***read answers, select only one***)	0	Nothing, send them home
	1	Give ORS to take home
	2	Give intravenous fluids
	3	Other (specify)_____
	99	Don't Know
9. If you see a cholera patient who is vomiting, when can you give them ORS? (***read answers, select only one***)	1	Immediately
	2	After IV fluids
	3	When vomiting has stopped
	4	Other (specify)_____
	99	Don't know

10. When is it appropriate to feed a cholera patient? (***read answers, select only <u>one</u>***)	1	Never
	2	As soon as they are able to eat without vomiting
	3	Other (specify)_____
	99	Don't know
11. **TRUE/FALSE:** Infants and young children with cholera should continue breast-feeding as long as they are not vomiting	1	True
	2	False
	99	Don't know
12. Which cholera patients should receive oral antibiotics? (***read answers, select only <u>one</u>***)	1	All patients
	2	Only patients with severe dehydration
	3	Only pediatric patients
	99	Don't know
13. Which antibiotics are given to adult cholera patients in your facility? (***read answers, select all that apply)***	1	Doxycycline
	2	Tetracycline
	3	Chloramphenicol
	4	Erythromycin
	5	Other (specify)_____
	99	Don't know

Now I will ask you about your attitudes toward cholera.

D. ATTITUDE		
1. Are you worried about getting cholera from your patients?	1	Yes
	0	No
2. Do you believe that cholera is curable with proper treatment?	1	Yes
	0	No

E. PRACTICES		
E1. Supplies **Now I will ask you some questions about the availability of supplies in your facility.**		
1. Do you have ORS in your facility?	1	Yes
	0	No
	99	Don't know
1a. In 2015, did you ever run out of ORS?	1	Yes → Go to 1b
	0	No → Go to 2
	99	Don't know
1b. Why did you run out of ORS?	1	In-between orders
	2	Shortage of stock at distributor level →Go to 1c
	3	Other (specify)_____
	99	Don't know
1c.What was the longest period of time you had a stock out of this product?	1	<1 week
	2	1 week – 1 month
	3	1 – 3 months
	4	3– 6 months
	5	>6 months
	6	Other (specify)_____
	99	Don't know

2. Do you have intravenous fluids (IVF) in your facility?	1 0 99	Yes No Don't know
2a. In 2015, did you ever run out of intravenous fluids?	1 0 99	Yes → Go to 2b No → Go to 3 Don't know
2b. Why did you run out of IVF?	1 2 3 99	In-between orders Shortage of stock at distributor level Other (specify)_____ Don't know
2c. What was the longest period of time you had a stock out of this product?	1 2 3 4 5 6 99	<1 week 1 week – 1 month 1 – 3 months 3 – 6 months >6 months Other (specify)_____ Don't know
3. Do you have doxycycline in your facility?	1 0 99	Yes No Don't know
3a. In 2015, did you ever run out of doxycycline?	1 0 99	Yes → Go to 3b No → Go to 4 Don't Know → Go to 4
3b. Why did you run out of doxycycline?	1 2 3 99	In-between orders Shortage of stock at distributor level Other (specify)_____ Don't know
3c. What was the longest period of time you had a stock out of this product?	1 2 3 4 5 6 99	<1 week 1 week – 1 month 1 – 3 months 3 – 6 months >6 months Other (specify)_____ Don't know
E2. Laboratory **Now I will ask some questions about cholera laboratory tests.**		
4. Are stool samples collected from suspected cholera patients in your facility?	1 0 99	Yes → **go to 4a** No → **go to 5** Don't know → **go to 5**
4a. Are stool samples cultured for cholera in your facility?	1 0 99	Yes → **go to 4b** No → **go to 5** Don't know → **go to 5**
4b. Where are stool samples sent for culture?	1 2 3 99	County hospital lab National lab Other (specify)_____ Don't know

4c. Are culture results sent back to your facility?	1 0 99	Yes No Don't Know
5. Do you have rapid cholera tests in your facility?	1 0 99	Yes → go to 5a No → go to 6 Don't Know → go to 6
5a. Did you ever conduct a rapid cholera test on any patients in 2015?	1 0 99	Yes No Don't Know
E3. ORS. Now I will ask you some questions about ORS		
6. Do you make ORS for cholera patients in this facility?	1 0 99	Yes → go to 6a No → go to 7 Don't know → go to 7
6a. Is the facility water used to make ORS treated?	1 0 99	Yes → go to 6b No → go to 7 Don't Know → go to 7
6b. How is water treated? (***observe the water treatment and circle all the water treatments observed. If no water treatment available to view, mark No water treatment available)***	0 1 2 3 4 5 6 7 99	No water treatment available Boiling Jik WaterGuard AquaTabs AquaGuard Pur Other (specify)_____ Don't know
6c. From whom did you receive the water treatment products?	1 2 3 99	Government NGO (specify)_____ Other _____ Don't know
F. DEVOLUTION. **Now I'm going to ask you some questions about devolution.**		
1. Since devolution, have you noticed any changes in work conditions?	1 0 99	Yes No Don't know
2. If yes, what changes have you noticed? (***Don't read, select all that apply and prompt for multiple responses***)	1 2 3 4 5 6 7 8 9 10 11 99	No change Better work environment Worse work environment Better salary Worse salary Not getting paid on time More supplies/No or minimal stock outs Less supplies/More stock outs More staff Less staff Other (specify)_____ Don't know

3. Since devolution, have you noticed any changes in quality of patient care?	1	Yes
	0	No
	99	Don't know
4. If yes, what changes have you seen? (***Don't read, select all that apply and prompt for multiple responses***)	1	No change
	2	Better patient care
	3	Worse patient care
	4	Higher fee for service
	5	Lower fee for service
	6	Paying for services that are supposed to be free
	7	Shorter wait times
	8	Longer wait times
	9	Less patients come to your facility
	10	More patients come to your facility
	11	Other (specify)_____
	99	Don't know

Interviewer_____
UNIQUE ID#_____

July 5, 2015

Form Approved
OMB No. 0920-1011
Exp. Date 03/31/2017

Community Health Extension Worker Survey

The Kenyan Ministry of Health, in collaboration with the U.S. Centers for Centers for Disease Control and Prevention (CDC), is conducting a study on cholera. We would like to ask you some questions about your role in the cholera response and about cholera patients that you may have seen. We are wondering if you would be willing to answer some questions. This survey should take approximately 30 minutes to complete.

County_____ **Sub-county**_____ **Village/Town**_____

UNIQUE ID: (6 digits, letter and numbers):_____

Would you be willing to participate in this survey?
Yes →**continue to Section A** No → If **NO**, thank them for their time.

A. IDENTIFYING INFORMATION		
1. Date of interview		_____
2. Age of Respondent		_____ (years)
3. Sex of Respondent	1 2	Male Female
4. Job Title	1 2 3	Community Health Extension Worker Community Health Volunteer Other (specify)_____
5. Catchment area		_____
6. Highest education level	1 2 3 4 5	No formal education Religious education only Primary school – did not complete Completed primary school Some secondary school or higher
7. How many households do you (and community health volunteers) cover?		_____
8. How often do you (or community health volunteers) visit these households?	1 2 3 4	Once per week Once every 2 weeks Once per month Other (specify)_____
9. Who is your employer?	1 2 3 4 5	Government (MOH) Private Faith-based NGO Other (specify)_____
10. Who pays your salary/stipend?	1 2 3 4 5	Government (MOH) Private Faith-based NGO Other (specify)_____
11. Are there times that you have not been paid in 2015?	1 0	Yes No
12. How long have you been working in this position?		_____months _____ years
13. Do you supervise Community Health Volunteers?	1 0	Yes → go to 13a No → go to B1

13a. How many Community Health Volunteers do you supervise?		_____
13b. Are your Community Health Volunteers paid?	1 0	Yes → go to 13c No → go to B1
13c. Are there times the Community Health Volunteers are NOT paid?	1 0 99	Yes No Don't know
13d. What is the monthly stipend of your Community Health Volunteers?		_____KSH/month

Now I will ask you about cholera patients you have seen.

B. CHOLERA PATIENTS		
1. How many cholera (suspected or confirmed) patients have there been in your area this year (2015)?	1 0 99	Yes → go to 1a No→ go to C1 Don't know → go to C1
1a. In the past week, how many patients with cholera patients (suspected or confirmed) have there been in your area?		_____
2. Has anyone died in their home due to cholera in your area this year (2015)?	1 0 99	Yes → go to 2a No → go to 3 Don't know → go to 3
2a. How many people died in their home due to cholera in your area in the past 6 months? (best estimate)	1 2 3 99	1-5 6-10 >10 Don't know
3. In your experience, do some people with cholera in your area not go to a health care facility to seek medical care?	1 0 99	Yes → go to 3a No → go to C1 Don't know → go to C1
3a. Why do some people who are sick with cholera not seek medical care?	1 2 3 4 5 6 99	Lack of knowledge about cholera Challenges with transportation Lack of money to pay for medical services/transport Traditional healers are preferred to health facilities People prefer to treat themselves at a chemist/kiosk Other_____ Don't know

Now I will ask you about the disease cholera.

C. KNOWLEDGE		
1. Have you received any training oncholera prevention and treatment?	1 0	Yes → go to 1a No → go to 2
1a. *If **YES***, what year was this training?		_____(year only)
1b. *If **YES***, from whom did you receive the training? ***(<u>Do not read.</u> Check all that are mentioned.)***	1 2 3 4 5 99	Ministry of Health Private organization (specify)_____ During schooling NGO (specify)_____ Other (specify)_____ Don't know

2. How is cholera transmitted? ***(Do not read. Check all that are mentioned.)***	1 2 3 4 99 5	Contaminated food Contaminated water Person-to-person Other (specify)_____ Don't know Fecal-oral route
3. Can you tell me what the main symptoms of cholera are? ***(Do not read. Check all that are mentioned.)***	1 2 3 4 5 6 99	Diarrhea Vomiting Fever Dehydration Decreased appetite Other (specify)_____ Don't Know
4. Can cholera be prevented?	1 0 99	Yes → go to 4a No → go to 5 Don't Know → go to 5
4a. How can cholera be prevented? ***(Do not read. Check all that are mentioned***	1 2 3 4 5 6 7 99	Wash hands Cook food thoroughly Cover food Boil or treat water Wash fruits and vegetables Clean cooking utensils Other (specify)_____ Don't know
5. If you see a patient you think has cholera, what do you do? ***(Do NOT read all. Check only one.)***	1 2 3 99	Refer/Transport patient to a hospital or Cholera Treatment Center Give the patient ORS and send them home Take the patient to a traditional healer Don't know

Now I will ask you about your attitudes regarding cholera.

D. ATTITUDE		
1. Are you worried about getting cholera from others in your community?	1 0 99	Yes No Don't know
2. Do you believe that cholera is curable with proper treatment?	1 0 99	Yes No. Don't know

Now I will ask you about some of your practices during the current 2015 cholera outbreak

E. PRACTICES		
1. During the current 2015 cholera outbreak, which of the following activities did/do you perform? ***(Ask each item. Choose Yes or No for each item.)***		
A. Facilitated cholera related trainings for community health volunteers (CHVs)	Yes (1)	No (0)
B. Provided supervision to CHVs on suspected cholera cases or investigations	Yes (1)	No (0)
C. Referred suspected cholera cases to health care facilities	Yes (1)	No (0)
D. Performed door-to-door case finding (active surveillance)	Yes (1)	No (0)
E. Traced contacts of cholera cases	Yes (1)	No (0)

F. Distributed household water treatment supplies	Yes (1) → go to ff	No (0) → go to G	
ff. If yes, what water treatment supplies did you distribute? (***Don't read, select all that apply***)	1 Alum 2 WaterGuard 3 PuR 4 AquaGuard 5 Aquatabs 6 Other (specify)_____ 99 Don't know		
G. Taught household water treatment	1 Yes → go to H 0 No → go to I		
H. If yes, what methods did you teach? (***Don't read, select all that apply***)	1 Boil 2 Decanting 3 Keep water in hot sun 4 Filter 5 Cloth filter 6 Sand (shallow dug well) 7 Alum 8 WaterGuard 9 PuR 10 AquaGuard 11 Aquatabs 12 Use a ceramic/biosand filter 13 Other (specify)_____ 99 Don't know		
I. Distributed ORS (oral hydration solution)	Yes (1) → go to ii	No (0) → go to J	
ii. If yes, did you teach how to mix the ORS?	Yes (1)	No (0)	
J. Taught communities about other cholera prevention methods	Yes (1) → go to jj	No (0) → go to K	
jj. If yes, what things did you talk about? (***Don't read, select all that apply***)	1 Treat water 2 Build and use latrines 3 Wash hands 4 Cover food 5 Cook food thoroughly 6 Reheat stored food 7 Wash vegetables and fruit 8 Clean cooking utensils/ vessels 9 Seek treatment if severe watery diarrhea 10 Diarrhea and children 11 Other (specify)_____ 99 Don't know		
K. Other (specify)_____	Yes (1)	No (0)	

Now I'm going to ask you some questions about devolution.

F. DEVOLUTION	
1. Since devolution, have you noticed any changes in your work conditions?	1 Yes 0 No 99 Don't know

2. If yes, what changes have you noticed? (***Don't read, select all that apply and prompt for multiple responses***)	1	No change
	2	Better work environment
	3	Worse work environment
	4	Better salary
	5	Worse salary
	6	Not getting paid on time
	7	More supplies/No or minimal stock outs
	8	Less supplies/More stock outs
	9	More staff
	10	Less staff
	11	Other (specify)_____
	99	Don't know

3. Since devolution, have you noticed any changes in quality of patient care?	1	Yes
	0	No
	99	Don't know
4. If yes, what changes have you seen? (***Don't read, select all that apply and prompt for multiple responses***)	1	No change
	2	Better patient care
	3	Worse patient care
	4	Higher fee for service
	5	Lower fee for service
	6	Paying for services that are supposed to be free
	7	Shorter wait times
	8	Longer wait times
	9	Less patients come to your HCF
	10	More patients come to your HCF
	11	Other (specify)_____
	99	Don't know

Version 3: 5 July 2015
Form Approved
OMB No. 0920-1011
Exp. Date 03/31/2017

Interviewer_____
Health Facility ID_____

HEALTHCARE FACILITY CHECKLIST

NOTE: Ask the CHIEF MEDICAL OFFICER or NURSE IN CHARGE to help you complete this checklist. Only fill one checklist per healthcare facility. If the neither is available, ask the next highest ranking healthcare worker.

The Kenyan Ministry Health in collaboration with the US Centers for Centers for Disease Control and Prevention (CDC) is conducting a study on cholera. We would like to ask you some questions about the types of cholera patients you are seeing and how they are being treated. We are wondering if you would be willing to answer some questions. This survey should take approximately 30 minutes to complete.

If Yes →continue to Section A **No → If NO, thank them for their time**

County_____ **Sub-County**_____

PATIENT CARE

Item observed	In Stock? Y/N	If in stock, most recent expiration date?	If in stock, rough estimate of stock
Doxycycline	Yes___ No___	Exp:_____	Quantity_____
Erythromycin	Yes___ No___	Exp:_____	Quantity_____
Other Antibiotic for used cholera _____	Yes___ No___	Exp:_____	Quantity_____
ORS(oral rehydration solution)	Yes___ No___	Exp:_____	Quantity_____
Intravenous fluids (i.e Ringer's Lactate)	Yes___ No___	Exp:_____	Quantity_____
IV tubing and needles (pediatric)	Yes___ No___	Exp:_____	Quantity_____
IV tubing and needles (adult)	Yes___ No___	Exp:_____	Quantity_____
Buckets/Containers for ORS mixing	Yes___ No___	Exp:_____	Quantity_____
1L container for ORS dispensing	Yes___ No___	Exp:_____	Quantity_____

Interviewer_____
Health Facility ID_____

Version 3: 5 July 2015
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Exp Date: 3 March 2017

LAB SUPPLIES

Rapid cholera test kits	Yes___ No___	Exp:_____	Quantity_____
Rectal swabs	Yes___ No___	Exp:_____	Quantity_____
Cary-Blair medium	Yes___ No___	Exp:_____	Quantity_____

WATER, SANITATION, & HYGIENE

Chlorine/bleach solution or powder (for cleaning)	Yes___ No___	Exp:_____	Quantity_____
Drinking water treatment supplies (i.e. Aquatabs)	Yes___ No___	Exp:_____	Quantity_____
Gloves	Yes___ No___	Exp:_____	Quantity_____
Hand sanitizing Gel	Yes___ No___	Exp:_____	Quantity_____

WATER SOURCE

Water source on HCF premises?	Yes___ No___	If yes, is water currently available? _____ If no, how many meters from HCF?_____

HANDWASHING STATIONS

Department	Handwashing Station?	If yes, water available?	If yes, soap available?
Outpatient Department	Yes___ No___ N/A___	Yes___ No___	Yes___ No___
Casualty/Emergency Department	Yes___ No___ N/A___	Yes___ No___	Yes___ No___
Cholera Isolation Unit	Yes___ No___ N/A___	Yes___ No___	Yes___ No___
Pediatric Department	Yes___ No___ N/A___	Yes___ No___	Yes___ No___
Maternity Department	Yes___ No___ N/A___	Yes___ No___	Yes___ No___
Medicine Department	Yes___ No___ N/A___	Yes___ No___	Yes___ No___

Interviewer_____
Health Facility ID_____

Version 3: 5 July 2015
OMB No. 0920-1011
Exp Date: 3 March 2017

GUIDELINES & PROTOCOLS

Guideline	Available? Y/N	Year published	Written by (i.e MOH, WHO, MSF)
Water, Sanitation, & Hygiene	Yes___ No___	Year_____	_____
Infection Prevention & Control	Yes___ No___	Year_____	_____
Cholera Management & Treatment	Yes___ No___	Year_____	_____
IDSR Technical Guidelines	Yes___ No___	Year_____	_____
Clinician's Handbook	Yes___ No___	Year_____	_____
MOH 505 Integrated Disease Surveillance & Response Weekly Summary Reporting Register	Yes___ No___	Year_____	_____

CHOLERA REPORTING

If yes, number of cholera cases by week (from MOH 505 register)

Epidemiological Week	Dates by week	Number of cases
1	Dec 29 – Jan 4	_____
2	Jan 5 – Jan 11	_____
3	Jan 12 – Jan 18	_____
4	Jan 19 – Jan 25	_____
5	Jan 26 – Feb 1	_____
6	Feb 2 – Feb 8	_____
7	Feb 9 – Feb 15	_____
8	Feb 16 – Feb 22	_____
9	Feb 23 – Mar 1	_____
10	Mar 2 – Mar 8	_____

11	Mar 9 – Mar 15	_____
12	Mar 16 – Mar 22	_____
13	Mar 23 – Mar 29	_____
14	Mar 30 – Apr 5	_____
15	Apr 6 – Apr 12	_____
16	Apr 13– Apr 19	_____
17	Apr 20 – Apr 26	_____
18	Apr 27 – May 3	_____
19	May 4 – May 10	_____
20	May 11 – May 17	_____
21	May 18 – May 24	_____
22	May 25 – May 31	_____
23	Jun 1 – Jun 7	_____
24	Jun 8 – Jun 14	_____
25	Jun 15 – Jun 21	_____
26	Jun 22 – Jun 28	_____
27	Jun 29 – Jul 5	_____
28	Jul 6 - 12	_____
29	Jul 13 - 19	_____

NAIROBI: CHLORINE TESTING ***(ask if you are permitted to test the water supply at the HCF for chlorine)***

Free Chlorine Residual ((measured by Hach Pocket Chlorimeter)	Turns pink: Yes___ No___ __.__mg/L

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Exp. Date 03/31/2017

Monkeypox Risk Assessment Form
Republic of Congo, 2015

Date de l'interview : Numéro de l'interview :

Educateur conduisant l'interview :
Educateur écrivant les réponses :
Département de :

Village : Durée dans le village :

Sexe : ☐ Mâle ☐ Femelle Age : (ans)

Occupation : ☐ Agriculteur ☐ Étudiant ☐ Chasseur ☐ Enfant ☐ Personnel de la santé
☐ Ménagère / Maison employé ☐ Marchand

1. Quelles sont et combien d'animaux domestique et/ou sauvage possédez-vous dans votre ménage?

Espèce	Oui (Cocher)	Si oui, combien de chaque espèce	Espèce	Oui (Cocher)	Si oui, combien de chaque espèce
Singe			Volaille		
Porc			Chien		
Chèvre			Mouton		
Bovin			Chat		
Canard			Pigeons		
Autres			Cobaye		

_____ J'ai pas des animaux

2. Combien de personne habite votre ménage?
_____a- combien sexe féminin
_____b- combien sexe male

3. De quelle matière est faite de votre sol?
_____a- Terre _____b- Ciment
_____c- Pavé _____d- Autres

4. De quelle matière est faite de votre murs?
_____a- Boue _____b- Bois
_____c- Brique _____d- Écorce
_____e- Autres (Expliquer) _____

5. De quelle matière est faite de votre toiture?
_____a-Chaum _____b- Tôle métallique (ferre)
_____c- Autres (Expliquer) _____

6. De quelle matière est faite de votre fenêtres et ports?
_____a- Planche _____b- Tôle métallique (ferre)
_____c- Bois _____d- Les tiges de palmier
_____e- Autres (Expliquer) _____

7. Quelles types d'animaux avez-vous étiez en ce dernier mois? Cocher les cases appropriée.

Espèce	Trouve	Chassé	Dépece	Mange	Vendre	Espèces	Trouve	Chassé	Dépece	Mange	Vendre
Singe						Chèvre					
Cercopithèque noir et vert						Sanglier					
Cercopithèque ascagne						Potamochère					
Cercopithèque de Brazza						Chevrotin aquatique/biche-cochon					
Guéréza d'Angola						Céphalophe					
Bonobo						Céphalophe a franc noir					
Rongeur						Céphalophe de Peters					
Rongeur de foret						Céphalophe dorsalis					
Rongeur de maison						Céphalophe syvicultor					
Cricetomys de foret						Céphalophe bleu					
Grand aulacode						Genette					
Écureuil						Léopard					
Écureuil de bois						Mangouste					
Écureuil volant						Volaille					
Heliosciure a pattes rose						Serpent					
Grand écureuil						Tortue					
Atherure						Crocodile					
Pangolin						Éléphant					
						Autres					

_____ Je ne chasse pas des animaux de la brousse
_____ Je ne dépece pas des animaux de la brousse
_____ Je ne mange pas des animaux de la brousse

8. Qui avait la charge de préparer cette viande?

_____a- Femmes _____b- Anciennes femmes
_____c- Hommes _____d- Jeunes hommes
_____e- Jeunes femmes _____f- Chef de ménage
_____g- Femme/copine _____h- Mére de l'enfant

9. Combien de jour dans le mois les enfants dans votre ménage vont-ils à l'école?

_____a- Jamais _____b- Moins 1 fois par semaine
_____c- 2 fois par semaine _____d- 3 fois par semaine
_____e- 4 fois par semaine _____f- Plus de 5 fois par semaine
_____g- Je ne sais pas _____h- Pas des enfants dans mon ménage

10. Combien de jour dans le mois allez-vous à l'église ou à la mosquée?

_____a- Jamais _____b- Moins 1 fois par semaine
_____c- 2 fois par semaine _____d- 3 fois par semaine
_____e- 4 fois par semaine _____f- Plus de 5 fois par semaine

_____g- Je ne sais pas

11. Combien de jour dans le mois allez-vous en forêt?

_____a- Jamais _____b- Moins 1 fois par semaine
_____c- 2 fois par semaine _____d- 3 fois par semaine
_____e- 4 fois par semaine _____f- Plus de 5 fois par semaine
_____g- Je ne sais pas

12. Quelles activités faites-vous dans la forêt?

_____a- Chassé
_____c- Ramasser bois de chauffage
_____e- Recueillir l'eau
_____b- Agriculture
_____d- Cueillette
_____f- Autres

(Expliquer)_____

13. Combien de jour dans le mois allez-vous au marché?

_____a- Jamais _____b- Moins 1 fois par semaine
_____c- 2 fois par semaine _____d- 3 fois par semaine
_____e- 4 fois par semaine _____f- Plus de 5 fois par semaine
_____g- Je ne sais pas

14. Quels types d'animaux entre dans la chambre/maison ou vous dormez (la journée ou la nuit)? Cocher les cases appropriée.

Espèce	Oui (Cocher)	Espèce	Oui (Cocher)	Espèce	Oui (Cocher)
Singe		Écureuil		Grand aulacode	
Souris		Pangolin		Serpent	
Athrure		Porc		Volaille	
Graphiure (loir)		Rat		Chèvre	
Rat de gambie		Insectes		Autres	

_____ Aucune animal n'entre dans ma chambre/maison

15. Est-ce que les rongeurs mordent les enfants ou les adultes dans votre ménage?

_____Oui _____Non _____Je ne sais pas

16. Avez-vous déjà trouvé un singe mort en forêt?

_____Oui _____Non _____Je ne sais pas

Si oui, qu'avez-vous fait de lui?

_____ a- Le manger _____b- Le ramasser
_____ c- Le manipuler _____d- Le laisser

Case ID: _____

ABSTRACTION FORM – NTM INFECTIONS

Abstractor: _____ Date of abstraction: ____ / ____ / ____

Case ID: _____

This patient is a: 1 [ ] Case 2 [ ] Control

Pathogen	Infection site	Specimen	Date specimen obtained	Test performed
[ ] MAI [ ] other slow growing mycobacterium [ ] M. abscessus/chelonae [ ] M. fortuitum/goodii [ ] other rapid growing mycobacterium	[ ] Blood [ ] Surgical site [ ] Skin/soft tissue [ ] Respiratory [ ] Pleural fluid [ ] Urinary [ ] Abscess [ ] Other_____	[ ] Blood [ ] Tissue/Biopsy [ ] BAL/BW [ ] Urine [ ] drainage [ ] Other_____	_ _/_ _/_ _	[ ] Culture [ ] PCR [ ] Histopath [ ] HPLC [ ] Molecular [ ] Other_____

5 years prior to positive culture date: __ __ / __ __ / __ __

Did the patient have prior surgery within 5 years prior to positive NTM lab result? Y N

Surgery type: cardiothoracic orthopedic abdominal gyn other_____
Date __ __/ __ __ / __ __

Surgery type: cardiothoracic orthopedic abdominal gyn other_____
Date __ __/ __ __ / __ __

A. Patient information

Sex: 1 [ ] Male 2 [ ] Female 9 [ ] N/A

Year of birth: _____

Race/Ethnicity:
Race: ☐ White ☐ Black ☐ Asian ☐ American Indian or Alaska Native
☐ Native Hawaiian or Other Pacific Islander ☐ Other_____
Ethnicity: ☐ Hispanic/Latino ☐ Non-Hispanic/Latino

B. **History and Physical (Prior to surgery if the patient had a surgery or prior to positive culture if no previous surgery)**

Case ID: _____

Patient medical history:

[ ] CAD [ ] Rheumatoid Arthritis [ ] Solid tumor [ ] CHF [ ] Connective tissue disease

[ ] PVD [ ] Hematologic malignancy [ ] Liver disease [ ] PUD

[ ] Chronic pulmonary disease [ ] Diabetes w/o complications [ ] AIDS (CD4≤200 or OI)

[ ] Diabetes w/end organ disease [ ] Inflammatory bowel disease

[ ] Moderate to severe renal disease (Cr>=3.0, h/o uremia, transplant) [ ] Ulcer disease

[ ] Obesity [ ] Hypertension [ ] Cystic fibrosis

Other:_____

Smoking status (at admission) 1 [ ] Yes, amount (pack-years):_____2 [ ] No 9 [ ] Unknown

Any prior history of smoking? 1 [ ]Yes, pack-year history ____ [ ] No 9 [ ] Unknown

Other history (i.e. other pertinent medical or surgical history):

_____
_____
_____
_____
_____

C. **Hospital course- Refers to patient's hospitalization regarding the positive culture recorded on page 1.** The patient may have been hospitalized for something else and then developed infection, or hospitalized to treat the infection.

Was patient hospitalized? Y N
If no, skip section C.

Admission date: __ __/__ __/__ __ Discharge date: __ __/__ __/__ __

Admission diagnosis: _____

Abx used within 7 days prior to cx 1 [ ] Yes 2 [ ] No 9 [ ] Unknown
If Yes, start date__ __/__ __/__ __ and drug name_____

Name	Route	Start date	End date
_____	[ ] IV [ ] IM [ ] PO	__ __ /__ __/__ __	__ __ /__ __/__ __
_____	[ ] IV [ ] IM [ ] PO	__ __ /__ __/__ __	__ __ /__ __/__ __
_____	[ ] IV [ ] IM [ ] PO	__ __ /__ __/__ __	__ __ /__ __/__ __
_____	[ ] IV [ ] IM [ ] PO	__ __ /__ __/__ __	__ __ /__ __/__ __

Onset of infectious symptoms:

Infectious symptoms in the 48 hours prior to or after positive culture:

Fever	1 [ ] Yes	2 [ ] No	9 [ ] Unknown
Chills	1 [ ] Yes	2 [ ] No	9 [ ] Unknown
Abdominal pain	1 [ ] Yes	2 [ ] No	9 [ ] Unknown
Cough	1 [ ] Yes	2 [ ] No	9 [ ] Unknown
Hemoptysis	1 [ ] Yes	2 [ ] No	9 [ ] Unknown
Dyspnea	1 [ ] Yes	2 [ ] No	9 [ ] Unknown
Respiratory failure	1 [ ] Yes	2 [ ] No	9 [ ] Unknown
Shock	1 [ ] Yes	2 [ ] No	9 [ ] Unknown

1. **Did the patient have a wound? Y N**

If patient had a wound during the hospitalization of interest:

Wound infection: 1 [ ] Superficial 2 [ ] Deep 3 [ ] Organ space [ ] Unknown

Site of the wound infection _____ 9 [ ] Unknown

Drainage	1 [ ] Yes	2 [ ] No
Swelling	1 [ ] Yes	2 [ ] No
Erythema	1 [ ] Yes	2 [ ] No
Pain	1 [ ] Yes	2 [ ] No

Other symptoms:_____

Surgical Debridement 1 [ ] Yes 2 [ ] No Date __ __ /__ __/__ __

Wound Classification (only if surgically addressed):
□ Clean □ Clean-Contaminated □ Contaminated □ Dirty

Patient treatment and outcome of index hospitalization:

Antibiotic received

Name	Route	Dose	Date start	Date stop
_____	[ ] IV [ ] IM [ ] PO	_____	_ _/_ _/_ _	_ _/_ _/_ _
_____	[ ] IV [ ] IM [ ] PO	_____	_ _/_ _/_ _	_ _/_ _/_ _
_____	[ ] IV [ ] IM [ ] PO	_____	_ _/_ _/_ _	_ _/_ _/_ _

Patient outcome of this hospitalization?
1 [ ] Recover and discharged 2 [ ] Died 3 [ ] Still in hospital
4 [ ] Other_____ 9 [ ] Unknown

D. Previous surgery: If the patient had a surgery in the 5 years prior to positive culture, complete section D for each surgery.

Date of surgery __ __/__ __/__ __ Surgical Procedure: _____

Admission date: __ __/__ __/__ __ Discharge date: __ __/__ __/__ __

Absolute neutrophil count <50 (day of surgery): Y N UNK Date: __ __/__ __/__ __

Highest glucose in 48 hours prior to surgery:_____ Date: __ __/__ __/__ __

HgbA1c value within 3 months of surgery (take most recent value):_____Date: __ __/__ __/__ __

Patient location/movements during hospitalization:

Unit	Room	Date in	Date out

Surgical Details:

Any special skin preparation (e.g. hair removal and chlorhexidine baths): _____
_____

If this is a CABG, what is the harvest site_____

Surgery start time:_____
Surgery stop time:_____

OR Room #: _____

Surgeon _____ Anesthesiologist _____

PA-C _____ CRNA _____

Perfusionist _____ Scrub Nurse(s)_____

Circulator 1 _____ Circulator 2_____

Other (name/title)_____ Other (name/title)_____

Did patient have Cardiopulmonary Bypass (CBP)? 1 [ ] Yes 2 [ ] No 9 [ ] Unknown

Was a CBP machine present in the surgical room but not used? 1 [ ] Yes 2 [ ] No 9 [ ] Unknown

On pump time: ____

Intraoperative US (e.g., TEE) performed: 1 [ ] Yes 2 [ ] No 9 [ ] Unknown

Other drugs during surgery?

Type	Route
	[ ] IV [ ] IM [ ] topical
	[ ] IV [ ] IM [ ] topical
	[ ] IV [ ] IM [ ] topical
	[ ] IV [ ] IM [ ] topical
	[ ] IV [ ] IM [ ] topical

Transfusions during surgery?

Type (PRBc/cryp/FFP)	Units	Donor vs. Analogous

Highest glucose during procedure: _____

Line insertion perioperative:

Date inserted	Type	Date removed
__ __/__ __/__ __	[ ] CVC [ ] PICC [ ] Port [ ] Swan-Ganz [ ] A line [ ] Other_____	__ __/__ __/__ __
__ __/__ __/__ __	[ ] CVC [ ] PICC [ ] Port [ ] Swan-Ganz [ ] Other_____	__ __/__ __/__ __
__ __/__ __/__ __	[ ] CVC [ ] PICC [ ] Port [ ] Swan-Ganz [ ] Other_____	__ __/__ __/__ __

Case ID: _____

List all the devices or equipment that were inserted into patient's body (valve, grafts, drains, staple/suture, wound dressing…)

Graft	**Name**	**Catalog #**	**Serial #**	**Check if left in place**
Staples/sutures				
prosthetics				
Drains				
dressing				

Were additional cooling methods used? Y N UNK
What type? _____

Other intra-operative findings (including drugs in/on chest, hemostatic agents): _____
_____

Post-operative:

Medications (suppressors, immunosuppressant) after surgery?

Type	Dose	Route	Date and time start	Date and time stop
		[ ] IV [ ] IM		
		[ ] IV [ ] IM		
		[ ] IV [ ] IM		
		[ ] IV [ ] IM		

Highest glucose within 24 hours post operation: _____ Date: __ __/__ __/__ __

Wound care after surgery:

Dressing change (one change per line, regardless of products used) or wound cleansing

Dressing/cleansing product	Date change	Time change	Staff name	Note

Urinary catheter information:

Date inserted	Date withdrawn	Type
__ __/__ __/__ __	__ __/__ __/__ __	[ ] Urinary catheter [ ] Suprapubic catheter [ ] Intermittent catherization [ ] Other_____
__ __/__ __/__ __	__ __/__ __/__ __	[ ] Urinary catheter [ ] Suprapubic catheter [ ] Intermittent catherization [ ] Other_____

Date of dressing removal: __ __ /__ __/__ __ [ ] N/A

Date of staple/suture removal: __ __ /__ __/__ __ [ ] N/A

Date of drain removal: __ __ /__ __/__ __ [ ] N/A

Other interventions in or around the wound (date) _____

Did patient have a shower during hospitalization after surgery? [ ] Yes [ ] No

Date shower 1: __ __/__ __/__ __
Date shower 2: __ __/__ __/__ __
Date shower 3: __ __/__ __/__ __

CDC ID _____

First NTM+ Culture (or **Index Date**): ___/____/_____ **Study Period**: ____/____/_____ - ____/____/_____

Random ***Control*** **Surgery date**: ____/_____/_____ (*index date*-3.5 years) (*index date* -30days)

MEDICAL HISTORY **Birthday**: ____/____/_____

Gender: Male Female

Race: White Black Other, specify_____

Ethnicity: Hispanic Non-Hispanic

History of prior NTM infection? Y N

Chronic Lung Disease Y / N

- COPD Y / N
- Cystic Fibrosis Y / N
- Sarcoidosis Y / N

Diabetes Y / N

Immunocompromised? Y / N

- AIDS/HIV (CD4<200) Y / N
- Organ/Heme Transplant Y / N
- Chemotherapy (in last 3.5yrs) Y / N
- Systemic Steroids (in last 3.5yrs) Y / N

Other immunocompromising meds/conditions/risk factors Y / N

If so, specify: _____

Admission

[ ] <24 hours prior to surgery

[ ] >24 hours prior to surgery

OUTCOMES

Death Y / N

- If so, related to surgery Y / N
- If so, related to NTM infection Y / N
- If so, reason for death _____

Any Post-Op Infection (not just NTM) Y / N

- Surgical site infection Y / N
- Systemic infection Y / N
- If so, location of infection _____

FOR CASES ONLY

Organism: _____ **Date** of first NTM culture ____/____/_____

MAI Y / N other slow growing NTM Y / N rapid growing NTM Y / N

Number of specimen growing NTM _____

Specimen site of NTM+ cultures

- Respiratory Y / N
- Deep tissue/fluid Y / N
- Superficial tissue/fluid Y / N
- Other Y / N

Blood Y / N

if so, specify from where _____

if so, specify from where_____

if so, specify _____

Clinical symptoms associated with NTM culture Y / N

- Pneumonia/lung/respiratory Y / N
- Deep/organ space Y / N
- Bloodstream infection/disseminated Y / N
- Superficial skin/soft tissue/surgical site Y / N

Treatment with antibiotics Y / N

1 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ Minutes: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

---

2 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

3 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ Minutes: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

---

4 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

5 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ Minutes: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

---

6 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

7 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ Minutes: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

---

8 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

9 Primary Procedure: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ Minutes: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

---

10 **Primary Procedure**: _____ **Surgery Type** _____ Laparoscopic vs Open

Proc #2: _____ Proc #3: _____

Date ____/_____/_____ Start time: _____ End time: _____ OR number: _____

Intubation Y / N **Central Line** in OR Y / N **Chest tubes** in OR Y / N

Bypass operational in room Y / N If yes, time on pump _____ Circ arrest Y / N

Implant (any devices) Y / N Valve Y / N Graft Y / N specify _____

Topical meds applied to wound in OR _____

STAFF Perfusionist: _____

Surgeon: _____ Anesthesiologist: _____

Scrub Nurse: _____ Circulating Nurse: _____

Intra-Op Complications Y / N If yes, specify _____

Incident Report Y / N If yes, specify _____

Pre-Op Diagnosis _____ **Post-Op Condition** _____

Primary dressing removal _____/_____/_____ **Final Chest tube** removal _____/_____/_____

Shower before discharge: Y / N wounds at discharge Y / N

Discharge date: ____/____/_____ status of wound at discharge _____

Other: _____

CDC ID: _____

MRN: _____

Is there evidence of prior NTM diagnosis or infection? Y N

When was prior NTM present? ____/____/_____

Does patient have chronic lung issues? Y N

- Does patient have COPD? Y N
- Does patient have CF? Y N

Does patient have a chronic indwelling device? Y N

- PICC? Y N
- Port? Y N
- Dialysis fistula/graft? Y N
- Dialysis catheter? Y N

Did the patient have an inpatient central line? Y N number of days: _____

Is the patient immunocompromised? Y N

- AIDS/HIV (CD4<200)? Y N
- Solid/heme transplant? Y N
- Chemo? Y N
- Neutropenia? Y N
- Chronic systemic steroids (0.3mg/kg/day prednisone >3wk)? Y N
- Inherited immunocompromising condition Y N
- Other immunosuppressive meds? Y N
  - If yes, specify: _____
- Other NTM risk factors Y N
  - If yes, specify: _____

Number of NTM positive specimen: _____

- **First** NTM+ specimen date: ____/_____/_____

Type: Respiratory Deep tissue Superficial Tissue Blood Other _____

period of interest: ____/____/_____ (3.5 yrs prior to cx) to ____/____/_____ (30d prior to cx)

Last NTM+ specimen date: ____/_____/_____

Type: Respiratory Deep tissue Superficial Tissue Blood Other _____

Were any of the NTM+ specimen from:

Blood Y N

Superficial tissue/fluids Y N

If yes, what sites? _____

Deep tissue/fluids (organ space) Y N

If yes, what site? _____

Respiratory? Y N

Other sites? Y N

If yes, specify: _____

What NTM organisms grew in any NTM specimen?

MAC Y N

Other slow growing Y N

Rapid growing Y N

Did the NTM specimen grow other organisms? Y N

If yes, specify: _____

Was there signs of clinical infection? Y N

Pneumonia/respiratory/lung? Y N

Endocarditis? Y N

Bloodstream infection/sepsis? Y N

Superficial (skin/soft tissue infection)? Y N

Deep/organ space infection? Y N

Was the patient treated for NTM? Y N

Specify treatment: _____

Date treatment started? ____/_____/_____

How many surgeries (3.5yrs-30days before positive culture): _____

Cardiothoracic surgeries? Y N How many? _____

Gen surgery? Y N How many? _____

Ortho? Y N How many? _____

Other? Y N How many? _____

How many admissions (3.5yrs-30days before positive culture): _____