# Bat and Lyssavirus Exposure among Humans in Area that Celebrates Bat Festival, Nigeria, 2010 and 2013

## Appendix 1

### **Questionnaires Used for Surveys about Bat Exposure**

The following pages show a set of questionnaires used to survey community members and bat hunters regarding bat exposures in Idanre, Nigeria, in 2010 and 2013:

- Two community surveys conducted during September 26–28, 2010 (9–11 days after the September 17, 2010, bat festival took place), and March 2– March 6, 2013 (11–15 days after the February 19, 2013, bat festival took place);
- A survey of bat hunters conducted on March 6, 2013;
- A follow-up survey of subjects who participated in the 2013 community survey or 2013 bat hunter survey, conducted during May 14–19, 2013 (85–90 days after the February 19, 2013, bat festival took place).

1. Questionnaire used in two community surveys and a bat hunter survey of bat exposures  — Idanre, Nigeria, 2010 and 2013
A. HOUSEHOLD INFORMATION 1) Household ID Number
2) GPS
3) Municipality
4) Community
[Section A. Administer to adult (18 years and older) present that attended door call (main responder).
Hello. My name is and I am working with the <insert affiliation="" agency="" appropriate="">.</insert>
We are conducting a survey to improve our understanding of the knowledge, attitudes, and practices of people in Idanre local government of Ondo State, who come in close contact with bats or places where bats live, like caves. We would like to ask for a few minutes of your time, around 40 minutes, to ask you about your experiences with bats and your knowledge about certain diseases. Your answers to the following questions are completely voluntary and will be kept confidential. Do you have time now? (If NO, "Thank you for your time.")
<ul> <li>5) Is there someone in the house that can respond to the interview?</li> <li>Yes</li> <li>No</li> <li>Not applicable, because interview is being conducted on a person returning from a</li> </ul>
cave
6.1) Consent obtained? Yes No  6.2) If consent was NOT obtained 6.2.1) Reason for declining Not interested No time
Fear of participating Not capable of consenting Language barrier Other

- 6.2.2) If the reason is "other"6.2.2.1) Specify the reason for denying consent
- 6.2.3) Interviewer name: (First Name, First Family Name, Second Family name)

#### 6.3) If consent obtained

Please think carefully about each question, and answer as well as you can. You can choose not to answer any of the questions.

NOTE to INTERVIEWER: Do not read the answer choices, unless otherwise indicated. Circle the choice that best represents the interviewee's answer.

- 6.3.1) How many people live in this home?
- 6.3.2) How many are females living in this home?
- 6.3.3) How many children of ages 0-5 live in this house?
- 6.3.4) How many children of ages 6-12 live in this house?
- 6.3.5) How many children of ages 13-17 live in this house?
- 6.3.6) About the house, which is the main material used to build the house?

Brick

Adobe

Wood

Canes

Cement Block

Cement / Concrete

Other

- 6.3.7) If the house is made of another material
  - 6.3.7.1) Specify the other housing material

6.3.8) Does the house have windows/doors that close and prevent but entry? (Check all that apply)

There are open windows

Windows can close completely

Doors can close completely

There are windows or doors that close incompletely and allow entry of bats

There are large openings in the walls for ventilation never closed

se and prevent bat entry?	
tely and allow entry of bats ion never closed	
Household ID#	

No openings	
Other:	
Don't know	
Declined to answer	
6.3.9) Do you own animals as either pets or livestock?	
Yes	
No	
Don't know	
Declined to answer	
6.3.10) If you own animals as either pets or livestock 6.3.10.1) Do you know or have you seen if your domestic animals (pets/cattle/pigs) have been bitten by bats?	
Yes	
No	
6.3.10.2) If your domestic animals have been bitten by bats 6.3.10.2.1) Which of your animals have been bitten by bats? (Select all that	
apply?)	
Cows	
Goats	
Sheep	
Pigs	
Horses	
Dogs	
Cats	
Chicken	
Other	
6.3.10.2.2) If the bitten animal is "Other" 6.3.10.2.2.1) Specify the animals that have been bitten by bats	
6.3.10.3) Do you do anything to avoid your animals/pets being bitten by bats?	
Nothing	,1
Lights on where animals sleep	
Barriers (nets, close doors)	
Burn herbs	
Apply oil/chemicals to animals	
Hunt bats	
Blankets	
Garlic	

Other

6.3.10.4) If answered OTHER as something that is done to avoid your animals/pets being bitten by bats
6.3.10.4.1) Specify what other thing is done to avoid your animals/pets being bitten by bats
6.3.10.5) Are one or more of your animals vaccinated against rabies?
Yes
No
Don't know
Declined to answer
6.3.10.6) Have any of your animals been sick or died due to bats?
Yes

No Don't know Declined to answer

6.3.10.7) If any of your animals have been sick or died due to an illness that you believe may have been caused by bats?

Complet			
e for each	Questions about	What were their signs?	Questions about animal
species:	animal sickness	(tick all that apply)	death
A) Goats	a) How many got sick?	c) What were their signs? (tick all that	d) How many died?
	$\square 0 \qquad \square 1$	apply)	
	$\square 2 \qquad \square 3+$	☐ Not moving much/hiding ☐ Problems	□ 2 □ 3+
	☐ D/K ☐ Declined	walking	

	□ Not eating well □ Vomiting □	□ D/K □ Declined
b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	☐ Not eating well ☐ Vomiting ☐ Diarrhea ☐ Foaming at mouth/salivation ☐ Bellowing/crying ☐ Trembling or twitching ☐ Behavior change (more quiet/more	D/K Declined  e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)

		☐ Coughing ☐ Sneezing ☐ Runny	were slaughtered or sold?
		nose	(yes, no, some, unsure,
		☐ Problems breathing ☐ Convulsions	declined)
		☐ Still birth ☐ Suddenly died	
		Other (specify):	
B) Sheep	a) How many got sick?	c) What were their signs? (tick all that	d) How many died?
, <b>F</b>	$\square 0 \qquad \square 1$	apply)	□ 0 □ 1
	□ 2 □ 3+		□ 2 □ 3+

☐ Behavior change (more quiet/more aggressive) ☐ Coughing ☐ Sneezing ☐ Runny nose	were slaughtered or sold? (yes, no, some, unsure, declined)

C) Cows	a) How many got sick?  0 1 2 3+ D/K Declined  b) Is/are the animal recovered from the	c) What were their signs? (tick all that apply)  Not moving much/hiding Problems walking Not eating well Vomiting Diarrhea Foaming at mouth/salivation	d) How many died?  0 1 2 3+ D/K Declined e) Was/were the animal(s) slaughtered and eaten or sold

	ntomo? (von no	Dellowing /amin a D Troubling on	for food? (voo no come
symp	ptoms? (yes, no, are, declined)	☐ Bellowing/crying ☐ Trembling or twitching	for food? (yes, no, some, unsure, declined)

		Other (specify):	
		Giner (speerry).	
D) Pigs	a) How many got sick?  0 1 2 3+ D/K Declined	c) What were their signs? (tick all that apply)  Not moving much/hiding Problems walking  Not eating well Vomiting  Diarrhea	d) How many died?  0 1 2 3+ D/K Declined

b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	☐ Foaming at mouth/salivation ☐ Bellowing/crying ☐ Trembling or twitching ☐ Behavior change (more quiet/more aggressive)	e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)

		☐ Still birth ☐ Suddenly died ☐ Other (specify):	(yes, no, some, unsure, declined)
E) H orses	a) How many got sick?  0  1 2  3+ D/K Declined	c) What were their signs? (tick all that apply)  Not moving much/hiding Problems walking  Not eating well Vomiting Diarrhea	d) How many died?  0 1 2 3+ D/K Declined

F) Dogs	b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)  a) How many got sick?  0 1 2 3+ D/K Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	☐ Foaming at mouth/salivation ☐ Bellowing/crying ☐ Trembling or twitching ☐ Behavior change (more quiet/more aggressive) ☐ Coughing ☐ Sneezing ☐ Runny nose ☐ Problems breathing ☐ Convulsions ☐ Still birth ☐ Suddenly died ☐ Other (specify): c) What were their signs? (tick all that apply) ☐ Not moving much/hiding ☐ Problems walking ☐ Not eating well ☐ Vomiting ☐ Diarrhea ☐ Foaming at mouth/salivation ☐ Bellowing/crying ☐ Trembling or twitching ☐ Behavior change (more quiet/more aggressive) ☐ Coughing ☐ Sneezing ☐ Runny nose ☐ Problems breathing ☐ Convulsions	e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined)  d) How many died?  D  0	
7) Are there any dogs in your house? Yes No 7.1) If there are dogs in the house 7.1.1) How many dogs: 7.1.2) How many female dogs: 7.1.3) How many male dogs: 7.1.4) What is the age of the oldest dog in years?: 7.1.5) What is the age of the youngest dog?: 7.1.6) Are the dogs in your house vaccinated against rabies?: Yes, all of them Yes, but only some of them No, none of them are vaccinated Don't know Decline to answer 7.1.6.1) If yes, when was the last vaccination: Date:				

7.1.7) Have any of the dogs in the house bitten anybody?	
Yes	
No	
Don't know	
Decline to answer	
7.1.8) Have any of the dogs in the house bitten any of your other animals? Yes	
No	
Don't know	
Decline to answer	
Decline to answer	
B. HOUSEHOLD RESPONDENT INFORMATION 1A) Sample ID	
1B) Name: First name, First Family name, Second Family name	
1B.1) What is your home address?	
1B.2) What is your mobile phone number? (if no mobile phone, get home phone instead)	
1C) Where do you live when this bat festival does not take place?	
Idanre local government, Ondo State, Nigeria	
Ondo state (but not Idanre local government), Nigeria	
A state other than Ondo State, but in Nigeria	
An African country other than Nigeria	
A country outside of Africa	
1D) If you do not live in Ondo State, what brought you to Ondo State at this time?	
(circle all that apply)	
To participate in the bat festival	
For vacation but not specifically for the bat festival	
To see family and friends	
For work/to make money	
Other	
1D.1) If other, please specify why:	
1E) Did you participate in a survey like this about bats and the bat festival nearly	
three years ago?	
Yes No	
Declined to answer	
Decinica to answer	
2) How old are you?	
3) Gender	

4) What is the last level of schooling you have completed? (Note to interviewer: Read
all but last two options to participant.)
None
Started primary
Completed primary
Started basic/Junior Secondary School (JSS)
Completed basic/Junior Secondary School (JSS)
Started secondary/Senior Secondary School (SSS)
Completed secondary/Senior Secondary School (SSS)
Started higher education
Completed higher education
Not sure
Declined to answer
5) How many years have you lived in this house?
Less than one year
One year
More than one year
6) If you have lived in this house more than one year
6.1) how many years
7) How many years of experience do you have working/living with or near bats?
None
5 or less
6-15
16-25
> 25
Don't know
Declined to answer
8) What activities do you engage in that regularly puts you in contact with bats?
(check all that applies) (Note to interviewer: Read all but last two options to participant.)
Bat hunting
Participation in bat festival
Preparing bats for consumption
Farming
Hunting
Nightwatchman
Other

Male Female

None	
Declined to answer	
9) If the activity is Other	
9.1)	
0.2) Here you ever participated in the het factival (if was, go to the part question	and
9.2) Have you ever participated in the bat festival (if yes, go to the next question, if no, skip to question 10)	, and
Yes	
No	
Declined to answer	
Decinied to answer	
9.2.1) How many times or often do you participate in the bat festival?	
Once a year	
Twice a year	
Don't know	
Declined to answer	
9.2.2) How many years have you participated in the bat festival?	
I ago than 2 years	
Less than 2 years	
2 years to less than 5 years	
5 years to less than 20 years	
20 years and more Do not know	
Declined to answer	
Decimed to answer	
9.2.3) what role do you play during the bat festival? (tick all that concerns)	
Bat hunting	
Selling of bats	
Preparation of bats for food/consumption	
Dancer, singer	
Spiritual activities	
Standby watcher	
Don't know	
Decline to answer	
Other	
10) Have you been inside of a bat cave or bat refuge (trees, abandoned house, bridge	ge.
etc.)?	<i>-</i>
Yes	
No	
Don't know	
Declined to answer	

- 11) If you have been inside of a bat cave or refuge
- 11.1) How often do you enter bat caves or bat refuge? (Note to interviewer: Read all but last two options to participant.)

once per year or less

2-4 times per year

5 times or more per year

Don't know

Declined to answer

11.2) When was the last time you entered a bat cave or bat refuge? (Note to interviewer: Read all but last two options to participant.)

< 1 month ago

1 to 6 months ago

6-12 months ago

More than 12 months ago

Don't know

Declined to answer

12) Have you ever touched a live bat with your skin uncovered?

Yes

No

Don't know

Declined to answer

- 13) If you have ever touched a live bat with your skin uncovered
- 13.1) How often do you touch bats? (Note to interviewer: Read all but last two options to participant.)

once per year or less

2-4 times per year

5 times or more per year

Don't know

Declined to answer



13.2) When was the last time you touched a bat with your skin uncovered? (Note to interviewer: Read all but last two options to participant.)

< 1 month ago

1 to 6 months ago

6-12 months ago

More than 12 months ago

Don't know

14) Have you ever been scratched by a bat, to your knowledge?	
Yes	
No	
Don't know	
Declined to answer	
15) If has been scratched by a bat	
15.1) How often are you scratched by bats? (Note to interviewer: Read all but last	
two options to participant.)	
once per year or less	
2-4 times per year	
5 times or more per year	
Don't know	
Declined to answer	
15.2) When was the last time you were scratched by a bat? (Note to interviewer:	
Read all but last two options to participant.)	
< 1 month ago	
1 to 6 months ago	
6-12 months ago	
More than 12 months ago	
Don't know	
Declined to answer	
16) Have you ever been bitten by a bat, to your knowledge?	
Yes	
No	
Don't know	
Declined to answer	

17) If you have been bitten by a bat

17.1) How often are you bitten by bats? (Note to interviewer: Read all but last two options to participant.)

once per year or less 2-4 times per year 5 times or more per year Don't know Declined to answer

17.2) When was the last time you were bitten by a bat? (Note to interviewer: Read all but last two options to participant.) < 1 month ago 1 to 6 months ago 6-12 months ago More than 12 months ago Don't know Declined to answer 18) Have you ever prepared a bat as food? Yes No Don't know Declined to answer 19) If you ever prepared a bat as food 19.1) How often do you prepare them for eating (Note to interviewer: Read all but last two options to participant.) once per year or less 2-4 times per year 5 times or more per year Don't know Declined to answer 19.2) When was the last time you prepared one for eating? (Note to interviewer: Read all but last two options to participant.) < 1 month ago 1 to 6 months ago 6-12 months ago More than 12 months ago Don't know Declined to answer 20) Have you ever eaten a bat? Yes No Don't know Declined to answer 21) If you have ever eaten a bat 21.1) How often do you eat bats? (Note to interviewer: Read all but last two options to participant.) (Note to interviewer: Read all but last two options to participant.)

once per year or less 2-4 times per year

5 times or more per year

Don't know

Declined to answer

21.2) When was the last time you ate a bat? (Note to interviewer: Read all but last two options to participant.)

< 1 month ago

1 to 6 months ago

6-12 months ago

More than 12 months ago

Don't know

Declined to answer

22) What kinds of bats do you most frequently observe or have had contact with? (Note to interviewer: Read all but last two options to participant.)

Fruit-eating bats

Insect-eating bats

Vampire bats

Multiple types

Other

Don't know

Declined to answer

- 23) If the kind of bat is "Other"
  - 23.1) Specify the other type of bat
- 24) Do you or your family do something to avoid bat bites in the house?

**Nothing** 

Use mosquito net

Prevent entry of bat in the house

Increase number of cats

Increase the number of cattle/pigs to be bitten

Destroy bat refuges/kill bats

Pray/consult the gods

Declined to answer

Other

- 25) If answered OTHER as the type of action taken to avoid bites in the house 25.1) Specify what you and your family does to avoid bat bites in the house
- 26) How much do you know about rabies? (Note to interviewer: Read all but last two options to participant.)

Little to none Basic		
Extensive		
Declined to answer		
27) How dangerous is rabies?		
Very Severe		
Mild or moderate		
Don't know		
Declined to answer		
28) How do people get infected with rabies? (Note to interviewer: Read all but last tw options to participant.)	O	
Animal bite		
Animal scratch or lick		
Touching an animal		
Eating an animal		
Other		
Don't know		
Declined to answer		
29) If the way people are infected with rabies is "Other" 29.1) Specify the way people are infected by rabies		
30) What animals can be infected with rabies? (check all that apply) (Note to interviewer: Read all but last two options to participant.)		
Bats		
Dogs		
Cats		
Horses		
Livestock		
Wild mammals (not bats)		
Other		1
Don't know		
Declined to answer		
31) If the animals are potentially infected with rabies are "Other"		
31.1) Specify which other animals could be infected with rabies		
32) What would you do if you were bitten or scratched by a bat? (Note to interviewer: Read all but last two options to participant. Select all that apply.)		
Nothing		

Wash wound with soap and water Call a doctor for advice Call or visit a traditional healer Seek medical care at a hospital, clinic or health post Seek rabies PEP (rabies vaccines) Have but tested for rabies (or other diseases) Other Don't know Declined to answer 33) If the action that you would take is Other 33.1) Specify the other action that would be taken 34) Do you think there is any time of the year in which bats attack more animals or No, it is the same all year round Yes, rainy season (April-October) Yes, dry season (November-April) Don't know Declined to answer 35) If someone has been bitten by an animal potentially infected with rabies what should that person do? (Check all that apply) Nothing Wash wound with soap and water Call a doctor for advice Call or visit a traditional healer Seek medical care at a hospital or clinic Seek rabies post-exposure prophylaxis (rabies vaccines) Check animal's vaccination history Observe animal for a period of time to see if it becomes rabid Have animal tested for rabies Kill animal Other Don't know Declined to answer

- 36) If the action is "Other"
- 36.1) Specify the other action that should be done if someone has been bitten by an animal that might be infected by rabies
  - 37) Have you ever been vaccinated against rabies?

Yes

No

people?

Don't know

Yes No

Don't know

Declined to answer

38) If you have ever been vaccinated against rabies

38.1) What was the reason you were vaccinated against rabies?

Post-exposure prophylaxis
Pre-exposure prophylaxis
Have received PreP and PEP
Don't know
Declined to answer
38.2) If you have received rabies vaccination after being bitten or scratched by an
animal bite, what animal or animals were responsible for the incident? (check all that apply)
Bats
Dogs
Cats
Horses
Livestock
Wild mammals (not bats)
Others
Don't know
Declined to answer
Did not receive PEP
38.3) If received a vaccination after being bitten by an OTHER animal
38.3.1) Specify the other animal that bit you
39) Are you aware if there are any other diseases that humans can get from bats?
(NOTE: any disease mentioned means "yes')
Yes
No
Don't know
Declined to answer
40) Have you or anyone you know ever experienced an illness that you believe may
have been caused by bats or being in a bat cave?

- 41) If you or anyone you know ever experienced an illness that you believe may have been caused by bats or being in a bat cave
- 41.1) What were the symptoms? (Check all that apply) (Note to interviewer: If respondent doesn't indicate that the person(s) recovered, ask if they died from illness. If answer is yes, circle death as a symptom. If respondent knows of more than one person affected—

"multiple persons".) Skin rash/discoloration/infection Unusual bleeding (e.g. from nose/mouth) Fever Cough Sneezing Runny nose Chest congestion Muscle pain Difficulty breathing Headache Convulsions Altered mental state (dementia) Unconsciousness/coma Muscle weakness/paralysis Vomiting or diarrhea or stomach cramps Miscarriage/stillbirth Death Multiple persons Other Don't know Declined to answer 41.2) If the symptoms is "Other" 41.2.1) Specify the other symptom 41.2.2) Are you or the person you know that presented symptoms caused by a bat recovered? Yes No Don't know Decline to answer 42) We would like to take a sample of your blood. Will you allow us to take a sample? Yes No 42.2 Was blood sampled obtained? Yes No 42.3. IF blood sample was not obtained, why not? Did not consent for blood Was not able to get blood

including but necessarily themselves—and symptoms mentioned are a composite, circle

Other:
42.4) Will you allow us to return in 6-8 weeks to ask you some more questions? YES/ NO
43) Has anyone from your family or living here had been in contact, bitten, scratched, eaten, or had touched a bat?  Yes  No
C. PARTICIPANTS WITH BAT EXPOSURE (ADDITIONAL TO RESPONDENT) Additional Participant
Interviewer name: (First Name, First Family Name, Second Family name)_
1A) Sample ID 1B) Name: First name, first family name, second family name 1C) Household ID:
2) How old are you?
3) If at least 18 years old or mature minors 3.1) Consent obtained? (If yes, go to question 3.2) Yes No
3.2) What is your mobile phone number? (if no mobile phone, get home phone instead)
<ul><li>4) If less than 18 years old</li><li>4.1) Parental permission obtained?</li><li>Yes</li><li>No</li></ul>
4.2) Children between 7 and 17 years [Interviewer: parents will answer the survey when child < 9 years of age but child age 9 years and older will answer survey directly] 4.2.1) Child assent obtained?
Yes No
5) If consent obtained (and assent if applicable) 5.1) Interviewer: who is being interviewed:  O Self O Parent/guardian
5.2) Gender

Male Female 5.2.1) Did you participate in a survey like this about bats and the bat festival nearly three years ago? Yes No Declined to answer 5.3) What is the last level of schooling you have completed? None Started primary Completed primary Started basic/Junior Secondary School (JSS) Completed basic/Junior Secondary School (JSS) Started secondary/Senior Secondary School (SSS) Completed secondary/Senior Secondary School (SSS) Started higher education Completed higher education Not sure Declined to answer 5.4) How many years have you lived in this house? Less than one year One year More than one year 5.4.1) Where do you live when this bat festival does not take place? Idanre local government, Ondo State, Nigeria Ondo state (but not Idanre local government), Nigeria A state other than Ondo State, but in Nigeria An African country other than Nigeria A country outside of Africa 5.4.2) If you do not live in Ondo State, what brought you to Ondo State at this time? (circle all that apply) To participate in the bat festival For vacation but not specifically for the bat festival

> To see family and friends For work/to make money

5.4.2.1) If other, please specify why:

Other

5.5) If you have lived in this house more than one year 5.5.1) how many years	
5.6) How many years of experience do you have working/living with or near bats (Note to interviewer: Read all but last two options to participant.)	?
None	
5 or less	
6-15	
16-25	
> 25	
Don't know	
Declined to answer	
5.7) What activities do you engage in that regularly puts you in contact with bats? (check all that applies) (Note to interviewer: Read all but last option to participant.)	)
Bat hunting	
Participation in bat festival	
Preparing bats for consumption	
Farming	
Hunting	
Nightwatchman	
Other	
None	
Declined to answer	
5.8) If the activity is Other	
5.8.1)	
5.8.2) Have you ever participated in the bat festival (if yes, go to the next question	ι,
and if no, skip to question 5.9)	
Yes	
No	
Declined to answer	
5.8.3) How many times or often do you participate in the bat festival?	
Once a year	
Twice a year	
Don't know	
Declined to answer	
200	
5.8.4) How many years have you participated in the bat festival?	

2 years to less than 5 years 5 years to less than 20 years 20 years and more Do not know Declined to answer 5.8.5) what role do you play during the bat festival? (tick all that concerns) Bat hunting Selling of bats Preparation of bats for food/consumption Dancer, singer Spiritual activities Standby watcher Don't know Decline to answer Other \_\_\_\_\_ 5.9) Have you been inside of a bat cave or bat refuge (trees, abandoned house, bridge, etc.)? Yes No Don't know Declined to answer 5.10) If you have been inside of a bat cave or refuge 5.10.1) How often do you enter bat caves or bat refuge? (Note to interviewer: Read all but last two options to participant.) once per year or less 2-4 times per year 5 times or more per year Don't know Declined to answer 5.10.2) When was the last time you entered a bat cave or bat refuge? (Note to interviewer: Read all but last two options to participant.) < 1 month ago 1 to 6 months ago 6-12 months ago More than 12 months ago Don't know

Less than 2 years

5.11) Have you ever touched a live bat with your skin uncovered?
Yes
No David
Don't know
Declined to answer
5.12) If you have ever touched a live bat with your skin uncovered
5.12.1) How often do you touch bats? (Note to interviewer: Read all but last two
options to participant.)
once per year or less
2-4 times per year
5 times or more per year
Don't know
Declined to answer
5.12.2) When was the last time you touched a bat?
< 1 month ago
1 to 6 months ago
6-12 months ago
More than 12 months ago
Don't know
Declined to answer
5.13) Have you ever been scratched by a bat, to your knowledge?
Yes
No
Don't know
Declined to answer
5.14) If has been scratched by a bat
5.14.1) How often are you scratched by bats? (Note to interviewer: Read all but
last two options to participant.)
once per year or less
2-4 times per year
5 times or more per year
Don't know
Declined to answer
5.14.2) When was the last time you were scratched by a bat?
< 1 month ago
1 to 6 months ago
6-12 months ago
More than 12 months ago

Declined to answer 5.15) Have you ever been bitten by a bat, to your knowledge? Yes No Don't know Declined to answer 5.16) If you have been bitten by a bat 5.16.1) How often are you bitten by bats? (Note to interviewer: Read all but last two options to participant.) once per year or less 2-4 times per year 5 times or more per year Don't know Declined to answer 5.16.2) When was the last time you were bitten by a bat? (Note to interviewer: Read all but last two options to participant.) < 1 month ago 1 to 6 months ago 6-12 months ago More than 12 months ago Don't know Declined to answer 5.17) Have you ever prepared a bat as food? Yes No Don't know Declined to answer 5.18) If you have ever prepared a bat as food 5.18.1) How often do you prepare them for eating? (Note to interviewer: Read all but last two options to participant.) once per year or less 2-4 times per year 5 times or more per year Don't know Declined to answer

5.18.2) When was the last time you prepared a bat for eating? (Note to

interviewer: Read all but last two options to participant.)

Don't know

6-12 months ago More than 12 months ago Don't know Declined to answer 5.19) Have you ever eaten a bat? Yes No Don't know Declined to answer 5.20) If you ever eaten a bat 5.20.1) How often do you eat bats? (Note to interviewer: Read all but last two options to participant.) once per year or less 2-4 times per year 5 times or more per year Don't know Declined to answer 5.20.2) When was the last time you ate a bat? < 1 month ago 1 to 6 months ago 6-12 months ago More than 12 months ago Don't know Declined to answer 5.21) What kinds of bats do you most frequently observe or have had contact with? (Note to interviewer: Read all but last two options to participant.) Fruit-eating bats Insect-eating bats Vampire bats Multiple types Other Don't know Declined to answer 5.22) If the kind of bat is "Other" 5.22.1) Specify the other type of bat

< 1 month ago 1 to 6 months ago

5.23) Do you or your family do something to avoid bat bites in the house? Nothing Use mosquito net Prevent entry of bat in the house Increase number of cats Increase the number of cattle/pigs to be bitten Destroy bat refuges/kill bats Pray Declined to answer Other 5.24) If answered OTHER as the type of action taken to avoid bites in the house 5.24.1) Specify what you and your family does to avoid bat bites in the house 5.25) How much do you know about rabies? (Note to interviewer: Read all but last two options to participant.) Little to none Basic Extensive Declined to answer 5.26) How dangerous is rabies? Very Severe Mild or moderate Don't know Declined to answer 5.27) How do people get infected with rabies? Animal bite Animal scratch or lick Touching an animal Eating an animal Other Don't know Declined to answer 5.28) If the way people are infected with rabies is "Other" 5.28.1) Specify the way people are infected by rabies 5.29) What animals can be infected with rabies? (check all that apply) Bats Dogs Cats Horses Livestock

Don't know Declined to answer 5.30) If the animals are potentially infected with rabies are "Other" 5.30.1) Specify which other animals could be infected with rabies 5.31) What would you do if you were bitten or scratched by a bat? Nothing Wash wound with soap and water Call a doctor for advice Call or visit a traditional healer Seek medical care at a hospital, clinic or health post Seek rabies PEP (rabies vaccine) Have but tested for rabies (or other diseases) Other Don't know Declined to answer 5.32) If the action that you would take is Other 5.32.1) Specify the other action that would be taken 5.33) Do you think there is any time of the year in which bats attack more animals or people? No, it is the same all year round Yes, rainy season (April-October) Yes, dry season (November-April) Don't know Declined to answer 5.34) If someone has been bitten by an animal potentially infected with rabies what should that person do? (Check all that apply) Nothing Wash wound with soap and water Call a doctor for advice Call or visit a traditional healer Seek medical care at a hospital or clinic Seek rabies PEP (rabies vaccines) Check animal's vaccination history Observe animal for a period of time to see if it becomes rabid Have animal tested for rabies Kill animal Other Don't know

Wild mammals (not bats)

Other

5.35) If the action is "Other" 5.35.1) Specify the other action that should be done if someone has been bitten by an animal that might be infected by rabies
5.36) Have you ever been vaccinated against rabies? Yes No Don't know Declined to answer
<ul> <li>5.37) If you have ever been vaccinated against rabies</li> <li>5.37.1) What was the reason you were vaccinated against rabies?</li> <li>Post-exposure prophylaxis</li> <li>Pre-exposure prophylaxis</li> <li>Have received PreP and PEP</li> <li>Don't know</li> <li>Declined to answer</li> </ul>
5.37.2) If you have received rabies vaccination after being bitten or scratched by an animal bite, what animal or animals were responsible for the incident? (check all that apply)  Bats  Dogs Cats Horses Livestock Wild mammals (not bats) Others Don't know Declined to answer Did not receive PEP
5.37.3) If received a vaccination after being bitten by an OTHER animal 5.37.3.1) Specify the other animal that bit you  5.38) Are you aware if there are any other diseases that humans can get from bats?
Yes No Don't know Declined to answer
5.39) Have you or anyone you know ever experienced an illness that you believe may have been caused by bats or being in a bat cave?

Yes
No
Don't know
Declined to answer
5.40) If you or anyone you know ever experienced an illness that you believe may
have been caused by bats or being in a bat cave
5.40.1) What were the symptoms?
Skin rash/discoloration/ infection
Unusual bleeding (e.g. from nose/mouth)
Fever
Cough
Sneezing
Runny nose
Chest congestion
Muscle pain
Difficulty breathing
Headache
Convulsions
Altered mental state (dementia)
Unconsciousness/coma
Muscle weakness/paralysis
Vomiting or diarrhea or stomach cramps
Miscarriage/stillbirth
Death
Multiple persons
Other
Don't know
Declined to answer
5.40.2) If the symptoms is "Other"
5.40.2.1) Specify the other symptom
3.40.2.1) Specify the other symptom
5.40.2.2) Are you or the person you know that presented symptoms caused by a
bat recovered?
Yes
No
Don't know
Decline to answer
5.41) We would like to take a sample of your blood. Will you allow us to take a
sample?
Yes
No
5.41.2 Was blood sampled obtained?

Yes No	
5.41.3 IF blood sample was not obtained, why not? Did not consent for blood	
Was not able to get blood Other:	
5.41.4) Will you allow us to return in 6-8 weeks to ask you some more questions? YES/ NC	
6) Please ask again if there is anyone else living here that has been bitten, scratched has eaten or touched any bats. If so then fill additional section C for each additional exposed person. (Follow same process for consent/assent and blood sampling than other participants	d
Those are all the questions I have for you. Thank you very much for your time and cooperate We or personnel of the MoH may need to contact you again if the survey is found to be incomplete. Results of this study will be reported to MoH representatives in your area.	tion.

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answers to the questions are completely voluntary and will be kept confidential. Do you have

time now? (If NO, "Thank you for your time." Ask if there is another time that would be more convenient)

Just like for the first survey, you do not have to be in this follow-up survey. It is up to you. You do not have to answer any question or give blood if you do not want to.

Do you want to be in the follow-up part of the Nigeria Bats study? (Yes, No)

Name:	
Signature:	
Date:	Right Thumbprint (if not able
to read/write):	

Please think carefully about each question, and answer as well as you can. You can choose not to answer any of the questions.

#### **History of Animal Illness Since the Bat Festival:**

1. A) At the time of the bat festival, did you have any animals as pets or livestock? (Yes, No, Don't know, Declined to answer)

If no, go to **Section B** on page 6 If yes, ask the following questions:

- B) Have any of the animals died since the festival? (Yes, No, Don't know, Declined to answer)
- C) Have any of the animals been sick since the festival? (Yes, No, Don't know, Declined to answer)
- D) During or since the bat festival, did any of your animals come in contact with bats either by biting, scratching, or touching (Yes, No, Don't know, Declined to answer)
- E) If yes, please indicate which sort of the animals have been in contact with bats during or since the bat festival (Select all that apply?)

	Goats	Dogs
	Sheep	Cats
	Cows	Chicken
	Pigs	Other (Specify "other" type of animal)
	Horses	
F) Now	/ I/we are going to ask you more abo	out the animals you had at the time of the festival and any sickness or death they've had since
	estival.	
•		
		Household ID#

<b>Complete for</b>	Questions about animal				
each species	sickness	Clinical signs? (tick all that apply)	Questions about animal death		
I. Goats:	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?		
How many total? (number, N/A, don't know, declined, N/A)	□ 0 □ 1 □ 2 □ 3+ □ D/K □ Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	□ Not moving much/hiding □ Problems   walking □ Not eating well □ Vomiting □   □ Diarrhea □ Foaming at mouth/salivation □ Bellowing/crying □ Trembling or   □ Bellowing/crying □ Trembling or twitching   □ Behavior change – more quiet/more aggressive □ Coughing □ Sneezing	□ 0 □ 1 □ 2 □ 3+ □ D/K □ Declined  e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick		
		Runny nose  Problems breathing Convulsions Still birth Suddenly died Other (specify):	before they were slaughtered or sold? (yes, no, some, unsure, declined)		
II.Sheep	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?		
How many total? (number, N/A, don't know, declined, N/A)	□ 0 □ 1 □ 2 □ 3+ □ D/K □ Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	□ Not moving much/hiding □ Problems walking □ Not eating well □ Vomiting □ Diarrhea □ Foaming at mouth/salivation □ Bellowing/crying □ Trembling or twitching □ Behavior change – more quiet/more aggressive □ Coughing □ Sneezing □ Runny nose	□ 0 □ 1 □ 2 □ 3+ □ D/K □ Declined  e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick before they were slaughtered or		
		☐ Problems breathing ☐ Convulsions ☐ Still birth ☐ Suddenly died ☐ Other (specify):	sold? (yes, no, some, unsure, declined)		

Household ID#				

III.	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?			
Cows  How many total? (number, N/A, don't know, declined, N/A)	□ 0 □ 1 □ 2 □ 3+ □ D/K □ Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	□ Not moving much/hiding □ Problems   walking □ Not eating well □ Vomiting   □ Diarrhea □ Foaming at mouth/salivation   □ Bellowing/crying □ Trembling or   twitching □ Behavior change – more quiet/more   aggressive □ Coughing □ Sneezing   Runny nose □ Problems breathing □ Convulsions   □ Still birth □ Suddenly died   □ Other (specify):	□ 0 □ 1 □ 2 □ 3+ □ D/K □ Declined  e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined)			
IV. Pigs How many total? (number, N/A, don't know, declined, N/A)	a) How many got sick?  0 1 2 3+ D/K Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	c) What were their signs? (tick all that apply)  Not moving much/hiding Problems walking Not eating well Vomiting Diarrhea Foaming at mouth/salivation Bellowing/crying Trembling or twitching Behavior change – more quiet/more aggressive Coughing Sneezing Runny nose Problems breathing Convulsions Still birth Suddenly died Other (specify):	d) How many died?  0 1 2 3+ D/K Declined e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined) f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined)			
V. Horses How many total? (number, N/A,	a) How many got sick?  □ 0 □ 1 □ 2 □ 3+	c) What were their signs? (tick all that apply)  Not moving much/hiding  Problems walking	d) How many died?  □ 0 □ 1 □ 2 □ 3+			

Household ID#								
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VI. Dogs How many total? (number, N/A, don't know, declined, N/A)	b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)  a) How many got sick?  0 1 2 3+ D/K Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	Diarrhea  ☐ Foaming at mouth/salivation ☐ Bellowing/crying ☐ Trembling or twitching ☐ Behavior change – more quiet/more aggressive ☐ Coughing ☐ Sneezing ☐ Runny nose ☐ Problems breathing ☐ Convulsions ☐ Still birth ☐ Suddenly died ☐ Other (specify): c) What were their signs? (tick all that apply) ☐ Not moving much/hiding ☐ Problems walking ☐ Not eating well ☐ Vomiting ☐ Diarrhea ☐ Foaming at mouth/salivation ☐ Bellowing/crying ☐ Trembling or twitching ☐ Behavior change – more quiet/more aggressive ☐ Coughing ☐ Sneezing ☐ Runny nose ☐ Problems breathing ☐ Convulsions ☐ Still birth ☐ Suddenly died ☐ Other (specify):	e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined)  d) How many died?  D/K Declined  e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined)
VII.	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?
Cats	□ 0 □ 1 □ 2 □ 3+	☐ Not moving much/hiding ☐ Problems walking	□ 0 □ 1 □ 2 □ 3+
		Household ID#	

How many total? (number, N/A, don't know, declined, N/A)	D/K Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	□ Not eating well □ Vomiting   □ Diarrhea □ Foaming at mouth/salivation   □ Bellowing/crying □ Trembling or   twitching □ Behavior change – more quiet/more   aggressive □ Coughing □ Sneezing   Runny nose □ Problems breathing □ Convulsions   □ Still birth □ Suddenly died   □ Other (specify):	D/K Declined  e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined
VIII. Other (specify) How many total? (number, N/A, don't know, declined, N/A)	a) How many got sick?	c) What were their signs? (tick all that apply)  Not moving much/hiding Problems walking Not eating well Vomiting Diarrhea Foaming at mouth/salivation Bellowing/crying Trembling or twitching Behavior change – more quiet/more aggressive Coughing Sneezing Runny nose Problems breathing Convulsions Still birth Suddenly died Other (specify):	d) How many died?  0 1 2 3+ D/K Declined e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined) f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined)
IX. Other (specify) How many total? (number, N/A, don't know, declined, N/A)	a) How many got sick?  0 1 2 3+ D/K Declined  b) Is/are the animal recovered from the	c) What were their signs? (tick all that apply)  Not moving much/hiding Problems walking Not eating well Vomiting Diarrhea Foaming at mouth/salivation	d) How many died?  0 1 2 3+ D/K Declined e) Was/were the animal(s) slaughtered and eaten or sold for

	symptoms? (yes, no, unsure, declined)	☐ Bellowing/crying ☐ Trembling or twitching	food? (yes, no, some, unsure, declined)
	decimedy	☐ Behavior change – more quiet/more aggressive ☐ Coughing ☐ Sneezing ☐ Runny nose	f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure,
		☐ Problems breathing ☐ Convulsions ☐ Still birth ☐ Suddenly died ☐ Other (specify):	declined
Now we would like	old Respondent Information: to ask you and the members of ir exposure to bats and health so	f your household who participated in the last students since the festival. Answers to the questions	y, if they would like to like to answer are completely voluntary and will be kept
2. Patient ID:	3. Sample ID:		
(autofill)	(autofill)		
D D M	M Y Y Y Y		
4. Date of Follow-	up:		
	ı		

Intervi	ewer to	confirm	the	follow	ing	inf	format	tion:
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- 5. Name: First name, First Family name, Second Family name (autofill)
- 6. Respondent Age (autofill: age in years)
- 7. Confirm patient gender (autofill: male/female)
- 8. Contact / Mobile Number:
- 9. A) Respondent Status: Alive/Deceased
  - B) If deceased, specify source of information:

#### **Bat Exposure During and Since Bat Festival:**

10. A) Did you participate in the last bat festival (specify dates)? (Yes (date/s), No, don't know, declined)

If Yes, ask the following questions:

- B) What dates did you participate? (Date/s, don't know, declined)
- C) What role(s) did you play during the bat festival? (tick all that concerns)

Bat hunting Dancer, singer Decline to answer
Selling of bats Spiritual activities Other (specify) \_\_\_\_\_\_

Preparation of bats for Standby watcher food/consumption Don't know

5.

11. A) Did you go inside of a bat cave or bat refuge during or after the festival (trees, abandoned house, bridge, etc.)?

(Yes, No, Don't know, Declined to answer)

If yes, ask the following questions:

- B) How many times did you enter a bat cave or bat refuge during the festival? (N, Don't' know, declined to answer)
- C) How many times did you enter a bat cave or bat refuge since the festival? (N, Don't' know, declined to answer)
- D) When was the last time you entered a bat cave or refuge? (Note to interviewer: Read all but last two options to participant.)

  During the festival

Household ID#								
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Since after the festival: 1-4 weeks ago (in the past 4 weeks)

Since after the festival: 5-8 weeks ago (longer than 4 weeks ago)

Don't know

Declined to answer

12. A) During or since the bat festival, have you touched a live bat with your skin uncovered? (Yes, No, Don't know, Declined to answer)

B) If yes, when was the last time you touched a bat?

During the festival

Since after the festival: 1-4 weeks ago (in the past 4 weeks)

Since after the festival: 5-8 weeks ago

Don't know

Declined to answer

13. A) During or since the bat festival, were you scratched by a bat, to your knowledge? (Yes, No, Don't know, Declined to answer)

B) If yes, when was the last time you were scratched by a bat?

During the festival

Since after the festival: 1-4 weeks ago (in the past 4 weeks)

Since after the festival: 5-8 weeks ago

Don't know

Declined to answer



14. A) During or since the bat festival, were you bit	tten by a bat, to your knowledge? (Yes, No, Don't know, Declined to answer)
B) If yes, when was the last time you were bit	tten by a bat?
During the festival	
Since after the festival: 1-4 weeks ago	o (in the past 4 weeks)
Since after the festival: 5-8 weeks ago	o .
Don't know	
Declined to answer	
15. A) During or since the bat festival, did you prepa	are bat as food? (Yes, No, Don't know, Declined to answer)
B) If yes, when was the last time you prepared	d bat as food?
During the festival	
Since after the festival: 1-4 weeks ago	o (in the past 4 weeks)
Since after the festival: 5-8 weeks ago	o .
Don't know	
Declined to answer	
16. A) During or since the bat festival, did you eat ba	at? (Yes, No, Don't know, Declined to answer)
B) If yes, when was the last time you ate bat?	
During the festival	
Since after the festival: 1-4 weeks ago	o (in the past 4 weeks)
Since after the festival: 5-8 weeks ago	o
Don't know	
Declined to answer	
17. What kinds of bats do you most frequently obser	rve or have had contact with? (Note to interviewer: Read all but last two options to
participant.)	
Fruit-eating bats	Multiple types
Insect-eating bats	Other (specify)
Vampire bats	Don't know

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Declined to answer					
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	Household ID#				

#### **Respondent History of Illness Since Bat Festival:**

- 18. A) Since the bat festival, have you felt sick at any time? Yes, No
  - B) If yes, did you go for help when you felt sick? (Y=1, N=2, Declined=99) If yes: ask the following questions:
  - a) Where did you go? (nearby clinic, state hospital, private hospital/clinic, pharmacy/chemist, traditional healer, other: (specify))
  - b) What did the doctor/healer/chemist say was wrong? (list all, unsure=3, declined=99)
    - c) Did you stay at the hospital for treatment? (Y=1, N=2, declined=99)
    - d) If yes, how many days were you in the hospital?
    - e) Did the doctor/healer/chemist prescribe any medication?
      - i) If yes, what medication/s: (list all, unsure=3, declined=99)
- 19. A) Since the bat festival, have you taken any medications?
  - B) If yes, what medication/s: (list all, unsure=3, declined=99)

20. Now I/we would like to ask you some questions about the symptoms you had when you were sick after the bat festival

	Have you had "name specific symptom"	How many days ago did it start?	How many days did the symptom last?	Did you have this symptom before o during the bat fes
DRY OF ILLNESS	(Yes = 1, No= 2, unsure= 3, declined =99)	(if started today: code=00, NA=88, declined =99)	(if continuing until today, count current day as 1; NA= 88, declined=99)	(Yes=1, No=2, unsure=3, NA=88, declined=99)
a:				
ing:				
ea:				
ninal pain:				
nctivitis/red eye:				
:				
lcers or cold sores:				
roat:				
ılty breathing:				
pain:				
e aches:				
ain:				
ired/weak:				
che:				
ng from gums or mouth				
	Have you had "name specific symptom"	How many days ago did it start?	How many days did the symptom last?	Did you have this symptom before o during the bat fes
DRY OF ILLNESS	(Yes = 1, No= 2, unsure= 3, declined =99)	(if started today: code=00, NA=88, declined =99)	(if continuing until today, count current day as 1; NA= 88, declined=99)	(Yes=1, No=2, unsure=3, NA=88, declined=99)
		+	<del></del>	

spots in eyes (sclera) or on skin

eck:		
nced/difficulty walking:		
lty swallowing:		
lty speaking:		
lty hearing:		
alty seeing:		
ive fear/anxiety		
ed		
rs or convulsions:		
d or loss of consciousness:		
sis:		
symptom 1,		
symptom 2,		

- 21. A) Since the last time we talked to you around 2 months ago, have you received rabies vaccination? Yes, No
  - B) If yes, when were you given your last rabies vaccination?"

Those are all the questions I have for you. Thank you very much for your time and cooperation. We or personnel of the state Ministry of Health may need to contact you again if the survey is found to be incomplete. Results of this study will be reported to Ministry of Health representatives in your area.

### Questionnaire used in a follow-up survey of bat exposures — Idanre, Nigeria, 2013 Date of Follow-up: Household ID Number: (autofill) Υ D D Interviewer Name: First Name, First Family name, Second Family name 1. Municipality: autofill 2. Community: autofill 3. GPS Coordinates: autofill Section A [Section A. Administer to the person originally consented to the main responder of the study. If not available, ask if another adult (18 years and older) is available] Hello. My name is \_\_\_\_\_ and I am working with the <insert appropriate agency affiliation>. Mr./Mrs. (name of person originally consented to the study) participated in a survey in Feb/March of this year; is (he/she) in the house and available to participate in a follow-up survey at this time? Household ID#

If available, interviewer to confirm that consent was o	obtained for participation in the Feb/March survey (Yes, No)				
If not available, ask if another adult who participate in	n the original study is available to answer follow-up questions.				
of the knowledge, attitudes, and practices of people in places where bats live, like caves. We are here today responses about any animals you've kept as pets or li	consented to the study) agreed to participate in a survey to improve our understanding in Idanre local government of Ondo State, who come in close contact with bats or y to ask for a few more minutes of your time, around 20 minutes, to follow-up on your ivestock since the festival, exposures to bats since the festival, and about your health are completely voluntary and will be kept confidential. Do you have time now? (If NO, ne that would be more convenient)				
Just like for the first survey, you do not have to be in this follow-up survey. It is up to you. You do not have to answer any question or give blood if you do not want to.					
Do you want to be in the follow-up part of the Nigeria	a Bats study? (Yes, No)				
Name:	Signature:				
Date:	Right Thumbprint (if not able to read/write):				
Please think carefully about each question, and answer	er as well as you can. You can choose not to answer any of the questions.				
History of Animal Illness Since the Bat Festival:  1. A) At the time of the bat festival, did you have an	: ny animals as pets or livestock? (Yes, No, Don't know, Declined to answer)				
If no, go to <b>Section B</b> on page 6					
	Household ID#				

If yes, ask the following questions:

- B) Have any of the animals died since the festival? (Yes, No, Don't know, Declined to answer)
- C) Have any of the animals been sick since the festival? (Yes, No, Don't know, Declined to answer)
- D) During or since the bat festival, did any of your animals come in contact with bats either by biting, scratching, or touching (Yes, No, Don't know, Declined to answer)
- E) If yes, please indicate which sort of the animals have been in contact with bats during or since the bat festival (Select all that apply?)

Goats Dogs

Sheep Cats

Cows Chicken

Pigs Other (Specify "other" type of animal)

Horses

F) Now I/we are going to ask you more about the animals you had at the time of the festival and any sickness or death they've had since the festival.

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Complete for each species	Questions about animal sickness	Clinical signs? (tick all that apply)	Questions about animal death
I. Goats:	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?
How many total?	□ 0 □ 1	☐ Not moving much/hiding ☐ Problems walking	□ 0 □ 1
(number, N/A, don't know,	23+	☐ Not eating well ☐ Vomiting ☐ Diarrhea	□ 2 □ 3+
declined, N/A)	☐ D/K ☐ Declined	☐ Foaming at mouth/salivation	☐ D/K ☐ Declined
	b) Is/are the animal recovered	☐ Bellowing/crying ☐ Trembling or twitching	e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no,
	from the symptoms? (yes, no, unsure, declined)	☐ Behavior change – more quiet/more aggressive ☐ Coughing ☐ Sneezing ☐ Runny nose	some, unsure, declined)
		☐ Problems breathing ☐ Convulsions	f) Was/were any of the animals sick before they were slaughtered or sold?
		Still birth Suddenly died	(yes, no, some, unsure, declined)
		☐ Other (specify):	
II. Sheep	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?
How many total?	□ 0 □ 1	☐ Not moving much/hiding ☐ Problems walking	□ 0 □ 1
(number, N/A,	☐ 2  ☐ 3+	☐ Not eating well ☐ Vomiting ☐ Diarrhea	□ 2 □ 3+
don't know, declined, N/A)	☐ D/K ☐ Declined	☐ Foaming at mouth/salivation	☐ D/K ☐ Declined
	b) Is/are the animal recovered	☐ Bellowing/crying ☐ Trembling or twitching	e) Was/were the animal(s) slaughtered
	from the symptoms? (yes, no, unsure, declined)	☐ Behavior change – more quiet/more aggressive ☐ Coughing ☐ Sneezing ☐ Runny nose	and eaten or sold for food? (yes, no, some, unsure, declined)
		☐ Problems breathing ☐ Convulsions	f) Was/were any of the animals sick before they were slaughtered or sold?
		Still birth Suddenly died	(yes, no, some, unsure, declined)
		☐ Other (specify):	

III C	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?
III. Cows	□ 0 □ 1	☐ Not moving much/hiding ☐ Problems walking	□ 0 □ 1
How many total? (number, N/A,	☐ 2  ☐ 3+	☐ Not eating well ☐ Vomiting ☐ Diarrhea	□ 2 □ 3+
don't know, declined, N/A)	☐ D/K ☐ Declined	☐ Foaming at mouth/salivation	☐ D/K ☐ Declined
	b) Is/are the animal recovered	☐ Bellowing/crying ☐ Trembling or twitching	e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no,
	from the symptoms? (yes, no, unsure, declined)	☐ Behavior change – more quiet/more aggressive☐ Coughing☐ Sneezing☐ Runny nose	some, unsure, declined)
		☐ Problems breathing ☐ Convulsions	f) Was/were any of the animals sick before they were slaughtered or sold?
		Still birth Suddenly died	(yes, no, some, unsure, declined)
		Other (specify):	
IV. Pigs	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?
How many total?	□ 0 □ 1	☐ Not moving much/hiding ☐ Problems walking	□ 0 □ 1
(number, N/A,	23+	☐ Not eating well ☐ Vomiting ☐ Diarrhea	□ 2 □ 3+
don't know, declined, N/A)	☐ D/K ☐ Declined	☐ Foaming at mouth/salivation	☐ D/K ☐ Declined
	b) Is/are the animal recovered	☐ Bellowing/crying ☐ Trembling or twitching	e) Was/were the animal(s) slaughtered
	from the symptoms? (yes, no, unsure, declined)	☐ Behavior change – more quiet/more aggressive☐ Coughing☐ Sneezing☐ Runny nose	and eaten or sold for food? (yes, no, some, unsure, declined)
		Problems breathing Convulsions	f) Was/were any of the animals sick before they were slaughtered or sold?
		Still birth Suddenly died	(yes, no, some, unsure, declined)
		Other (specify):	
	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?
V. Horses	, , ,	, , , , , , , , , , , , , , , , , , , ,	,
How many total? (number, N/A,	0 1	☐ Not moving much/hiding ☐ Problems walking	0 1

don't know,	2 3+	☐ Not eating well ☐ Vomiting ☐ Diarrhea	☐ 2 ☐ 3+
declined, N/A)	☐ D/K ☐ Declined	☐ Foaming at mouth/salivation	☐ D/K ☐ Declined
	b) Is/are the animal recovered	☐ Bellowing/crying ☐ Trembling or twitching	e) Was/were the animal(s) slaughtered
	from the symptoms? (yes, no, unsure, declined)	☐ Behavior change – more quiet/more aggressive ☐ Coughing ☐ Sneezing ☐ Runny nose	and eaten or sold for food? (yes, no, some, unsure, declined)
		☐ Problems breathing ☐ Convulsions	f) Was/were any of the animals sick before they were slaughtered or sold?
		Still birth Suddenly died	(yes, no, some, unsure, declined)
		☐ Other (specify):	
VI. Dogs	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?
How many total?	□ 0 □ 1	$\square$ Not moving much/hiding $\square$ Problems walking	□ 0 □ 1
(number, N/A,	☐ 2  ☐ 3+	☐ Not eating well ☐ Vomiting ☐ Diarrhea	☐ 2 ☐ 3+
don't know, declined, N/A)	☐ D/K ☐ Declined	☐ Foaming at mouth/salivation	☐ D/K ☐ Declined
	b) Is/are the animal recovered	$\square$ Bellowing/crying $\square$ Trembling or twitching	e) Was/were the animal(s) slaughtered
	from the symptoms? (yes, no, unsure, declined)	☐ Behavior change – more quiet/more aggressive ☐ Coughing ☐ Sneezing ☐ Runny nose	and eaten or sold for food? (yes, no, some, unsure, declined)
		☐ Problems breathing ☐ Convulsions	f) Was/were any of the animals sick before they were slaughtered or sold?
		☐ Still birth ☐ Suddenly died	(yes, no, some, unsure, declined)
		Other (specify):	

Household ID#				

VII. Cats  How many total? (number, N/A, don't know, declined, N/A)	a) How many got sick?  □ 0 □ 1  □ 2 □ 3+  □ D/K □ Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	c) What were their signs? (tick all that apply)  Not moving much/hiding Problems walking  Not eating well Vomiting Diarrhea  Foaming at mouth/salivation  Bellowing/crying Trembling or twitching  Behavior change – more quiet/more aggressive  Coughing Sneezing Runny nose  Problems breathing Convulsions  Still birth Suddenly died  Other (specify):	d) How many died?  0 1 2 3+ D/K Declined e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined) f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined
VIII. Other (specify) How many total? (number, N/A, don't know, declined, N/A)	a) How many got sick?  □ 0 □ 1  □ 2 □ 3+  □ D/K □ Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	c) What were their signs? (tick all that apply)  Not moving much/hiding Problems walking  Not eating well Vomiting Diarrhea  Foaming at mouth/salivation  Bellowing/crying Trembling or twitching  Behavior change – more quiet/more aggressive  Coughing Sneezing Runny nose  Problems breathing Convulsions  Still birth Suddenly died  Other (specify):	d) How many died?  0 1  2 3+  D/K Declined e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined) f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined
IX. Other (specify)	a) How many got sick?	c) What were their signs? (tick all that apply)	d) How many died?

Household ID#				

(number, N/A, don't know, declined, N/A)  D/K Declined  b) Is/are the animal recovered from the symptoms? (yes, no, unsure, declined)	Not moving much/hiding       ☐ Problems walking         ☐ Not eating well       ☐ Vomiting       ☐ Diarrhea         ☐ Foaming at mouth/salivation         ☐ Bellowing/crying       ☐ Trembling or twitching         ☐ Behavior change – more quiet/more aggressive         ☐ Coughing       ☐ Sneezing         ☐ Runny nose         ☐ Problems breathing       ☐ Convulsions         ☐ Still birth       ☐ Suddenly died         ☐ Other (specify):	□ 0 □ 1 □ 2 □ 3+ □ D/K □ Declined e) Was/were the animal(s) slaughtered and eaten or sold for food? (yes, no, some, unsure, declined)  f) Was/were any of the animals sick before they were slaughtered or sold? (yes, no, some, unsure, declined
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#### **Section B: Household Respondent Information:**

Now we would like to ask you and the members of your household who participated in the last study, if they would like to like to answer questions about their exposure to bats and health status since the festival. Answers to the questions are completely voluntary and will be kept confidential.

Patient ID:	3.	Sample ID	):						
(autofill)	(	(autofill)							
Date of Follow-up	):								
		D	D	M	М	Υ	Υ	Υ	Υ
	(autofill)		(autofill) (autofill)  Date of Follow-up:	(autofill)  Date of Follow-up:					

Interviewer to confirm the following information	ı:		
<ol> <li>Name: First name, First Family name, Second</li> <li>Respondent Age (autofill: age in years)</li> <li>Confirm patient gender (autofill: male/female)</li> <li>Contact / Mobile Number:</li> </ol>	nd Family name (autofill)		
<ul><li>9. A) Respondent Status: Alive/Deceased</li><li>B) If deceased, specify source of information</li></ul>	า:		
Bat Exposure During and Since Bat Festiva	al:		
10. A) Did you participate in the last bat festive If Yes, ask the following questions:	al (specify dates)? (Yes (date/s), No, don't	know, declined)	
B) What dates did you participate? (Date,	/s, don't know, declined)		
C) What role(s) did you play during the b	at festival? (tick all that concerns)		
Bat hunting	Dancer, singer	Don't know	
Selling of bats	Spiritual activities	Decline to answer	
Preparation of bats for food/consumption	Standby watcher	Other (specify)	
11. A) Did you go inside of a bat cave or bat re (Yes, No, Don't know, Declined to answe	• ,	andoned house, bridge, etc.)?	
If yes, ask the following questions:			
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	B) How many times did you enter a bat cave or bat refuge during the festival? (N, Don't' know, declined to answer)
	C) How many times did you enter a bat cave or bat refuge since the festival? (N, Don't' know, declined to answer)
	D) When was the last time you entered a bat cave or refuge? (Note to interviewer: Read all but last two options to participant.)
	During the festival
	Since after the festival: 1-4 weeks ago (in the past 4 weeks)
	Since after the festival: 5-8 weeks ago (longer than 4 weeks ago)
	Don't know
	Declined to answer
12.	A) During or since the bat festival, have you touched a live bat with your skin uncovered? (Yes, No, Don't know, Declined to answer)  B) If yes, when was the last time you touched a bat?  During the festival
	Since after the festival: 1-4 weeks ago (in the past 4 weeks)
	Since after the festival: 5-8 weeks ago
	Don't know
	Declined to answer
13.	A) During or since the bat festival, were you scratched by a bat, to your knowledge? (Yes, No, Don't know, Declined to answer) B) If yes, when was the last time you were scratched by a bat?
	During the festival
	Since after the festival: 1-4 weeks ago (in the past 4 weeks)
	Since after the festival: 5-8 weeks ago

(Co	nvalescent Blood Draw Visit)					5 -
Don't know						
Declined to answer						
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14. A) During or since the bat festival, were you bitten by a bat, to your knowledge? (Yes, No, Don't know, Declined to answer) B) If yes, when was the last time you were bitten by a bat?
During the festival
Since after the festival: 1-4 weeks ago (in the past 4 weeks)
Since after the festival: 5-8 weeks ago
Don't know
Declined to answer
15. A) During or since the bat festival, did you prepare bat as food? (Yes, No, Don't know, Declined to answer) B) If yes, when was the last time you prepared bat as food?
During the festival
Since after the festival: 1-4 weeks ago (in the past 4 weeks)
Since after the festival: 5-8 weeks ago
Don't know
Declined to answer
16. A) During or since the bat festival, did you eat bat? (Yes, No, Don't know, Declined to answer)  B) If yes, when was the last time you ate bat?
During the festival
Since after the festival: 1-4 weeks ago (in the past 4 weeks)
Since after the festival: 5-8 weeks ago
Don't know

Declined to answer	
7. What kinds of bats do you most frequently observe or have had contact with? (Note to interviewer: Read all but last two options to participant.)	
Fruit-eating bats	
Insect-eating bats	
Vampire bats	
Multiple types	
Other (specify)	
Don't know	
Declined to answer	
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#### **Respondent History of Illness Since Bat Festival:**

- 18. A) Since the bat festival, have you felt sick at any time? Yes, No
  - B) If yes, did you go for help when you felt sick? (Y=1, N=2, Declined=99)

If yes: ask the following questions:

- a) Where did you go? (nearby clinic, state hospital, private hospital/clinic, pharmacy/chemist, traditional healer, other: (specify))
  - b) What did the doctor/healer/chemist say was wrong? (list all, unsure=3, declined=99)
  - c) Did you stay at the hospital for treatment? (Y=1, N=2, declined=99)
  - d) If yes, how many days were you in the hospital?
  - e) Did the doctor/healer/chemist prescribe any medication?
    - i) If yes, what medication/s: (list all, unsure=3, declined=99)
- 19. A) Since the bat festival, have you taken any medications?
  - B) If yes, what medication/s: (list all, unsure=3, declined=99)

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20. Now I/we would like to ask you some questions about the symptoms you had when you were sick after the bat festival

HISTORY OF ILLNESS	Have you had "name specific symptom"  (Yes = 1, No= 2, unsure= 3, dedined =99)	How many days ago did it start?  (if started today: code=00, NA=88, declined =99)	How many days did the symptom last? (if continuing until today, count current day as 1; NA= 88, dedined=99)	Did you have this symptom before or during the bat festival? (Yes=1, No=2, unsure=3, NA=88, declined=99)
Fever:				
Chills:				
Nausea:				
Vomiting:				
Diarrhea:				
Abdominal pain:				
Cold:				
Conjunctivitis/red eye:				
Cough:				
Oral ulcers or cold sores:				
Sore throat:				
Difficulty breathing:				

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Chest pain:					
Muscle aches:					
Joint pain:					
Very tired/weak:					
Headache:					
Rash: Site					
Bleeding from gums or mouth					
	Have you had "name specific symptom"	How many days ago did it start?	How many days did the symptom last?	Did you have this symptom before or during the bat festival? (Yes=1, No=2, unsure=3, NA=88, dedined=99)	
HISTORY OF ILLNESS	(Yes = 1, No= 2, unsure= 3, dedined =99)	(if started today: code=00, NA=88, declined =99)	(if continuing until today, count current day as 1; NA= 88, dedined=99)		
Blood spots in eyes (sclera) or on skin					
Stiff neck:					
Unbalanced/difficulty walking:					
Difficulty swallowing:					
Difficulty speaking:					
Difficulty hearing:					
Difficulty seeing:					

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Excessive fear/anxiety		
Agitated		
Tremors or convulsions:		
Altered or loss of consciousness:		
Paralysis:		
Other symptom 1, specify		
Other symptom 2, specify		

- 21. A) Since the last time we talked to you around 2 months ago, have you received rabies vaccination? Yes, No
  - B) If yes, when were you given your last rabies vaccination?"

Those are all the questions I have for you. Thank you very much for your time and cooperation. We or personnel of the state Ministry of Health may need to contact you again if the survey is found to be incomplete. Results of this study will be reported to Ministry of Health representatives in your area.

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