

Arboviral Surveillance and Response Capacity Survey - 2021

The World Health Organisation (WHO) is conducting a baseline survey to get an overview of country capacities for arboviral diseases surveillance (epidemiological and entomological) and control in member states. Survey responses will be compiled and analysed, and a report will be generated to identify common gaps, and can serve as a baseline survey for guiding planning activities for arboviral diseases surveillance and control at country, regional, and global scale.

Instructions

The survey will cover the following sections:

- Surveillance
- Case Management
- Vector Control
- Community Sensitization
- Outbreak Preparedness
- Arboviral disease surveillance data
- Staffing

It is recommended that you have the following available to complete the survey:

1. Documents for upload including:

- descriptions of the arboviral surveillance system
- arboviral disease preparedness plans
- guidelines for arboviral disease surveillance
- surveillance data reports for human and non-human arbovirus surveillance
- clinical management guidelines

2. Human case data for arboviral diseases reportable in your country from 2015-2020.

Please choose your language and complete the survey to the best of your ability and knowledge by 31 May, 2021.

You can complete the survey in multiple sittings. For completion of the survey online we recommend to save your responses after filling in the first page of the questionnaire by clicking "Resume later" at the lower left corner. This will prompt a screen requesting you to create a username and password, to provide an email address, and then to click "save". You are then able to click "Next" to continue, and your responses will be automatically saved if you exit before

you reach the end of the survey. To resume with the survey, just click on the “Resume” link sent to your email address. After you finish the last question and are ready to submit the survey, just click “Submit” at the lower right corner to complete the survey.

We encourage you to collaborate with your colleagues and partners to complete portions of the survey that may relate to others within your national health department/ministry of health. If you are unable to answer any of the questions, you can skip those questions and leave them unanswered or choose “Don’t know”. We estimate the survey will take a total of 2-3 hours to complete.

For any questions, please contact Dr Ingrid Rabe (rabei@who.int) or Dr Diana Rojas Alvarez (drojas@who.int).

There are 105 questions in this survey.

Section I: Respondent details

Important: Please save your answers after filling in this first page before continuing.

1. Country: *

Please choose **only one** of the following:

- ☐ Afghanistan
- ☐ Albania
- ☐ Algeria
- ☐ Andorra
- ☐ Angola
- ☐ Antigua and Barbuda
- ☐ Argentina
- ☐ Armenia
- ☐ Australia
- ☐ Austria
- ☐ Azerbaijan
- ☐ Bahamas
- ☐ Bahrain
- ☐ Bangladesh
- ☐ Barbados
- ☐ Belarus
- ☐ Belgium
- ☐ Belize
- ☐ Benin
- ☐ Bhutan
- ☐ Bolivia (Plurinational State of)
- ☐ Bosnia and Herzegovina
- ☐ Botswana
- ☐ Brazil
- ☐ Brunei Darussalam
- ☐ Bulgaria
- ☐ Burkina Faso
- ☐ Burundi

- ☐ Cabo Verde
- ☐ Cambodia
- ☐ Cameroon
- ☐ Canada
- ☐ Central African Republic
- ☐ Chad
- ☐ Chile
- ☐ China
- ☐ Colombia
- ☐ Comoros
- ☐ Congo
- ☐ Cook Islands
- ☐ Costa Rica
- ☐ Côte d'Ivoire
- ☐ Croatia
- ☐ Cuba
- ☐ Cyprus
- ☐ Czechia
- ☐ Democratic People's Republic of Korea
- ☐ Democratic Republic of the Congo
- ☐ Denmark
- ☐ Djibouti
- ☐ Dominica
- ☐ Dominican Republic
- ☐ Ecuador
- ☐ Egypt
- ☐ El Salvador
- ☐ Equatorial Guinea
- ☐ Eritrea
- ☐ Estonia
- ☐ Eswatini

- ☐ Ethiopia
- ☐ Fiji
- ☐ Finland
- ☐ France
- ☐ Gabon
- ☐ Gambia
- ☐ Georgia
- ☐ Germany
- ☐ Ghana
- ☐ Greece
- ☐ Grenada
- ☐ Guatemala
- ☐ Guinea
- ☐ Guinea-Bissau
- ☐ Guyana
- ☐ Haiti
- ☐ Honduras
- ☐ Hungary
- ☐ Iceland
- ☐ India
- ☐ Indonesia
- ☐ Iran (Islamic Republic of)
- ☐ Iraq
- ☐ Ireland
- ☐ Israel
- ☐ Italy
- ☐ Jamaica
- ☐ Japan
- ☐ Jordan
- ☐ Kazakhstan
- ☐ Kenya

- ☐ Kiribati
- ☐ Kuwait
- ☐ Kyrgyzstan
- ☐ Lao People's Democratic Republic
- ☐ Latvia
- ☐ Lebanon
- ☐ Lesotho
- ☐ Liberia
- ☐ Libya
- ☐ Lithuania
- ☐ Luxembourg
- ☐ Madagascar
- ☐ Malawi
- ☐ Malaysia
- ☐ Maldives
- ☐ Mali
- ☐ Malta
- ☐ Marshall Islands
- ☐ Mauritania
- ☐ Mauritius
- ☐ Mexico
- ☐ Micronesia (Federated States of)
- ☐ Monaco
- ☐ Mongolia
- ☐ Montenegro
- ☐ Morocco
- ☐ Mozambique
- ☐ Myanmar
- ☐ Namibia
- ☐ Nauru
- ☐ Nepal

- ☐ Netherlands
- ☐ New Zealand
- ☐ Nicaragua
- ☐ Niger
- ☐ Nigeria
- ☐ Niue
- ☐ North Macedonia
- ☐ Norway
- ☐ Oman
- ☐ Pakistan
- ☐ Palau
- ☐ Panama
- ☐ Papua New Guinea
- ☐ Paraguay
- ☐ Peru
- ☐ Philippines
- ☐ Poland
- ☐ Portugal
- ☐ Qatar
- ☐ Republic of Korea
- ☐ Republic of Moldova
- ☐ Romania
- ☐ Russian Federation
- ☐ Rwanda
- ☐ Saint Kitts and Nevis
- ☐ Saint Lucia
- ☐ Saint Vincent and the Grenadines
- ☐ Samoa
- ☐ San Marino
- ☐ Sao Tome and Principe
- ☐ Saudi Arabia

- ☐ Senegal
- ☐ Serbia
- ☐ Seychelles
- ☐ Sierra Leone
- ☐ Singapore
- ☐ Slovakia
- ☐ Slovenia
- ☐ Solomon Islands
- ☐ Somalia
- ☐ South Africa
- ☐ South Sudan
- ☐ Spain
- ☐ Sri Lanka
- ☐ Sudan
- ☐ Suriname
- ☐ Sweden
- ☐ Switzerland
- ☐ Syrian Arab Republic
- ☐ Tajikistan
- ☐ Thailand
- ☐ Timor-Leste
- ☐ Togo
- ☐ Tonga
- ☐ Trinidad and Tobago
- ☐ Tunisia
- ☐ Turkey
- ☐ Turkmenistan
- ☐ Tuvalu
- ☐ Uganda
- ☐ Ukraine
- ☐ United Arab Emirates

- ☐ United Kingdom of Great Britain and Northern Ireland
- ☐ United Republic of Tanzania
- ☐ United States of America
- ☐ Uruguay
- ☐ Uzbekistan
- ☐ Vanuatu
- ☐ Venezuela (Bolivarian Republic of)
- ☐ Viet Nam
- ☐ Yemen
- ☐ Zambia
- ☐ Zimbabwe

2. Respondent/person to be contacted for clarification, if needed (last name, first name, e-mail address) *

Please write your answer here:

3. Professional title and affiliation *

Please write your answer here:

4. Date (dd/mm/yyyy): *

Please enter a date:

Section II: Arboviral disease surveillance system

5. Which arboviruses have circulated in your country at any time since the year 2000?

This refers only to arboviruses with autochthonous i.e., local mosquito-borne transmission.

Please choose **all** that apply:

☐ Chikungunya virus

☐ Dengue viruses

☐ Yellow fever virus

☐ Zika virus

☐ Other:

6. Do you have any written arbovirus surveillance and control plan(s) and/or guideline(s) for your country?

Please choose **only one** of the following:

☐ Yes, we have arbovirus-specific plans(s) or guidelines(s)

☐ Yes. We do not have arbovirus-specific guidelines, but arboviruses are included within general surveillance guidelines.

☐ No

☐ I don't know

6b. For which of the following arboviruses do you have written surveillance and control plans for your country? Please choose all that apply:

Only answer this question if the following conditions are met:

Answer was 'Yes. We do not have arbovirus-specific guidelines, but arboviruses are included within general surveillance guidelines.' or 'Yes, we have arbovirus-specific plans(s) or guidelines(s)' at question '6 [SII06]' (6. Do you have any written arbovirus surveillance and control plan(s) and/or guideline(s) for your country?)

Please choose **all** that apply:

☐ Chikungunya virus

☐ Dengue virus

☐ Yellow fever virus

☐ Zika virus

☐ Other:

These may be viruses known to be circulating or for which there is risk of introduction.

6c. Please upload surveillance and control plan(s) or protocol(s), or guideline(s)

Only answer this question if the following conditions are met:

Answer was 'Yes. We do not have arbovirus-specific guidelines, but arboviruses are included within general surveillance guidelines.' or 'Yes, we have arbovirus-specific plans(s) or guidelines(s)' at question '6 [SII06]' (6. Do you have any written arbovirus surveillance and control plan(s) and/or guideline(s) for your country?)

Kindly attach the aforementioned documents along with the survey

Since you answered that we use general surveillance guidelines that include arboviral diseases, please specify which guidelines these are:

Only answer this question if the following conditions are met:

Answer was 'Yes. We do not have arbovirus-specific guidelines, but arboviruses are included within general surveillance guidelines.' at question '6 [SII06]' (6. Do you have any written arbovirus surveillance and control plan(s) and/or guideline(s) for your country?)

Please write your answer here:

7. Is there a specific national programme for arboviral diseases surveillance or is it integrated in another programme? Please select the appropriate answer:

Please choose **only one** of the following:

- ☐ Specific programme
- ☐ Integrated in another programme
- ☐ No programme
- ☐ I don't know

7b. Please specify the programme into which arboviral diseases is integrated.

Only answer this question if the following conditions are met:

Answer was 'Integrated in another programme' at question '10 [SII07]' (7. Is there a specific national programme for arboviral diseases surveillance or is it integrated in another programme? Please select the appropriate answer:)

Please write your answer here:

8. For which level of the health structure are individual and aggregated data available ? (select all relevant levels)

	Individual level	Aggregated
Primary health care level	<input type="checkbox"/>	<input type="checkbox"/>
District level	<input type="checkbox"/>	<input type="checkbox"/>
Regional level	<input type="checkbox"/>	<input type="checkbox"/>
National level	<input type="checkbox"/>	<input type="checkbox"/>

9. What are the tools used for recording case data for surveillance purposes?
Select all that apply.

Please choose the appropriate response for each item:

	Paper-based	Électronic	Mixed methods
National	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
State/provincial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
District	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Which training has been provided to the staff working on arboviral disease surveillance data?

Please choose **all** that apply:

- ☐ One-time basic training on data capture and analysis (MS Excel, MS Access, EpiInfo) and/or geographic information systems (GIS)
- ☐ Repeated/continuing basic training on data capture, analysis, and/or GIS
- ☐ One-time advanced training on statistical software for data analysis (e.g. STATA, R, SAS, Tableau, etc.) and GIS
- ☐ Repeated/continuing training on advance statistical software for data analysis (e.g. STATA, R, SAS, etc.) and GIS
- ☐ No training
- ☐ Other:

11. Is reporting mandatory for any arboviral disease cases in your country?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No

11b. For which of the following arboviral disease cases is reporting mandatory in your country?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '15 [SII11]' (11. Is reporting mandatory for any arboviral disease cases in your country?)

Please choose the appropriate response for each item:

	Mandatory reporting of all suspect cases	Mandatory reporting of confirmed cases only	Not reportable
Chikungunya virus disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dengue virus disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yellow fever virus disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zika virus virus disease (non-congenital)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Congenital Zika virus disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11c. For which other arboviral diseases is reporting mandatory?

Only answer this question if the following conditions are met:

Answer was 'Mandatory reporting of all suspect cases' or 'Mandatory reporting of confirmed cases only' at question '16 [SII11b]' (11b. For which of the following arboviral disease cases is reporting mandatory in your country? (Other))

	Arbovirus	All suspect cases/Confirmed cases only
1	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>
9	<input type="text"/>	<input type="text"/>
10	<input type="text"/>	<input type="text"/>

11d. Please upload document(s) containing surveillance case definitions used for reporting of arboviral diseases

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '15 [SII11]' (11. Is reporting mandatory for any arboviral disease cases in your country?)

Kindly attach the aforementioned documents along with the survey

12. In the last 2 years, did your country conduct national epidemiological surveillance for human cases of arboviral disease?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

12b. How frequently are surveillance data reported to the national level? Please choose one of the following:

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '19 [SII12]' (12. In the last 2 years, did your country conduct national epidemiological surveillance for human cases of arboviral disease?)

Please choose **only one** of the following:

- ☐ Weekly
- ☐ Monthly
- ☐ Every 3 months
- ☐ Ad hoc

☐ Other

12c. What type of national epidemiological surveillance was conducted? Please choose one the following:

Definitions:

Active surveillance is defined as having dedicated systems and staff that routinely and with effort survey for cases of disease or detection of vectors and associated pathogens by the public health department.

Passive surveillance is defined as having a reporting system where physicians, laboratories, mosquito control districts, academic institutions or others routinely report cases of disease or detection of vectors and associated pathogens to the public health department.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '19 [SII12]' (12. In the last 2 years, did your country conduct national epidemiological surveillance for human cases of arboviral disease?)

Please choose **only one** of the following:

- ☐ Primarily active
- ☐ Primarily passive
- ☐ Combination of active and passive

12d. If available, please upload the most recent report(s) on arboviral surveillance in humans.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '19 [SII12]' (12. In the last 2 years, did your country conduct national epidemiological surveillance for human cases of arboviral disease?)

Kindly attach the aforementioned documents along with the survey

13. Does your country provide regular training sessions for healthcare workers on notification of *Aedes*-borne arboviral diseases?

Please choose **only one** of the following:

- ☐ Yes. If so, please describe in the comments field:
- ☐ No
- ☐ I don't know

Make a comment on your choice here:

14. What do the arboviral disease surveillance staff perceive as factors contributing to the a) success and b) barriers/challenges to arboviral disease surveillance in humans?

Please write your answer here:

Section III: Arbovirus laboratory capacity

15. Is arbovirus diagnostic laboratory testing performed for confirmation of suspected cases in your country? (Please select the applicable option during outbreak periods and during non-outbreak periods, respectively)

Please choose the appropriate response for each item:

	All suspect cases tested	Subset of suspect cases tested	No suspect cases tested
Outbreak periods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-outbreak periods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15b. On average, for what percentage of suspected arboviral disease cases your country is laboratory confirmatory testing performed? Please indicate for outbreak and non-outbreak periods, respectively.

	Percentage
Non-outbreak (routine) [percentage in a year]:	<input type="text"/>
During outbreaks [percentage per identified cluster]:	<input type="text"/>

16. In the last two years, were the positive cases of arboviruses confirmed by a national reference laboratory?

Please choose **only one** of the following:

- ☐ Yes, for all arboviral infections. Please specify them:
- ☐ Yes, but only for some arboviral infections. Please specify them:
- ☐ No

Make a comment on your choice here:

16b. If your country does not have capacity to type and serotype arboviruses, do you send samples for typing to other countries?

Please choose **only one** of the following:

- ☐ Yes. Please specify where:
- ☐ No
- ☐ I don't know

Make a comment on your choice here:

17. Overall, what arboviral testing capacity(ies) is(are) available in your country?
Please check all applicable boxes.

						RT-PCR or other nucleic acid amplifi test	Viral gene/ genome Sequencing
	Antigen testing	IgM antiboc testing	IgG antiboc testing	Neutral antiboc testing	Virus isolation		
Chikungunya	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dengue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yellow fever	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zika	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Which additional resources are most needed for your country to perform adequate testing for arboviral diseases? Please describe what would be needed for each checked resource in the adjacent comment field.

Please choose all that apply and provide a comment:

☐ Additional personnel. Estimate number of full-time staff:

☐ Additional training of personnel. Please specify:

☐ Additional laboratory equipment, reagents, etc. Please specify:

☐ Other capacity needs. Please specify:

19. Do you perform virological surveillance on humans, i.e., tracking of prevailing genotypes/serotypes? Please select all that apply

Please choose all that apply and provide a comment:

☐ Yes, using virus isolation

☐ Yes, using RT-PCR

☐ Yes, using other acid nucleic tests. Please specify:

☐ Yes, using serological testing. Please specify:

☐ No

☐ I don't know

19b. Which samples do you use for virological surveillance?

Only answer this question if the following conditions are met:

Answer was at question '31 [SIII19]' (19. Do you perform virological surveillance on humans, i.e., tracking of prevailing genotypes/serotypes? Please select all that apply) *and*
 Answer was at question '31 [SIII19]' (19. Do you perform virological surveillance on humans, i.e., tracking of prevailing genotypes/serotypes? Please select all that apply)

Please choose **all** that apply:

☐ Samples from suspected arboviral diseases routinely notified

☐ Samples routinely collected from patients with fever of unknown origin

☐ Other:

19c. For which viruses do you perform virological surveillance? (check all that apply)

Only answer this question if the following conditions are met:

Answer was at question '31 [SIII19]' (19. Do you perform virological surveillance on humans, i.e., tracking of prevailing genotypes/serotypes? Please select all that apply) *and*

Answer was at question '31 [SIII19]' (19. Do you perform virological surveillance on humans, i.e., tracking of prevailing genotypes/serotypes? Please select all that apply)

Please choose **all** that apply:

☐ Chikungunya virus

☐ Dengue viruses

☐ Yellow fever virus

☐ Zika virus

☐ Other:

19d. Does your country provide regular training sessions for healthcare workers on arboviruses virological surveillance?

Only answer this question if the following conditions are met:

Answer was at question '31 [SIII19]' (19. Do you perform virological surveillance on humans, i.e., tracking of prevailing genotypes/serotypes? Please select all that apply) *and*

Answer was at question '31 [SIII19]' (19. Do you perform virological surveillance on humans, i.e., tracking of prevailing genotypes/serotypes? Please select all that apply)

Please choose **only one** of the following:

☐ Yes

☐ No

☐ Don't know

20. What do the arboviral diagnostic laboratory staff perceive as factors contributing to the a) success and b) barriers/challenges with respect to laboratory testing for arboviral infections?

Please write your answer here:

Section IV: Management of arboviral disease cases

21. Does your country have clinical guidelines for healthcare workers on diagnosis and clinical management of cases and severe cases of *Aedes*-borne arboviral diseases?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

21b. Please upload the clinical guideline(s) for arboviral disease management.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '36 [SIV21]' (21. Does your country have clinical guidelines for healthcare workers on diagnosis and clinical management of cases and severe cases of *Aedes*-borne arboviral diseases?)

Kindly attach the aforementioned documents along with the survey

22. Are severe cases of arboviral diseases managed in a special area (part of the hospital, isolation beds)?

Please choose **only one** of the following:

☐ Yes

☐ No. If so, where are patients with severe disease treated? Please specify in comments field.

☐ I don't know

Make a comment on your choice here:

23. How many hospital beds are available per 100,000 population?

Please write your answer here:

per 100,000

24. Does your country provide regular training sessions for healthcare workers on clinical diagnosis and management of *Aedes*-borne arboviral diseases?

Please choose **only one** of the following:

- ☐ Yes, specific training is provided. If so, please specify:
- ☐ No
- ☐ I don't know

Make a comment on your choice here:

25. What do the arboviral disease surveillance/clinical staff perceive as factors contributing to the a) success and b) barriers/challenges with respect to case management?

Please write your answer here:

Section V: Routine Vector Surveillance and Control

26. Is there a disease programme, agency, or service in charge of arbovirus vector surveillance in your country?

Please choose **only one** of the following:

- ☐ Yes. If so, please specify in the comment field.
- ☐ No
- ☐ I don't know

Make a comment on your choice here:

27. Which institution/department is in charge of reporting entomologic surveillance data to the national ministry of health/health department? (Check all that apply)

Please choose **all** that apply:

- ☐ State/provincial health agencies
- ☐ Other national agency
- ☐ City/country health departments
- ☐ Local mosquito control districts or similar organisations
- ☐ Universities or academic institutions
- ☐ Private companies

☐ Other:

28. For the last 2 years, did your country conduct entomologic surveillance for arboviral infections in mosquito vectors?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ Don't know

28b. Please upload the most recent national vector surveillance report. This may include entomological indices, insecticide resistance etc.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '44 [SV28]' (28. For the last 2 years, did your country conduct entomologic surveillance for arboviral infections in mosquito vectors?)

Kindly attach the aforementioned documents along with the survey

28c. Did the entomologic surveillance entail country wide programmes or was it restricted to specific locations?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '44 [SV28]' (28. For the last 2 years, did your country conduct entomologic surveillance for arboviral infections in mosquito vectors?)

Please choose **only one** of the following:

- ☐ Country wide
- ☐ Restricted to specific locations . Please specify where:
- ☐ Don't know

Make a comment on your choice here:

28d. How many sentinel surveillance sites do you have?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '44 [SV28]' (28. For the last 2 years, did your country conduct entomologic surveillance for arboviral infections in mosquito vectors?)

Please write your answer here:

28e. How often was the surveillance conducted? Please choose one of the following:

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '44 [SV28]' (28. For the last 2 years, did your country conduct entomologic surveillance for arboviral infections in mosquito vectors?)

Please choose **only one** of the following:

- ☐ Once a year
- ☐ Every trimester
- ☐ Every semester
- ☐ Other

29. Do you conduct adult mosquito surveillance?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

30. Do you conduct larval/pupal mosquito surveillance?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

31. Are trapped mosquitoes identified to species?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ Not applicable
- ☐ I don't know

32. Does your country either calculate minimum infection rates (MIR) for any *Aedes*-borne arboviruses with your mosquito data or receive such data from other agencies? Please choose only one of the following:

Please choose **only one** of the following:

- ☐ Yes, our agency makes the MIR estimations
- ☐ Yes, the MIR are estimated by another institution. If so, please specify:
- ☐ No
- ☐ Don't know

Make a comment on your choice here:

33. Which laboratories performed testing for arboviruses on mosquito pools collected in your country in the last two years? (check all that apply)

Please choose **all** that apply:

- ☐ National public health laboratory
- ☐ State/provincial/regional public health laboratory
- ☐ Local health department laboratory
- ☐ University or academic institution
- ☐ Local MCD (if different from county health dep't)
- ☐ Mosquito surveillance done, but no testing done on mosquito pools
- ☐ Not applicable (no mosquito surveillance done)

☐ Other:

34. Is there a record of *Aedes aegypti* or *Aedes albopictus* being found in your country in the past 5 years? Please choose only one of the following.

Please choose **only one** of the following:

- ☐ Yes, only *Aedes aegypti*
- ☐ Yes, only *Aedes albopictus*
- ☐ Yes, both *Aedes aegypti* and *Aedes albopictus*
- ☐ None found in the country at this time
- ☐ Unknown within the country at this time

34b. Please describe the potential public health threat from *Aedes aegypti* in your country. Please choose only one of the following:

Only answer this question if the following conditions are met:

Answer was 'Yes, only *Aedes aegypti*' or 'Yes, both *Aedes aegypti* and *Aedes albopictus*' at question '54 [SV34]' (34. Is there a record of *Aedes aegypti* or *Aedes albopictus* being found in your country in the past 5 years? Please choose only one of the following.)

Please choose **only one** of the following:

- ☐ *Aedes aegypti* populations are abundant and arbovirus(es) is (are) circulating
- ☐ *Aedes aegypti* populations are spreading and pose a significant public health threat
- ☐ *Aedes aegypti* populations are restricted to few sites and do not yet pose a significant threat
- ☐ *Aedes aegypti* populations are stable in select areas and pose a significant threat
- ☐ *Aedes aegypti* mosquitoes are only occasionally found and do not pose a significant public health threat
- ☐ Other

34c. Please describe the potential public health threat from *Aedes albopictus* in your country. Please choose only one of the following:

Only answer this question if the following conditions are met:

Answer was 'Yes, both *Aedes aegypti* and *Aedes albopictus*' or 'Yes, only *Aedes albopictus*' at question '54 [SV34]' (34. Is there a record of *Aedes aegypti* or *Aedes albopictus* being found in your country in the past 5 years? Please choose only one of the following.)

Please choose **only one** of the following:

- ☐ *Aedes albopictus* populations are abundant and arbovirus(es) is (are) circulating
- ☐ *Aedes albopictus* populations are spreading and pose a significant public health threat
- ☐ *Aedes albopictus* populations are restricted to few sites and do not yet pose a significant threat
- ☐ *Aedes albopictus* populations are stable in select areas and pose a significant threat
- ☐ *Aedes albopictus* mosquitoes are only occasionally found and do not pose a significant public health threat
- ☐ Other

35. Over the past two years, did your country use any of the following vector control methods in local jurisdictions (either using government staff and resources, or subcontracting to a different entity to do so)? Please select all that apply.

Please choose **all** that apply:

- ☐ Adulticiding (insecticide application against adult mosquitoes)
- ☐ Larviciding
- ☐ Insect growth regulators (e.g., pyriproxyfen)
- ☐ *Wolbachia* method
- ☐ Sterile insect release
- ☐ None
- ☐ Other:

35b. Would your country have conducted or financially supported adulticiding/larviciding or source reduction activities in the last two years if sufficient funding were available?

Only answer this question if the following conditions are met:

Answer was 'None' at question '57 [SV35]' (35. Over the past two years, did your country use any of the following vector control methods in local jurisdictions (either using government staff and resources, or subcontracting to a different entity to do so)? Please select all that apply.)

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ Don't know

35c. Which adulticides and/or larvicides (brand and product name) were used?

Only answer this question if the following conditions are met:

Answer was at question '57 [SV35]' (35. Over the past two years, did your country use any of the following vector control methods in local jurisdictions (either using government staff and resources, or subcontracting to a different entity to do so)? Please select all that apply.)

Please write your answer here:

36. Does your country provide regular training sessions for staff in charge of vector control and vector surveillance?

Please choose **only one** of the following:

- ☐ Yes, for both
- ☐ Yes, only for vector surveillance
- ☐ Yes, only for vector control
- ☐ No
- ☐ Don't know

37. For the last two years, did your country have a plan for mosquito-borne disease control that includes a threshold (e.g. level of vector mosquito abundance or minimum infection rate) that would result in a recommendation for mosquito adulticiding/other mosquito reduction measures?

Please choose **only one** of the following:

- ☐ Yes, have a threshold that does not require concurrent human cases
- ☐ Yes, have a threshold that requires concurrent human cases
- ☐ No – have a plan but there is no specific threshold
- ☐ No – do not have a formal plan that includes adulticiding to control mosquito-borne diseases
- ☐ I don't know

37b. Which indicator(s) is(are) used as threshold(s) ?

Only answer this question if the following conditions are met:

Answer was 'Yes, have a threshold that does not require concurrent human cases' at question '61 [SV37]' (37. For the last two years, did your country have a plan for mosquito-borne disease control that includes a threshold (e.g. level of vector mosquito abundance or minimum infection rate) that would result in a recommendation for mosquito adulticiding/other mosquito reduction measures?)

Please choose **all** that apply:

- ☐ Concurrent human cases
- ☐ Minimum infection rate
- ☐ Vector density
- ☐ Breteau Index
- ☐ House Index
- ☐ Container Index

☐ Other:

38. Overall, are data on any of the following arboviral outbreak risk factors routinely collected and analysed? (Select all that apply)

Please choose **all** that apply:

- ☐ House Index
- ☐ Breteau Index
- ☐ Container Index
- ☐ Temperatures
- ☐ Rainfall
- ☐ Migration of a non-immune population
- ☐ None

☐ Other:

39. Is there a surveillance system in place for monitoring *Aedes* resistance to the insecticide(s) used?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ Don't know

40. What do the vector surveillance staff perceive as factors contributing to the a) success and b) barriers/challenges with respect to vector surveillance and control in the country?

Please write your answer here:

Section VI: Animal surveillance

41. During the last 2 years, did your country conduct national epidemiological surveillance for arboviral disease in animals (e.g., epizootic surveillance for yellow fever in endemic areas)?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

41b. How often was the animal surveillance conducted?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '66 [SVI41]' (41. During the last 2 years, did your country conduct national epidemiological surveillance for arboviral disease in animals (e.g., epizootic surveillance for yellow fever in endemic areas)?)

Please choose **only one** of the following:

- ☐ Once a year
- ☐ Every trimester
- ☐ Every semester
- ☐ Other

41c. What type of surveillance was conducted in animals?

Definitions:

- **Active surveillance** is defined as having dedicated systems and staff that routinely and with effort survey for cases of disease or detection of vectors and associated pathogens by the public health department.
- **Passive surveillance** is defined as having a reporting system where physicians, laboratories, mosquito control districts, academic institutions or others routinely report cases of disease or detection of vectors and associated pathogens to the public health department.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '66 [SVI41]' (41. During the last 2 years, did your country conduct national epidemiological surveillance for arboviral disease in animals (e.g., epizootic surveillance for yellow fever in endemic areas)?)

Please choose **only one** of the following:

- ☐ Primarily active
- ☐ Primarily passive
- ☐ Combination of active and passive

41d. Please upload a report on the animal surveillance.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '66 [SVI41]' (41. During the last 2 years, did your country conduct national epidemiological surveillance for arboviral disease in animals (e.g., epizootic surveillance for yellow fever in endemic areas)?)

Kindly attach the aforementioned documents along with the survey

42. Does your country (or local jurisdictions within the country) perform sentinel animal surveillance or epizootic surveillance, e.g., for yellow fever in nonhuman primates in endemic regions?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

42b. For which viruses is sentinel surveillance conducted and in which animal species?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '70 [SVI42]' (42. Does your country (or local jurisdictions within the country) perform sentinel animal surveillance or epizootic surveillance, e.g., for yellow fever in nonhuman primates in endemic regions?)

	Virus name	Sentinel animal species (list all)
Arbovirus 1	<input type="text"/>	<input type="text"/>
Arbovirus 2	<input type="text"/>	<input type="text"/>
Arbovirus 3	<input type="text"/>	<input type="text"/>
Arbovirus 4	<input type="text"/>	<input type="text"/>

42c. Please upload the most recent report(s) on sentinel animal surveillance.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '70 [SVI42]' (42. Does your country (or local jurisdictions within the country) perform sentinel animal surveillance or epizootic surveillance, e.g., for yellow fever in nonhuman primates in endemic regions?)

Kindly attach the aforementioned documents along with the survey

Section VII: Community sensitization and participation

43. Does your country have a community outreach program that also covers arboviral diseases?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

43b. What entity(ies) is(are) in charge of the outreach program in your country ?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '73 [SVII43]' (43. Does your country have a community outreach program that also covers arboviral diseases?)

Please write your answer here:

43c. What is the geographical coverage of the outreach program in your country?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '73 [SVII43]' (43. Does your country have a community outreach program that also covers arboviral diseases?)

Please choose **only one** of the following:

- ☐ Countrywide
- ☐ Only selected areas. Please specify where:
- ☐ No outreach programme
- ☐ I don't know

Make a comment on your choice here:

43d. Is the community outreach/social mobilization program sufficiently funded to cover staff time, prevention and outreach activities as needed?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '73 [SVII43]' (43. Does your country have a community outreach program that also covers arboviral diseases?)

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ Don't know

43e. Which resources would help ensure adequate capacity?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '73 [SVII43]' (43. Does your country have a community outreach program that also covers arboviral diseases?)

Please choose **all** that apply:

- ☐ Educational materials for the public
- ☐ Educational and reference materials for providers
- ☐ Educational and reference materials for local health departments
- ☐ Additional staff
- ☐ Staff training

☐ Other:

44. Did your national arboviral disease program issue notifications to the public about local transmission risk and/or possible vector-control activities (e.g. larviciding, adulticiding, community mobilization and participation, etc.) as a prevention message for arboviral diseases within last 2 years? (Check all that apply)

	Issued by national public health agency	Issued by state/local health agencies	No risk in the past two years	No notifications even though risk was present
During outbreaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During non-outbreak periods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

44b. Which means does your program use for community sensitization, mobilisation and acceptance of interventions in your country? (Check all that apply)

Please choose **all** that apply:

- ☐ Press releases to electronic and printed media
- ☐ Public service announcements on television or radio
- ☐ Passive distribution of informational brochures
- ☐ Active distribution of informational brochures
- ☐ Town, community, or neighborhood meetings
- ☐ Posting information on the home page of your agency's website
- ☐ Social media outlets (Facebook, Twitter, etc)
- ☐ Door-to-door outreach in selected locations
- ☐ Participation in community clean-ups
- ☐ Modification of messages for all local languages

☐ Other:

45. Does your country provide regular training sessions for staff in charge of community sensitization, mobilisation and acceptance of interventions dedicated to control arboviral diseases?

Please choose **only one** of the following:

- ☐ Yes. If yes, please describe in comments field:
- ☐ No
- ☐ I don't know

Make a comment on your choice here:

46. What do the community outreach staff perceive as factors contributing to the
a) success and b) barriers/challenges with respect to community participation.

Please write your answer here:

Section VIII: Preparedness for arboviral outbreaks/epidemics

47. Is there either a surveillance and outbreak response committee in your country, or a steering committee for that purpose?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

48. Does your country have a contingency plan to organize healthcare services during an outbreak (including outbreaks of arboviral diseases)?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

48b. Please upload the contingency plan.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '83 [SVIII48]' (48. Does your country have a contingency plan to organize healthcare services during an outbreak (including outbreaks of arboviral diseases)?)

Kindly attach the aforementioned documents along with the survey

49. Are there defined or established criteria for declaring an outbreak of arboviral disease outbreak in your country?

Please choose **only one** of the following:

☐ Yes. If so, in the comments field, please briefly describe the criteria or reference the document in which those are stated:

☐ No

☐ I don't know

Make a comment on your choice here:

50. Do you have established collaborations with national/regional research institutions / international agencies that are planned to be activated in case of arboviral outbreak?

Please choose **only one** of the following:

- ☐ Yes. If so, please specify institutions/agencies in the comments field:
- ☐ No
- ☐ I don't know

Make a comment on your choice here:

51. What vector control interventions are deployed in case of an emergency?

Please write your answer here:

52. For the last 2 years, which of the following government levels had an emergency fund or a specified emergency funding mechanism for arbovirus outbreak response?

Please choose **all** that apply:

- ☐ National level
- ☐ State/local level
- ☐ None

53. Does your country provide regular training sessions for staff/committee in charge of preparedness for arboviral outbreaks/epidemics?

Please choose **only one** of the following:

- ☐ Yes
- ☐ No
- ☐ I don't know

54. What do the arboviral disease surveillance staff perceive as factors contributing to the a) success and b) barriers/challenges with respect to preparedness of arboviral diseases epidemics in your country?

Please write your answer here:

Section IX: Arboviral disease surveillance data

55. Please provide total number of cases and deaths for the following arboviral diseases from 2015 to 2020 (if available).

	2015 Case	2015 Death	2016 Case	2016 Death	2017 Case	2017 Death	2018 Case	2018 Death	2019 Case	2019 Death	2020 Case	2020 Deaths
Dengue	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Chikun	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Yellow fever	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Zika	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

55b. Were cases of other mosquito-borne arboviruses, not listed in the previous question, reported in your country from 2015-2020?

Please choose **only one** of the following:

- ☐ Yes
☐ No
☐ I don't know

55c. Please select any of the following other mosquito-borne viruses that have been reported in your country from 2015-2020. (Note - these are any mosquito-borne arboviruses that cause human disease, not just *Aedes*-borne viruses)

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '92 [SIX55b]' (55b. Were cases of other mosquito-borne arboviruses, not listed in the previous question, reported in your country from 2015-2020?)

Please choose **all** that apply:

- ☐ Barmah forest
- ☐ Bwamba
- ☐ Cache valley
- ☐ California encephalitis
- ☐ Chandipura
- ☐ Eastern equine encephalitis
- ☐ Everglades virus
- ☐ Eyach
- ☐ Inkoo
- ☐ Jamestown Canyon
- ☐ Japanese encephalitis
- ☐ Kunjin
- ☐ Kyasanur Forest
- ☐ La Crosse
- ☐ Mayaro
- ☐ Murray Valley encephalitis
- ☐ O'nyong-nyong
- ☐ Oropouche
- ☐ Rift Valley fever
- ☐ Semliki Forest
- ☐ Sindbis
- ☐ Snowshoe hare
- ☐ Spondweni
- ☐ St Louis encephalitis
- ☐ Thogoto
- ☐ Trivittatus

- ☐ Usutu
- ☐ Venezuelan equine encephalitis
- ☐ West Nile
- ☐ Western equine encephalitis

55d. Please provide total number of cases and deaths due to each of the following other arboviruses that you selected from 2015-2020.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '92 [SIX55b]' (55b. Were cases of other mosquito-borne arboviruses, not listed in the previous question, reported in your country from 2015-2020?)

Only answer this question for the items you selected in question SIX55c ('55c. Please select any of the following other mosquito-borne viruses that have been reported in your country from 2015-2020. (Note - these are any mosquito-borne arboviruses that cause human disease, not just Aedes-borne viruses)')

Only answer this question for the items you did not select in question SIX55c ('55c. Please select any of the following other mosquito-borne viruses that have been reported in your country from 2015-2020. (Note - these are any mosquito-borne arboviruses that cause human disease, not just Aedes-borne viruses)')

	2015 Case	2015 Deaths	2016 Case	2016 Deaths	2017 Case	2017 Deaths	2018 Case	2018 Deaths	2019 Case	2019 Deaths	2020 Case	2020 Deaths
Barmah forest	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Bwamba	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Cache valley	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
California encephalitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Chandipura	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Eastern equine encephalitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Trivittatus	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Eyach	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Inkoo	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Jamestown Canyon	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

	2015 Case	2015 Deatl	2016 Case	2016 Deatl	2017 Case	2017 Deatl	2018 Case	2018 Deatl	2019 Case	2019 Deatl	2020 Case	2020 Deaths
Japanese encephalitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Kunjin	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Kyasanur Forest	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
La Crosse	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Mayaro	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Murray Valley encephalitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
O'nyong-nyong	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Oropouche	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rift Valley fever	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Semliki Forest	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sindbis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Snowshoe hare	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Spondweni	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
St Louis encephalitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Thogoto	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Usutu	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

	2015 Case	2015 Deatl	2016 Case	2016 Deatl	2017 Case	2017 Deatl	2018 Case	2018 Deatl	2019 Case	2019 Deatl	2020 Case	2020 Deaths
Venezuelan equine encephalitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
West Nile	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Western equine encephalitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

56. Please provide the number of cases of locally acquired, mosquito-borne *Aedes*-borne arbovirus infections by case classification for 2020 and, if not available, for 2019.

	Suspect cases	Probable cases	Confirmed cases	Deaths
Chikungunya	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Dengue	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Yellow Fever	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Zika	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

57. Do arbovirus surveillance staff have any perceived reasons for increasing trends in arboviral disease incidence? Check all answers that apply.

Please choose **all** that apply:

- ☐ Climate change (as evidenced by changes in meteorological data)
- ☐ Construction activities
- ☐ Population migration (within the country or between countries)
- ☐ Increased availability of peri-domestic water-bearing containers suitable for mosquito egg deposition

☐ Other:

Section X: Surveillance staffing

58. During 2019 (prior to the Covid-19 pandemic), indicate below the number of arbovirus surveillance staff at the national level. Surveillance staff include those who are responsible for human disease surveillance, mosquito (entomological) surveillance, and animal surveillance, e.g., monitoring of non-human primates for yellow fever in endemic regions. As the categories below are mutually exclusive, please place each staff person in only one column.

				Entomolog vector control specialists	Support staff (administration logistics; other)
	Clinicians	Epidemiol	Laboratori		
Number of personnel	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

59. Indicate below how many total staff persons are needed at the national level in your country to achieve full epidemiology and laboratory capacity* to conduct arbovirus surveillance.

*Full epidemiology and laboratory capacity are defined as:

i) ability to complete a standard case report form on every suspect arboviral disease case with laboratory criteria that meets the case definition and report it to the national health authority/ministry of health through appropriate mechanisms;

ii) regularly reporting timely surveillance data to local stakeholders;

iii) ability to test by IgM/other? for all locally transmitted and likely to be introduced *Aedes*-borne arboviruses on any serum specimen submitted to national or subnational lab on a suspected case of arboviral disease; and

iv) having an environmental surveillance system that includes *Aedes* mosquito surveillance to monitor vector activity when appropriate in all parts of the country in which there is the potential for human outbreaks of arboviral disease based on past experience.

				Entomology control specialists	Support staff (administration logistics; other)
	Clinicians	Epidemiol	Laboratori		
Number of personnel	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

60. Optional comments to explain responses to questions 58 and 59 above.

Please write your answer here:

61. The national health authority/ministry of health has access to expertise in clinical management of arboviruses (Check all that apply)

Please choose **all** that apply:

- ☐ Within the ministry of health (e.g., public health medical officers, clinicians in state hospitals)
- ☐ Through other national agency with regulatory authority
- ☐ Through academic institution(s)
- ☐ Private hospitals
- ☐ Does not have access
- ☐ Other:

62. The national health authority/ministry of health has access to expertise in arbovirus epidemiology (Check all that apply)

Please choose **all** that apply:

- ☐ Within the ministry of health
- ☐ Through other national agency with regulatory authority
- ☐ Through academic institution(s)
- ☐ Does not have access
- ☐ Other:

63. The national health authority/ministry of health has access to expertise in arbovirus laboratory diagnosis (Check all that apply)

Please choose **all** that apply:

- ☐ Within the ministry of health (e.g. public health laboratory scientists)
- ☐ Through other national agency with regulatory authority
- ☐ Through academic institution(s)
- ☐ Does not have access

☐ Other:

64. The national health authority/ministry of health has access to expertise in entomology (Check all that apply)

Please choose **all** that apply:

- ☐ Within the ministry of health
- ☐ Through other national agency with regulatory authority
- ☐ Through academic institution(s)
- ☐ Does not have access

☐ Other:

65. Optional comments to explain responses to any of Questions 61-64

Please write your answer here:

Survey conclusion

You have reached the final screen of the survey. Once you click "Submit" below you will be unable to review or edit your answers. If you wish to review your answers, please do so using the "Previous" button below.

66. If you have any further comments to add regarding arbovirus surveillance and control in your country, including whether arboviruses other than *Aedes*-borne arboviruses are of higher priority, please do so in the text field below.

Please write your answer here:

You have reached the end of the survey, many thanks for your participation!

As mentioned in the introduction, we will use your information to better inform guidance for prevention, detection, and control of arboviral diseases in your region and globally.

Submit your survey.

Thank you for completing this survey.