



World Health Organization

Arboviral Surveillance and Control Capacity Survey

The World Health Organisation (WHO) in partnership with WHO Regional Offices 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:

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

Please 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 and provide with your username, password, email and click “save”**. Then, click “Next” to continue, your next 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 3-4 hours to complete.

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

	Section I: Respondent details
1	Country:
2	Respondent/person to be contacted for clarification, if needed (last name, first name, e-mail address)
3	Professional title and affiliation
4	Date (DD/MM/YYYY):
	Section II: Arboviral disease surveillance system
5	Which arboviruses have circulated in your country at any time since the year 2000? <i>This refers only to arboviruses with autochthonous i.e., local mosquito-borne transmission.</i>
	<input type="checkbox"/> Chikungunya virus <input type="checkbox"/> Dengue viruses <input type="checkbox"/> Yellow fever virus <input type="checkbox"/> Zika virus <input type="checkbox"/> Other (please specify): _____
6	Do you have any written arbovirus surveillance and control plan(s)/guideline(s) for your country?
	<input type="radio"/> Yes, we have arbovirus-specific plans(s) or guidelines(s) <input type="radio"/> Yes. We do not have arbovirus-specific guidelines, but arboviruses are included within general surveillance guidelines. If so, please specify guidelines: _____ <input type="radio"/> No (if checked, please proceed to question 6)
6b	For which of the following arboviruses do you have written surveillance and control plans for your country? These may be viruses known to be circulating or plans for possible introduction. Please choose all that apply:
	<input type="checkbox"/> Chikungunya virus <input type="checkbox"/> Dengue virus <input type="checkbox"/> Yellow fever virus <input type="checkbox"/> Zika virus <input type="checkbox"/> Other, please specify: _____ _____
6c	If you answered “Yes” to question 5, please attach surveillance and control plan(s) or protocol(s), or guideline(s) when submitting this survey.
7	Is there a specific national programme for arboviral diseases surveillance or is it integrated in another programme? Please select the appropriate answer:

	<input type="checkbox"/> Specific programme <input type="checkbox"/> Integrated in another programme If so, please specify: _____ <input type="checkbox"/> No programme																								
8	For which level of the health structure are individual and aggregated data available ? (select all relevant levels)																								
	<table border="1"> <thead> <tr> <th>Healthcare level</th> <th>Individual level data</th> <th>Aggregated data</th> </tr> </thead> <tbody> <tr> <td>Primary health care</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>District</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Regional</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>National</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Healthcare level	Individual level data	Aggregated data	Primary health care	<input type="checkbox"/>	<input type="checkbox"/>	District	<input type="checkbox"/>	<input type="checkbox"/>	Regional	<input type="checkbox"/>	<input type="checkbox"/>	National	<input type="checkbox"/>	<input type="checkbox"/>									
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National	<input type="checkbox"/>	<input type="checkbox"/>																							
9	What are the tools used for recording case data for surveillance purposes? Select all that apply.																								
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Mixed methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																						
10	What training has been provided to the staff working with arbovirus disease surveillance data?																								
	<input type="checkbox"/> One-time basic training on data capture and analysis (MS Excel, MS Access, EpiInfo) and/or geographic information systems (GIS) <input type="checkbox"/> Repeated/continuing basic training on data capture, analysis, and/or GIS <input type="checkbox"/> One-time advanced training on statistical software for data analysis (e.g. STATA, R, SAS, Tableau, etc.) and GIS <input type="checkbox"/> Repeated/continuing training on advance statistical software for data analysis (e.g. STATA, R, SAS, etc.) and GIS <input type="checkbox"/> No training <input type="checkbox"/> Other: _____																								
11	For which of the following arboviral disease cases is reporting mandatory in your country?																								
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	Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11b	Please attach document(s) containing surveillance case definitions when submitting this survey.			
12	In the last 2 years, did your country conduct national epidemiological surveillance for human cases of arboviral disease?			
	<input type="checkbox"/> Yes <input type="checkbox"/> No (if no, please proceed to question 13) <input type="checkbox"/> Don't know (if you do not know, please proceed to question 13)			
12b	How often was the surveillance in humans conducted? Please choose one of the following:			
	<input type="checkbox"/> Ongoing <input type="checkbox"/> Once a year <input type="checkbox"/> Every 3 months <input type="checkbox"/> Every 6 months <input type="checkbox"/> Others Please specify			
12c	What type of human arboviral disease surveillance was conducted?			
	<input type="radio"/> Primarily active <input type="radio"/> Primarily passive <input type="radio"/> Combination of active and passive			
12d	If available, please attach the most recent human arboviral disease surveillance report(s) when submitting this survey.			
13	Does your country provide regular training sessions for healthcare workers on notification of arboviral diseases?			
	<input type="checkbox"/> Yes. If so, please describe: _____ <input type="checkbox"/> No			
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.			
	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)			
		All suspect cases tested	Subset of suspect cases tested	No suspect cases tested
	Outbreak periods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Non-outbreak periods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15b	What is the average percentage of suspected cases your country gets lab-confirmed?																																																								
	Please enter your answer here: <input type="checkbox"/> Routinely: _____% in a year <input type="checkbox"/> During outbreaks: _____% per identified cluster																																																								
16	In the last two years, were the positive cases of arboviruses confirmed by a national reference laboratory?																																																								
	<input type="checkbox"/> Yes, for all arboviral infections. Please specify them <input type="checkbox"/> Yes, but only for some arboviral infections. Please specify them <input type="checkbox"/> No																																																								
16b	In the event, your country does not have capacities to type and serotype arboviruses, do you send samples for typing to other countries?																																																								
	<input type="radio"/> Yes. Please specify where: _____ <input type="radio"/> No																																																								
17	Overall, what testing capacity(ies) is(are) available in your country? Please tick the right box(es).																																																								
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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.																																																								
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19	Do you perform virological surveillance on humans, i.e., tracking of prevailing genotypes/phenotypes/serotypes? Please select all that apply																																																								
	<input type="checkbox"/> Yes, via virus isolation <input type="checkbox"/> Yes, via RT-PCR <input type="checkbox"/> Yes, via other acid nucleic testing If so, please specify <input type="checkbox"/> Serological testing If so, please specify: _____ No (if no, please proceed to question 20)																																																								

19b	Which samples do you use for virological surveillance?
	<input type="checkbox"/> Samples from suspected arboviral diseases routinely notified <input type="checkbox"/> Samples routinely collected from patients with fever of unknown origin <input type="checkbox"/> Other type of samples (please specify): _____
19c	For which viruses do you perform virological surveillance? (check all that apply)
	<input type="checkbox"/> Chikungunya virus <input type="checkbox"/> Dengue viruses <input type="checkbox"/> Yellow fever virus <input type="checkbox"/> Zika virus <input type="checkbox"/> Other (specify): _____
19d	Does your country provide regular training sessions for healthcare workers on arboviruses virological surveillance?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
20	What do the arboviral disease surveillance staff perceive as factors contributing to the a) success and b) barriers/challenges with respect to laboratory testing for arboviral infections?
	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 <i>Aedes</i> -borne arboviral diseases?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
21b	Please attach the clinical guidelines for arboviral disease management when submitting this survey or provide electronic link(s).
22	Are severe cases of arboviral diseases managed in a special area (part of the hospital, isolation beds)?
	<input type="checkbox"/> Yes <input type="checkbox"/> No If so, where are severe patients sent to? _____ <input type="checkbox"/> Don't know
23	How many hospital beds are available per 100,000 population?
24	Does your country provide regular training sessions for healthcare workers on clinical diagnosis AND management of <i>Aedes</i> -borne arboviral diseases?
	<input type="checkbox"/> Yes, specific training is provided If so, please describe the trainings provided <input type="checkbox"/> No <input type="checkbox"/> Don't know
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

	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?
	<input type="checkbox"/> Yes. If so, please specify: <input type="checkbox"/> No <input type="checkbox"/> Don't know
27	Which institution/department is in charge of reporting entomologic surveillance data to the national ministry of health/health department? (Check all that apply)
	<input type="checkbox"/> State/provincial health agencies <input type="checkbox"/> Other national agency <input type="checkbox"/> City/country health departments <input type="checkbox"/> Local mosquito control districts or similar organisations <input type="checkbox"/> Universities or academic institutions <input type="checkbox"/> Private companies <input type="checkbox"/> Other – please specify
28	For the last 2 years, did your country conduct entomologic surveillance for arboviral infections in mosquito vectors?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
28b	If yes to question 28, please attach report(s) when submitting this survey.
28c	If yes to question 31, is it country wide programmes or restricted to specific locations?
	<input type="checkbox"/> Country wide <input type="checkbox"/> Restricted to specific locations Please describe which locations: _____
28d	How many sentinel vector surveillance sites do you have ?
28e	How often was the surveillance conducted? Please choose one of the following:
	<input type="checkbox"/> Once a year <input type="checkbox"/> Every three months <input type="checkbox"/> Every six months <input type="checkbox"/> Others (Please specify)
29	Do you conduct adult mosquito surveillance?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
30	Do you conduct larval/pupal mosquito surveillance?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
31	Are trapped mosquitoes identified to species ?
	<input type="checkbox"/> Yes

	<input type="checkbox"/> No <input type="checkbox"/> Don't know
32	Does your country either calculate minimum infection rates (MIR) for at least dengue/chikungunya/Zika/yellow fever with your mosquito data or receive such data from other agencies? Please choose only one of the following:
	<input type="checkbox"/> Yes, our agency makes the MIR estimations <input type="checkbox"/> Yes, the MIR are estimated by another institution. If so, please specify: <input type="checkbox"/> No <input type="checkbox"/> Don't know
33	Which laboratories perform testing for arboviruses on mosquito pools collected in your country in the last two years? (check all that apply)
	<input type="checkbox"/> National public health laboratory <input type="checkbox"/> State public health laboratory <input type="checkbox"/> Local health department laboratory <input type="checkbox"/> University or academic institution <input type="checkbox"/> Local MCD (if different from county health dep't) <input type="checkbox"/> Mosquito surveillance done, but no testing done on mosquito pools <input type="checkbox"/> Not applicable (no mosquito surveillance done) <input type="checkbox"/> Other
34	Is there a record of <i>Aedes aegypti</i> or <i>Aedes albopictus</i> being found in your country in the past 5 years?
	<input type="checkbox"/> Yes, only <i>Aedes aegypti</i> <input type="checkbox"/> Yes, only <i>Aedes albopictus</i> <input type="checkbox"/> Yes, both <i>Aedes aegypti</i> and <i>Aedes albopictus</i> <input type="checkbox"/> None found in the country at this time Unknown within the country at this time
34b	Please describe the potential public health threat from <i>Aedes aegypti</i> in your country. Please choose only one of the following:
	<input type="checkbox"/> <i>Aedes aegypti</i> populations are abundant and arbovirus(es) is (are) circulating <input type="checkbox"/> <i>Aedes aegypti</i> populations are spreading and pose a significant public health threat <input type="checkbox"/> <i>Aedes aegypti</i> populations are restricted to few sites and do not yet pose a significant threat <input type="checkbox"/> <i>Aedes aegypti</i> populations are stable in select areas and pose a significant threat <input type="checkbox"/> <i>Aedes aegypti</i> mosquitoes are only occasionally found and do not pose a significant public health threat <input type="checkbox"/> Other (Please specify):
34c	Please describe the potential public health threat from <i>Aedes albopictus</i> in your country. Please choose only one of the following:
	<input type="checkbox"/> <i>Aedes albopictus</i> populations are abundant and arbovirus(es) is (are) circulating <input type="checkbox"/> <i>Aedes albopictus</i> populations are spreading and pose a significant public health threat <input type="checkbox"/> <i>Aedes albopictus</i> populations are restricted to few sites and do not yet pose a significant threat <input type="checkbox"/> <i>Aedes albopictus</i> populations are stable in select areas and pose a significant threat <input type="checkbox"/> <i>Aedes albopictus</i> mosquitoes are only occasionally found and do not pose a significant public health threat <input type="checkbox"/> Other

	Please specify
35	For the last two years, did your country conduct adulticiding , including space spraying, and/or larviciding activities in local jurisdictions (either using government staff and resources, or subcontracting to a different entity to do so)? Please choose only one of the following:
	<input type="checkbox"/> Adulticiding (insecticide application against adult mosquitoes) <input type="checkbox"/> Larviciding <input type="checkbox"/> Insect growth regulators <input type="checkbox"/> Wolbachia <input type="checkbox"/> Sterile insect release <input type="checkbox"/> None <input type="checkbox"/> Other (please specify) _____ _____
35b	If no to question 39, would your country have conducted or financially supported adulticiding/larviciding or source reduction activities in the last two years if sufficient funding were available?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
35c	If yes to question 39, which insecticides (adulticides) and/or larvicides (brand and product name) were used?
36	Does your country provide regular training sessions for vector control and surveillance staff?
	<input type="checkbox"/> Yes, for both <input type="checkbox"/> Yes, only for vector surveillance <input type="checkbox"/> Yes, only for vector control <input type="checkbox"/> No <input type="checkbox"/> 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?
	<input type="checkbox"/> Yes – have a threshold that does not require concurrent human cases <input type="checkbox"/> Yes – have a threshold that requires concurrent human cases <input type="checkbox"/> No – have a plan but there is no specific threshold <input type="checkbox"/> No – do not have a formal plan that includes adulticiding to control mosquito-borne diseases
37b	If you answer yes to question 41, which indicators are used as threshold(s) ?
	<input type="checkbox"/> Concurrent human cases <input type="checkbox"/> Minimum infection rate <input type="checkbox"/> Vector density <input type="checkbox"/> Breteau Index

	<input type="checkbox"/> House Index <input type="checkbox"/> Container Index <input type="checkbox"/> Other: _____
38	Overall, are data on any of the following arboviral outbreak risk factors routinely collected and analysed? (Select all that apply)
	<input type="checkbox"/> House Index <input type="checkbox"/> Breteau Index <input type="checkbox"/> Container Index <input type="checkbox"/> Temperatures <input type="checkbox"/> Rainfall <input type="checkbox"/> Migration of a non-immune population <input type="checkbox"/> None Other (please specify):
39	Is there a surveillance system in place for monitoring <i>Aedes</i> resistance to the insecticide(s) used?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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
	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)?
	<input type="checkbox"/> Yes <input type="checkbox"/> No (if no, please proceed to question 10) <input type="checkbox"/> Don't know (if you do not know, please proceed to question 10)
41b	How often was the animal surveillance conducted?
	<input type="checkbox"/> Once a year <input type="checkbox"/> Every trimester <input type="checkbox"/> Every semester <input type="checkbox"/> Others (Please specify)
41c	What type of surveillance was conducted in animals (zoonotic reservoirs)?
	<input type="checkbox"/> Primarily active (e.g., active searching for infected animals, whether asymptomatic, diseased, or dead animals) <input type="checkbox"/> Primarily passive (e.g., incidental reporting of animal deaths) <input type="checkbox"/> Combination of active and passive

41d	Please submit a report on this surveillance together with the completed survey																
42	Does your country (or do local jurisdictions within the country) conduct sentinel animal surveillance or epizootic surveillance, e.g., in non-human primates, for yellow fever or for other arboviruses? Please choose only one of the following:																
	<input type="checkbox"/> Yes <input type="checkbox"/> No (if no, please proceed to question 11) <input type="checkbox"/> Don't know (if you do not know, please proceed to question 11)																
42b	For which viruses is sentinel surveillance conducted and in which animal species?																
	<table border="1"> <thead> <tr> <th></th> <th>Arbovirus name</th> <th>Sentinel animal species</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> </tr> </tbody> </table>			Arbovirus name	Sentinel animal species	1			2			3			4		
	Arbovirus name	Sentinel animal species															
1																	
2																	
3																	
4																	
42c	Please submit reports on sentinel animal surveillance together with the completed survey																
	Section VII: Community sensitization and participation																
43	Does your country have a community outreach program that also covers arboviral diseases?																
	<input type="checkbox"/> Yes <input type="checkbox"/> No																
43b	Which departments or programs are in charge of the community outreach program in your country as it pertains to arboviral diseases?																
43c	What is the geographical coverage of the outreach program in your country ?																
	<input type="checkbox"/> Countrywide <input type="checkbox"/> Only selected areas (please specify where): _____ <input type="checkbox"/> No outreach programme																
43d	Is the community outreach/social mobilization program sufficiently funded to cover staff time, prevention and outreach activities as needed?																
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know																
43e	Which resources would help ensure adequate capacity?																
	<input type="checkbox"/> Educational materials for the public <input type="checkbox"/> Educational and reference materials for health care providers <input type="checkbox"/> Educational and reference materials for local health departments <input type="checkbox"/> Additional staff <input type="checkbox"/> Staff training																

	<input type="checkbox"/> Additional resources (Please specify) _____				
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/insecticiding, community mobilization and participation, etc.) as a prevention message for arboviral diseases in 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"/>
	Non-outbreak periods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44b	If notifications were issued, which means does your program use for community sensitization, mobilisation and acceptance of interventions in your country? (Check all that apply)				
	<input type="checkbox"/> Press releases to electronic and printed media <input type="checkbox"/> Public service announcements on television or radio <input type="checkbox"/> Passive distribution of informational brochures <input type="checkbox"/> Active distribution of informational brochures <input type="checkbox"/> Town, community, or neighborhood meetings <input type="checkbox"/> Posting information on the home page of your agency's website <input type="checkbox"/> Social media outlets (Facebook, Twitter, etc) <input type="checkbox"/> Door-to-door outreach in selected locations <input type="checkbox"/> Participation in community clean-ups <input type="checkbox"/> Translation of messages into all local languages <input type="checkbox"/> Other (Please specify): _____				
45	Does your country provide regular training sessions for staff in charge of community sensitization, mobilisation and acceptance of interventions dedicated to control arbovirus diseases?				
	<input type="checkbox"/> Yes If yes, please specify: <input type="checkbox"/> No <input type="checkbox"/> Don't know				
46	What do the community outreach staff perceive as factors contributing to the a) success and b) barriers/challenges with respect to community participation				
	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?				
	<input type="checkbox"/> Yes <input type="checkbox"/> No				
48	Does your country have a contingency plan to organize healthcare services during an outbreak (including outbreaks of <i>arboviral diseases</i>)?				
	<input type="checkbox"/> Yes <input type="checkbox"/> No				
48b	Please submit the contingency plan document together with the completed survey				

49	Are there defined or established criteria for declaring an outbreak of arboviral disease outbreak in your country?
	<input type="checkbox"/> Yes. If so, please briefly describe the criteria or reference the document in which those are stated: _____ _____ <input type="checkbox"/> No <input type="checkbox"/> Don't know
50	Do you have established collaborations with national/regional research institutions / international agencies that are planned to be activated in case of arboviral outbreak?
	<input type="checkbox"/> Yes. If so, please specify institution(s)/agency(ies): _____ _____ <input type="checkbox"/> No <input type="checkbox"/> Don't know
51	What vector control interventions are deployed in case of an emergency?
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?
	<input type="checkbox"/> National level <input type="checkbox"/> State/Local level <input type="checkbox"/> None
53	Does your country provide regular training sessions for staff/committee in charge of preparedness for arboviral outbreaks/epidemics?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
54	What do the arboviral disease surveillance/clinical staff perceive as factors contributing to the a) success and b) barriers/challenges with respect to preparedness of arboviral diseases epidemics in your country

Section IX: Arbovirus surveillance data													
55	Please provide total number of cases and deaths for the following arboviral diseases from 2015 to 2020 (if available).												
		2015		2016		2017		2018		2019		2020	
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
	Dengue												
	Chikungunya												
	Zika												
	Yellow fever												
	West Nile												
	Other:												
56	Please provide case numbers of mosquito-transmitted locally acquired <i>Aedes</i> -borne arbovirus infections by case classification for 2020 and if not available, then for 2019												
	Virus			Suspect cases		Probable cases		Confirmed cases		Deaths			
	Chikungunya												
	Dengue												
	Yellow Fever												
	Zika												
	Other:												
57	Do arbovirus surveillance staff have any perceived reasons for increasing trends in arboviral disease incidence:												
	<input type="checkbox"/> Climate change (as evidenced by changes in meteorological data) <input type="checkbox"/> Construction activities												

- | |
|--|
| <input type="checkbox"/> Population migration (within the country or between countries) |
| <input type="checkbox"/> Increased availability of peri-domestic water-bearing containers suitable for mosquito egg deposition |
| <input type="checkbox"/> Other: |

Section XII: Surveillance staffing							
58	<p>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.</p>						
		Clinicians	Epidemiologists	Laboratorians	Entomologists/ vector control specialists	Support staff (administration; logistics; other)	
	Number of full-time equivalents (FTE)						
59	<p>Indicate below how many total FTE staff persons are needed at the national level in your country to achieve full epidemiology and laboratory capacity* to conduct arbovirus surveillance.</p> <p>*Full epidemiology and laboratory capacity are defined as:</p> <p>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;</p> <p>ii) regularly reporting timely surveillance data to local stakeholders;</p> <p>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</p> <p>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.</p>						
		Clinicians	Epidemiologists	Laboratorians	Entomologists/ vector control specialists	Support staff (administration; logistics; other)	
	Percentage of full-time equivalents (FTE)						
60	Optional comments to explain responses to questions 62 and 63 above						
61	The national health authority/ministry of health has access to expertise in clinical management of arboviruses (Check all that apply)						
	<input type="checkbox"/> within the ministry of health (e.g., public health medical officers, clinicians in state hospitals) <input type="checkbox"/> through other national agency with regulatory authority <input type="checkbox"/> through academic institution(s) <input type="checkbox"/> private hospitals <input type="checkbox"/> does not have access <input type="checkbox"/> Other:						

62	The national health authority/ministry of health has access to expertise in arbovirus epidemiology (Check all that apply)
	<input type="checkbox"/> Within the ministry of health <input type="checkbox"/> Through other national agency with regulatory authority <input type="checkbox"/> Through academic institution(s) <input type="checkbox"/> Does not have access <input type="checkbox"/> Other:
63	The national health authority/ministry of health has access to expertise in arbovirus laboratory diagnosis (Check all that apply)
	<input type="checkbox"/> Within the ministry of health (e.g. public health laboratory scientists) <input type="checkbox"/> Through other national agency with regulatory authority <input type="checkbox"/> Through academic institution(s) <input type="checkbox"/> Does not have access <input type="checkbox"/> Other:
64	The national health authority/ministry of health has access to expertise in entomology (Check all that apply)
	<input type="checkbox"/> within the ministry of health <input type="checkbox"/> through other national agency with regulatory authority <input type="checkbox"/> through academic institution(s) <input type="checkbox"/> does not have access <input type="checkbox"/> Others
65	Optional comments to explain responses to any of Questions 61-64.
66	If you have any other comments to add regarding the surveillance and control of arboviruses in your country, including whether arboviruses other than those transmitted by <i>Aedes</i> mosquitoes are of higher priority, please do so in the text field below.

Definitions of terms:

Surveillance staff: include those who are involved in human disease surveillance, mosquito

(entomological) surveillance, and animal surveillance, e.g., monitoring of non-human primates for yellow fever.

Full time equivalent (FTE): Equivalent of the work that would be done at full-time capacity by a single individual. For example, a staff member employed in full time work position but only devoting 50% of their time to arbovirus surveillance would be a 0.5 FTE.

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.

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.