

Positive Predictive Value refers to the proportion of epidemiological units (e.g. animal, holding, herd) classified as diseased or infected by the surveillance system which are actually diseased or infected. It partly depends on the sensitivity and specificity of the surveillance system, but is also influenced by the disease prevalence in the target population.

	Surveillance design step	Advice for improvement of POSITIVE PREDICTIVE VALUE
1	Surveillance system	
1.1	Hazard	
1.2	Surv. Objective	
1.3	Geographical area covered	
1.4	Susceptible species	
1.5	Risk characteristics	
2	Components overview	
3	Target population	
3.1	Target species	
3.2	Target sector	
3.3	Sectors missed	
3.4	Geographical area covered	
3.5	Target criteria	
3.6	Percentage covered	
4	Disease suspicion	
4.1	Definition	
4.2	Obligations	
4.3	Notification procedures	
4.4	Actions upon suspicions	
4.5	Actions upon confirmation	
5	Enhancements	
6	Testing protocol	Consider choosing a test with higher analytical specificity to increase PPV.
6.1	Type of test to be carried out	
6.2	Type of sample to be collected	Choose a sample type that results in a low number of false positives.
6.3	Pooling	Pooling will decrease the PPV when inference is made at animal level, but it will increase it in case the inference is made at herd level.
6.4	Screening/first test	Consider choosing a test with higher analytical specificity to increase PPV. Ensure adequate quality assurance in the laboratory to avoid for example cross-contamination.

6.5	Confirmatory/ second test	Aim for a highly specific test. Also consider factors affecting diagnostic specificity such as training of field and laboratory staff, quality assurance in the field and in laboratories to avoid cross-contamination and the use of negative controls.
6.6	Further details	
7	Study design	
7.1	Point of sample collection	
7.2	Selection of units	
7.3	Target unit	
7.4	Sampling unit	
7.5	Sampling design	
7.6	Number of units in the target population	
7.7	Sensitivity of the testing protocol	
7.8	Specificity of the testing protocol	
8	Sampling strategy	
8.1	Sampling at the primary sampling unit (PSU) level:	
8.2	Sampling at the secondary sampling unit (SSU) level:	
8.3	Selection criteria WITHIN the population	
8.4	Risk-based allocation	
8.5	Sample size calculation	
8.6	Sample allocation at the primary level	
8.7	Sample allocation at the Secondary level	
8.8	Sample collection timeline	
9	Data Generation/ Sampling collection process	
9.1	WHO will collect the samples?	
9.2	HOW will samples be collected?	
9.3	WHEN/HOW OFTEN will samples be collected?	
9.4	Training	
9.5	Follow-up	
10	Transfer means	
10.1	HOW will samples be transferred?	
10.2	WHEN/HOW OFTEN will samples be collected?	
10.3	Training	
11	Data Translation/ sample analyses process	
11.1	WHO will perform the analyses?	
11.2	HOW will samples be analysed	
11.3	WHEN/HOW OFTEN will samples be collected?	
11.4	Expected LOAD	
11.5	Training	
11.6	Follow-up	
12	Epidemiological analyses	

12.1	Are there any epidemiological DATA that need to be collected?	
12.2	WHO will perform the analyses?	
12.3	HOW will epidemiological analyses be performed?	
12.4	WHEN/HOW OFTEN?	
12.5	Training	
12.6	Data management needs	
12.7	Software needs	
13	Dissemination of results	
13.1	WHO will disseminate the results?	
13.2	WHO is the TARGET of dissemination?	
13.3	HOW will results be disseminated?	
13.4	WHEN/HOW OFTEN?	
14	Surveillance review	
14.1	Who	
14.2	When	
14.3	How often	



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