

Precision represents how closely defined a numerical estimate is. A precise estimate has a narrow confidence interval. Precision is influenced by prevalence, sample size and surveillance system quality.

	Surveillance design step	Advice for improvement of PRECISION
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 low uncertainty in sensitivity and specificity to improve precision.
6.1	Type of test to be carried out	
6.2	Type of sample to be collected	
6.3	Pooling	
6.4	Screening/first test	
6.5	Confirmatory/ second test	
6.6	Further details	
7	Study design	Carefully determine the sample size requirements to achieve adequate precision. A study that is insufficiently precise may be a waste of time and money. A study that collects too much data is wasteful.
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?	More information will improve the precision.
9.4	Training	
9.5	Follow-up	Lack of follow up may lead to not getting the anticipated sample size, which may influence precision.
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	

	 Surveillance Design main page	 Surveillance RE-design main page	 Multi-hazard surveillance		 Excel Design framework	 Examples	 Guided tours	 Glossary	 References
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