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Guidelines for Simulation Exercises

A consistent set of good practices for preparing, delivering, and learning from animal health and welfare and veterinary public health simulation exercises for Veterinary Services

World Organisation for Animal Health
Founded as OIE

Emergency Management

Acknowledgements

In partnership with
Canada

Content

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Introduction and scope

The World Organisation for Animal Health (WOAH) has developed these guidelines for simulation exercises with the goal of strengthening the capacity of Veterinary Services in WOAH Members for preparedness against all hazards that affect animal health and welfare, and veterinary public health. Simulation exercises are also a useful opportunity to take a multisectoral and interdisciplinary One Health approach to improve preparedness for zoonotic diseases and other shared threats at the human–animal–environment interface. Simulation exercises are a crucial component of emergency preparedness and, if delivered regularly, are a valuable tool to validate and test emergency response plans (otherwise known as contingency plans) and procedures, and to assess the overall capability and capacity of Veterinary Services to respond to an emergency.

The guidelines, which are in line with WOAH Standards, are designed to be scalable to all levels of capacity and resources. They are also intended to be adaptable so

that they can be used by countries of different animal disease status. These guidelines complement and align with others, including the World Health Organization guidelines, the SENDAI Framework for Disaster Risk Reduction, and the guidelines of the Food and Agriculture Organization of the United Nations – *Good Emergency Management Practice: The Essentials*. Lastly, these guidelines encourage Veterinary Services to collaborate with other agencies and stakeholders involved in emergency preparedness planning and response.

The primary target audience for these guidelines is Veterinary Services, however, they can be applied to the domestic, wildlife and livestock sectors, and affiliated stakeholders, academia, law enforcement authorities, emergency services, non-governmental organisations and other international bodies. The guidelines can be used at the producer, sub-national, national, regional and international level.

What is a simulation exercise?

'A simulation exercise is a controlled activity where a situation, that could exist in reality, is imitated for training or assessment of capabilities and testing of plans.'[1]

What are the benefits of simulation exercises?

- encourage familiarisation with the processes and plans relevant to the exercise;
- allow participants to practise their roles and decision-making in a safe environment outside of an animal health and welfare emergency;
- safely test new plans and procedures before they are officially adopted;
- identify gaps or deficiencies in preparedness, as well as highlighting systems that work well;
- are a useful way to build relationships and networks with other agencies and countries;
- enable a process of continuous learning, if lessons are collected and linked to action plans;
- assess overall emergency response capability.

1. Definition developed by the WOAH ad hoc Group on Veterinary Emergencies.

The benefits of simulation exercises and what they can achieve are summarised in figure 1.

Figure 2 (found on page 8) depicts the progressive nature of exercises in terms of level of preparation and required capacity and resources. An agency should not attempt the more advanced exercises without completion of the less advanced exercises.

Learning from simulation exercises, and identifying gaps in plans prior to a real incident, can contribute to the success of an agency's response to an animal health and welfare emergency. A simulation exercise does not need to be limited to the Veterinary Services of a country and can incorporate a whole-of-government response (e.g. using a scenario based on a natural disaster or a high-impact transboundary disease or intentional acts). These can help strengthen understanding and cooperation between emergency response agencies and facilitate a more coordinated response which can be applied in real incidents.

Identify
- Stakeholders
- Breakpoints and gaps
- Capabilities
- Resources
- Components of a plan

Test
- Plans and procedures
- Training
- Equipment
- Resilience
- Multi-sectoral cooperation
- Resource mobilisation

Practise
- Plans and procedures
- Communication
- Response roles and responsibilities

Improve
- Decision-making skills
- Awareness of emergencies
- Multi-sectoral cooperation
- Communication
- Overall emergency response

Figure 1.
Benefits of simulation exercises

What form do exercises take?

The table below summarises the four main types of exercise: tabletop, drill, functional and full-scale.

Types of exercises		
Tabletop (Discussion-based)	**Description**	A tabletop exercise is an informal discussion-based exercise which is led by a facilitator who encourages constructive discussion in a low-stress environment.
	Advantages	• Short preparation time, low cost, informal • Effective and efficient way to become familiar with policy and processes • Does not require an existing contingency plan to be in place, although this is always recommended • Can delineate policy gaps • Easy to jump to different time points in the simulated scenario
	Disadvantages	• Lacks the realism of a functional exercise • Requires careful facilitation to avoid extended policy discussions
	Example	A tabletop exercise aimed at clarifying the roles and responsibilities of an agency in response to an earthquake.
Drill (Operations-based)	**Description**	A drill exercise focuses on a single task or procedure of a contingency plan in an operational setting as close to reality as possible. Depending on the task or function being exercised, there may be a requirement to deploy necessary equipment.
	Advantages	• Lower preparation time than field exercises • Validates and reinforces training of staff in a procedure or in the use of tools or equipment • Specific individual training for a specific task • Can be repeated several times over a short duration to reinforce training aspects (reset and repeat) • Works best for simple, low-complexity tasks
	Disadvantages	• Narrower scope compared to functional and full-scale exercises • Generates little evidence of bottlenecks and breakpoints in the response • Requires a task or operation to be written in a procedure or plan
	Example	Correct use of personal protective equipment (PPE) for safe entry into, and exit from, a suspected infected premises.
Functional (Operations-based)	**Description**	A functional exercise tests the capability and capacity of agencies to respond to a simulated event by enabling them to practise multiple tasks and operations. This can occur in a time-pressured situation that closely simulates reality, with participants undertaking their allocated emergency response roles in the event.
	Advantages	• Multiple functions can be practised, tested and reviewed in a simulated realistic scenario in order to enhance the overall capability of an agency to respond to an emergency • Useful for testing hierarchies, responsibilities and chains of command • Equipment can be deployed, or emergency operations centres set up
	Disadvantages	• Requires a team of people to plan and deliver the exercise • Logistics of exercise are more complex • Planning usually takes more time • Costlier than drills and a tabletop exercise in terms of facilities, finance, equipment and other resources • Can be disruptive to workplaces, particularly for those already operationally engaged
	Example	Practise the establishment and operation of a One Health emergency operations centre to eradicate an incursion of a zoonotic transboundary animal disease.
Full-scale (Operations-based)	**Description**	A full-scale simulation exercise is as close to reality as possible and aims to test the operational capacity and capabilities of an agency at the strategic, tactical and operational levels in response to an emergency. Equipment, personnel and resources are deployed, and the exercise will test most of a contingency plan. A full-scale exercise will include the participation of other agencies and stakeholders.
	Advantages	• Realistic real-time interaction and communications • Combines functional and drill activities • Allows utilisation and testing of resources that are not frequently activated • Identifies bottlenecks and breakpoints in plans and procedures which can be used to significantly improve emergency preparedness and management systems • Builds and improves relationships with other agencies and stakeholders
	Disadvantages	• Extensive time commitment required to develop and design the exercise; it can take a year or more of planning • High costs involved and extensive resource commitment required • Increased safety risk and liability compared to other types of exercises • High impact on day-to-day work • High media interest in the areas where the agency failed • Can attract political influence where failure is not an option, which can result in staged or stilted events which yield little or no meaningful data
	Example	The United States of America conducts a yearly full-scale simulation exercise that includes all national government agencies, states and selected stakeholders.[2] In 2019, a devastating earthquake was selected as the scenario, while in 2020, the scenario chosen was a large-scale cyber-attack.

2. https://www.fema.gov/emergency-managers/national-preparedness/exercises/national-level-exercise

Tabletop   Drill   Functional   Full-scale

Capacity and resources

Level of preparation
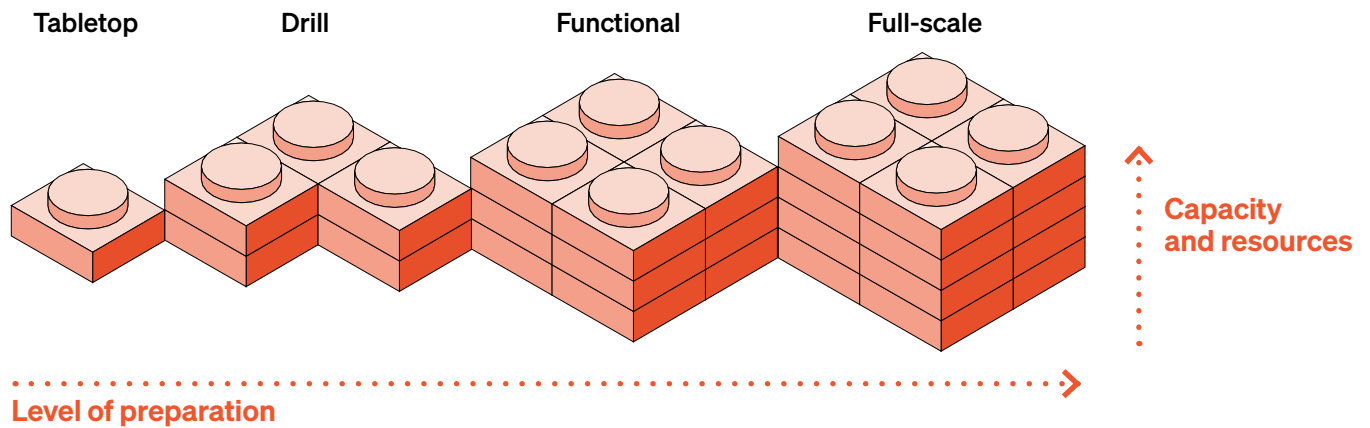
Source: World Health Organization. After Figure 3 from the WHO Simulation Exercise Manual (https://apps.who.int/iris/handle/10665/254741).

Figure 2
Progressive nature of exercises in terms of level of preparation and required capacity and resources

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Planning the exercise

1. Assessing the need for an exercise and obtaining necessary approvals

Defining the need for an exercise is the first step in planning and conducting a simulation exercise. An exercise is usually part of a capacity-building programme or preceded by other activities or incidents that establish the need to exercise a particular aspect of emergency management (see annex 1).

Approvals must be obtained from senior management to commit resources to planning and conducting an exercise and senior management defines the financial and personnel constraints within which the exercise planning team must work.

Establishing the exercise planning team

An exercise planning team should be formed to make decisions, including the selection of the exercise type, purpose, objectives and participants. Stakeholders should also be involved in the planning team if the exercise is multisectoral. A member of this team should be nominated as the exercise manager to manage and have oversight of the entire process. The composition of the planning team may vary with the size and scope of the exercise. Personnel present on this team may include individuals responsible for health and safety, logistics, administration, and communications. Technical experts may also be involved (depending on the complexity of the scenario).

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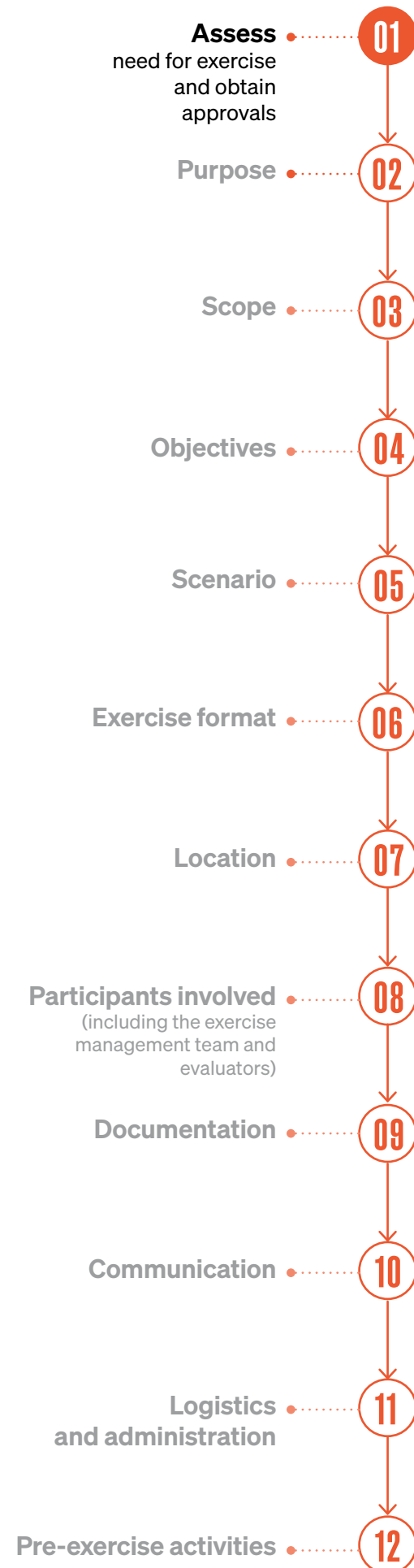
2. Defining the purpose of the exercise

The purpose defines the overall aim and what is to be achieved with the exercise. Defining the purpose is a crucial step in determining the objectives and desired outcomes of the exercise. The purpose may be set by senior management in the agency, who will instruct the exercise planning team to prepare an exercise to achieve the purpose.

For example:
The purpose of the United Kingdom's Exercise Blackthorn was to exercise the UK Government's current contingency plans for a national outbreak of foot and mouth disease (FMD) and thereby establish the current state of readiness for such an outbreak whilst identifying issues and improvements in policies, plans, instructions, structures and recovery procedures employed in managing an outbreak.

3. Determining the scope of the exercise

In the early stages of planning, it is important to define what is included and what is not included in an exercise. The scope should be aligned with the purpose and objectives. The scope may limit an exercise to a specific part of a plan or a policy and this must be communicated clearly to all of those involved in planning and those participating in the exercise.

For example:
The scope of this tabletop exercise is to assess the actions of field staff working in a local district veterinary office in managing the health and welfare of domestic and wild animals in a flooding scenario and will not involve the administrative staff.

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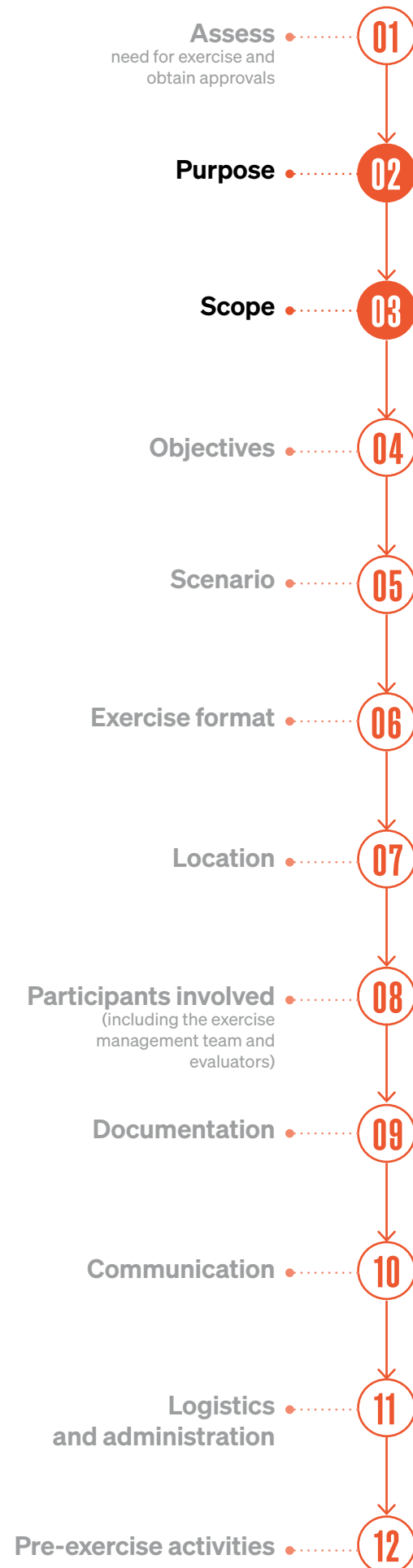
4. Defining the objectives of the exercise

The objectives of the exercise are determined from the purpose and will lay a critical foundation in the planning of the exercise. They will specify what should be achieved in the exercise and will be used by an evaluator to determine if the exercise met its objectives. They must be clear from the outset and should be specific, measurable, achievable, results-focused and time-focused.[3]

For example, the objectives of Exercise Blackthorn were:
- *to demonstrate that the current contingency plans and policies of the UK Government and devolved administrations provide an effective response to a national outbreak of FMD;*
- *to exercise outbreak response structures and processes, including operational resourcing;*
- *to exercise the UK cross-governmental strategic response to a notifiable exotic animal disease outbreak;*
- *to exercise the interface between National, Central and Local response structures, including operational partners and stakeholders;*
- *to exercise recovery arrangements in the event of an outbreak of FMD;*
- *to exercise the real-time use of the different animal movement systems across the UK to demonstrate their effectiveness during an outbreak of FMD.*

Examples of purposes and objectives of WOAH Member simulation exercises can be found on the WOAH website: https://www.woah.org/en/what-we-do/animal-health-and-welfare/disease-data-collection/simulation-exercises/

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3. For further information on defining the purpose and objectives of an exercise, see the Australian Government Department of Agriculture, Fisheries and Forestry's Biosecurity Emergency Management: Exercise Management Guide (www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/biosecurity/committees-partnerships/nbc/exercise-management-guide.pdf).

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5. Scenario

The scenario of an exercise depends on the reason it is being conducted and is determined by its purpose and objectives, but it should be challenging and realistic enough to ensure the focus of the participants. It should be:

- based on similar events that have occurred in the country or overseas and use real data;
- locally and regionally appropriate;
- politically, socially and culturally appropriate.

The scenario is always developed after the purpose, scope and objectives have been defined. Developing a scenario before these steps have been completed can constrain the exercise and cause key testing elements to be omitted or overlooked.

To ensure an exercise meets its objectives, the scenario should not be known in advance by the players. However, for tabletop exercises, it may be useful to share some details of the scenario in advance to ensure that players have time to prepare so that they can contribute during the exercise. Furthermore, if the scenario is not starting at the beginning of an outbreak (e.g. day 7 following confirmation of the first outbreak), it is useful to provide some context to players prior to the exercise.

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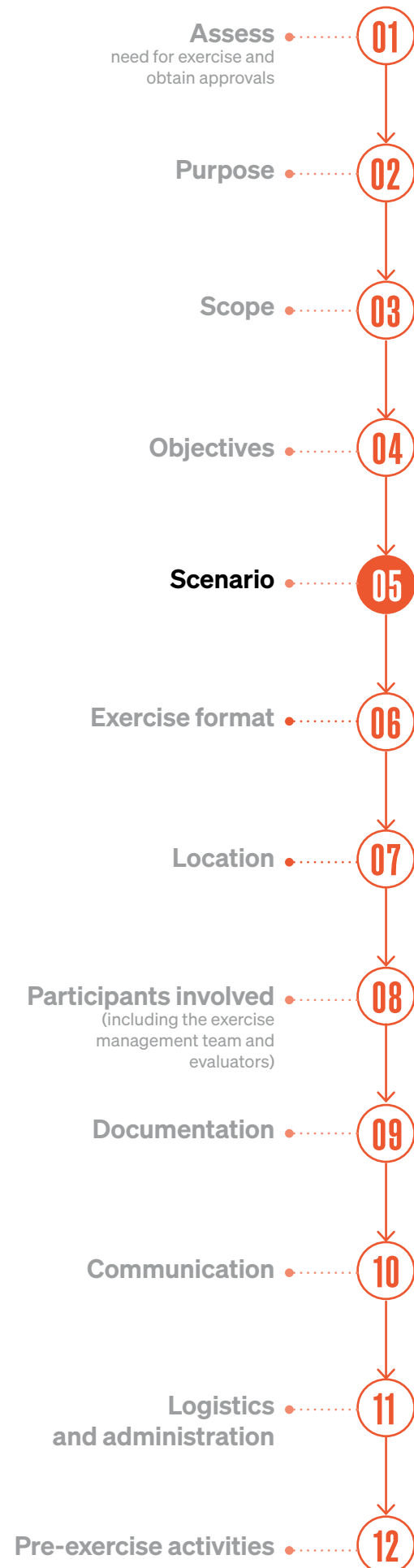
6. Format of the exercise

The format of the exercise should be determined by the purpose, scope and objectives of the exercise.

Discussion-based exercises, such as tabletop exercises, enable participants to develop, review or refine current plans, policies, agreements and procedures. Depending on the scale of the exercise, it may require the least resources and time to plan.

Operations-based exercises provide the opportunity to apply and validate plans, policies, agreements, procedures and system functionality; clarify roles and responsibilities; and identify resource gaps in operational environments. These exercises include drills and some functional and full-scale exercises, which are more comprehensive than discussion-based exercises.

When choosing a simulation exercise format, the budget, level of resources available and expertise in planning and delivering exercises must be considered. This is very important if a more complicated exercise is selected, such as a functional or full-scale exercise. However, even in a setting where there are fewer resources, simple drills or tabletop exercises can be carried out.

It is not advisable to commence an exercise programme with more complex exercises. Where possible, a tabletop exercise should always be the first exercise conducted, as this sets a foundation on which to build subsequent, more complex programmes.

An exercise decision tree such as the one used in the *WHO Simulation Exercise Manual* can be useful for selecting the type of exercise.[4]

A programme of exercises can also link different types of exercise in an integrated manner, for example, to review existing contingency plans (discussion exercise/s) and then exercise the revised plan (functional exercise).

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4. See Figure 5 from the *WHO Simulation Exercise Manual* (https://iris.who.int/handle/10665/254741?locale-attribute=en&).

7. Location of the exercise

The location must be considered, noting the format of the exercise, as well as its practicality, sensitivity and context. The number of participants present will also determine the location. Ideally, the exercise should be conducted in real locations or settings, for example, an exercise that examines the role of the Emergency Operations Centre (EOC) should be conducted in the EOC if possible. Tabletop exercises should be conducted in locations used by emergency teams so that documentation can be easily accessed; however, space limitations may require that third locations such as conference centres are utilised. In this case, it is important for facilitators to arrange for critical documents to be accessible.

For more complex exercises, drills and field exercises, care should be taken to manage health and safety in the exercise. Highly public locations must be carefully controlled and this requires extra resources. Impacts on local communities and the environment should be considered, and appropriate pre-event communications should be provided where necessary to advise the public, law enforcement and other relevant public officials that this is an exercise and not a real event. Multiple locations may also be used for one exercise, especially for functional and full-scale exercises, but the time it takes for participants to travel to these locations must always be taken into account. In some cases, it may be desirable for participants to play from their normal place of work.

Locations that could be appropriate for exercises include veterinary schools and colleges, secure government training facilities (e.g. military and law enforcement training facilities), and remote areas with low population densities. When setting the scenario, consideration should be given to how the site will be managed.

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8. Participants involved

Players

The choice of players is determined by the purpose, scope, and objectives of the exercise and the participating agencies. Participants should have an appropriate level of training or experience to be able to contribute to the exercise or be given appropriate instructions to enable them to participate. The exercise should be limited to players directly involved with the plans or procedures being tested and exercised. It must be made clear to players that systems and procedures are being tested and that the exercise is not a test of their individual performance.

If a scenario involves a function or procedure that would involve multiple agencies and stakeholders, it would be beneficial to include individuals from these organisations in both planning and participation. Exercises can provide a useful opportunity to learn from other agencies and organisations. Other agencies participating may include law enforcement and environmental and public health agencies, and other stakeholders participating may include industry and organisations such as farmers' unions, which can represent larger commercial enterprises, and smaller associations which can represent backyard or rare-breed farms.

Untrained players will often be confused, embarrassed or non-participatory. Always ensure that players receive a proper briefing before the exercise and are familiar with their role. Surprise exercises on untrained staff rarely provide good results and often alienate people, which leads to less enthusiasm in the future.

Observers

Observers of a simulation exercise can be internal (i.e. from the same organisation), or external (i.e. from another agency or organisation or from other sub-national, national, regional or international entities).

Observers must have clearly defined roles and, to avoid interference with or disruption of the exercise, the exercise planning team should define what they are able to do and not do within the context of the exercise (i.e. an observer policy). Their observations can assist the evaluation team capture lessons identified from an exercise, both from its outputs and from the running of the exercise itself. Because observers are not decision-makers in an exercise, they are able to focus on details that may otherwise be overlooked by participants and the exercise management team.
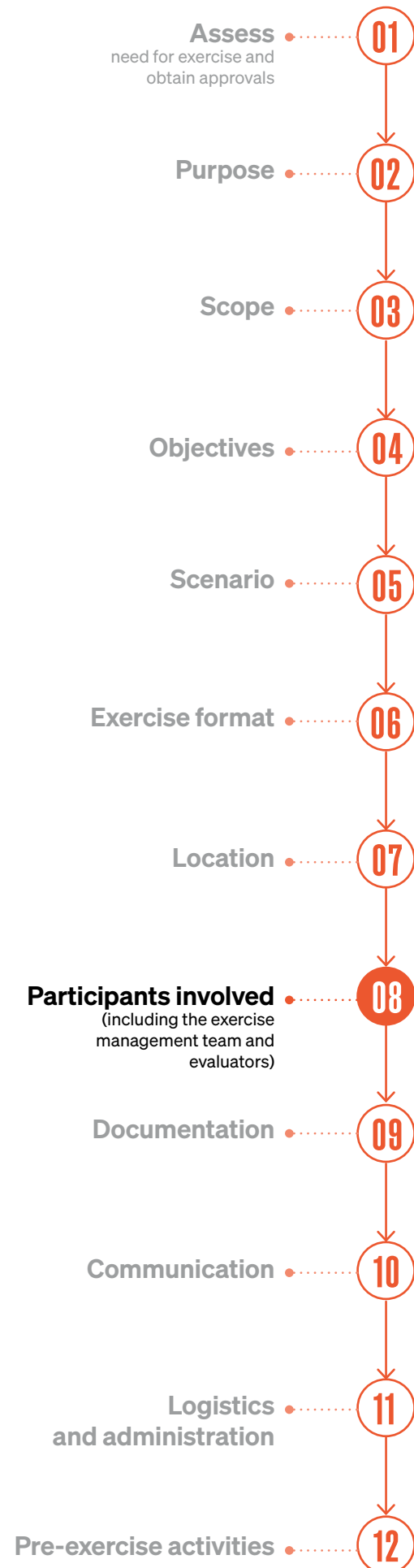
The exercise management team

The exercise planning team usually has a role in managing or conducting the exercise. The members of the exercise management team may be the same as those of the exercise planning team, but additional personnel may be required to manage larger-scale exercises. It is essential that there is good communication between the exercise planning and management teams to ensure that the exercise is delivered correctly and that it meets its purpose and objectives. The roles and responsibilities of this team should be defined. Typically, the team will include:

- an exercise manager to lead the management team, preferably someone with some exercise management experience;

- facilitators (or controllers) to guide participants through the exercise;

- a representative (or representatives) of a participating agency or stakeholder to liaise with external partners;

- logistics and support personnel.

Evaluators

Evaluators assess the extent to which the objectives of the exercise have been met and how useful it has been in identifying lessons. They can be internal to the agency conducting the exercise, or external, and should be knowledgeable about the context of the exercise. They are not active players in an exercise. The number of evaluators is scalable depending on the complexity of the exercise.

Actors

Sometimes a more complex exercise will require the use of actors. These people will inject realism into the event and can be used to communicate information in a realistic setting (such as a member of the public providing observations). It is important that these people work to a carefully managed script and set of guidelines and have clear rules and boundaries. Ideally, they will have experience in the role they are playing (for instance, if the role is that of a journalist, it is helpful to find someone with journalism experience).

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9. Documentation used in planning the exercise

Exercise concept note

Once the exercise has been selected, a concept note (sometimes referred to as a project initiation document) should be produced and submitted for approval to the senior management of the agency, who are authorised to commit resources for planning and conducting the exercise. An exercise concept note will describe the purpose, objectives, scope, methodology and the exercise planning and management teams. The concept note should also include a timeline to track the progress of the exercise from the initial planning stage to completion and submission of the exercise report and a budget to provide an estimation of the costs of the exercise.
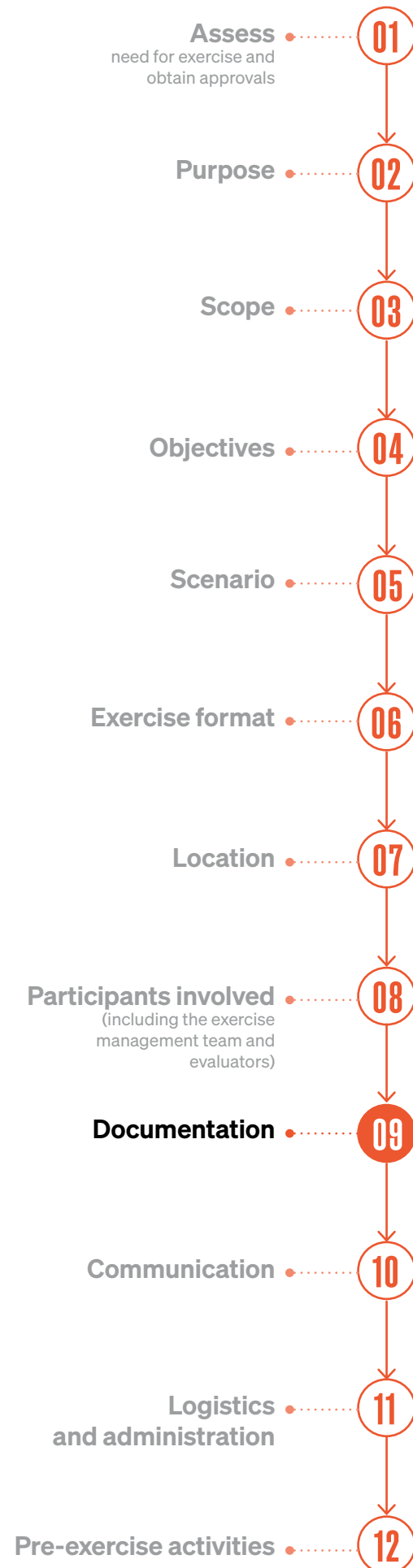
Exercise plan

The exercise plan provides the reason for the exercise and is used to describe its purpose, objectives, scope and format. It includes dates, the programme of activities, the observer policy, and details of logistics, plans for stakeholder communications, and participating agencies. The plan is prepared by the exercise planning team and endorsed by senior management. It helps to ensure that senior management and the planning team share the same expectations regarding the exercise. The exercise plan can be developed using an established template, and detail added as planning progresses. Project management tools such as a Gantt chart or flow charts can also be used as part of the planning process.

The amount of documentation needed will depend on the scale of the exercise. Additional documents or sub-plans may be used:

- A master sequence of events list (MSEL): lists the exercise inputs (or injects) used by the exercise management team, and indicates when they should be inserted into an exercise.
- Exercise 'joining' instructions (sometimes known as the 'player document' or 'manual') that provide a briefing and clear instructions to the participants about what the exercise is expected to achieve and about what they are expected to do during the exercise.
- An evaluation plan that sets out how the exercise will be evaluated against its objectives and includes a template for the evaluators to use during the exercise.
- A risk register which considers possible risks to the exercise and the steps to be taken if issues arise. Potential risks that may prevent or delay the exercise, or impact on its success, should be considered during the planning phase of the exercise. Examples of risks that could interfere include adverse weather, a real disease outbreak, public holidays or events, availability of critical participants, a breach of confidential information, etc. It is also important to consider business-as-usual activities for the organisation.
- A budget to provide an estimate of the financial requirements for the exercise.
- A communication plan.

Templates of documents that can be used for planning an exercise can be found in the WHO Simulation Exercise Toolbox.[5]

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5. www.who.int/ihr/publications/exercise-toolbox/en/

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10. Communication

Depending on the size of the exercise a communication plan may be required to:

Describe how communication should occur within the exercise

Participants must know who they can contact and not contact and be made aware of the key code words or access information that must be used to specify that their communication is part of an exercise. Documentation should also be labelled with the exercise code word. If the exercise includes other agencies and organisations, the communication methods must be clearly understood prior to the exercise.

Provide information to the public (or other audiences) about the exercise

For a large exercise, it may be helpful to enlist a communications officer to assist the planning team. Consideration should be given to selecting what messages are communicated to ensure that the integrity and confidentiality of the exercise is not compromised. If the public may see or be exposed to an exercise, it is important that this communication is provided early on and during the exercise so as not to create panic.

Ensure that STOP words are understood

There must be standard terminology for pausing and stopping an exercise to ensure that the exercise can be suspended quickly in the case of an accident or real emergency. If flares or sounds are to be used, everyone on site must be properly briefed.

In addition, WOAH encourages its Members to notify the WOAH Director General of their simulation exercise activities, whether they are organised at national, regional or international level. WOAH can then share this information with all of its Members.

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11. Exercise logistics and administration

There are multiple logistical and administration issues that must be addressed in an exercise.

In general terms these will include, but are not limited to, the following:
- acquiring exercise spaces, including buildings and outside space if required
- registration
- acquiring necessary permits
- acquiring housing, dining, personal hygiene facilities
- acquiring and testing IT and communications equipment
- providing required transportation
- securing security, wellness and safety capabilities
- acquiring equipment and materials
- creating the scenario and supporting documents.

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12. Pre-exercise activities

It is important to ensure that players are allocated time in their daily work schedules to prepare for the exercise, including time to read joining instructions, if they have been produced, and to familiarise themselves with emergency management plans and procedures. It is also important to ensure that all players have had enough training in the activities that are due to be exercised, so refresher training may need to take place.

Delivering the exercise

Delivery

The exercise planning team will become part of the exercise management team and will be tasked with managing the delivery of the exercise, specifically regarding facilitation and control. The exercise manager/controller is in charge and will have an overview of the whole exercise.

Roles and responsibilities of the exercise management team include:

- Consideration for the health, safety and general well-being of participants. Some participants may have experienced traumatic events in real life and may need support or will require their roles to be revised. This must be spoken about openly with all participants and, if necessary, confidential briefings or assessments should be arranged.
- Exercise briefing for the participants, evaluators, observers and visitors regarding the objectives, team function(s), processes, communication details, rules of the exercise, and other logistics.

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Pre-exercise briefings

Before the exercise, the exercise manager should brief all members of the exercise management team to ensure that they:

- Understand the 'rules of play'.
- Have a complete set of the most current version of the exercise documentation.
- Understand their role in the exercise and know when to deliver injects, how to response to participant queries and outputs, and how to control the flow of information between players and exercise facilitators.
- Know the health and safety information to then share with the players.

Exercise players and observers should receive briefings describing:

- the purpose and objectives
- their role in the exercise
- the rules of play
- the format of the exercise
- how they should respond to exercise inputs
- how the exercise will be stopped.

A briefing checklist can be used to cover logistical and administrative issues.

There should be a pre-agreed set of circumstances to conclude the exercise, for example, it may be decided that the exercise will end by a certain time, or when all tasks have been completed, or when the exercise manager deems it appropriate. There should be a code word to halt the exercise, and all the participants, observers and facilitators must be made aware of the word and know that it means that all activities should cease. This could be because it is not safe to continue an exercise, or an actual disease emergency or other incident has occurred.

It is also useful to establish a code word for real events occurring in parallel to the exercise but that do not stop the exercise for example, 'no duff'. This ensures that everyone knows what is real and what is part of the exercise.

Management and facilitation

To increase the complexity of the exercise, facilitators may use injects, which require a response from players. The exercise management team should ensure that the pace of the exercise is closely monitored, because if it is too fast, the injects may overwhelm players,

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but if it is too slow, it may cause players to disengage. It is essential that the exercise management team monitor the responses of the participants to the scenario and injects, and, if necessary, modify the exercise accordingly (for example, if participants choose a course of action that was not predicted, the subsequent injects may need to be altered).

Debrief

Regular debriefs should be conducted after defined periods of time with players, the observers and the exercise management team. These may be combined, but a separate debrief of the exercise management team can be beneficial.

At the end of the exercise a 'hot' debrief should be held to gather immediate feedback about what worked well and what did not work well in the exercise. This feedback is usually verbal, although paper or electronic surveys can also be used. All participants can also be asked for feedback after they have had time to process and reflect on the experience (sometimes known as a 'cold' debrief).

Both verbal and written feedback is acceptable. The medium to be used should be decided during the exercise planning phase and communicated to participants before the exercise. This feedback is important for the evaluators to use to determine if the objectives of the exercise were met and if any gaps were identified.

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The debrief is a significant part of the exercise and should be conducted in a structured way. It should consist of structured team discussions, reflection, and agreed conclusions. The debrief should identify the outcomes of the exercise and can be used to agree ways forward and assign roles for developing key onward strategies. The time allowed for debriefing should be at least one third of the total exercise time (for example, a six-hour exercise should have a minimum two-hour debriefing session).

Learning from the exercise

Evaluation

To properly assess the simulation exercise and its outcomes, an evaluation appropriate to the exercise type selected is planned to ensure that lessons are learned and that maximum benefit is derived from the exercise. The exercise should be evaluated against the purpose and objectives using indicators set out in the planning phase.

An evaluation of an exercise comprises two main components:

a. Identifying the issues that require mitigation in order to turn them into lessons learned that can improve emergency preparedness and response to animal health and welfare emergencies;

b. evaluating the planning and delivery of the exercise to improve the quality of future simulation exercises.

The evaluators should produce an evaluation report that includes the debriefing feedback from participants, observers and the exercise management team, and observations collected by the evaluation team. The evaluation report will then contribute to the exercise report. If multiple agencies and stakeholders were involved in the exercise, a follow-up face-to-face meeting with representatives of each organisation may be a useful source of observations for the evaluation report.

Exercise report

Upon completion of the evaluation, a comprehensive exercise report should be prepared that will give an overview of all stages of the simulation exercise process and be presented to the senior management of the agency that requested the exercise. The report should also give recommendations on the steps the agency should take to turn the lessons identified into lessons learned. Sharing the report publicly (with the omission of sensitive outputs if necessary) can help to provide other countries with information on delivering exercises; in addition, if a country shares its report, it gives trading partners confidence in the ability of its Veterinary Services to apply sanitary measures.

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Planning the exercise cycle

If simulation exercises are already part of emergency preparedness planning in a country, the exercise may be part of a cycle of exercises and would be considered in a calendar of simulation exercises and other emergency preparedness activities in a country.

It is also useful to incorporate exercises into an emergency preparedness cycle, as highlighted below, where the exercise outputs can then be fed back into the planning stage where plans, procedures and processes can be altered if required.
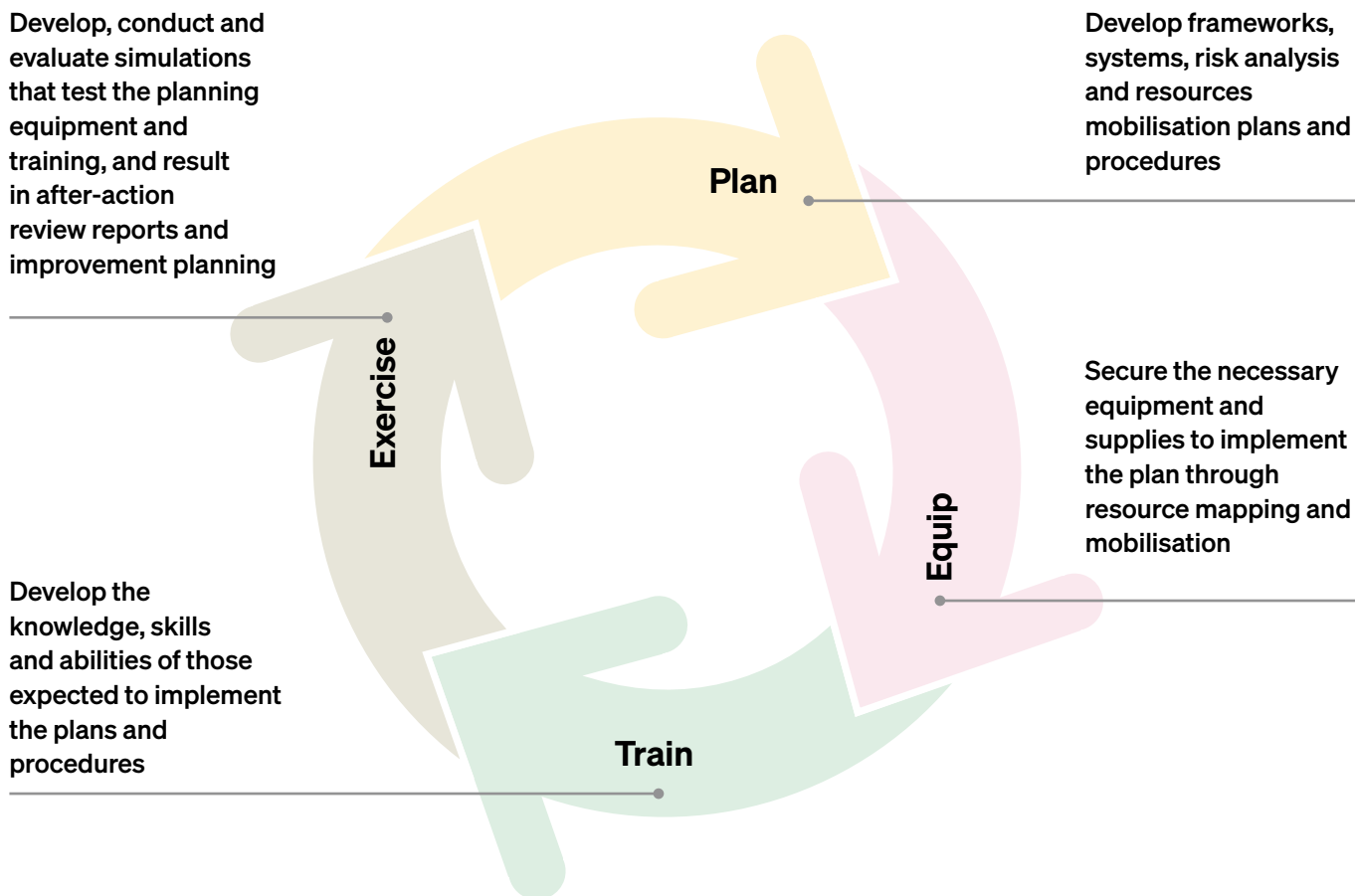

Develop, conduct and evaluate simulations that test the planning equipment and training, and result in after-action review reports and improvement planning

Develop frameworks, systems, risk analysis and resources mobilisation plans and procedures

Secure the necessary equipment and supplies to implement the plan through resource mapping and mobilisation

Develop the knowledge, skills and abilities of those expected to implement the plans and procedures

Plan

Equip

Train

Exercise

Figure 4
Emergency preparedness cycle
Source: World Organisation for Animal Health. After Figure 2 from the WOAH/FAO Global Rinderpest Action Plan: Post-Eradication (www.WOAH.int/fileadmin/Home/eng/Media_Center/docs/pdf/PressReleases/Global_Rinderpest_Action_Plan_2018.pdf).

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Annexes

Annex 1

Assessing the need for an exercise

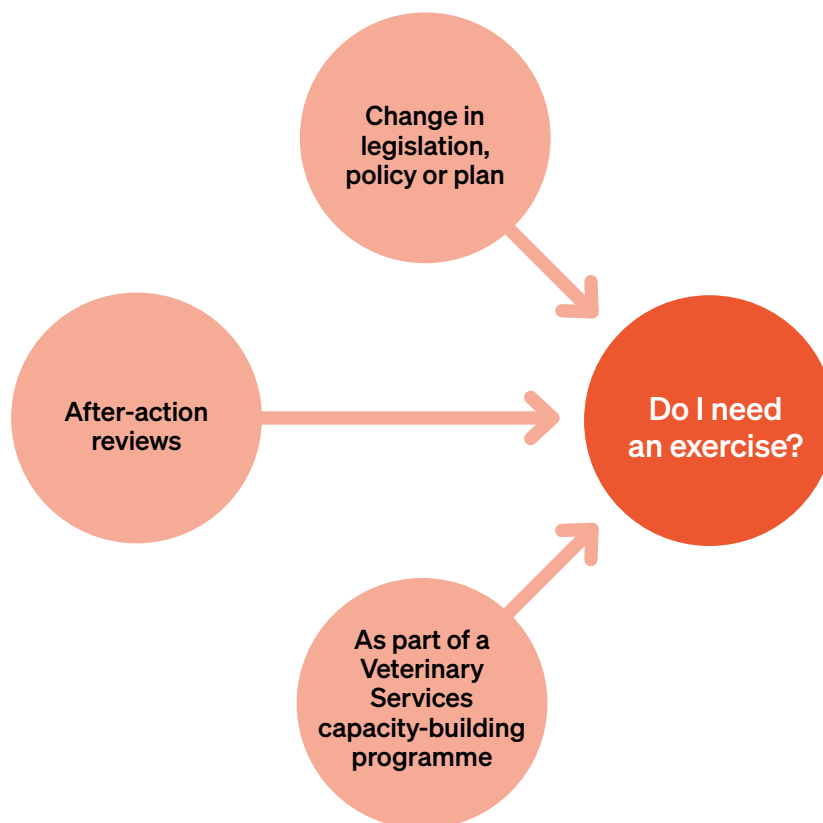The following are considerations that can be used when assessing the need for an exercise.

Figure 5

After-action reviews from previous outbreaks, incidents and exercises
What happened during the last outbreak of a transboundary animal disease or another hazard that Veterinary Services were involved in? Were there recommendations and could these be tested?
What were the lessons identified from the last simulation exercise and was any mitigation action taken after?
When was the last emergency?
Changes in legislation and policy or changes to procedures and plans
Has there been a change in legislation or policy or a change to a procedure or a contingency plan that requires the change to be tested through an exercise?
As part of capacity-building programmes for Veterinary Services
Has a Performance of Veterinary Services (PVS) Evaluation been conducted recently, and, if yes, were there recommendations to hold an exercise?
Do the Veterinary Services have expertise and experience in planning, delivering and learning from exercises?
Are there enough financial, human and physical resources to plan and deliver a simulation exercise? Is there enough time? *It is important to consider the varying resources required for the different types of exercise, and the different costs involved.*

Annex 2

Prioritisation of hazards for scenario selection

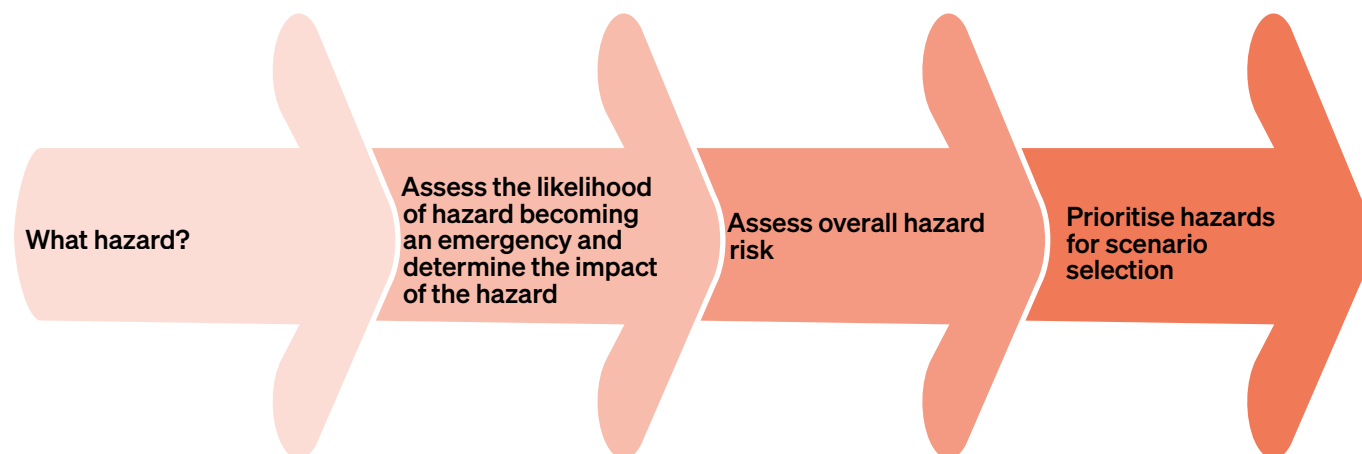The following considerations can be used to select which hazard to use for the exercise scenario.

Figure 6

What hazard?
What disease or hazard is of concern to you? Is there a disease in the region that may enter the country accidentally or intentionally?   *The WOAH World Animal Health Information System (WAHIS) is a useful tool to find information on the national, regional and international situations regarding specific diseases.*
Is there a risk of natural disasters and could this be a component to test? Are there particular times of year with increased risk of certain hazards?   *The WOAH recommends using an 'all-hazards' approach to disaster risk reduction and disaster management. While a single hazard may be the focus of an exercise, the lessons learned may be applied across a variety of hazards.*
Does the country have wildlife or a vector population such as insects in which disease could be established?
What is the likelihood of this hazard becoming an emergency and what is the potential impact?
What animal population or production sector is most at risk from this hazard?
Where and how would the disease most likely enter the country?
Which geographical location of the country would the hazard most likely affect?
What would the cost and trade implications be of this hazard?
What effect would the hazard have on animal health and welfare?
What does the country think the risks are in terms of the silent spread of disease in the country?
What does the country think the barriers are in terms of successfully containing disease in the country?

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Further reading

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Guidelines for Simulation Exercises

A consistent set of good practices for preparing, delivering, and learning from animal health and welfare and veterinary public health simulation exercises for Veterinary Services

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