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# **EXERCISE MANAGEMENT**

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A Tool for Capacity Development

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**ASIAN DISASTER PREPAREDNESS CENTER**  
Public Health in Emergencies

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## Table of Contents

|   |    |
|---|----|
| <b>I. CYCLE OF CONTINUOUS IMPROVEMENT FOR DEVELOPING HEALTH EMERGENCY MANAGEMENT CAPACITY</b> ..... | 3  |
| A. Identify the need.....   | 4  |
| B. Planning.....  | 4  |
| C. Training and Education .....   | 5  |
| D. Resource Management.....   | 6  |
| E. Emergency Response and Recovery .....  | 6  |
| F. Exercising .....   | 6  |
| G. Evaluation .....   | 6  |
| H. Review.....  | 7  |
| <b>II. THE EXERCISE MANAGEMENT MODEL</b> .....  | 8  |
| A. Identify the need.....   | 8  |
| B. Analyze the need.....  | 9  |
| C. Design the exercise .....  | 9  |
| 1. Scope of the exercise .....  | 9  |
| 2. Type of exercise .....   | 9  |
| 3. Participants .....   | 12 |
| 4. Detailed scenario .....  | 12 |
| 5. Exercise Planning Team and responsibilities .....  | 13 |
| 6. Exercise Control.....  | 13 |
| D. Conduct the exercise.....  | 14 |
| 1. Pre Exercise Activities.....   | 14 |
| 2. Briefings .....  | 15 |
| 3. Starting the Exercise .....  | 15 |
| 4. Managing the Exercise .....  | 16 |
| 5. Finishing the Exercise.....  | 16 |
| 6. Debriefing the Exercise .....  | 17 |
| E. Debrief the exercise .....   | 17 |
| F. Evaluate the Exercise .....  | 17 |

The success of any exercise depends upon the adoption of a structured approach. The Exercise Management Model highlights the stages for designing, conducting and evaluating an effective exercise.

Exercises are only part of a larger range of activities that allow us to prepare for, respond to and recover from emergencies. As such the range of activities that we engage in should be incorporated into a Cycle of Continuous Improvement for Developing Capacity in Health Emergency Management.

## I. CYCLE OF CONTINUOUS IMPROVEMENT FOR DEVELOPING HEALTH EMERGENCY MANAGEMENT CAPACITY

The activities, or elements, that make up the Cycle of Continuous Improvement include, but are not necessarily limited to:

- Identify the need
- Planning
- Training, Education and Resourcing
- Emergency Response and Recovery
- Exercising
- Evaluation and
- Review

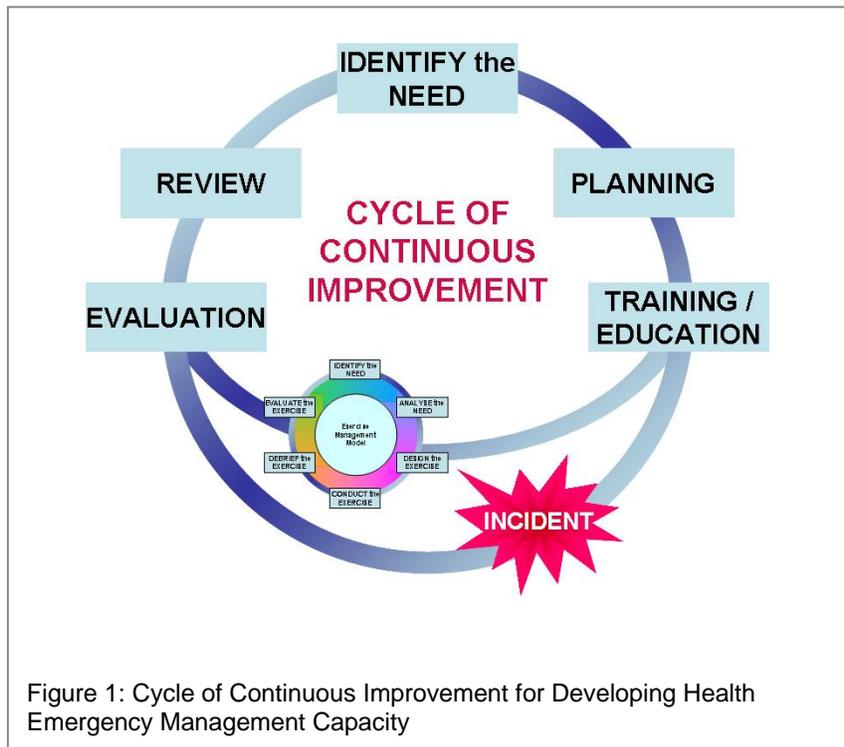


Figure 1: Cycle of Continuous Improvement for Developing Health Emergency Management Capacity

## A. Identify the need

The need to prepare or take action will come from a range of sources. These could include but are not limited to:

- Work done to analyze and assess risks
- Outcomes from previous activities such as training, education, resourcing, exercises, actual response and/or recovery operations

## B. Planning

Identifying the need may lead to the requirement to undertake some action.

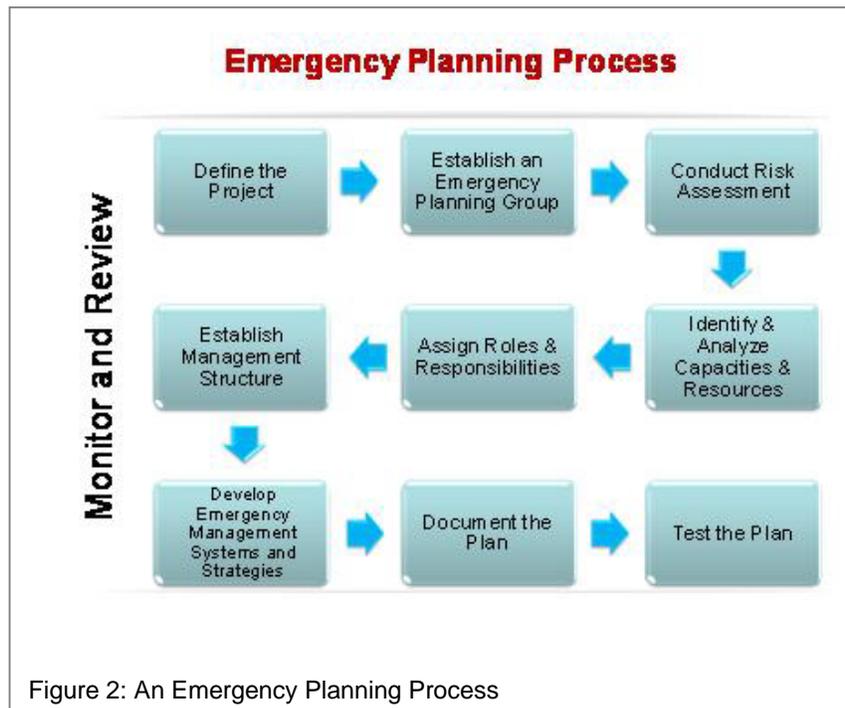
This action will almost certainly require the need to undertake some planning to effect this action.

At a higher level this may include amendments to legislation, policy and budgets and resource allocation, or development/amendment of emergency response and recovery plans.

At a lower level this may mean the development/amendment of administrative or operational procedures.

At any level, emergency response and recovery planning should be considered as a process in its own right. This process includes bringing partners and stakeholders together to agree on arrangements to be implemented during the response to and recovery from emergencies. It includes:

- Conducting or reviewing risk assessments
- Agreeing on management structures for:
  - . Incident management
  - . Command, control and coordination
  - . Communications
  - . Response and recovery activities
- Management systems for:
  - . Warnings
  - . EOC management
  - . Information management
  - . Financial management
  - . Public Education
  - . Public Information
  - . Management of Logistics
  - . Resource Management
- Functional and Threat Specific arrangements



The written document that is usually the outcome of the planning process is only one of the outcomes that are achieved through this process. Other outcomes that are achieved through the planning process include:

- An understanding of each other's roles and responsibilities
- An understanding of each other's capabilities and limitations
- The opportunity to work with and get to know others that you will be working with during response and recovery operations

In the case of emergency response and recovery plans the management (or command and control) structure applied for responding to and recovering from emergencies should be articulated in the plan. It is often the case that further work is required to further describe the roles and functions within this structure so that it can be utilized effectively and in the way in which it is intended.

Detailed descriptions should not be contained within plans; however, there is also a need to develop guides, procedures and task sheets to ensure that the plans are implemented in the way in which they were intended.

### **C. Training and Education**

Any action taken (or not taken) needs to be communicated to those involved and or affected by those decisions.

In the case of response and recovery organizations, training may need to be designed, conducted and evaluated to communicate the current and/or agreed arrangements.

In the case of the public, training and education may need to be undertaken so that they understand what is expected of them during the response to and recovery from emergencies.

#### **D. Resource Management**

Often actions required to establish the resources and logistics required to support response and recovery operations will need to be implemented. This may include:

- Establishing Emergency Operations Centers (EOC)
- Identifying and/or stockpiling supplies
- Establishing logistical arrangements to support operation
- Establishing arrangements to obtain/release resources, including funding.

#### **E. Emergency Response and Recovery**

This is the time when the arrangements documented in response and recovery plans are activated.

The time and effort devoted to preparedness activities will almost certainly be reflected in the quality of the response that is provided to the emergency.

#### **F. Exercising**

In the absence of actual emergencies, exercises are an ideal way to test, assess and evaluate the arrangements that have been agreed to, documented and implemented.

Exercises provide an opportunity to practice the arrangements in a ‘non threatening’ environment and to identify opportunities for improving those arrangements.

As with planning, exercising should follow a process and the benefits from following such are process are similar to those achieved through following a planning process.

The planning process is an integral part of the Cycle of Continuous Improvement and is discussed in detail as the second part of this paper.

#### **G. Evaluation**

A culture of evaluating ALL actions should be encouraged and included in the Continuous Improvement Cycle. Evaluation should look at the effectiveness of:

- Response and Recovery Planning,
- Training and Education
- Resource Management
- Response and Recovery Operations, and
- Exercises

A process of evaluation should also be an integral part of all these activities. The use of standard exercise evaluation guidelines should be considered.

Evaluation (sometimes referred to as an After Action Review) should follow an established process. This process looks at whether the exercise objectives were achieved by

- Identifying what was planned to be done (meaning the aims and objectives of any activity need to be clearly articulated), then
- Identifying what was actually achieved (during the activity), then
- Identifying why the aims and objectives were achieved or not achieved, then
- Identifying lessons (both positive and corrective) that have been identified during the activity, and finally
- Making recommendations for future actions/activities.

## H. Review

A process is required whereby the recommendations from activities are reviewed and evaluated to identify if they are appropriate and or achievable.

This may lead to identifying further needs and arrangements for further action or activities that need to be considered, such as:

- Developing further plans
- Updating training, education, resources and logistics,
- Design, conduct and evaluation of further exercises

Hence, there is a process of continuous improvement for developing capacity in health emergency management.

## SUMMARY

A Cycle of Continuous Improvement is essential to ensure that our emergency response and recovery arrangements are reflective of contemporary practices and emerging trends in emergency management.

The level of preparedness will vary from one organization to another, from one country to another, from one individual to another. This level of preparedness is often reflective of the number of times and frequency that they have been through a cycle or process of continuous improvement.

Studies and experience have shown that for an individual to be truly effective in a given situation they need to:

- Have had experience in the same or similar situation on at least three to five occasions,

- Have had the opportunity to reflect on each experience,
- Take action to adjust the way in which they react or respond in future similar situations, and
- Be properly trained and resourced.

The same can be said for agencies and organizations and for this reason, in the absence of actual response and recovery operations, exercises provide an invaluable opportunity for providing such experiences while also testing, evaluating, practicing etc these arrangements at the same time.

## II. THE EXERCISE MANAGEMENT MODEL

As mentioned previously, exercises are invaluable in provide the experiences required to prepare individuals, agencies and countries to respond to and recovery from emergencies.

The success of any exercise is reliant upon adopting a structured approach.

The exercise Management Model is such a structured approach and identifies the stages required for the effective designing, conducting and evaluating of an individual exercise or a program of exercise related activities.

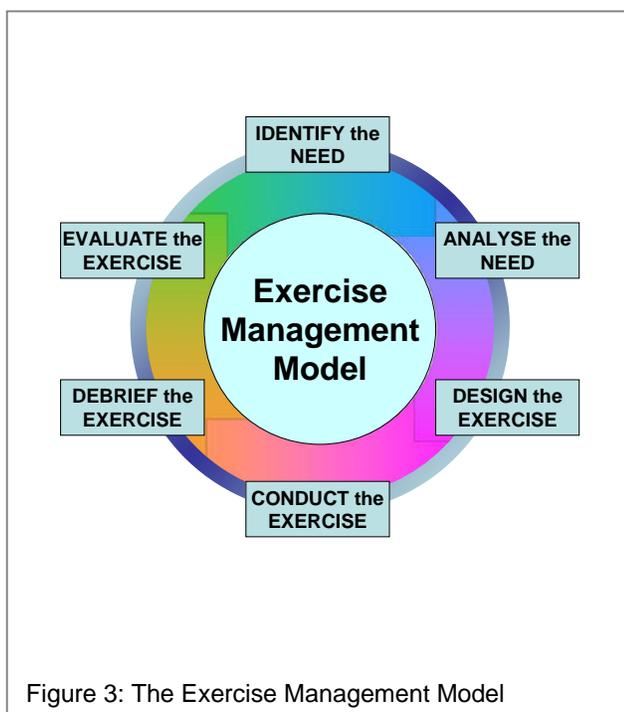


Figure 3: The Exercise Management Model

### A. Identify the need

All exercises begin with a specific need to:

- Test plans
- Evaluate
- Assess
- Practice
- Train
- Demonstrate

Identifying the need to conduct an exercise is as simple as asking the question: “Why conduct an exercise?”

This need may arise for a number of reasons, including:

- Outcomes or recommendations from previous exercises or actual response and recovery operations
- Newly developed plans or procedures
- A change of resources, capability or structures
- Maintaining and updating plans, procedure, practices

## B. Analyze the need

The identified **need** is analyzed to determine the objectives for the proposed exercise in support of an overall **aim**. To be effective the number of **objectives** should be kept to a minimum. Each objective should be supported by performance indicators that identify the means by which we confirm that the objectives have, or have not, been achieved.



## C. Design the exercise

Given the aim and objectives, the scope, type and participants are determined.

The exercise is planned and written to achieve the objectives. This includes:

### 1. Scope of the exercise

Defining the scope of the exercise should identify what is to be included and therefore what is not included in the exercise. There is often pressure from outside influence to add to the scope as the exercise evolves, this is known as ‘scope creep’ and should be avoided.

Care must be taken to ensure the scope of the exercise is broad enough so that the objectives can be achieved, but is not beyond the capabilities of the participants or those responsible for conducting the exercise.

### 2. Type of exercise

Exercises can be simple or complex. They might involve a small team practicing a relatively simple drill, or scores of people from a range of

organizations simulating a major emergency response. Essentially though there are three types of exercise. These are:

**a) *Discussion Exercise***

As the name suggests these exercises are built around discussion of the scenario. They provide an opportunity to explore issues in some depth and provide verbal responses to situations.

Discussions can take the form of an Orientation exercise, Hypothetical exercise or a Table Top exercise.



**b) *Functional Exercise***

Functional exercises are closely related to discussion exercises, but normally take place in a simulated operational environment, requiring participants to actually perform a particular function or tasks associated with that function. Within the simulated environment, functions are conducted as if there were a real event happening 'outside'. Directing staff provide input and responses to simulate the 'outside world'.



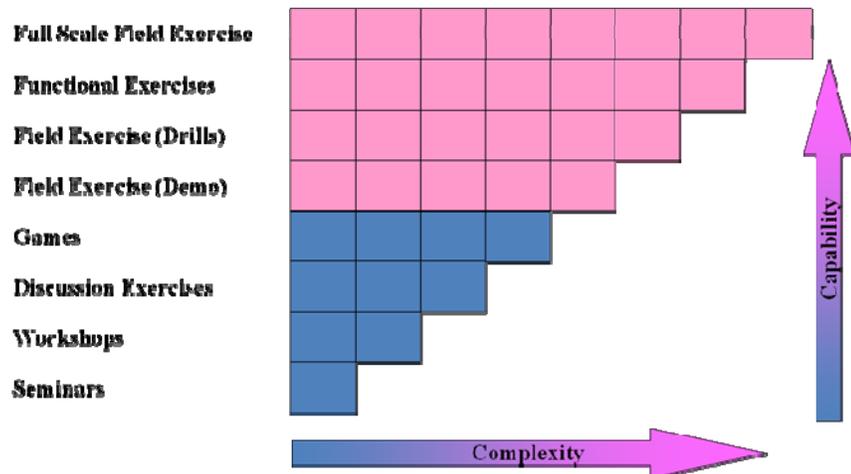
**c) Field Exercise**

Field exercises involve deployment of personnel to a simulated incident or emergency. They can be as simple as deploying a small team to a simulated car crash, or as complex as responding to a number of related simulated incidents across a country.

Field exercises can take the form of a Demonstration exercise, a Drill or a Full Scale exercise. In which situations can you see a role for a field exercise for avian or human influenza?



**Exercise Type & Complexity**



## Exercise Type & Utility

|                                  |                                |                       |                         |                               |                           |                             |
|----------------------------------|--------------------------------|-----------------------|-------------------------|-------------------------------|---------------------------|-----------------------------|
| <b>Full Scale Field Exercise</b> | HIGH                           | HIGH                  | HIGH                    | HIGH                          | HIGH                      | HIGH                        |
| <b>Functional Exercises</b>      | MED                            | HIGH                  | HIGH                    | MED                           | N/A                       | N/A                         |
| <b>Field Exercise (Drills)</b>   | N/A                            | LOW                   | MED                     | HIGH                          | HIGH                      | HIGH                        |
| <b>Field Exercise (Demo)</b>     | N/A                            | N/A                   | N/A                     | LOW                           | LOW                       | LOW                         |
| <b>Games</b>                     | N/A                            | N/A                   | N/A                     | N/A                           | LOW                       | HIGH                        |
| <b>Discussion Exercises</b>      | HIGH                           | HIGH                  | MED                     | MED                           | N/A                       | N/A                         |
| <b>Workshops</b>                 | MED                            | MED                   | MED                     | MED                           | N/A                       | N/A                         |
| <b>Seminars</b>                  | LOW                            | LOW                   | N/A                     | N/A                           | N/A                       | N/A                         |
|                                  | <b>Policy &amp; Guidelines</b> | <b>Response Plans</b> | <b>Admin Procedures</b> | <b>Operational Procedures</b> | <b>Tasks &amp; Skills</b> | <b>Equipment Techniques</b> |

### 3. Participants

In designing the exercise it is essential to identify the exercise participants at an early stage. Once identified, they should be engaged as soon as possible. Participants will need to determine their role in the exercise and the resources (time, human, financial and physical) that they will be able to commit to the exercise.

### 4. Detailed scenario

Having established the purpose, objectives, scope and type of the exercise, the **scenario** is documented by developing a *General Idea* and *Special Ideas*.

#### a) General Idea

The General Idea includes all the background information which would normally be available as general knowledge in a real incident or emergency.

The General Idea is usually provided to participating agencies or personnel well in advance of the event as part of the exercise instruction. This will allow them to undertake the appropriate research, actions and/or activities so that they can effectively participate in the exercise.

**b) Special Ideas**

Special Ideas (sometimes known as ‘exercise serials’, ‘narratives’ or ‘inputs’) are used by the directing staff to drive the exercise. They provide realistic problems, incidents or information for participants to react to as they would in real life. Special Ideas should be arranged in a chronological order, with details recorded on a ‘Master Schedule’.

**5. Exercise Planning Team and responsibilities**

Exercises need to be carefully planned and managed. Even the smallest of exercises requires a coordinated approach to their design, conduct and evaluation. Establishing a planning team and identifying the functions that need to be managed is essential to ensure the success of any exercise.

The Exercise Planning Team is the group that has primary responsibility for the design, conduct and evaluation of the exercise. The Exercise Planning Team will manage this responsibility through a range of planning meetings. Although the Exercise Planning Team may undertake all actions required, in larger exercises, it is preferable that responsibility for a number of functions be devolved to specialist groups that report to the Exercise Planning Team



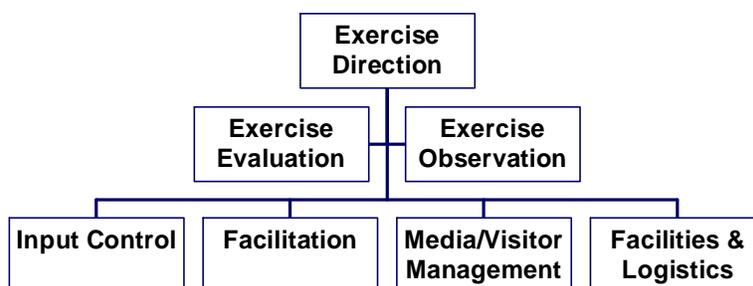
**6. Exercise Control**

The Exercise Planning Team may establish an Exercise Control Team. The Exercise Control Team will operate during part or all of the Conduct phase. The Exercise Control Team is led by an Exercise Director, who is appointed by and is a member of the Exercise Planning Team.

The role of the Exercise Control Team is to ensure that the exercise purpose and objectives are achieved in a realistic manner. Activities that may be undertaken by the Exercise Control Team include:

- Facilitate the flow of exercise information in accordance with the Master Schedule
- Simulate activities that are not performed by exercise participants
- Contribute towards the exercise After Action Review

## Directing Staff Functions



During the design phase of an exercise there is often an undue focus on the scenario. Care must be taken to ensure that the 'scenario' does not drive the design of the exercise.

### D. Conduct the exercise

The conduct of the exercise involves detailed coordination by the Directing Staff as they initiate and control the various stages of the exercise as it unfolds to meet the objectives.

The conduct phase may include:

#### 1. Pre Exercise Activities

Prior to conducting an exercise there may be a requirement to undertake a range of pre exercise activities. These activities are often required to prepare agencies and individuals for participation in the exercise. These activities could include:

- Development or review of plans and procedures
- Training for participants and exercise directing staff
- Provide advice and engage media outlets
- Establishing facilities
- Testing of Information, Communication and Technology (ICT) systems

➤ Rehearsals

It is also essential to alert those that may be affected, that the exercise is to be conducted. In a small scale exercise this may be minimal, however in a large scale exercise it may be necessary to:

- Brief senior officials
- Prepare and issue media releases
- Advise appropriate agencies and international posts

**2. Briefings**

➤ **Briefing Exercise Directing Staff**

Briefing of the Directing Staff is essential to allow them to clarify their role during the exercise and ensure that they understand the scenario. This briefing should include:

- ✓ Exercise purpose and objectives
- ✓ Roles and responsibilities during the exercise
- ✓ Information, Communication and Technology (ICT) systems
- ✓ Actions in the event of unforeseen circumstances
- ✓ Post exercise requirements
- ✓ Scenario and how it may develop during the exercise

In some cases it may be appropriate to conduct a rehearsal with the Exercise Directing Staff to confirm timings and iron out any flaws in the exercise design.

➤ **Briefing Exercise Participants**

Briefing of exercise participants is essential to allow them to engage effectively in the exercise. The briefing should include:

- ✓ Exercise purpose and objectives
- ✓ Roles and responsibilities during the exercise
- ✓ Information, Communication and Technology (ICT) systems
- ✓ Actions in the event of unforeseen circumstances
- ✓ Post exercise requirements

**3. Starting the Exercise**

For the exercise to start effectively there will be a number of activities which should be completed just prior to the start time. These may include:

- Final test of Information, Communication and Technology (ICT) systems
- Last minute briefing for all Directing Staff, confirming readiness to proceed
- Positioning simulated casualties, props and special effects
- Positioning of Directing Staff and support personnel, and
- Positioning of exercise participants
- Advice to the Exercise Director that all is ready.

#### 4. **Managing the Exercise**

The Exercise Director manages the exercise in accordance with the Master Schedule. The Exercise Director can call a temporary halt to the exercise to change its direction, or speed it up or slow it down to ensure that the exercise objectives can be met.

Directing Staff assist the Exercise Director by ensuring that all is proceeding well at each location, and that appropriate inputs occur in accordance with the Master Schedule. Directing Staff need to be prepared to react to responses and take appropriate actions, according to the responses from those being exercised.

#### 5. **Finishing the Exercise**

Finishing the exercise is a controlled activity. The Exercise Director is responsible for finishing the exercise in a pre arranged manner. This could occur:

- At a designated time, according to the Master Schedule
- Upon completion of designated tasks
- If it is not safe to continue with the exercise
- If other activities (including safety breach or actual responses) hinder the progress of the exercise

In any case the Exercise Planning Team must consider strategies, should it be necessary to terminate the exercise prior to the pre arranged time.

It is important not to overlook the activities required to repatriate the exercise site and/or return equipment to its pre exercise state. While this will largely be the responsibility of the Facilities Management function, the time and effort required should not be underestimated and staff involved must be given every opportunity to participate in designated post exercise activities.

## 6. Debriefing the Exercise

A series of debriefs may be required at the conclusion of an exercise. Depending upon the scale of the exercise these may include:

- Hot debrief (immediately post exercise) for:
  - Exercise participants
  - Exercise Directing staff
  - Exercise Debrief, involving all participants and Directing staff
  - Exercise Planning Team Debrief

In any case the schedule for debriefs must be planned and communicated to those who need to be involved.

### E. Debrief the exercise

Debriefing is the process of critically analyzing the conduct of the exercise, the participant's response to the developing scenario and how these contributed to achieving the objectives of the exercise.

Debriefings may include:

- Hot debriefs (immediately after the exercise has been conducted)
- Agency and/or multi agency debriefs (shortly after the exercise)

The debriefings may involve:

- Exercise Directing Staff
- Exercise Participants
- Exercise Planning Team

### F. Evaluate the Exercise

Evaluation should include the design and conduct stages of the exercise as well as the participant's response to the developing scenario. Evaluation may take the form of an After Action Review and should include an evaluation of any recommendations for subsequent action.

The After Action Review (AAR) should examine:

- Lessons identified
- Process for implementing lessons identified
- Recommendations for continuous improvement

## Example of an Optimal Lessons Learned Process



### CONCLUSION

While exercises are a valuable tool in preparing for response to and recovery from emergencies it should be remembered that exercises are part of a range of capacity development activities.

Incorporating exercises into a Cycle of Continuous Improvement is essential to ensure that the lessons identified from these activities are incorporated into our overall health emergency management arrangements.