

**Rapid Assessment of Disease Outbreak Investigation Capacity  
In Makkah, during 1440Hajj**

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## Background

Infectious diseases outbreaks are known health risks at the Hajj. The Makkah Directorate of Health Affairs has a 160-member epidemiological surveillance unit tasked to prevent, detect, investigate and respond to public health threats during Hajj. This report documents the disease outbreak investigation capacity in Makkah during the 1440 Hajj.

## Findings

The assessment findings are shown in the table below.

Table 1: Outbreak investigation capacity ranking for 1440 Hajj, in Makkah and Holy places

| Capacity                             | None<br>(Not available) | Low<br>(Markedly insufficient) | Average<br>(Borderline, needs strengthening) | Good<br>(Adequate, needs sustainability) | Notes  |
|--------------------------------------|-------------------------|--------------------------------|--|--|--|
| Standard Operating Protocol (SOP)    |                         | √√                             |  |  | <ul style="list-style-type: none"> <li>• <b>SOP for outbreak investigation is not developed.</b></li> <li>• Reporting forms available</li> </ul>   |
| Number of investigation teams        |                         |                                |  | √√                                       | <ul style="list-style-type: none"> <li>• 18 fixed teams, 15 mobile teams and 3 supervisory teams</li> <li>• FETP team include 4 faculties, 4 public health specialists and 12 residents</li> </ul> |
| Composition of teams                 |                         | √√                             |  |  | <ul style="list-style-type: none"> <li>• <b>Each team composed of a doctor and a health observer</b></li> <li>• <b>Only 1-2 Epidemiologists in general</b></li> </ul>                              |
| Training                             |                         |                                | √√   |  | <ul style="list-style-type: none"> <li>• 5 short training courses</li> <li>• <b>Late onset of training due to staff deployment delays</b></li> </ul>   |
| Materials/Equipment/logistics        |                         |                                | √√   |  | <ul style="list-style-type: none"> <li>• Communications, PPE and transportation equipment adequate for Makkah team</li> <li>• <b>Inadequate resources for food safety team</b></li> </ul>          |
| Epidemiological investigations       |                         |                                | √√   |  | <ul style="list-style-type: none"> <li>• Case detection, isolation and contact tracing available</li> <li>• <b>Inadequate capacity for risk factors surveys/investigations</b></li> </ul>          |
| Response time to suspected outbreaks |                         |                                |  | √√                                       | <ul style="list-style-type: none"> <li>• 10 mins-1 hour (excluding foodborne diseases)</li> </ul>  |
| Case management                      |                         |                                |  | √√                                       | <ul style="list-style-type: none"> <li>• Plan for case isolation is provided</li> <li>• Temporary treatment centres are identified</li> </ul>  |
| Laboratory capacity                  |                         |                                | √√   |  | <ul style="list-style-type: none"> <li>• Staff are skilled in sample collection, safe handling and transfer</li> <li>• <b>Limited capacity for pathogen identification</b></li> </ul>              |

## Recommendations

1. Develop SOPs for outbreak investigation in the Hajj
2. Ensure the deployment of qualified manpower, such as epidemiologists and public health specialists to the outbreak investigation team, with ongoing training and assessments
3. Strengthen manpower resources and logistics, including transportation, for food safety team
4. Strengthen the laboratory capacity to facilitate pathogen detection/identification.