

Disease Outbreak Investigation and Response Summary Sheet



Why investigate an outbreak?

- Identify the causative agent
 - New pathogen causing new disease, e.g. HIV 1984.
 - Old pathogen causing this outbreak (e.g. Hep E, salmonella)
 - Toxic substances (e.g. insecticides, heavy metals, etc.)
- Determine antibiotic sensitivity
- Determine which drugs are effective
- Identify who is at risk
 - Geographic location
 - Age or sex group
 - Occupation
 - Other
- Identify modes of transmission
 - Design effective and efficient interventions
- Evaluate health services and quality of treatment
- Evaluate public health interventions
- Evaluate the surveillance system
- Contribute to medical knowledge
- Communicate and advocate

What does an investigation require?

- Basic medical & public health knowledge
- Basic concepts of epidemiology
- Sources of specialized information (e.g. reference books & specialists)
- Knowledge of the environment
- Laboratory testing (but not always)
- COMMON SENSE!

How do I investigate?

- 1) Establish the existence of an outbreak
- 2) Confirm the diagnosis
- 3) Define a case and count cases
- 4) Perform descriptive epidemiology (person, place and time)
- 5) Determine who is at risk
- 6) Develop hypotheses explaining exposure & disease
- 7) Evaluate hypotheses
- 8) As necessary, reconsider/refine hypotheses and execute additional studies
 - Additional epidemiologic studies
 - Other types of studies – laboratory, environmental
- 9) Communicate findings
 - Written report
 - Presentations
- 10) Implement control and prevention measures