

# The Norwegian health care services' preparedness against deliberate release of biological agents

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# Three main principles

- Responsibility principle
  - "Whoever is responsible for a service will also have the responsibility for preparedness and for services, including financing, during war and peace time crises and catastrophes." (Act on preparedness in the health and social services § 2-1)
  - Derived: build on current structures and resources
- Principle of handling at lowest effective level
  - Local responsibility
- Sector principle
  - Responsibility mainly in health service



## Why responsibility principle? (and not a biopreparedness team)

- Clear and established chains of command and responsibility
- Cannot hide from responsibility
- Training on everyday events
- Awareness
- Multiple use capacities

Ex: Trauma surgeons for air plane crash

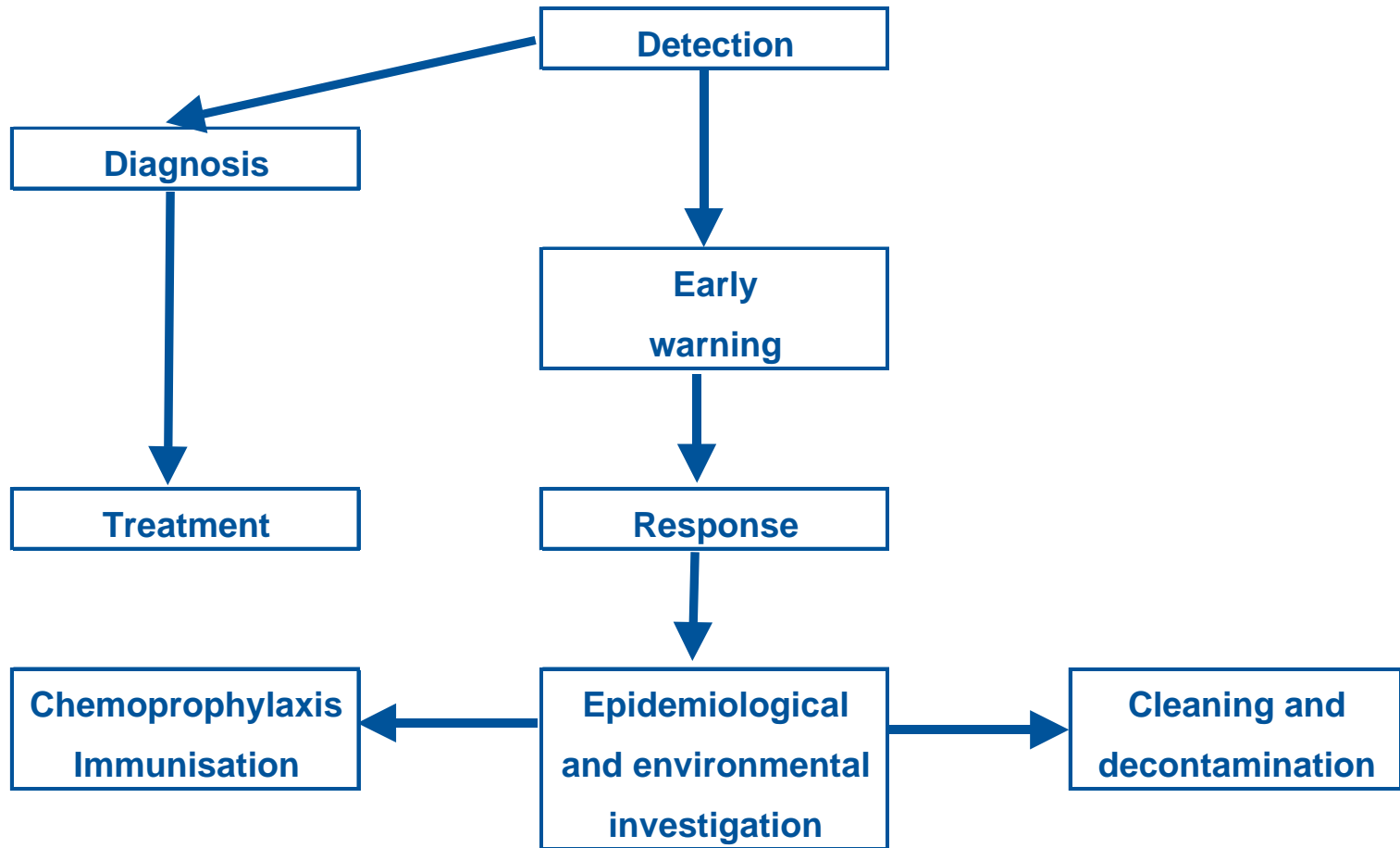


# Planning assumption

- Few bioweapons cause secondary spread
  - (Major exceptions: Smallpox, Viral haemorrhagic fevers, Pneumonic plague)
- Limited place for vaccines
  - Vaccines only against very few agents
  - Difficult to find groups that are at more risk than others
  - Very low effect : cost ratio
- Releases are likely to be covert
  - Incubation time → People are dispersed, no site, minor role for emergency services
  - Key role of clinicians and microbiologists
- Hoaxes : releases > 100



# Tasks



# Municipal health service: tasks and key capacities

- 431 municipalities (500 to 500 000 inhabitants)
- Municipal medical officer
- Key partners
  - General practitioners
  - Food Safety Authority
  - Police, other emergency services
  - Civil Defence
- Surveillance
  - investigation
  - measures
- Information
  - public
  - mass media
- Measures
  - contact tracing
  - quarantine
  - cordon sanitaire
  - blocking assembly
  - vaccination
  - chemoprophylaxis



# Hospitals: tasks and key capacities

- Five regional hospital trusts
  - Independent, but owned by Government
  - 70 hospitals
  - 20 laboratories
- Diagnosis
  - clinical skills
  - laboratories
- Treatment
  - beds
  - equipment
  - drugs
- Infectious disease control in the hospital
  - personal protective equipment
  - rooms, isolates
- Information to patients and family
- Care for staff
- Information to mass media



# Government: organisation and tasks

- **Ministry of Health and Care services**
- **Directorate of Health and Social Affairs**
  - Regulatory authority
  - Overall responsibility for preparedness
  - National stockpiles
  - Coordination
  - Measures
- **Food Safety Authority**
  - Regulatory authority
  - Local branches
  - Coordination
  - Measures

## **Norwegian Institute of Public Health**

- Surveillance
  - Early warning system
  - Routine surveillance system
  - Reference laboratories
  - Preparedness laboratory
- Support and advice
  - Expert assessment and advice
  - Field epidemiology team
  - Vaccine supply
- Information
  - Health services
  - Public





# Key national capacities

Main function: support to local authorities

- National microbiological laboratory for preparedness (NIPH)
- National centre for treatment (Ullevål)
- National field epidemiology group (NIPH)
- National vaccine stockpile (NIPH)
- National antibiotic and equipment stockpile (Directorate of Health and Social Affairs)



# Sensible use of resources

- An acceptable level of preparedness must be defined
- Invest wisely
  - general epidemic preparedness
  - multiple-use preparedness
  - robust health service and public health system
- No biodetectors in the community
  - Technically hardly possible
  - Logistically unsustainable
- No P4-laboratory
  - Unnecessary with even more in Europe



# Main areas for improvement

- Surge capacity of
  - competent personell
  - equipment
  - intensive care beds
  - isolates
- Mental preparedness
  - information preparedness
- Laboratories
  - coordination
  - environmental samples
- General coordination
  - routines
  - with other sectors (police, military, civil defence)
- Exercises
- Surveillance of syndromes
- Preparedness at municipal level

