Controlling the spread of a communicable disease in a community requires a multifaceted approach that includes traditional epidemiology, education of medical providers and the public, and provision of treatment and prophylaxis, if available. Specific conditions may dictate the need for more extensive control measures designed to limit contact between persons who are (or may be) contagious and others who are susceptible to infection. Isolation and quarantine are two such measures.

The legal authority to impose isolation and quarantine exists in most local health jurisdictions, but the successful implementation of either measure on a broad scale within a community will require careful planning. The following checklist was developed by members of the National Association of County and City Health Officials (NACCHO) to help public health jurisdictions identify the essential aspects of a plan for the implementation of isolation and quarantine. A workgroup of the NACCHO Bioterrorism and Emergency Preparedness Committee created this document for public health officials given the lack of simple and concise guidance on isolation and quarantine issues. While it is not comprehensive of all elements to include in the plan, this checklist outlines some of the important areas to consider when creating an isolation and quarantine plan, including:

- Legal issues, especially as it relates to involuntarily holding individuals who pose a risk to the public’s health.
- Implementation of the isolation and quarantine plan.
- Ongoing surveillance for prevention of further transmission of disease.
- Social support that ensures that the basic needs of the individual are met.
- Risk communications and effectively communicating information to the public.

For more detailed information on planning for a large-scale isolation and quarantine response, the Public Health – Seattle and King County Advanced Practice Center in Washington (online at www.metrokc.gov/health) has developed an Isolation and Quarantine Response Planning Toolkit. Materials will soon be available online at www.naccho.org/EQUIPPh.

**Legal Issues and Statutory Authority**

By definition, both isolation and quarantine restrict the movement of individuals. While voluntary isolation and quarantine are often successful, involuntary restriction may be required in some circumstances or with particular individuals. Any plan for implementation of isolation or quarantine requires clear delineation of the relevant legal authorities and responsibilities. To avoid unnecessary and potentially dangerous delays and barriers, it is crucial that public health personnel, law enforcement, the judicial system and other local authorities are familiar with these legal issues.

### DEFINITIONS

**ISOLATION** is the restriction of movement of persons having or suspected of having a communicable disease in order to minimize contact with susceptible persons.

**QUARANTINE** is the restriction of movement of persons known or suspected to have been in contact with contagious persons and may, therefore, become contagious in the future.
IMPORTANT QUESTIONS TO ADDRESS

- What is the local, state and federal legislative framework under which restriction of movement of individuals for the purposes of controlling communicable diseases can be accomplished? Who has the authority to declare a public health emergency in the jurisdiction?
- For which actions connected to implementation of isolation and/or quarantine is declaration of an emergency required?
- Who can establish isolation and quarantine and what means of notification is required for both individuals and groups?
- What due process protections are required?
- What means may be used to enforce restrictions?
- What will be the penalties for noncompliance with restrictions? Who has the authority to remove restrictions?

A SUCCESSFUL PLAN WILL INCLUDE THE FOLLOWING:

- A list of statutory authorities at the state and local level that comprise the framework for isolation and quarantine.
- The circumstances under which a local public health emergency should be declared, the means by which the declaration will be made, and which local officials have authority to make such a declaration.
- A discussion of the establishment of isolation and quarantine, including how restrictions will be enforced.
  - Indicate who can establish isolation and quarantine (e.g., public health official, first responders, hospital personnel, etc.).
  - Discuss whether affected persons will be required to sign a document indicating understanding of restrictions and agreeing to comply.
  - Discuss the use of legal orders versus voluntary restriction of movement. If orders are to be used, indicate who can issue orders.

List any required components of orders:
- Language (e.g., English versus other languages, the need for documentation of verbal translation).
- Timeframe.
- Location of isolation and quarantine.
- Opportunity and method to object.

- The role of law enforcement and their authority, including clear language regarding the use of force in compelling compliance with isolation or quarantine.
- Non-compliance issues and the penalties allowed for non-compliance.
- Delineation of who has the authority to release persons from isolation or quarantine, and how notification of release must be made.
- Contingency plans for a large scale application of isolation or quarantine.
  - Requirement and/or ability to waive specific requirements (e.g., due process, individual notification).
  - Use of notification of restrictions and release for groups rather than individuals (e.g., use of signage versus individual orders).

- Plans for training public health staff (e.g., general roles and responsibilities, specific job descriptions, limits of authority), law enforcement and other first responders (e.g., roles and responsibilities of local public health authority, statutory and other legal authorities, agency specific role in implementation and enforcement of public health orders).

Additional materials to include in the plan:
- Sample legal orders.
- Interagency protocols and procedures.
**Implementation, Maintenance & Removal**

A successful plan for isolation and quarantine must include a reasonable process for implementation, maintenance and discontinuation of restrictions.

**IMPORTANT QUESTIONS TO ADDRESS**

- Will a progressive approach, starting with the least restrictive alternatives and progressing to involuntary restriction of movement, be employed?
- Under what circumstances would least restrictive alternatives not be the first step?
- Where will isolation or quarantine occur and under what circumstances?
- What services must be provided to persons under restriction?

**A SUCCESSFUL PLAN WILL INCLUDE THE FOLLOWING:**

- A description of the concept of operations under which restrictions on movement of persons would be enacted.
  - Include a statement addressing under what circumstances voluntary versus involuntary isolation and quarantine would be implemented.
  - Clearly state who bears the responsibility to provide services to people whose movement has been restricted and to what extent.
- Definitions of relevant terms to ensure a common understanding, including:
  - Home isolation and quarantine.
  - Hospital isolation.
  - Special isolation and quarantine facilities.
  - Voluntary isolation and quarantine.
  - Ordered isolation and quarantine.
  - Detention (locked and guarded) isolation and quarantine.
- A detailed discussion of how isolation and quarantine will be established.
  - Describe how persons notified of isolation or quarantine at a location other than where isolation or quarantine is to occur (e.g., persons receiving care at a physician’s office who are ordered into home isolation) are to be transported to that location.

**Special Focus: RIGHTS OF AFFECTED PERSONS**

- **Due Process:**
  - Patients are constitutionally guaranteed the right to object to any restrictions.
  - Discuss how this will be addressed at each level of isolation and quarantine.
  - Administrative hearings.
  - Court review.
  - Notification of right to object.

- **Rights to Privacy:**
  - Discuss any restrictions on notification of others as necessary to maintain isolation or quarantine (e.g., notification of an employer that the individual is under isolation or quarantine).
  - Privacy issues – if notification is considered a violation of privacy, who can authorize the release of information to protect the public’s health?
  - Should notification be in writing?
  - Define the process for notifying of release from restriction.

- Describe how persons in isolation or quarantine will receive instructions, and how they will be informed of services they will be receiving.
- Include descriptions of how notification will differ in the case of groups of persons placed in isolation or quarantine.
- Plans for training public health staff (e.g., general roles and responsibilities, specific job descriptions, home evaluation, protocols and procedures, personal protective equipment), and first responders, law enforcement, volunteers (general roles and responsibilities, agency/job specific duties, personal protective equipment).

**Additional materials to include in the plan:**

- Flow charts indicating process for implementation of isolation and quarantine, points of decision making and persons responsible.
- Sample patient education materials.
- Home assessment tool.
- Sample monitoring forms.
- Personal protective equipment guidance for various infectious agents.
Surveillance and Monitoring

Effective use of isolation and quarantine requires surveillance for additional cases of disease and incidences of exposure (in some cases these functions may be covered in a separate disease control plan and not as part of an isolation and quarantine plan). Persons in isolation must be monitored for progression or resolution of the infection so that services can be implemented or isolation discontinued as appropriate. Those in quarantine must be monitored for the development of symptoms requiring transition to isolation and, as necessary, an increased level of medical care. For isolation and quarantine to be effective in preventing further transmission of disease, monitoring for compliance with restrictions is also necessary with implementation of more restrictive interventions given consideration when non-compliance is detected.

IMPORTANT QUESTIONS TO ADDRESS

- How and by whom will surveillance for additional cases of disease and incidences of exposure be carried out?
- What type of monitoring will be put in place for persons in isolation or quarantine and who will do the monitoring?
- What infrastructure will be in place to assess, on an ongoing basis, the results of monitoring of groups and individuals?
- When and in what capacity can volunteers and volunteer agencies be used for monitoring?

A SUCCESSFUL PLAN WILL INCLUDE THE FOLLOWING:

- Definitions of relevant terms to ensure common understanding, including:
  - Active surveillance.
  - Passive surveillance.
  - Syndromic surveillance.
  - Enhanced surveillance (e.g., contact monitoring).
  - Active monitoring.

Hospital and special facility: describe the criteria for isolation and quarantine in a hospital or other special facility (e.g., unable to care for self, etc). Provide examples of health department protocols under which hospital isolation will occur, including the decision and process for discharge and need for public health approval prior to transfer.

Support for persons in isolation (see Social Support section on Page 6): The plan must detail what essential services (e.g., food) will be provided to persons in isolation and quarantine, and how and by whom those services will be provided. Discussion of provisions for psychological support should be included.

Non-compliance (see Legal Issues section on Page 1): The plan must provide a detailed discussion of how non-compliance with isolation and quarantine will be handled (e.g., use of progressively restrictive alternatives up to and including court ordered detention). Discuss the process by which a determination to move to a more restrictive setting will be made. Include who will issue the order and how subjects will be transported. Finally, mechanisms for ensuring due process must also be included.

Release from isolation: Discuss the process for formal or informal release from isolation or quarantine including who authorizes release and how notification will be made.
- Passive (self) monitoring.
- Worksite monitoring examples (e.g., hospitals, private health offices).
- Congregate setting monitoring examples (e.g., schools, churches, etc).

A description of how surveillance for additional cases and incidents of exposure will be conducted, including how a public health epidemiologic response team may be used to do continuous analysis of surveillance data and to make recommendations regarding the level of public health response needed overall and in special circumstances.

Detailed plans for community-based field monitoring (non-hospital) of persons in isolation and quarantine:
- Discuss staffing issues, including:
  - Appropriate staff case load.
  - Surge capacity and how plans will change if large groups require isolation or quarantine.
  - Occupational health issues.
    - Vaccination of staff.
    - Monitoring field staff health.
    - Ensure availability and appropriate use of personal protective equipment (PPE).
- Develop protocols for field monitoring that could include:
  - Criteria or standards for:
    - Type of monitoring (e.g., active or passive; phone or in-person).
    - Need to change containment status: quarantine to isolation, home to hospital isolation, or the lifting of health order.
    - Adequacy of the place of isolation or quarantine.
    - Frequency of monitoring.
  - Components of assessments, including:
    - Patient understanding of when to seek medical care and the procedure by which this should happen; the signs and symptoms, transmission of disease; PPE and other appropriate precautions; how to self-monitor and to whom to report.
    - Clinical assessment: disease-specific signs and symptoms.
    - Psycho/social assessment: which essential needs are met.
    - Compliance with the health order.
- How staff will deal with non-compliance situations.
- Education of staff surrounding and reinforcement of health order.
- Transportation of contagious or potentially contagious patients.
- Reporting and record keeping requirements.
  - How data will be managed, including the type of technology support and staffing support necessary.
  - The essential components of a patient record.
  - HIPAA and confidentiality issues that may arise.
- Templates and forms for active and passive monitoring, including:
  - Symptom logs for passive (self) monitoring.
  - Disease-specific instructions for patients and healthcare workers.
  - Checklist for assessment of active monitoring in the home or at the work site.
  - Template for recording results of clinical evaluation of active monitoring.
  - Guidelines and instructions for persons in working quarantine.
  - Instructions for supervisors of persons in working quarantine.
ISSUES to Consider

- Checklist to evaluate homes for isolation or quarantine.
- Guidelines for monitoring compliance and forms to record compliance.

- Information on hospital or special facilities monitoring.
  - Describe the collection of patient contact information.
  - Outline process for monitoring potential symptoms in health care workers and health status of patients.
  - Outline process for reporting contact information, suspect or confirmed cases to the local public health epidemiologist or communicable disease specialist.
  - Outline process for coordinating patient discharge with the local health department’s field monitor team as needed.
  - Outline process for reporting deviations from work-site quarantine to the local health department.

- Training guidance for health care providers/hospitals (e.g., disease reporting requirements, isolation and quarantine protocols), and public health staff (general roles and responsibilities, specific job descriptions, field monitoring protocols, personal protective equipment).

Additional materials to include in the plan:
- Universal assessment form for individuals and families in isolation and quarantine.

Social Support

When health authorities restrict the movements of persons through isolation or quarantine it becomes the department’s responsibility to ensure that the basic needs of those individuals are met. Both isolation and quarantine will be more successful when people are well cared for. It is unlikely that any given health department has the resources to accomplish this on its own if isolation or quarantine were instituted on a large scale. Partnering with other agencies and non-profit organizations will likely be necessary.

IMPORTANT QUESTIONS TO ADDRESS

- How will essential services be provided?
- Who will evaluate clients for needed services?
- Who will authorize the provision of services?

How will the provision of services be organized and managed?

What is the role of volunteer and/or other governmental agencies in the provision of services?

A SUCCESSFUL PLAN WILL INCLUDE THE FOLLOWING:

- A description of how individuals under isolation and quarantine will be evaluated for the need for essential services including:
  - Shelter.
  - Caregivers.
  - Food and meal preparation.
  - Medications.
  - Childcare.
  - Essential shopping.
  - Social diversion (e.g., television, radio, Internet access, reading materials).
  - Work or school arrangements.
  - Pet care.
  - Clothes and laundry services.
  - Banking and bill paying.
  - Faith/clergy support.
  - Communication (e.g., telephone).
  - Water.
  - Electricity.
  - Mental/behavioral issues/psychological support.
  - Special population needs (e.g., language, disability, elderly).
  - Heating/cooling issues.
  - Refuge disposal.
  - Transportation.
  - Available disposable masks and gloves, tissues, hand hygiene products.
  - Legal support.
  - Adequacy of emotional support systems.

- A description of who (e.g., type of staff, agency) will provide which essential services and with what frequency.

- A training plan, specifically to other agencies including those dealing with special populations (e.g., general orientation to isolation and quarantine, personal...
protective equipment, coordination of services for individuals and families, organizational structure under which services will be coordinated and monitored).

**Additional materials to include in the plan:**
- Universal assessment form for individuals and families in isolation and quarantine.
- List of volunteer and other agencies and the services they can provide.

**Risk Communications**

The success of isolation and/or quarantine depends on the degree to which individuals and the public understand the necessity for the restrictions. Ongoing frank communication with the public is an essential step in ensuring that there is general acceptance of the need for isolation and/or quarantine, which increases the likelihood of compliance. For more information on risk communications planning, tools are available at www.naccho.org/EQUIPh.

**IMPORTANT QUESTIONS TO ADDRESS**

- How will risk communications activities be directed and coordinated?
- Which agency will play the lead in risk communications?
- Who will serve as public information officer?
- Who will serve as primary spokesperson?
- How will interagency coordination be accomplished?

**A SUCCESSFUL PLAN WILL INCLUDE THE FOLLOWING:**

- A description of pre-event preparations.
  - Identify key audiences.
  - Develop credibility and trust with the public and news media.
  - Develop a working relationship with the media, volunteers, elected officials, emergency responders, public information officers, and hospitals.
  - Develop prerecorded information messages in multiple languages (e.g., hotline).
  - Develop public information materials in multiple languages.
  - Hold orientation meetings with news media to brief them in advance on their role in a public health emergency.
  - Determine emergency operations staffing and locations.
- An outline of operational activities in an event.
  - Include a list of public information office responsibilities.
  - Describe the method by which messages for the public will be developed in keeping with the essential attributes that messages must be kept simple, consistent, and credible.
  - Describe message development for the media.
  - Describe how staff and partners will be kept informed.
  - Consider supplementary activities such as:
    - Assembling a telephone bank for the public to contact if they desire more information.
    - Updating the health agency Web site with information and instructions to the public on a regular basis.
    - Holding news conferences, as needed, to disseminate information about the current situation, what action the agency is taking, and what action the public can take to protect themselves and their families.
- A description of post-event activities.
  - Continue to provide information to the public.
  - Debrief staff, agencies and media representatives involved in the event.
- A training plan for public health staff, media representatives, key spokespersons including local elected officials and agency heads, and other partners who will be involved in the response.

**Additional materials to include in the plan:**

- Copy of the command structure of the joint information center that will be established to control risk communications activities.
- Sample press releases.
- Fact sheets for potential bioterrorism agents, diseases with pandemic potential, and other likely public health emergencies.
- Phone scripts for the above agents and other likely public health emergencies.
- Media briefing checklists.
- Public information officer checklists.
Definitions
Each section of an isolation and quarantine plan should include definitions for terms specific to the plan which reflect any specific local or state legalities. Pertinent legislation and other relevant reference materials should be cited as appropriate.

CARRIER
A person or animal that harbors a specific infectious agent without discernible symptoms of disease and serves as a potential source of infection.

COMMUNICABLE DISEASE
An illness due to a specific infectious agent or its toxic products that arises through transmission of that agent or its products from an infected person, animal, or inanimate source to a susceptible host; either directly or indirectly through an intermediate plant or animal host, vector, or the inanimate environment.

CONTACT
In regards to communicable diseases, a person or animal that has been in such association with an infected person, animal, or a contaminated environment, resulting in an opportunity to acquire an infection.

INCUBATION PERIOD
The time interval between initial contact with an infectious agent and the first appearance of symptoms associated with the infection. In a vector, it is the time between entrance of an organism into the vector and the time when that vector can transmit the infection (extrinsic incubation period). The period between the time of exposure to an infectious agent and the time when the agent can be detected in blood or stool is called the pre-patent period.

INFECTED INDIVIDUAL
A person or animal that harbors an infectious agent and who has either manifest disease or unapparent infection.

INFECTIOUS PERSON OR ANIMAL
One from whom the infectious agent can be naturally acquired.

INFECTIOUS AGENT
An organism (virus, rickettsia, bacteria, fungus, protozoan or helminth) that is capable of producing infection or infectious disease.

ISOLATION
As applied to patients, isolation represents separation, for a period at least equal to the period of communicability, of infected persons or animals from others, in such places and under such conditions as to prevent or limit the direct or indirect transmission of the infectious agent from those infected to those who are susceptible to infection or who may spread the agent to others.

PERIOD OF COMMUNICABILITY/COMMUNICABLE PERIOD
The time during which an infectious agent may be transferred directly or indirectly from an infected person to another person, from an infected animal to humans, or from an infected person to animals including arthropods.

QUARANTINE
Restriction of activities for well persons or animals who have been exposed (or are considered to be at high risk of exposure) to a case of communicable disease during its period of communicability (i.e., contacts) to prevent disease transmission during the incubation period if infection should occur. The two main types of quarantine are:

Absolute or complete quarantine: The limitation of freedom of movement of those exposed to a communicable disease for a period of time not longer than the longest usual incubation period of that disease, in such manner as to prevent effective contact with those not so exposed.

Modified quarantine: A selective, partial limitation of freedom of movement of contacts, commonly on the basis of known or presumed differences in susceptibility and related to the assessed risk of disease transmission. Such limitations may be designed to accommodate particular situations. Examples are exclusion from school, exemption of immune persons from provisions applicable to susceptible persons, or restriction of military populations to post or to quarters. Personal surveillance, one type of modified quarantine, is the practice of close medical or other supervision of contacts to permit prompt recognition of infection or illness but without restriction of movement. Another type of modified quarantine, segregation, is the separation of some part of a group of persons or domestic animals from others for special consideration, control, or observation; removal of susceptible children to homes of immune persons; or establishment of a sanitary boundary to protect uninfected from infected segments of a population.

SUSCEPTIBLE
A person or animal not possessing sufficient resistance against a particular infectious agent to prevent contracting infection or disease when exposed to that agent.

For More Information or Assistance
Visit www.naccho.org/EQUIPh, see NACCHO’s Preparedness Web site at www.naccho.org/topics/emergency/index.cfm, or call (202) 783-5550.