The words “isolation” and “quarantine” have the potential to conjure up certain images in the minds of the public: a home with a red-lettered sign posted on the door, or even a whole neighborhood cordoned off with yellow tape. In the past, these images may have been fairly accurate, but they are not a good picture of isolation and quarantine as they are used by the public health system today.

Isolation and quarantine are tools that public health officials are legally authorized to use to control the spread of communicable disease. These tools are part of a comprehensive legal framework for disease control. In North Carolina, that framework includes:

- laws that allow the public health system to detect communicable disease within the population, such as mandatory disease reporting laws;
- laws requiring public health agencies to investigate cases and outbreaks of communicable disease; and
- laws that specify communicable disease control measures—that is, the steps individuals, their physicians, or the public health system must take to control the spread of disease.

Isolation and quarantine are a subcategory of communicable disease control measures, and they are used routinely in North Carolina—but not in the manner you might see in a television movie. Instead, they are most commonly an individualized event. For example, the isolation authority may be used to require a person with active infectious tuberculosis to remain at home until certain laboratory tests reveal he or she is no longer infectious. When larger groups of people are involved, individuals are still likely to be managed in a manner that does not require cordoning off large areas. For example, a number of people were quarantined in North Carolina in 2003 because they had been exposed to a person who was suspected of having severe acute respiratory syndrome (SARS). These individuals remained in their own homes during the quarantine period. Although the quarantine affected nearly 80 people, the public health system did not have to use a common facility to house them or establish a cordon sanitaire.

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This Bulletin defines isolation and quarantine authority and explains how it is used and enforced in North Carolina. An Appendix to the Bulletin lists the statutory definitions of key terms.

**Isolation and Quarantine: North Carolina’s Legal Definitions**

**Isolation Authority and Quarantine Authority**

The terms isolation and quarantine are often used in conjunction, and they do have common elements. Both are communicable disease control measures—that is, means of preventing or containing the spread of disease. In general, medical and public health professionals use the term “isolation” to refer to disease control measures applied to people who are infected with a disease, while “quarantine” refers to control measures applied to people who appear well but may nevertheless pose a risk of disease to others—usually because they have been exposed to an ill person.

North Carolina’s legal definitions of isolation and quarantine include but go beyond these general definitions. In North Carolina, “isolation authority” is the authority to limit the freedom of movement or freedom of action of a person or animal who has (or is suspected of having) a communicable disease or condition. The definition of “quarantine authority” has three parts. It most often refers to the authority to limit the freedom of movement or freedom of action of a person or animal who has been exposed (or is suspected of having been exposed) to a communicable disease or condition. However, it also means the authority to limit access by any person or animal to an area or facility that is contaminated with an infectious agent, such as anthrax spores. Finally, quarantine authority may be used to limit the freedom of movement or action of unimmunized persons during an outbreak.

For example, in the event of a measles outbreak, quarantine authority could be used to require children who are exempt from the state’s immunization requirements to stay home from school.

**Freedom of Movement, Action, and Access**

Both the isolation and quarantine authorities permit the limitation of a person’s freedom of movement or freedom of action. The definition of quarantine also authorizes limits on freedom of access. No law defines these terms, but several other laws make important distinctions between orders that limit freedom of action and orders that limit freedom of movement or access. For example, G.S. 130A-145, the main isolation and quarantine statute, provides specific procedures for a person to obtain judicial review of an isolation or quarantine order—but only if it is an order limiting freedom of movement or access. It is therefore important to understand how the limitations differ.

An order limiting freedom of movement essentially prohibits an individual from going somewhere. It may confine the person to a particular place, such as his home or a health care facility. Or it may prohibit the person from entering a particular place. For example, it may prevent a person from returning to school or work during the period of communicability.

In contrast, an order limiting freedom of action limits specific behaviors, but not the ability to move freely in society. For example, a person who is required to refrain from sexual activity during the course of treatment for gonorrhea has had his or her freedom of action restricted.

Finally, an order limiting freedom of access prohibits a person from obtaining access to a certain place. For example, a quarantine order could be issued to prohibit a person from entering an area where infectious people are being treated during an outbreak.

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1. G.S. 130A-2(3a).
2. G.S. 130A-2(7a). The term “quarantine” is also used to describe the local public health director’s authority to declare an area “under quarantine against rabies” when there is a rabies outbreak extensive enough to endanger the lives of humans. G.S. 130A-194. This bulletin does not address rabies quarantines. For information about that issue, see [http://www.ncanimalcontrol.unc.edu/faqsRabies.htm](http://www.ncanimalcontrol.unc.edu/faqsRabies.htm).

3. All children in North Carolina are required to be immunized against certain diseases, including measles. G.S. 130A-152. The complete list of required immunizations is in the North Carolina Administrative Code. 10A N.C.A.C. 41A.0401. Children who have not received the immunizations may not attend public or private day care centers or schools. G.S. 130A-155. However, a child may be exempt from the requirements if an immunization is medically contraindicated, G.S. 130A-156, 10A N.C.A.C. 41A.0404, or if the child’s parent has a bona fide religious objection to immunization, G.S. 130A-157, 10A N.C.A.C. 41A.0403.
Ordering Isolation or Quarantine

Authority to Order

North Carolina law permits either the state health director or a local health director to order isolation or quarantine. Isolation or quarantine orders are permitted only (1) when and for so long as the public health is endangered, (2) when all other reasonable means for correcting the problem have been exhausted, and (3) when no less restrictive alternative exists.

There is no law in North Carolina that interprets the terms “all other reasonable means” or “less restrictive alternative.” The plain words of the statute make clear that, if there are reasonable means of controlling the public health threat short of issuing an isolation or quarantine order, those means should be tried first. But what constitutes “reasonable” means? The word “reasonable” could be interpreted to mean at least a couple of different things. It almost certainly should be interpreted to mean that the only other methods that must be tried are those that are likely to be effective at controlling the public health threat. (It may be in some cases that there are no other means believed to be effective.) It could also be interpreted to mean that public health need not try means that might be effective but that are unduly expensive or burdensome compared to isolation or quarantine.

Assuming other reasonable means have been exhausted, when is isolation or quarantine the least restrictive alternative? There is no case law on this in North Carolina, but the issue has been addressed by the courts of other states. Some conclusions those courts have reached include:

- Isolation or quarantine limiting freedom of movement should not be ordered if there is something else, such as directly observed therapy, that could protect the public health as effectively.
- Isolation or quarantine restricting freedom of movement may be ordered when a person demonstrates unwillingness or inability to comply with less restrictive measures.
- Isolation or quarantine should not be ordered unless the person poses an actual danger to others.

If a North Carolina court were called upon to determine when isolation or quarantine is the least restrictive alternative, it is likely the court would consider other states’ conclusions in evaluating North Carolina law, but it may or may not reach the same conclusions.

In North Carolina, an isolation or quarantine order does not necessarily require a person to be physically separated from the public. Rather, it directs the individual to comply with communicable disease control measures, which vary by disease, and which may constitute limitations on freedom of movement, action, or access. For example, the control measures for a person with rubella require the person to be excluded from school or work until no longer infectious. In contrast, the control measures for a person with HIV do not require physical separation from society but instead affect the

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4 G.S. 130A-145(a). The local health director or state health director may delegate the authority to isolate or quarantine. G.S. 130A-6 provides that any public official granted authority under G.S. Chapter 130A may delegate that authority to another person. As part of their planning for responding to public health emergencies, some local health directors in North Carolina have designated staff members who are authorized to exercise the isolation or quarantine authority in the event the health director is unavailable.

5 G.S. 130A-145(a).
individual’s behavior. Among other things, a person with HIV must notify sexual partners of his HIV status and must refrain from donating blood or sharing needles. However, an order directing a person to comply with control measures for either condition is called an “isolation order.” Similarly, an order directing a person who has been exposed to a communicable disease but is not yet sick is called a “quarantine order,” whether it requires the person’s physical separation from the public, or simply directs the person to take (or refrain from taking) specific actions.

Individuals in North Carolina are legally obliged to comply with communicable disease control measures regardless of whether an isolation or quarantine order has been issued to them. Failure to comply is a misdemeanor. Still, health directors often issue isolation or quarantine orders to ensure that a person who is subject to communicable disease control measures is aware of the measures and of the legal obligation to comply. It is also common for a health director to issue an isolation or quarantine order to an individual who is not complying with control measures, as part of an effort to gain compliance without resorting to prosecution.

The authority to order isolation or quarantine is not limited to reportable diseases or conditions. (A communicable disease or condition is “reportable” if the North Carolina Commission for Health Services has adopted a rule requiring physicians and designated others to report known or suspected cases to the health department.) However, there are statutory definitions of communicable disease and communicable condition that must be met for isolation or quarantine authority to be available. Those definitions are included in the Appendix to this bulletin.

The authority to order isolation or quarantine is available to an individual who is not yet sick but is at risk of becoming infected. Such orders may be given to an individual who is subject to communicable disease control measures for either condition, including HIV, by the control measures in the N.C. Administrative Code. The control measures for HIV do not include physical isolation. See 10 A N.C.A.C. 41A.0202(a).

How Isolation or Quarantine is Ordered

There is no North Carolina statute or rule that sets forth specific steps to follow in ordering isolation or quarantine, but considering all the various laws together, it is possible to reach a few conclusions about how isolation or quarantine should be ordered. First, a local health director or the state health director should ensure that he or she is authorized to exercise isolation or quarantine authority in the particular situation. Specifically:

- the person or animal who is to be isolated or quarantined must be infected or reasonably suspected of being infected, or exposed or reasonably suspected of having been exposed, to a communicable disease or condition,
- the public health must be endangered as a result,
- all other reasonable means for controlling the disease must have been exhausted, and
- there must be no less restrictive means to protect the public health.

Second, the health director must determine which communicable disease control measures the recipient of the order will be subject to. If the order applies to HIV, Hepatitis B, a sexually transmitted disease, or tuberculosis, the health director may order only the limitations on freedom of movement or action that are specified as control measures for those diseases in the N.C. Administrative Code. If the order applies to any other communicable disease, it may include limitations on freedom of movement or action that are consistent with the recommendations and guidelines issued by the Centers for Disease Control and Prevention (if any) or the control measures established in the American Public Health Association’s Control of Communicable Diseases Manual.

11 10 A N.C.A.C. 41A.0201(d) restricts isolation and quarantine orders for certain diseases and conditions, including HIV, may be no more restrictive than the control measures established in the North Carolina Administrative Code. The control measures for HIV do not include physical isolation. See 10 A N.C.A.C. 41A.0202.

12 G.S. 130A-144(f).

13 G.S. 130A-25.

14 The Commission for Health Services is required by law to establish a list of reportable communicable diseases and conditions. G.S. 130A-134. The list appears in the North Carolina Administrative Code and presently contains over 70 diseases and conditions. 10A N.C.A.C. 41A.0101. The list has been modified frequently in recent years to include emerging illnesses (such as SARS) and diseases that may be caused by bioterrorism (such as smallpox).

15 This applies to the most typical situation in which isolation or quarantine is ordered, but quarantine may also be ordered in two additional circumstances: to limit access to an area or facility that may be contaminated by an infectious agent, or to limit the freedom of movement of unimmunized persons in an outbreak. See G.S. 130A-2(7a).

16 The sexually transmitted diseases that are covered by the control measures in the N.C. Administrative Code are syphilis, gonorrhea, chlamydia, nongonococcal urethritis, mucopurulent cervicitis, chancroid, lymphogranuloma venereum, and granuloma inguinale. 10A N.C.A.C. 41A.0204(a).

17 10 A N.C.A.C. 41A.0201(d) restricts isolation and quarantine orders “for communicable diseases and conditions for which control measures have been
Although the law does not state that an isolation or quarantine order must be in writing, it would be unwise to rely solely on an oral order. (It may be reasonable in some circumstances to issue an oral order and then follow it up with a written order as soon as practicable.) An individual who is isolated or quarantined has a right to be notified that he or she is being isolated or quarantined, and the clearest and most direct way to do this is to put it in writing. The written order will also be an important piece of evidence if the health director subsequently must go to court to enforce, defend, or extend the order.

The order should include:

- the name of the person who is subject to the order,
- the names of the health department and the health director issuing the order,
- a statement of the required communicable disease control measures,
- a statement that the control measures have been explained to the person,
- a statement describing the penalties that may be imposed if the person fails to comply with the order,
- the health director’s signature, and
- the date and time the order was issued.

Orders limiting freedom of movement or access must also state that the person has a right to have a court review the order (see the section on due process rights of isolated or quarantined persons, below).

The North Carolina Division of Public Health often provides model isolation and quarantine orders during an outbreak. For example, during the SARS outbreak of 2003, the Division sent model orders to all local health directors by e-mail. Model orders that may be used in the event of a flu pandemic have been developed and are available on the Internet.

Duration of Isolation or Quarantine Orders

The basic limitation on the duration of an isolation or quarantine order is contained in G.S. 130A-145(a), which states that isolation and quarantine may be ordered only when and for so long as the public health is endangered. The period of time is therefore likely to vary depending upon the communicable disease or condition and possibly other circumstances.

There is no maximum time limit for orders limiting freedom of action, other than the statute’s requirement that the orders end when the public health is no longer endangered. So, for example, an order directing a person with HIV to refrain from donating blood could endure for years, but an order directing a person with gonorrhea to refrain from sexual intercourse would apply only until treatment was completed and any lesions healed.

Orders limiting freedom of movement or access are subject to a maximum period of 30 days. This is in addition to the requirement that the order endure only for so long as the public health is endangered. An order limiting freedom of movement or access might be for less than 30 days—if, for example, it was issued to a person with a communicable disease that runs its course in a lesser period of time—but it

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19 A designee’s signature may be substituted if the health director has delegated the isolation or quarantine authority to another. G.S. 130A-6; see also footnote 4.
20 The documents are part of the North Carolina Pandemic Influenza Plan. The plan is available at http://www.epi.state.nc.us/epi/gcde/pandemic.html. The model orders are in Appendix L.
21 10A N.C.A.C. 41A.0202(a)(3) establishes this control measure.
22 10A N.C.A.C. 41A.0204(b)(1) establishes this control measure.
23 G.S. 130A-145(d).
may never exceed 30 days, even if the person is still a threat to the public health at the end of that period.

Suppose a health director determines that a person’s freedom of movement must be restricted for more than 30 days in order to protect the public health. The health director does not have the authority to extend the first order or issue a second order to the same individual for the same communicable disease event. However, the director may petition a superior court to extend the order. If the court determines by a preponderance of the evidence that the limitation of freedom of movement is reasonably necessary to prevent or limit the spread of the disease or condition, the court shall continue the limitation for a period of up to 30 days for any communicable disease or condition but tuberculosis. For tuberculosis, the court may extend the order for up to one year. The burden of producing sufficient evidence to support the order will be on the health director. When necessary, the state health director or local health director may return to court and ask the evidence to support the order will be on the health institute in the superior court in the county in which the limitation on freedom of movement was imposed. However, if the individual who is the subject of the order has already sought review of the order in Wake county superior court (see the next section on due process rights), then the action must be instituted in Wake county superior court.

**Due Process Rights of Isolated or Quarantined Persons**

North Carolina law explains specifically how a person who is substantially affected by a limitation on freedom of movement or access may obtain a review of the order. The person may institute an action in superior court seeking review of the limitation, and the court must respond by conducting a hearing within 72 hours (excluding Saturdays and Sundays). The person is entitled to an attorney. If he or she is indigent, a court-appointed attorney will be provided.

The court must terminate or reduce the limitation if it determines by the preponderance of the evidence that the limitation is not reasonably necessary to prevent or limit the spread of the disease or condition. In this case, the burden of producing sufficient evidence to show that the limitation is not reasonably necessary is on the person affected by the order. The person has a choice of where to file this action: either in the superior court of the county where the limitation is imposed, or in the Wake county superior court.

What about a person who is subject to a limitation on freedom of action? Such an individual has a right to due process, which includes the opportunity for his or her objections to the order to be heard. However, North Carolina law does not spell out how a person subject to this kind of limitation may exercise this right. Most likely, the person would file an action in superior court seeking a declaratory judgment about the validity of the order, or an injunction barring enforcement of the order.

**Enforcement of Isolation or Quarantine Orders**

Any violation of the state’s public health laws—G.S. Chapter 130A, the rules of the Commission for Health Services, or the rules of a local board of health—is a misdemeanor. Thus, a person may be criminally prosecuted for violating quarantine or isolation orders. Isolation and quarantine orders may also be enforced through a civil action—a local health director may request an injunction from the superior court in the county in which violation of the order occurred.

If a health director decides to pursue criminal enforcement, the director should consider whether following normal procedures for arresting and detaining the person creates a risk of spreading disease. This could be an issue for a disease that can spread through casual contact, such as influenza. It would not be an issue for a disease that requires more intimate contact, such as HIV. The arrest and detention of a person with a disease that spreads easily creates public health concerns, since taking the person to a magistrate’s office or the local jail could result in many people being exposed to the disease.

To address these concerns, legislation in 2002 amended North Carolina’s criminal procedure laws to allow for arrests and detentions that minimize the exposure of others to the arrested person. A law enforcement officer who arrests an individual for violating an isolation or quarantine order that limits freedom of movement or access may detain the

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24 G.S. 130A-145(d).
25 G.S. 130A-145(d). The statute does not define the term “substantially affected person.” It seems clear that the person who is the subject of the order would be a substantially affected person, but whether the term might include others is an open question.
26 G.S. 130A-25(a).
27 G.S. 130A-18.
person in an area designated by the state health director or a local health director, until the individual’s first appearance before a judicial official.\textsuperscript{29} At the first appearance, the judicial official must consider whether the person poses a threat to the health and safety of others.\textsuperscript{30} If the judicial official determines by clear and convincing evidence that the person does pose a threat, the official must deny pretrial release and order the person to be confined in an area the official designates after receiving recommendations from the state health director or local health director. The burden to produce sufficient evidence to support the determination that the person poses a threat is on the health director. These provisions do not apply to isolation or quarantine orders limiting \textit{freedom of action}.

\textbf{Communicable Disease Outbreaks Caused by Terrorism}

It is possible that a communicable disease outbreak could be caused by an act of bioterrorism. If this were to occur, all the usual communicable disease laws would still apply, including the authority to order isolation or quarantine. However, some additional legal authorities become effective when the state health director reasonably suspects that a public health threat may exist and may have been caused by a terrorist incident using nuclear, biological, or chemical agents.\textsuperscript{31} These additional authorities may be exercised only by the \textit{state} health director. The additional authorities that are most likely to apply in a communicable disease outbreak that may have been caused by terrorism are:

\begin{itemize}
  \item The state health director may require any person or animal to submit to examinations and tests to determine possible exposure to nuclear, biological, or chemical agents.
  \item The state health director may limit the freedom of movement or action of a person or animal that is contaminated with, or reasonably suspected of being contaminated with, a nuclear, biological, or chemical agent that may be conveyed to others. This sounds like isolation or quarantine authority, but it is different because it applies to persons or animals who are \textit{contaminated} rather than persons who are infected or exposed to a communicable disease.\textsuperscript{32} For example, this authority could be used to limit the freedom of movement of a person contaminated with radioactive materials.
  \item The state health director may limit access by any person or animal to an area or facility that is housing persons or animals whose freedom of movement or action has been limited because they are contaminated with a nuclear, biological or chemical agent. She may also limit access by any person or animal to an area or facility that is contaminated with such an agent.
\end{itemize}

All of these authorities may be exercised only when and for so long as a public health threat may exist, all other reasonable means for correcting the problem have been exhausted, and no less restrictive alternative exists. There is a 30-day limitation on the period of time a person’s freedom of movement or access may be limited that parallels the 30-day limitation on isolation or quarantine orders limiting freedom of movement or access. A person who is substantially affected by the state health director’s order may institute an action for review of the order in superior court. If the state health director determines that additional time is needed, she may institute an action in superior court for an additional 30-day period (and additional 30-day extensions may be sought as needed).

\textbf{Conclusion}

Isolation and quarantine are legal tools the public health system uses to control the spread of communicable diseases and conditions. The use of these tools in North Carolina is not extraordinary. Isolation and quarantine are used on a regular basis to control the spread of endemic diseases such as tuberculosis, as well as to cope with more unusual outbreaks, such as the rubella outbreak the state experienced in 1996.\textsuperscript{33} However, it is also expected that isolation and quarantine would be used to control a more unusual event, such as a flu pandemic. As a

\begin{itemize}
  \item The distinction may not matter much in practice when the agent is one that causes communicable disease, such as anthrax spores. A person who is contaminated with such an agent probably has also been exposed to communicable disease, so quarantine authority would apply.
\end{itemize}

\textsuperscript{29} G.S. 15A-401(b)(4).
\textsuperscript{30} G.S. 15A-534.5.
\textsuperscript{31} G.S. 130A-475.
\textsuperscript{32} The distinction may not matter much in practice when the agent is one that causes communicable disease, such as anthrax spores. A person who is contaminated with such an agent probably has also been exposed to communicable disease, so quarantine authority would apply.
result, these authorities are getting a fair amount of attention at this time.

Public health officials need to be aware of their authority to isolate and quarantine, and know how to exercise it within the limits of the law. This bulletin provides an introduction to the issue. For more information about isolation, quarantine, and communicable disease law in general, see http://www.ncphlaw.unc.edu/cdcontrol.htm.

Appendix: Statutory Definitions of Important Terms

**Communicable condition:** “the state of being infected with a communicable agent but without symptoms.” G.S. 130A-2(1b).

**Communicable disease:** “an illness due to an infectious agent or its toxic products which is transmitted directly or indirectly to a person from an infected person or animal through the agency of an intermediate animal, host, or vector, or through the inanimate environment.” G.S. 130A-2(1c).

**Isolation authority:** “the authority to issue an order to limit the freedom of movement or action of persons or animals that are infected or reasonably suspected to be infected with a communicable disease or communicable condition for the period of communicability to prevent the direct or indirect conveyance of the infectious agent from the person or animal to other persons or animals who are susceptible or who may spread the agent to others.” G.S. 130A-2(3a).

**Outbreak:** “an occurrence of a case or cases of a disease in a locale in excess of the usual number of cases of the disease.” G.S. 130A-2(6a).

**Quarantine authority:** “the authority to issue an order to limit the freedom of movement or action of persons or animals which have been exposed to or are reasonably suspected of having been exposed to a communicable disease or communicable condition for a period of time as may be necessary to prevent the spread of that disease. Quarantine authority also means the authority to issue an order to limit access by any person or animal to an area or facility that may be contaminated with an infectious agent. The term also means the authority to issue an order to limit the freedom of movement or action of persons who have not received immunizations against a communicable disease when the State Health Director or a local health director determines that the immunizations are required to control an outbreak of that disease.” G.S. 130A-2(7a).