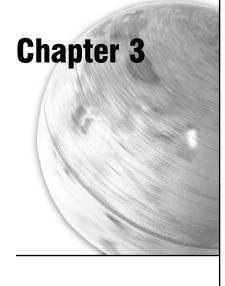
n influenza pandemic would have widespread, significant effects on North Carolina's workforce. During a flu pandemic, 40% of workers may be out ill, creating challenges for businesses and organizations to maintain normal operations. The US Department of Homeland Security (US DHS) identified seventeen critical industries that comprise the national infrastructure and would require protection in the event of a terrorist attack or other hazard:

- (1) Agriculture and food;
- (2) Energy;
- (3) Public health and healthcare;
- (4) Banking and finance;
- (5) Drinking water and water treatment systems;
- (6) Information technology;
- (7) Telecommunications;
- (8) Postal and shipping;
- (9) Transportation systems;
- (10) Chemical;
- (11) Commercial facilities;
- (12) Dams;
- (13) Government facilities;
- (14) Emergency services;
- (15) Nuclear reactors, materials and waste;
- (16) The defense industrial base; and
- (17) National monuments and icons.¹

Most of these industrial sectors, such as banking, utilities, transportation, communication, agriculture and food distribution, will need to continue functioning to provide society's essential goods and services during a pandemic. As with the healthcare industry, North Carolina's critical industries have experience maintaining essential functions during natural disasters such as hurricanes and ice storms. However, an influenza pandemic would place unprecedented stresses on the ability of an industry to function due to its duration, the likelihood of limited outside support, lack of workers, and risk of secondary infection. Thus, North Carolina's critical industries will face unprecedented challenges in the event of a virulent pandemic.

Critical industries will need to continue providing their essential goods and services during a flu pandemic, despite the difficulties. Workers in critical industries should acknowledge a responsibility to continue to work in times of crisis so that essential goods and services are provided to maintain the functioning of society. Unlike



During a flu pandemic, 40% of workers may be out ill, creating challenges for businesses and organizations to maintain normal operations.

Scenario: A manager at a local grocery store designates cashiers and shelf stockers as critical workers for an influenza pandemic. Months later there is news of an outbreak of pandemic influenza. The manager knows that the public will need food, but he is worried he will not be able to keep the grocery store open. Although he has informed his cashiers and shelf stockers that they are critical workers, the manager is not sure that these low-wage employees will report to work during a pandemic. His employees are afraid of becoming infected; they have expressed concerns about handling money and being in close proximity to customers who may be sick. The store does not have enough income to pay employees more for their work during the pandemic, and the manager is worried that the threat of termination will not be well received. He believes several of his employees would rather quit than work during a pandemic. In addition to these problems, the store does not have enough income to pay the employees that have not been designated as critical workers to stay home.

healthcare professionals or others who work directly with infected individuals, most critical workers will not have significantly increased risk of exposure to the disease. Nonetheless, some workers in critical industries may be at increased risk over those who stay at home or who work in more controlled environments. An individual may be contagious for several days before experiencing signs of illness. Thus, some individuals who work closely with the public may have a heightened risk of infection because they inadvertently may be exposed to someone with the virus. Employers and government should accept their reciprocal responsibility to provide a safe working environment, as well as necessary financial, medical, and nonmedical support to help employees work during a pandemic.

Duty to Work

Most workers in critical industries may not have a strict "ethical" obligation to work during an influenza pandemic. Instead, the duty to work stems from workers' contractual obligation to their employers and from the general responsibility we all share to help others during times of crisis. However, workers in critical industries who have professional licenses may have an ethical obligation to work that emanates from their professional training. Similar to the obligation of healthcare workers, the enhanced obligation to work during a crisis stems from three main responsibilities: professional, employment, and general human responsibilities to care for others. But just as with healthcare workers, the obligation of workers in critical industries to work must be balanced against other considerations, including the responsibility to care for family

members who are ill. Further, workers in critical industries who may themselves be ill or who may have been exposed to someone who is ill have a responsibility not to work so as to prevent transmitting the disease to others.

Reciprocal Responsibilities of Government and Businesses

Critical industry employers and contractors, as well as government, have a reciprocal responsibility to protect and support workers to enable them to continue working during a flu pandemic. Depending on the nature of the influenza virus, workers in critical industries may face disproportionate health risks. Workers may be asked to work longer hours or under more stressful work conditions than generally allowed. If critical organizations are short-staffed because of increased demand, worker illnesses, or absenteeism, other workers may be called upon to provide services outside their normal scope of work.

Critical industries should develop an influenza pandemic plan, including identification of the personnel and positions essential to the industry's ongoing operation. (See Appendix G for information about the business preparedness checklist developed by the US Department of Health and Human Services.) Industries should only

require employees or contractors to work on-site if their job functions are necessary and cannot be handled adequately by working off-site, and if the job responsibilities cannot be met through other personnel who volunteer to work during a pandemic. Employers should be sensitive to the appearance of favoritism or inequity that could result if only lower-paid employees are required to work on-site while the higher paid executives or managerial staff is allowed to work off-site. To address this concern, the pandemic preparedness plan should ensure that the analysis of which functions are necessary to be performed on-site is guided solely by the responsibilities of the job and not by salaries, job titles, or any other aspects unrelated to job function. Workers should be informed of the increased need to work during a crisis if part of a critical industry. Employers should ensure that workers are not asked to assume work responsibilities that exceed their training and/or experience, unless they are first provided the training needed to perform the required functions.

Government and critical industries have a reciprocal responsibility to assure that workers are as safe, compensated, and supported as possible. Thus, critical workers who are more likely to be exposed to infected individuals (eg, law enforcement or people who have extensive in-person interaction with the public) should be on the priority list to receive personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures.

Critical industry employers and contractors also should aid employees in other ways, as needed, to enable employees to work. Employers and/or contractors may need to assist workers in obtaining dependent care and other appropriate family services to enable these workers to come to work. Similarly, workers may be more likely to work if they know that their families will receive financial support if they become ill or die because they came into work and fulfilled their essential functions.

Government should ensure that individuals with direct contact with infected individuals or those at increased risk of infection due to their required work be given priority access to personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures. Due to the stress critical workers will be under during an influenza pandemic, they also should receive behavioral health services and other goods or services needed to enable them to work. Government agencies and the critical industries should also develop and disseminate clear plans for responding to an influenza epidemic. By providing protection and support for critical workers, government and employers enable workers to meet their job responsibilities so as to assure the necessary functioning of society.

Recommendation 3.1:

(a) Workers in critical industries have an ethical responsibility to perform their regular employment duties during an influenza pandemic and to assume new responsibilities for which they are trained, as long as actions by personnel will not lead to greater harm than the failure to act.

Employers should ensure that workers are not asked to assume work responsibilities that exceed their training and/or experience, unless they are first provided the training needed to perform the required functions.

(b) Government and employers have a reciprocal responsibility to ensure that workers are protected to the extent possible. For example, workers in critical industries at increased risk of infection should receive priority for available personal protective equipment, vaccinations, antiviral drugs, and other nonmedical control measures. All critical workers should receive behavioral health services and other goods or services needed to enable them to work. In addition, employers have a responsibility to ensure that workers are appropriately trained to fulfill the tasks assigned to them during a crisis.

Recommendation 3.2: Employers and contractors should design business continuity plans to prepare for events such as a pandemic. Plans should identify those positions that are critical to the continued operation of the industry and whether the job needs to be performed on-site or can be adequately performed off-site. Workers who would be required to work should be made aware of the expectation to work during events such as a pandemic upon hiring or upon the adoption of the plan. Employers and contractors should specify the supports that will be available to the critical workers to enable them to work, as well as the sanctions that will be enforced if critical workers fail to show up for work during a time of crisis.

Critical Infrastructure

As noted previously, US DHS has designated 17 key business and industrial sectors that are considered critical to the national infrastructure. However, these sectors are broad categories and do not adequately describe all of the specific businesses that are part of the critical infrastructure in a particular community. For example, US DHS lists "agriculture and food" as part of the critical infrastructure. However, US DHS does not specify which "food" businesses will be critical in the context of an influenza pandemic. Presumably, we will need farmers to continue to produce food and grocery stores to sell food during a pandemic. But will we need fast food organizations to continue their businesses as usual during a particularly virulent pandemic? Are all segments of the food industry "critical" to the functioning of society or should some organizations close or otherwise limit their contact with the public so as to prevent the spread of disease? The determination of which industries are critical in a particular community is a dynamic process that may change with the spread of the pandemic or depend on the epidemiology of the virus.

Government has the primary responsibility to determine the essential industries needed to maintain the basic functioning of society during a pandemic. However, businesses and industries have an independent responsibility to determine if they are essential to the community. Businesses and organizations should consider the effects not providing their services would have on the population in determining whether they are a critical industry. Businesses also may consider whether they can restructure their operations during a pandemic to help meet essential community needs. For example, rather than continue to provide food to the general public during a pandemic, fast food restaurants may consider working with governmental or community organizations to prepare and deliver food to homebound individuals and to utilize their drive-thru capacity. Regardless of whether an industry is considered "critical," all businesses and industries have a legal and a moral obligation to follow public health guidelines in order to minimize the spread of the disease.

Recommendation 3.3:

- (a) Federal, state, and local governments have the primary responsibility to identify the types of businesses that are essential to meet society's basic healthcare needs. Other businesses and organizations should also examine their services to determine if they provide essential goods and services for society.
- (b) During an influenza pandemic, organizations should prioritize the health of their employees and reduction of the spread of disease over the financial position of the organization.
- (c) Organizations have a duty to follow the recommendations, guidelines, and restrictions that public health and other government officials provide. For example, if social distancing measures are recommended, organizations not in critical industries should comply with these recommendations.

References

 Dept. of Homeland Security. National infrastructure protection plan, executive summary. Available at: http://www.dhs.gov/xprevprot/programs/editorial_0827.shtm. Accessed Jan. 17, 2007.