Coordinating Call Centers for Responding to Pandemic Influenza and other Public Health Emergencies

A Workbook for State and Local Planners

November 2009

The Oak Ridge Institute for Science and Education (ORISE) is a U.S. Department of Energy (DOE) facility focusing on scientific initiatives to research health risks from occupational hazards, assess environmental cleanup, respond to radiation medical emergencies, support national security and emergency preparedness, and educate the next generation of scientists.

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Coordinating Call Centers for Responding to Pandemic Influenza and Other Public Health Emergencies:

A Workbook for State and Local Planners

Prepared for

Centers for Disease Control and Prevention (CDC)
Division of Healthcare Quality Promotion (DHQP)

Prepared by

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About This Workbook

In October 2006 and March 2007, the U.S. Department of Transportation (DOT) National Highway Traffic Safety Administration (NHTSA) Office of Emergency Medical Services (OEMS) convened several stakeholder meetings to gather input and steer the development and clearance of two complementary guidance documents: *Preparing for Pandemic Influenza: Recommendations for Protocol Development for 9-1-1 Personnel and Public Safety Answering Points (PSAPs) and EMS Pandemic Influenza Guidelines for Statewide Adoption.* During these meetings, participants expressed an additional need to determine how 9-1-1 and Emergency Medical Services (EMS) would fit into the larger framework of public health and healthcare information lines. DOT/NHTSA and its partner U.S. Department of Health and Human Services (HHS) agencies concurred with those expressed concerns and agreed it would be beneficial to hold an additional meeting with an expanded group of stakeholders who provide healthcare or clinical information to the public via the telephone.

In further discussions convened by the Centers for Disease Control and Prevention (CDC) Division of Healthcare Quality Promotion (DHQP), CDC National Center for Health Marketing (NCHM), DOT/NHTSA, and the Agency for Healthcare Research and Quality (AHRQ), several issues were identified that could be addressed during the expanded stakeholder meeting. Prior to the meeting, CDC DHQP and the Oak Ridge Institute for Science and Education (ORISE) engaged subject matter experts involved in call center coordination, call center technology, and telephone triage to determine which of the identified issues were most critical. Discussions highlighted large disparities in the services call centers are able to provide at the state and local levels, and identified a need for improving resource identification and coordination of call centers in communities at various levels of planning.

Subsequently, an expanded stakeholder meeting was held in August 2008 to establish the framework for developing this workbook. The goal of the meeting was to identify the process for coordinating call centers during an influenza pandemic, identify issues and obstacles that may hinder the development of a coordinated call center system, and develop strategies to address these issues and obstacles. Following the meeting, ongoing discussions were held with these stakeholders throughout the development of this workbook. It must be noted here that, without the assistance of these stakeholders (see Appendix D) this workbook could not have been produced.

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Preface

A pandemic is a global disease outbreak. A flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity, and for which there may be no vaccine initially. Influenza viruses spread easily person-to-person, causes serious illness, and can sweep across the country and around the world in very short time.

It is difficult to predict when the next influenza pandemic will occur or how severe it will be. Wherever and whenever a pandemic starts, everyone around the world is at risk. Countries might, through measures such as border closures and travel restrictions, delay arrival of the virus, but cannot stop it.

A pandemic may come and go in waves, each of which can last for six to twelve weeks or more depending on the jurisdiction.

An especially severe influenza pandemic could lead to high levels of illness, death, social disruption, and economic loss. Everyday life would be disrupted because so many people in so many places become seriously ill at the same time. Impacts can range from school and business closings to the interruption of basic services such as public transportation and food delivery.

A substantial percentage of the world's population will require some form of medical care. Healthcare facilities and systems can be overwhelmed, creating a shortage of hospital staff, beds, ventilators and other supplies. Surge capacity at non-traditional sites such as schools may need to be created to cope with demand.

The need for vaccine, once developed, is likely to outstrip supply, and the supply of antiviral drugs is also likely to be inadequate early in a pandemic. Difficult decisions may be needed in a severe pandemic regarding who gets prioritized for antiviral drugs and vaccines and for medical attention.

Death rates can be determined by several factors: the number of people who become infected; the virulence of the virus; the underlying characteristics and vulnerability of affected populations; the availability and effectiveness of treatment and prevention measures; and the extent to which these measures are used in a timely fashion.

Introduction

If you had to make a telephone call for help during an emergency, what's the first number that comes to mind? It's 9-1-1, isn't it? Suppose a quarter or half of your community tried to call 9-1-1 at the same time or even over a short period of time.

What would happen then? Naturally, your community's 9-1-1 system would become completely overwhelmed and unable to respond to each request for help. Preventing such an unwanted scenario is the objective of this workbook and the goal of a coordinated call center system. In short, *the overall objective of developing a coordinated call center system is to divert unnecessary calls away from a community's 9-1-1 system and non-critically ill patients away from the healthcare system.* As will be explained later, this diversion will be accomplished in two ways: (1) educating the public to call the coordinated call center system directly and (2) designing the system so that your community's 9-1-1 system(s) can transfer calls to the system, thus moving calls off of the 9-1-1 network.

> The overall objective of developing a coordinated call center system is to divert unnecessary calls from a community's 9-1-1 system and non-critically ill patients away from the healthcare system.

The universal emergency number 9-1-1 is just one of many numbers that ties into what is termed a call center. Briefly, a call center is an interface (both human resource and technological) between an operator (either human or technological) and a caller seeking assistance or information. 9-1-1 and 4-1-1 are probably the more "traditional" call centers you recognize, but there are many more types of call centers operating within and outside of your community. For example, you may have a *poison center* or a *crisis hotline* or a *nurse advice line* operating in your community. These same call centers may be operating at a regional or state level. It is these additional call centers that you want to tap into to manage non-emergency calls (and perhaps some emergency calls) during an influenza pandemic or other major public health emergency in order to reserve your 9-1-1 and healthcare systems for those in critical need of medical services. Tapping into these additional resources for call management is how you develop a *coordinated call center system*. This workbook will lead you through a step-by-step process for developing this system.

One question that probably has come to your mind is, "Why should I develop a coordinated call center system?" The answer to this question is simple. It will be extremely beneficial to your community in more ways than you might expect. For example, consider the following benefits:

"Why should I develop a coordinated call center system?"

- **A coordinated call center system results in a "sharing of the load."** By coordinating call centers, no single entity accepts the "full load" of calls that would surge into a call center during an influenza pandemic or other major public health emergency. Instead, the management of calls is spread across multiple entities.

- **A coordinated call center system can be used for efficient allocation of community services and resources.** Because the system is a *coordinated* and *organized* effort among many agencies and organizations, services and resources can be allocated effectively and efficiently, rather than haphazardly as would be the result of an unplanned or disorganized effort.

- **A coordinated call center system will enhance public perception and trust of information being disseminated.** The public relies on information that is on time, up to date, consistent, and accessible. In developing your coordinated call center system, you will be ensuring that you can provide this type of information.

- **The development of a coordinated call center system makes an agency or organization consider its own planning requirements.** The development of a coordinated call center system requires planning efforts and input from a variety of agencies and organizations. It is during this planning effort that these agencies or organizations might realize that there are additional planning requirements they might not have considered, such as continuity of operations planning.

- **A coordinated call center system can be used as a disease surveillance tool.** Calls to the system can be monitored for "spikes" in disease reporting (or other emergency situations) in certain sectors of the community. Subsequently, the appropriate agencies could be alerted of the evolving situation.

Another question you're probably asking is, how does a coordinated call center system work? In a nutshell, it ties a network of call centers together to provide three services: (1) triage—sort by criticality—the call to determine where to route it, (2) triage the caller to determine the level of medical care needed, and (3) disseminate information to your community to keep it informed and up to date on the status of the pandemic and what to do or where to go to seek medical care. Additionally, your coordinated system could be tapped into by one of your neighboring communities that is short on resources.

At first glance, a coordinated call center system may look like it is human resource intensive. It doesn't have to be. Technology plays just as important a role as human resources in the system. In today's ever changing world of technology, there are many technological advances available for you to use. For example, Interactive Voice Response (IVR), Automatic Call Distribution (ACD), or Uniform Call Distribution (UCD) can serve as automated call routing systems. These are but three types of technologies available for you to use, and they, along with other technologies, are discussed in this workbook.

By now you may be thinking that developing a coordinated call center system is beyond your capabilities. You needn't think that way. This workbook was designed by a group of subject matter experts with the knowledge that each community differs in size and resource availability. It provides a step-by-step process to developing the system using existing community resources. It also provides strategies for overcoming resource shortages or other obstacles you may encounter. Even though you may think the task impossible to accomplish, this workbook shows you that there is, in fact, a way to accomplish it.

For those of you who live and work in communities with few or no resources, this workbook applies to you as well.

For those of you who live and work in communities with little or no resources, this workbook applies to you as well. You can still manage the task of developing a coordinated system with what is available in your community. You may have to possibly partner with a neighboring community. Or you may need to work with one or more private sector call centers. The point to be made here is that the steps and strategies outlined in this workbook can be scaled down to apply to even the most resource-strapped communities. You may have to "think outside of the box," but it can be done.

One thing you need to note is that this document is a *workbook*. It takes a hands-on approach to help you work through a step-by-step process for identifying and coordinating your community's call centers. It includes worksheets for you to fill out as you progress through each step of the development process. It also includes appendices of useful information. Consider this workbook to be your "teacher" as you work through the process.

On a final note, while the purpose of this workbook is to provide state and local planners with a framework for coordinating call centers during an influenza pandemic, such a framework is an extension of the "traditional" all-hazards approach to planning and preparedness. As such, the strategies for developing a coordinated call center system described in this workbook essentially could be used to mitigate most widespread public health emergencies, such as severe acute respiratory syndrome (SARS) or an anthrax attack.

Before You Begin

There are a number of "ground rules"—premises, principles, assumptions, predictions, and issues—that you need to review before you begin the task of developing your coordinated call center system. These will give you the proper mindset as you go about the task of developing your system.

Working Premise

This workbook was developed under the premise that, in most emergency situations, the public will use the telephone—landline, cell phone, or Internet phone— as their method of communicating with emergency response agencies for requests for information or services, and that, while communities differ in size and technological capabilities, all have access to, at the very least, basic telephone system(s). Therefore, when discussing the development of a coordinated call center system, the approach in this workbook will be to coordinate the community's basic communication capabilities and then branch out to other alternative technologies and strategies.

The concept of coordinating call centers is relatively new; therefore, developing a coordinated call center system is not an *exact science*. As such, some of the suggestions made in this workbook may work for some communities and not others. The key point is that this workbook provides the framework for a community to work with its existing resources to do the best job that it can do in developing a coordinated call center system.

Guiding Principles

As you move forward in developing your community's coordinated call center system, keep in mind these guiding principles which should serve as the foundation for your system's development:

1. **Developing a coordinated call center system is a relationship building exercise.** You need to engage your partners early in your development effort, and you will need to continue to engage them throughout the process. Additionally, as communities change or technology changes, you will need to continually look for new partners to incorporate into your system.

2. **When developing your coordinated system, you must work within your community's resources.** It is the intent of this workbook that a community work within its existing call center framework/system to coordinate calls for medical treatment, advice, or information during an influenza pandemic or other public health emergency. It is not the intent of the workbook to mandate that a community develop a new framework/system. For some communities, developing a new framework/system is not possible. Therefore, you must work with those call centers and human resources that are currently available to your community. For those instances where availability is lacking, this workbook provides strategies to address this issue.

3. **Developing a coordinated call center system takes time.** The steps outlined in this workbook cannot be worked through from start to finish in a short period of time. You must commit the requisite time to complete each step. Some steps may require only days while others may require weeks or even longer. In the end, the benefits of your time and effort commitment will be evident.

> Developing a coordinated call center system takes time and is a team effort.

4. **Developing a coordinated call center system is a team effort. You cannot tackle the task by yourself.** You need to assemble a knowledgeable team and delegate tasks. Since some steps or tasks outlined in this workbook do not have to be completed in order, you could delegate different steps or tasks to your team members and, as a result, save some time.

5. **Disseminating information is just as important as answering calls in a coordinated call center system.** One method to divert unnecessary calls from 9-1-1 and non-critically ill patients from the healthcare system is to disseminate information to the general public on who to call or what to do in certain situations. This information dissemination also serves to keep the public informed and as comfortable as can be expected with the situation at hand.

6. **The more educated and comfortable the public is with your coordinated call center system, the more likely they will be to adhere to the expectations you place on them.** In the face of a public health emergency, the public is predictable in their actions. They will use the communication mode that is most comfortable to them. They will do whatever it takes to get care for themselves and their loved ones. They will not accept medical information provided by the media as a substitute for direct interaction with a medical professional. Given this predictability, it would be in the community planner's best interest to inform the public of the scope and intent of the coordinated call center system from the

very start of the planning process and continuously—(and repeatedly)—educate them on this scope and intent as well as the expectations being placed on them.

7. **Although designed with the intent of lessening the impact of an influenza pandemic, your coordinated call center system also can be used to assist in the response to other emergencies.** You are not just designing a pandemic specific system. Your coordinated system can benefit your community in other emergencies as well.

8. **During an influenza pandemic (or other public health emergency) incident, your coordinated call center system will operate within the framework of your community's Incident Command System (ICS).** Your call center system will be an organized, coordinated effort. Likewise, ICS is an organized, coordinated approach to managing incidents, and has become a widely adopted (and sometimes required) approach to incident management across the country. It is extremely important that your system operate within the ICS framework.

During an influenza pandemic (or other public health emergency) incident, your coordinated call center system will operate within the framework of your community's Incident Command System (ICS).

Assumptions

The actual impact of an influenza pandemic on the United States is not known. As a result, current pandemic influenza planning efforts incorporate many assumptions about its predicted impact on a community. Some of these assumptions for a severe pandemic are shown below, and these assumptions were used in the development of this workbook. This workbook was developed prior to the 2009 H1N1 pandemic and does not include scenarios for a less severe pandemic such as this one where older adults are not susceptible and hospitalization and death rates are lower than in other pandemics.

- In an affected community, multiple waves (periods during which community outbreaks occur across the country) of illness could occur with each wave lasting six to twelve weeks. Historically, the largest waves have occurred in the fall and winter, but the seasonality of a pandemic cannot be predicted with certainty.

- Persons of all ages are susceptible to infection and the clinical disease attack rate likely will be 30% or higher in the overall population during the pandemic. Illness rates will be highest among school-aged children (about 40%) and decline with age. Among working adults, an average of 20% will become ill during a community outbreak.

- Many worried well and worried mildly ill persons will seek care who otherwise would not have sought medical care.
- In a severe pandemic, absenteeism in the overall population attributable to illness, the need to care for ill family members, and fear of infection may reach 40% during the peak weeks of a community outbreak, with lower rates of absenteeism during the weeks before and after the peak.
- Certain public health measures, such as social distancing and quarantine, are likely to increase rates of absenteeism.
- Federal and state resources will be limited, including those provided by the Strategic National Stockpile (SNS).
- Neighboring communities, which may usually assist during other types of emergencies (e.g., accept transfer of patients to their healthcare facilities or offer resources), will be unable to assist.
- There will not be a single, national call center number telling the public what to do and where to go for care.

There are also several assumptions with regard to the successful management and mitigation of the impact of an influenza pandemic. These are:

- The best strategy for healthcare preparedness for an influenza pandemic is to approach it from the community level first.
- There is not one single solution to managing and mitigating the impact of pandemic influenza; every community is different.
- In order to reduce panic and preserve critical resources for those in true need, information disseminated to the public must be up-to-date, on time, trustworthy, consistent, and accessible.
- Public health authorities (primarily federal and state) will provide guidance on how to treat patients and how to prioritize limited resources.
- Communities differ in their stages of pandemic influenza planning and preparedness and possess varied levels of existing call center infrastructures and technical options.
- Call centers are not the ultimate solution to managing and mitigating the impact of an influenza pandemic. They are but one mode of providing medical triage, allocating essential

resources, and disseminating information to the general public, and they will operate in concert with other information providers (e.g., the media and the healthcare system).

Predicted Impacts

Based on the above assumptions for a severe pandemic, it also can be logically assumed that all communities in the United States, whether large or small, will be impacted by an influenza pandemic. For these communities, there are several predictions about this impact that generally apply to a severe pandemic scenario, and some may apply to less severe scenarios..

- **Your community will be operating with less than optimal human resources.** The absenteeism rate for your call center employees and the healthcare system will mirror that of the general population (between 20% and 40%, depending on the timeframe of the pandemic).

> In the end, you may not get all that you need. In other words, you will be expected to do more with less.

- **Critical resources will be limited.** The use of federal and state resources will be limited. Neighboring communities will be unable to assist you as they might have been able to under normal circumstances.
- **Your community's healthcare system will be overwhelmed.** The combined impact of more people demanding healthcare attention with the predicted absenteeism rate in the general public, including healthcare personnel, may strain the healthcare system beyond its capacity.
- **Emergency Medical Services (EMS) and emergency care clinics will be unable to respond to all emergencies.** Absenteeism will impact these entities as well. That, coupled with the overwhelmed hospitals described above, makes the need for specific care assistance via the telephone vital to home caregivers. It also underscores the need for designing a system whereby calls can be transferred to and from 9-1-1 and other call centers to lessen the load on emergency responders and to meet the caller's needs.
- **Telephone and Internet systems may be strained by heavy usage.** Heavy Internet bandwidth usage will result from home use by both consumers and those who would be telecommuting. Telephone systems will be overloaded by people calling for help or information or simply keeping socially connected.

- **There will be strong competition for resources.** Because resources will be limited, your community may be in competition with other communities for the same resources. Additionally, organizations and agencies within your community may be in competition with each other for the same resources. In the end, you may not get all that you need. In other words, you will be expected to do more with less.

- **Basic needs and essential home care supplies may quickly be depleted.** In reality, most private residences have not established a home emergency response plan nor have they amassed the essential supplies to sustain them through an extended period of time. As a result, stocks of supplies in stores and pharmacies may quickly be depleted.

> In the end, you may not get all that you need. In other words, you will be expected to do more with less.

- **Other medical and non-medical emergencies will still occur.** People in your community will still need emergency services for emergencies unrelated to the influenza pandemic, such as heart attacks and injury. Your community will have to manage these emergencies in addition to the stress and strain placed on your healthcare infrastructure by the pandemic. In some cases, resources to meet basic needs, like food and water, may supersede the need for formal healthcare. For example, home health nurses may be confronted by homebound patients who are unable to get groceries.

- **Societal standards and mores are likely to change.** In the midst of an influenza pandemic event, community standards of prudency and decency may be lessened due to the impact of the pandemic. Such societal changes may bring new, unforeseen challenges to the community.

- **Patients who are ill will not understand—and thus will be confused and upset by—instructions to stay home rather than seek care in a formal setting.** The concepts of social distancing, isolation, and quarantine must be introduced early and reinforced at every opportunity. Otherwise, deep-rooted responses to illness are going to have to be changed under the worst of circumstances and at a time when the least support to explain and reinforce the required new behaviors will be available.

- **"Unofficial" news may be rampant and sensationalized.** Internet social networking tools, such as FaceBook, MySpace, and Twitter, may be used extensively by some members of your community which could result in the rapid spread of misinformation. Additionally, photographs of a sensitive nature that would not be shown by commercial media outlets may be posted to image-sharing Internet web sites.

- **People may begin to act on rumors.** Misinformation and the sensationalizing of events may lead to the spread of rumors. Some people may act irrationally based on these rumors, including breaking the law. This point should be remembered when you get into the information dissemination and public education portions of this workbook.

Current Issues

While developing this workbook, subject matter experts identified key areas that need attention from local, state, and federal agencies to improve the abilities of call centers to coordinate with each other and to respond during public health emergencies. A summary of these issues is provided below.

- **Liability Protection –** Currently, there are no federal guidelines on liability protection for those medical or non-medical personnel conducting triage over the telephone, either intrastate or interstate.

- **Licensing –** Legislation supporting the handling of calls across state boundaries, where it does exist, is inconsistent from state to state.

- **Reimbursement –** During an influenza pandemic, some call center personnel may be working "double duty" as a call taker in the coordinated call center system in addition to their normal job responsibility. Protocols for reimbursement to agencies or organizations for their staff time during activation of a coordinated call center system currently are not clear.

  Another issue with reimbursement is the requirement for resources that would be allocated or requested during an emergency to be approved and listed with the Federal Emergency Management Agency (FEMA) in order for reimbursement to take place. Currently, in most communities, the various "parts" of a coordinated call center system are not listed with FEMA.

- **Triage Decision Support Tools –** To date, decision support tools or procedures have not been established to guide call centers on how to conduct medical triage and patient classification during an influenza pandemic.

Overview

What is a Call Center?

Decades ago, a call center would have been defined as a centralized office or room where a team of trained personnel received or transmitted telephone calls from assigned work stations using the "traditional" telephone. Today, in the age of emerging technology and virtual modes of communication, a call center is much more than what it was decades ago. As stated earlier, it is an interface (both human resource and technological) between an operator (either human or technological) and a caller seeking assistance or information. It can be centrally located in an office building, it can be virtually located through Internet technology, or it can consist of operators at several locations connected through various forms of technology. It can provide call answering services, information dissemination services, or both. It can use the standard telephone as its mode of communication or it can use the Internet, text messaging, or video streaming to offer its services. The bottom line is that a call center is not what it used to be, and, as technology evolves, the criteria that define a call center will evolve as well.

The bottom line is that a call center is not what it used to be, and, as technology evolves, the criteria that define a call center will evolve as well.

Call Center Examples

While each community has call centers in place, the variety of call centers will vary from one community to the next. Your community may have an adequate call center infrastructure in place while your neighboring community may not. No doubt, both communities possess at least the "standard" 9-1-1 call center system. However, there are other types of call centers with which you may not be familiar and which may be available in your community. These are briefly described below.

- **N-1-1 Call Centers –** There are eight designated N-1-1 call centers available in some (but not all) parts of the country. 9-1-1 is just but one member of this group. The eight N-1-1 call centers are shown on next page.

2-1-1	A health and human services information and referral line operated by United Way and the Alliance of Information and Referral System's (AIRS') members. 2-1-1s maintain a comprehensive database of local, regional and national community resources, and are already managing many of the types of calls that you would receive. They have partnerships with local and state agencies and can direct calls to them. They also have the capability of managing non-English speaking callers and can be accessed 24 hours a day/7 days a week/365 days a year. To locate your nearest 2-1-1 Information and Referral Center, visit www.211.org.
3-1-1	A municipal services and information line. 3-1-1 allows city residents to obtain important non-emergency information services through a central, all-purpose phone number. It is not available in all communities.
4-1-1	A telephone directory assistance line. 4-1-1 service is provided by individual telephone service (landline and cell phone) providers at no charge per call or for a fee. Cell phone 4-1-1 service can provide directory assistance through text messaging as well as voice.
5-1-1	A transit and traffic information line. 5-1-1 offers a variety of information services: traffic reports, weather conditions, and airport information. It also allows users to report traffic accidents or request roadside assistance. 5-1-1 is operated by state Departments of Transportation. It is not available in all states.
6-1-1	A line to report problems with telephone service. 6-1-1 is not officially assigned by the Federal Communications Commission (FCC) but is generally recognized across the North American Numbering Plan (NANP).
7-1-1	A line dedicated to the hearing or speech impaired. 7-1-1 provides access to Telecommunications Relay Services (TRS), which permits persons with a hearing or speech ability to use the telephone system via a text telephone (TTY) [sometimes called a telecommunication device for the deaf (TDD)] or other device.
8-1-1	A public utility line. 8-1-1 is recognized as the call-before-you-dig number to get assistance in locating underground public utilities (e.g., power lines or gas pipes) when planning an excavation.
9-1-1	An emergency response number. 9-1-1 has been designated as the "Universal Emergency Number" for citizens throughout the United States to request emergency assistance. Enhanced 9-1-1, or E9-1-1, is a system which routes an emergency call to the 9-1-1 center closest to the caller, and automatically displays the caller's phone number and location. Legislation already has been passed in many states requiring cell phones to be compliant with local indexes for the enhanced 9-1-1 system. This means any cell phone that dials 9-1-1 should be able to identify its number to the system and be located within a hundred yards or less of where the call was made.

- **Poison Centers** – Poison centers (also known as Poison Control Centers) are normally staffed by physicians, nurses, pharmacists, and paramedics. They can be contacted via a nationwide, toll free telephone number (1-800-222-1222). A poison center may be located in your community or it may be situated elsewhere in your state.

- **Telephone Triage /Nurse Advice Lines** – Telephone triage lines/nurse advice lines are staffed by licensed healthcare professionals [usually registered nurses (RNs)] who help the caller determine the nature and urgency of their problem and direct them to the appropriate level of care. These lines may or may not incorporate a treatment component as well. Sometimes these lines are associated with health insurance companies or healthcare providers.

- **Health Information Lines** – As the name implies, health information lines provide information on relevant health topics. Some health information lines operate around the clock, while others are only activated in emergency situations.

- **Hotlines/Crisis Centers** – Hotlines/crisis centers are set up to provide specific information on specific topics. Some hotlines are activated when emergency circumstances warrant such a move. Examples of hotline topical areas are suicide prevention, HIV/AIDS awareness, and grief counseling. (Note: Some hotlines/crisis centers are operated by 2-1-1.)

Next Generation 9-1-1

The U.S. Department of Transportation (DOT) is promoting and supporting the implementation of Next Generation 9 1-1 (NG9 1-1) which will allow "callers to request emergency assistance by sending text, images, and video (in addition to voice) from several different kinds of access networks and communications devices." The transition from the current 9-1-1 configurations to NG9-1-1 will require temporary solutions to the compatibilities of old and new technologies interoperating with each other. If your community is transitioning to NG9-1-1, you and your Technology Team members (identified in the next section) may consider becoming involved in the implementation process to enable the interconnection of your coordinated call center system with the new NG9-1-1 system as it is being deployed.
For more information, see "Next Generation 9-1-1 (NG9-1-1) System Initiative Transition Plan."

http://www.its.dot.gov/ng911/pubs/USDOT_NG911_Transition_Plan_2009.htm#mozTocId598726

- **Communication Centers** – Communication centers operate inside and outside of healthcare settings. Customer service lines at a hospital or private business are examples of communication centers.

- **Answering Services** – Answering services answer a client's telephone calls and convey messages to the client.

- **Commercial Services** – Commercial services vary in their scope and capabilities. One such commercial entity is OnStar, which provides information or assistance to automobile drivers who subscribe to their service.
- **Other Call Centers/Services** – There are many other types of call centers to consider. Examples are:
  - *Governmental Call Centers* – Local, county, or state government call centers.
  - *Private Enterprise Call Centers* – A range of call centers that handle customer inquiries.
  - *Product/Service Ordering Centers* – Call centers that take phone calls to place orders for a product or service.
  - *Insurance Companies* – Call centers that provide information or make referrals.
  - *Non-Profit Organizations* – Call centers that provide a service specific to their target audience.

What is a Coordinated Call Center System?

For the purposes of this workbook, a coordinated call center system technologically interlinks the components or parts of the system (e.g., call centers, information lines, crisis centers, or other identified partners) to manage the surge of calls expected from an influenza pandemic or other public health emergency. The purpose of a coordinated system is to divert unnecessary calls to a community's 9-1-1 system and unnecessary visits to a hospital or other healthcare facility by members of the community. The system will achieve this goal by educating the public on what actions to take during an influenza pandemic or other public health emergency and who to call during the event.

The system most likely will be championed by the community's Public Health Department with assistance from its local Emergency Management Agency. It will rely on the knowledge, expertise, and direct involvement of several key disciplines within the community—such as its 9-1-1 and healthcare systems—to assist in the development and design of the system and to champion its cause.

An "ideally designed" system will have the capability to transfer calls directly to other call centers in the system to avoid requiring a caller to wait to be directed to the most appropriate call center in the system after his/her call has been answered. Additionally, it would be ideal for the system to have the capability to transfer appropriate caller information between call centers in the system.

How Do You Develop a Coordinated Call Center System?

The answer to this question is the basis for this workbook. How does a community develop a coordinated call center system? That question was posed to a team of subject matter experts, and their answers served as a basis for this workbook. From their input, a six-step process for coordinating call centers was put together. This process was adapted from the four-step process of the continuous improvement Plan-Do-Check-Act cycle. These six steps are outlined below, and a chapter in this workbook has been dedicated to discussion and explanation of each step.

Get Started Determine who you are going to involve in your planning effort. Establish your objectives for your coordinated call center system. Establish your concept of operations. Look at what other communities have done. Regroup and plan your path forward.

Step 1 *Determine Where You Are* – Conduct a community assessment. Look at the existing call centers in your community and determine their configuration. Assess existing technologies in your community and existing partnerships between community information centers.

Step 2 *Determine Where You Need to Be* – Identify the services your system will deliver. Identify the types of calls that will be received during an influenza pandemic. Estimate how many calls can be expected during an influenza pandemic. Identify who will be making these calls and what is required to manage them. Identify what capacity your existing call centers have for call management during an influenza pandemic. Determine if your existing call centers have this capacity for call management. Determine if your community has the parts needed to develop the system.

Step 3 *Determine How You Are Going to Get There* – Identify solutions to filling your gaps in call management and shortages in system parts. Identify obstacles to implementing these solutions. Identify strategies to overcome these obstacles.

Step 4 *Develop Your Coordinated Call Center System* – Identify the parts of your coordinated call center system. Determine how you will coordinate these parts. Determine if agreements need to be established between any of the parts of your system. Determine the needs of those involved in your system. Determine the role of the media in your system.

Step 5 *Launch Your Coordinated Call Center System* – Educate the public and your community partners about your system. Train those involved in your system. Determine how you will test your system.

Step 6 *Maintain Your Coordinated Call Center System* – Determine how you will monitor changes to your system and who will monitor them. Determine how and when to retest your system. Determine when to incorporate new technologies or call centers.

How Much is it Going to Cost?

That's the question you'll be asking yourself and others likely will be asking you as soon as they hear about your undertaking. It is beyond the scope of this workbook to give cost estimates or provide advice on how to secure government or other funding for developing a coordinated call center system. However, with the aid of your Planning Team members (identified in the next section), you should be able to put together an estimate based on information that you will be collecting from call centers you have identified as potential partners in the system. Your team members also should be able to direct you to available funding sources.

How Do You Work Through This Workbook?

This is a *workbook*. It is a hands-on document designed to guide you through the steps described above. As you progress through each step, you will be given specific tasks to complete. Each task will be accompanied by a worksheet for you to fill out, and each task will build upon the knowledge and information gathered from the previous step. Extra copies of the worksheets are located in the back of this workbook.

There is no time limit to working through this workbook. The size, the availability of resources and expertise, and the level of your community's preparedness will have an influence on how long it will take you to develop a coordinated call center system.

Prior to beginning the tasks outlined in this workbook, you should read through the entire workbook to get a sense of what is being asked of you and a team of subject matter experts and stakeholders that you will be asked to assemble. Once you get the overall picture of how to develop a coordinated call center system, you can get started with your first task, which is to identify this team. It begins on the next page.

Good Luck!

Getting Started

As stated in the Before You Begin section, you cannot develop a coordinated call center system by yourself. It is a task that requires a team effort. Therefore, your first undertaking in this workbook will be to identify your planning team. Following that, you will identify what you want to accomplish, define your concept of operations, and look at what other communities have done to see if you can adapt or adopt a system that they have developed. Once you have done that, you will regroup with your team to plan your path forward in the development of your coordinated call center system.

How to Approach Planning and Development

In simple terms, a coordinated call center system is a linkage of human resources and technology to make medical and non-medical determinations and disseminate medical and non-medical information. The system relies on coordination between multiple disciplines and functional areas. As a result, it also relies on the knowledge, expertise, and direct involvement of these disciplines and functional areas. As you are planning your coordinated call center system, there will be many questions that will need to be asked and answered. Bringing in representatives from these disciplines and functional areas is essential to getting these questions answered. Therefore, it is important that you include them in your planning effort, from the initial stage. The disciplines and functional areas you should include and the questions they can answer are:

- **Management/Oversight** – Who runs the coordinated call center system? Who is its manager or "commander?"
- **Operations** – How does a coordinated call center system operate? How do each of its individual parts operate?
- **Technology** – What technologies do call centers use? What technologies can be used to interlink and coordinate with other call centers?
- **Communications** – How do you manage public information dissemination? How do you interact with the news media?
- **Healthcare/Medical** – What healthcare or medical issues do you need to consider and address? For example, how do you conduct medical triage over the telephone?
- **Legal** – What legal issues do you need to consider and address? What legal or jurisdictional limitations will you encounter?

- **State/regional –** What resources are available at the state or regional level?

Once you have gone through the planning and development process with these entities, you may see the need to involve other entities, such as the business community and non-profit agencies. The need for input from these groups will become clearer as you progress through this workbook.

Identify Your Initial Planning Team

Your initial planning team should be made up of representatives of the seven disciplines and functional areas identified on the previous page. The types of representation you will want for each are suggested below. Please note that this is not an exact or all inclusive list. As you identify team members, they, in turn, may help you identify other potential members that may not be identified below.

Management/Oversight Team	
Representative	**What They Offer**
• City/county elected official(s)* * Elected officials to be involved will be determined by other members of Management/Oversight Team	• Leadership (they have the ability to get things done) • Knowledge of processes and protocols for requesting public funding • Ability to network with other political officials in other jurisdictions
• Public Health Officer • Public Health Pandemic Flu Planner/Coordinator	• Leadership (they will be the lead agency or co-lead agency of the system) • Knowledge of your local Incident Command structure for a public health emergency • Knowledge of planning protocols and strategies
• Emergency Management (EM) Manager/Director	• Leadership (they will be the lead agency or co-lead agency of the system) • Knowledge of your local Incident Command Structure from an EM viewpoint • Knowledge of emergency management protocols • Insight on logistical support (e.g., space and equipment) they can offer
• 9-1-1 Authority	• Knowledge of the overall 9-1-1 emergency response system
• Finance representative(s) from one of the Management/Oversight Team agencies (or other agencies as determined by the team)	• Knowledge of funding issues • Ability to track financial expenditures (for audit and reimbursement purposes) • Knowledge of inventory control

Operations Team

Representative	What They Offer
• 9-1-1 Call Center(s) • EMS Dispatch Manager • Public Safety Dispatch Manager • Operations Managers for: - Local N-1-1 call centers (e.g., 2-1-1) - Telephone triage/nurse advice lines - Health information lines - Hotlines - Crises centers - Local governmental call centers (e.g., 3-1-1)	• Knowledge of how various call centers operate • Insight on the management of emergency calls vs. non-emergency calls • Knowledge of call center configurations and call capacities • Insight as to how call centers might coordinate with each other

Technology Team

Representative	What They Offer
• City/county information technology (IT) representative • IT representatives from 9-1-1, Emergency Medical Services (EMS), and other call centers listed above • Telephone service provider representatives	• Knowledge of call center technologies • Insight on interoperability and coordination of technologies • Insight on emerging technologies

Communications Team

Representative	What They Offer
• Public Information Officers (PIOs) from Public Health, EM, and Healthcare • City/county Public Affairs officials	• Knowledge of public information dissemination (i.e., messaging and scripting) • Knowledge of the operations of a Joint Information Center (JIC)
• Public Affairs representative from local news media	• Avenue for educating the public about your coordinated call center system • Avenue for quickly disseminating information to the public during a public health emergency
• 2-1-1 Director	• Available in many communities as a resource • Knowledge of local resources • Avenue for providing feedback on community needs and gaps in community services

Public Health/Healthcare/Medical Team

Representative	What They Offer
• Pandemic Flu Planner/Coordinators (Public Health and Healthcare)	• Knowledge of pandemic flu planning protocols for Public Health and Healthcare settings
• Pandemic Flu Planner/Coordinators (Public Health and Healthcare)	• Knowledge of clinical triage decision support tools
• Disaster/Emergency Preparedness Coordinators (Public Health and Healthcare)	• Knowledge of disaster/emergency planning protocols for a healthcare setting
• Safety Director (Healthcare) • Emergency Services Director (Healthcare)	• Knowledge of hospital/healthcare facility capacities and surge protocols
• 9-1-1 Medical Director • EMS Medical Director	• Knowledge of medical triage and information dissemination in a call center setting

Legal Team

Representative	What They Offer
• Public Health attorney	• Knowledge of legal/jurisdictional restraints/issues with interstate or intrastate medical triage and treatment
• City/county attorney	• Knowledge of liability issues for city/county government

State/Regional Resources Team

Representative	What They Offer
• Poison Center Operations Manager*	• Knowledge of Poison Center capacities, capabilities, configurations, and protocols
• 2-1-1 Operations Manager*	• Knowledge of 2-1-1 capacities, capabilities, configurations, and protocols • Knowledge of local resources
• 5-1-1 Operations Manager*	• Knowledge of 5-1-1 capacities, capabilities, configurations, and protocols
• Telephone Triage/Nurse Advice Line Operations Manager*	• Knowledge of Nurse Advice Line capacities, capabilities, configurations, and clinical decision support tools

* Note: These call centers may be physically located in your community. If so, they should be added to your Operations Team.

Involvement of the Private Sector

You most likely noticed that the members of the teams listed above come from the emergency response, government, healthcare, medical, and public health sectors. Some communities have an abundance of resources from these sectors; others do not. For those communities with few resources, it will be necessary to involve members of the private sector. Should this need arise, the planner should focus on the seven disciplines outlined previously and identify private sector resources for each discipline. Remember, you have to work within your community's resources, and private sector resources may be more prevalent than the sectors listed above.

Once you have identified your initial planning team, you will want to get them together to discuss your coordinated call center system effort. However, "getting them to the table" may not be an easy task to accomplish. Table 1 below provides some tips on how to bring your initial planning team together.

Table 1 • Tips to Building a Solid Initial Planning Effort

1. Involve people who will already have buy-in to your proposition as well as those with whom you have a good working relationship. Also, involve these people in recruiting others to your team.
2. Begin with the easiest partnerships to leverage and those with the biggest stake in the results.
3. Involve those with "political savvy" who can bridge any political barriers that you may encounter.
4. Involve those community members who will bring experience, expertise, and influence to the table to make the coordinated call center system work.
5. Identify existing meetings or committees that can be used to facilitate initial planning discussions.
6. Conduct "executive-level" tabletop exercises or meetings to get buy-in from executive level decision makers.
7. Involve a state or regional representative who would be aware of similar activities by other communities and who could provide points of contact.
8. Involve existing call center managers and employees who could address physical and technical needs and functional challenges.
9. Tap into existing "healthcare coalitions" that are becoming a more common means of regional emergency planning, often involving not only hospitals but also other healthcare partners, such as blood banks, poison centers, clinics, and EMS.

Task GS.1

Using the worksheets on the following pages, identify your initial planning team.

Additional copies of these worksheets can be found in the back of this workbook.

Management/Oversight Team	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	

Management/Oversight Team	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	

Operations Team

Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	

Operations Team

Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	

Technology Team

Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Technology Team	
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Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Name:	
Title:	
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Telephone Number:	
E-mail Address:	
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Communications Team

Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Communications Team

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Telephone Number:	
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Organization:	
Telephone Number:	
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Public Health/Healthcare/Medical Team	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Telephone Number:	
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Public Health/Healthcare/Medical Team	
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Telephone Number:	
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Legal Team

Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Legal Team

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State/Regional Resources Team

Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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State/Regional Resources Team

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Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	

What are Your Planning Tasks?

Now that you have identified your initial planning team, what are your planning tasks? Successful planning efforts require clearly defined objectives and tasks and a pre-defined concept of operations. This effort also would benefit from determining whether others have already developed a similar system. Therefore, for your initial planning effort, you will want to accomplish the following three tasks:

1. Establish clear objectives for the coordinated call center system.
2. Establish your concept of operations.
3. Look at what other communities have done.

Once you have accomplished these three tasks, your team can move forward to the six-step process outlined in this workbook for coordinating your call centers.

Establish Objectives for Your Coordinated Call Center System

The *Introduction* section of this workbook states that the overall objective of developing a coordinated call center system is to divert unnecessary calls away from the 9-1-1 system and non-critically ill patients away from the healthcare system. What does this mean? What does it entail?

Establishing sub-objectives of the overall objective can clarify the task. For example, consider these three sub-objectives:

- Reduce calls to your community's 9-1-1 system by allowing 9-1-1 to route non-emergency (and some emergency) calls to other call centers that are adequately staffed and equipped to manage them.
- Accurately triage people with medical needs to direct them to the healthcare setting (traditional or alternative) that is best equipped to care for them, thus reducing surge on the healthcare system, mitigating transmission of disease, and maintaining the system for those who require face-to-face interaction with clinicians.

Don't Overlook the Primary Objective!

The primary objective of any call center system is to meet the needs of the caller. Therefore, as you go through the steps outlined in this workbook, you and your team must be committed to meeting the needs of the caller. As you consider the options and strategies presented to you in this workbook, you should always ask yourself, "How will this option or strategy meet or impact the needs of the caller?"

- Disseminate information to the public to direct them away from calling 9-1-1 and also to direct them on other actions to take (e.g., *Call a telephone triage/nurse advice line if you . . .*). Also, provide the public with information in advance so that they will not need to call to ask for it.

Through discussion with your planning team, you may have other objectives that you want to accomplish. Some examples are:

- Support community mitigation strategies to slow the spread of pandemic influenza.
- Assist people in meeting their essential needs (such as food, water, oxygen).
- Help people cope with mental health stresses.
- Track patients through the course of a major public health event.
- Provide "virtual healthcare" services during a major public health emergency.
- Assist with essential resource allocation (such as food, water, oxygen).
- Make recommendations for patient treatment that go beyond advice and triage.

Task GS.2

Using the worksheet on the following page, establish your objectives for coordinating your community's call centers.
An additional copy of this worksheet can be found in the back of this workbook.

Objectives for Your Coordinated Call Center System

Instructions: Write down your objectives for your coordinated call center system in the space provided below.

Objective #1	
Objective #2	
Objective #3	

Objectives for Your Coordinated Call Center System

Instructions: Write down your objectives for your coordinated call center system in the space provided below.

Objective #4	
Objective #5	

Identify Your Concept of Operations

Focus on Operations First!

There's a reason it's called Concept of Operations. The key to successfully designing a coordinated call center system is to focus first on your operational goals— what functions you want the system to perform and how calls will flow. Once you have done that, you can ask your Technology Team to help you "make it work." The point is that you should not design your system based solely on technology. The focus should be on operations!

A *Concept of Operations* basically is a high-level description of what you want your coordinated call center system to do. In other words, once the system is established, what will it look like? What services will it provide? Once you have described your "concept" for a coordinated call center system, your Concept of Operations can be used to further define how the system will operate as well as the roles of all participants. Additionally, it can serve as the basis for planning and implementing actions that will result in establishing the coordinated call center system. It also can serve as a benchmark for gauging the success of your efforts.

During an influenza pandemic, your coordinated call center system will operate within the framework of your community's Incident Command System (ICS). You are probably familiar with this term, but may not know exactly what it means. A brief explanation is provided in the box to the right. (See also Appendix A for more information on ICS.) This framework would be used for both small- and large-scale public health emergencies or incidents.

Within the ICS framework, an Incident Commander is designated to direct the management of the incident. For non-medical emergencies, the Incident Commander may be a representative from a police or fire department. For public health emergencies, a representative of your local public health department may be the designated Incident Commander. In your planning efforts, you will need to research your community's ICS structure to determine who will be directing the overall management of an influenza pandemic incident.

Additionally, during an influenza pandemic, your community will activate its Joint Information Center (JIC) (see Appendix B) or "information hub" to manage the public information needs of those in your community. The purpose of a JIC is to make sure that consistent information and messages are disseminated to the public and to the news media so that those responding to the incident are

Incident Command System

ICS is a standardized on-scene incident management concept designed specifically to allow responders to adopt an integrated organizational structure equal to the complexity and demands of any single incident or multiple incidents without being hindered by jurisdictional boundaries.

U.S. Department of Labor, Occupational Safety and Health Administration
http://www.osha.gov/SLTC/etools/ics/what_is_ics.html

"speaking with one voice" and perceived by the public to have the incident under control. Within an ICS structure, the JIC would be led by a designated Information Officer (IO) and would be staffed with representatives from local, state, federal, and private organizations, including your coordinated call center system. As you plan your coordinated call center system, you will need to identify your community's designated IO for an influenza pandemic and determine the aspects of your community's JIC within such an incident. You also will need to designate a Communication/Information Liaison to represent your system in the JIC.

While it is beyond the scope of this workbook to go into detail about ICS, there are several key points that you must determine in order to identify your concept of operations:

1. **Trigger(s) –** What set of circumstances during an influenza pandemic or other public health emergency causes ICS to be activated? What set of circumstances causes your coordinated call center system to be activated?

2. **Chain of Command –** Who activates your community's ICS? Who is the Incident Commander? Who activates your coordinated call center system? Who is the Call Center Commander?

3. **Operations* –** How does your coordinated call center get activated (i.e., how do its parts get set into motion)? How does it get scaled down as the pandemic threat subsides?

4. **Liaison(s) –** Who will represent the coordinated call center system in the JIC?

*These two Operations questions will need to be answered after you have identified the parts of your coordinated call center system in *Step 4 – Develop Your Coordinated Call Center System in this workbook.*

Joint Information Center

A Joint Information Center (JIC) is a co-located group of representatives from local, state, federal and private organizations designated to handle public information needs during an incident or event. The JIC is designed to fit naturally into the Incident Command Structure and can be customized to reflect the size of the incident or event. Establishing a JIC under the Incident Command System . . . can make the difference between the public perceiving your incident to be under control or out of control.

U.S. Coast Guard Public Information Assist Team

http://www.piersystem.com/go/page/771/15070/

Task GS.3

Using the worksheet on the following page, identify your concept of operations.
An additional copy of this worksheet can be found in the back of this workbook.

Your Concept of Operations

Instructions: After you have done your research on your community's ICS and JIC, identify these key components of your concept of operations.

Trigger(s)	
Chain of Command	

Your Concept of Operations

Instructions: After you have done your research on your community's ICS and JIC, identify these key components of your concept of operations.

Operations	
Liaison(s)	

Look at What Other Communities Have Done

Learn and Share!

As you and your team develop contacts with other groups doing similar planning or who have call center experience the mantra of both groups should be to learn and share to the highest degree possible.

Before you and your planning team begin developing your coordinated call center system, it would be beneficial to look at what other communities in your state, region, or across the country have done with regard to a coordinated call center system. The benefits are threefold. First, you may be able to adopt or adapt their framework to yours. Second, you will avoid spending many hours of time duplicating efforts. Third, you may gain insight into the lessons they learned, and you may be able to avoid making the same mistakes they made. So, take the time to do your research. It may well pay off in the long run.

Task GS.4

Using the worksheets on the following pages, list the other communities you have researched and what you learned from them.

An additional copy of this worksheet can be found in the back of this workbook.

Tip

While investigating what other communities have done, you may want to approach your neighboring communities to see if they would be interested in partnering with you by combining resources to develop a coordinated call center system. For small communities with limited resources, taking such action may be the best approach to ensuring a successful undertaking.

What Other Communities Have Done

Community:	Contact:
Phone Number(s):	E-mail Address:

Notes:

What Other Communities Have Done

Community:	Contact:
Phone Number(s):	E-mail Address:

Notes:

What Other Communities Have Done

Community:	Contact:
Phone Number(s):	E-mail Address:

Notes:

What Other Communities Have Done

Community:	Contact:
Phone Number(s):	E-mail Address:

Notes:

Regroup with Your Planning Team

Most likely, working through the tasks of this section has taken a fair amount of time. It is at this point that you should bring all of the members of your planning team together to review the work you have done thus far and to discuss the work that lies ahead. In particular, you will want to:

- Make sure that everyone understands your system's objectives and concept of operations.
- Review and discuss what you have learned from other communities.
- Develop a schedule for moving forward with the steps in this workbook.

The schedule you will develop for working through the steps outlined in this workbook is very important to the successful development of a coordinated call center system. It will lay out the tasks you and your team need to accomplish and the timeframe for accomplishing them. It also will identify champions who will make sure each task is completed according to its schedule.

With your Planning Team, look at the tasks called for in each step of this workbook and use the worksheet on the following page to outline your schedule for completing these tasks.

Task GS.5

Outline your schedule for developing a coordinated call center system.

An additional copy of this worksheet can be found in the back of this workbook.

Your Schedule for Developing a Coordinated Call Center System

Task Number	Task	Champion	Estimated Completion Date	Actual Completion Date	Comments
1.1	Identify call centers operating in your community.				
1.2	Survey your community's call centers to identify their configurations, technologies, and partnerships.				
2.1	Estimate how many calls your coordinated call center system can expect during an influenza pandemic.				
2.2	Catalog your existing call centers by criteria.				
2.3	Determine your call centers' capacity for call management.				
2.4	Identify shortages in the parts needed to develop your coordinated call center system.				

Your Schedule for Developing a Coordinated Call Center System

Task Number	Task	Champion	Estimated Completion Date	Actual Completion Date	Comments
3.1a	Identify possible solutions to your gaps in call management and shortages in system parts.				
3.1b	Identify obstacles that may prevent you from filling your gaps in call management or your shortages in system parts.				
3.1c	Identify strategies to overcome the obstacles to solutions of gaps in call management.				
4.1	Identify the parts of your system and briefly describe their roles and responsibilities.				
4.2	Diagram your coordinated call center system.				
4.3	Identify agreements or plans that need to be established.				
4.4	With the assistance of your Planning Team, determine which items need to be addressed further.				
4.5	Identify media outlets operating in your community by name, type, and target audience.				

Your Schedule for Developing a Coordinated Call Center System

Task Number	Task	Champion	Estimated Completion Date	Actual Completion Date	Comments
5.1	Integrate public education about your coordinated call center system into existing public education plans.				
5.2	Identify training needs for those involved in your system and delegate responsibility for developing and conducting this training.				
5.3	Establish a timeframe for conducting your coordinated call center systems' first tabletop exercise.				
6.1	Describe how you will monitor changes to your system and who will monitor it.				
6.2	Determine when you will retest your system.				
6.3	Determine who will monitor for new technologies, how they will monitor for them, and when new technologies will be incorporated into your system.				

You have completed Getting Started. Please proceed to the first step:

Step 1: Determine Where You Are.

Step 1: Determine Where You Are

The first step to coordinating your community's call centers is to set your community's benchmark or, in other words, perform a community assessment to determine what call centers are available to your community. This step involves identifying your existing call centers and assessing their configuration, technology, and partnerships for coordinating with each other.

Identify Call Centers Operating in Your Community

Depending on the size of your community and the availability of call center resources, for this task you can take one of two approaches. Either you can identify call centers operating in your community in two phases, starting first with those that operate within an emergency response, public health, healthcare, or medical framework and later identifying non-medical, non-emergency calls centers to bolster your system as needed. Or you can go ahead and identify all call centers operating in your community at the outset. For smaller communities with few call center resources, this latter approach would be more appropriate. The main point is that you don't want to exclude non-emergency, non-medical call centers or private sector call centers. They may have more to offer than you at first think. It is up to you and your team members to decide when to identify them and when to add them to your coordinated system.

With the help of your Planning Team, you should make sure that you have identified all pertinent call centers operating in your community. The list of call center types provided in the *Overview* section could be used as a guideline when identifying these call centers. It is important to note that representatives of any new call centers you identify should be added to your Planning Team.

Already Identified?

In the Getting Started section, you identified your Planning Team members. Many of these members are representatives of emergency response, public health, healthcare, or medically focused call centers. Some may be representatives of private sector call centers as well. Therefore, you may have already identified most of the call centers operating in your community. Additionally, as part of your planning effort, you have already identified state and regional call centers—such as 2-1-1 and Poison Centers—that are reachable by your community and should be included as call centers operating in your community.

Task 1.1

Use the worksheets on the following pages to identify your community's call centers.

An additional copy of this worksheet can be found in the back of this workbook.

Call Centers Operating in Your Community

Instructions: Identify the names and types (e.g., emergency response, public health, healthcare, or medical) of call centers that operate in your community.

Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	

Call Centers Operating in Your Community

Instructions: Identify the names and types (e.g., emergency response, public health, healthcare, or medical) of call centers that operate in your community.

Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	

Call Centers Operating in Your Community

Instructions: Identify the names and types (e.g., emergency response, public health, healthcare, or medical) of call centers that operate in your community.

Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	

Call Centers Operating in Your Community

Instructions: Identify the names and types (e.g., emergency response, public health, healthcare, or medical) of call centers that operate in your community.

Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	

Determine Their Configuration

Once you have identified the types of call centers currently operating in your community, you will need to determine their configuration. *Configuration* takes into account the following criteria:

- **Service(s)** – What services does the call center provide? Who is its target audience?
- **Expertise** – Is the level of expertise of the call center medical or non-medical? Are the call center's personnel licensed to practice in other jurisdictions?
- **Capacity** – How many calls can the call center manage?
- **Human Resources** – How many employees does the call center utilize? What are their training requirements?
- **Logistics** – Where is the call center located? What are its space requirements? What are its hours of operation?

Note

The rest of this section discusses identifying the configurations, technologies, and partnerships of your community's call centers. This identification process will be done by a questionnaire that you and your team members will distribute to these call centers. However, it is important that you understand what is being discussed on the next four pages so that you will gain a further understanding of the intricacies and variations of call center makeup.

Determining configuration will help team members learn each other's respective methods of operation and specific skill sets. It also will help identify roles and responsibilities within the coordinated call center system structure. Moreover, it will give team members an opportunity to learn things about other team members of which they may not have been aware.

Identify the Technologies Your Call Centers Utilize

Configuration also takes into account the technologies call centers use. Obviously, the telephone will be the primary mode of communication, but there are other types of technology that your community may be using either as a communication tool or to enhance telephone communication. Examples are:

- **Standard Telephone** –The commonly used landline (or analog) telephone which uses metal wire or optical fibers as a medium for transmission.
- **Cellular Telephones** – A mobile radiotelephone that uses a network of short-range transmitters located in overlapping cells throughout a region, with a central station making connections to regular telephone lines. Also called a mobile telephone.

- **Voice over Internet Protocol (VoIP) –** VoIP is a technology that allows telephone calls to be made over the Internet instead of the standard (or analog) telephone line. Some VoIP services may only allow calls to other people using the same service, but others may allow calls to anyone who has a telephone number, including local, long distance, mobile, and international numbers. Also, while some VoIP services only work over a computer or a special VoIP phone, other services allow the use of a traditional phone connected to a VoIP adapter. It should be noted that, while VoIP technology allows calls to be made over the Internet, a VoIP call to 9-1-1 still must be routed through the standard landline telephone network.

- **Interactive Voice Response (IVR) –** IVR is an automated phone system that allows a caller to make a selection from a voice menu using either a telephone's keypad or through a voice response. The system plays voice prompts that lead the caller through a series of menu options (e.g., *Press or say 1 for Customer Service*) to direct the call to the appropriate end point.

- **Automatic Call Distribution (ACD) –** As the name implies, ACD is a system that automatically distributes calls based on parameters set up by the host of the system. An example of an ACD is phone banks set up for a fundraising activity. Calls into the system are automatically routed to the first available call taker. ACDs usually incorporate IVR technology (e.g., *Press 1 for Medical, Press 2 for Information*).

- **Uniform Call Distribution (UCD) –** UCD uniformly distributes calls to one or more operators who have signed into the UCD system by directing an incoming call to the next available operator through a rotation of call lines. It has the capability of allowing existing telephones to be used as a call center through the operator joining the UCD system by dialing a code.

- **Text Messaging –** Also called Short Messaging Service (SMS), a means of sending short messages to and from mobile phones.

- **E-mail –** A system for sending and receiving messages electronically over a computer network, as between personal computers.

- **Internet Web Sites –** These sites are a set of interconnected Internet web pages, usually including a homepage, generally located on the same server, and prepared and maintained as a collection of information by a person, group or organization.

- **Satellite Telephones –** A type of mobile phone that connects to orbiting satellites instead of cellular telephone transmitters stationed on the ground. Depending on the architecture of a particular system, coverage may include the entire Earth, or only specific regions.
- **Mobile Radios –** Radio communication in which the transmitter is installed in a vehicle, vessel, or airplane and can be operated while in motion.
- **Facsimile (Fax) Machines –** An electronic device that can receive and print out text and pictures over a telephone line.

One term used in conjunction with technology is *interoperability*. This term refers to, in this case, the ability of your call centers' technologies and communication systems to interface and communicate with each other without special technical effort. For example, some call centers use private vendor provided systems that may not interface with systems provided by a competing vendor. In such cases, additional software or systems may need to be installed, and this technology is currently available. Thus, when looking at your call centers' existing technologies, ask if they are interoperable with other technologies that other call centers use. If not, get your Technology Team members to research ways to overcome this obstacle.

Identify Partnerships Your Call Centers Have with Other Call Centers for Coordinating with Each Other

Some of the call centers in your community may have agreements with other call centers or service providers to manage their calls in certain situations. You will need to identify those agreements that are in place in order to make sure that you are aware of what responsibilities people already have in place to support one another in a disaster or other large event. There are three types of formal agreements that you will be identifying. These are:

1. **Mutual Aid Agreements (MAAs) –** Written agreements among and between agencies and/or jurisdictions in which they agree to assist one another upon request by furnishing personnel and equipment.
2. **Memoranda of Agreement (MOAs) –** Written agreements among and between agencies and/or jurisdictions in which they agree to cooperatively work together within a specified scope and criteria in certain situations. MOAs can be legally binding documents.
3. **Memoranda of Understanding (MOUs) –** Written documents between agencies and/or jurisdictions outlining agreements and expectations of these parties in specified situations. MOUs may or may not be legally binding.

The context and content of MAAs, MOAs, and MOUs vary from community to community due to jurisdictional and legal requirements. You will need to look at each individual agreement within your community to determine the context and content of these agreements along with any limitations posed due to jurisdictional or legal requirements. Additionally, a variety of informal agreements among call centers and service providers may exist that may be important to understand so as not to place current relationships in jeopardy. The nature of previous relationships—positive and negative—may impact future activities, unless strategies are developed that take current and past relationships into account.

Survey Your Community's Call Centers

On the previous pages, three tasks were discussed with regard to the call centers identified in Task 1.1:

1. Determine their configuration.
2. Identify the technologies they use.
3. Identify partnerships they have for coordinating with other call centers.

The easiest way to accomplish these tasks is through a questionnaire that you can use to collect information over the telephone or via mail or e-mail. The questionnaire is shown on the following pages. (An additional copy of the questionnaire can be found in the back of this workbook.) Once these questionnaires have been completed, you will have a "snapshot" of your community's call centers' configurations. You also will have collected important factors to consider when working through the remaining steps in this workbook.

Time Consuming? Maybe Not!

As pointed out earlier in this section, many—if not all—call centers operating in your community are represented on your Planning Team. If so, you can distribute the questionnaire directly to them for completion at your initial planning meeting or subsequent meetings, thus speeding up the process of surveying your community's call centers.

Task 1.2

Survey your community's call centers to identify their configurations, technologies, and partnerships.

An additional copy of this survey can be found in the back of this workbook for photocopying.

Community Call Center Questionnaire

The purpose of this questionnaire is to gain an understanding of the functional and operational aspects of our community's call centers in order to determine their possible incorporation into a coordinated call center system that we are developing. The purpose of this system is to divert non-emergency calls from our 9-1-1 system and non-critical patients away from our healthcare system during an influenza pandemic or other public health emergency. This objective will be accomplished by routing non-emergency calls to other qualified call centers and disseminating information to the public to direct them on what actions to take. The information you provide will be used to determine if your call center can be incorporated into this system and, if so, what role it would play. This information will not be disseminated outside of our Planning Team.

General Information

Call Center Name/Type/Phone Number:

_____

_____

Hours of Operation:

_____

_____

Address (if a physical location):

_____

_____

_____

Call Center Manager or Primary Contact:

_____

_____

_____

Configuration

What services does your call center provide? What types of information do you provide to callers?

_____

_____

_____

Does your call center provide medical information? ❑ Yes ❑ No

Does your call center perform medical triage? ❑ Yes ❑ No

What is the context of medical information or medical triage that your call center provides?

_____

_____

_____

_____

What types of people typically call your call center? Who is your target audience?

_____

_____

_____

_____

What is your service area? Where do the majority of your callers live?

_____

_____

What is the average number of calls your center receives each day?

_____

_____

What is your call center's capacity (i.e., what is the most number of calls your call center can manage at one time)?

_____

_____

What do you estimate to be the maximum daily volume your call center could manage?

_____

_____

How many staff does your call center have?

Full-Time	Part-Time

How do you define full-time?

_____ hours per _____

How do you define part-time?

_____ hours per _____

How many staff work each shift?

Full-Time	Part-Time

How many licensed physicians, nurses, or other medical professionals do you have on staff?

Physicians	RNs	LPNs/LVNs	Unlicensed Personnel
Full-time:	Full-time:	Full-time:	Full-time:
Part-time:	Part-time:	Part-time:	Part-time:

If you use other medical professionals, what is their title and level of medical expertise (e.g., Physician's Assistant)?

_____

_____

_____

_____

What is the role of licensed physicians, registered nurses, or other medical professionals in your call center?

_____

_____

_____

_____

How long is a typical shift?

_____

_____

_____

What training is required before staff members can take calls at your center?

_____

_____

_____

_____

_____

On average, how long does it take a new employee to complete training before he/she begins taking calls?

_____

_____

_____

_____

_____

Does your call center use volunteers? If so, from where do you recruit them, how many are available to your call center, and what is their role?

_____

_____

_____

_____

_____

FUNDING

How is your call center funded?

_____

_____

_____

What protocols do you have in place to charge for and be reimbursed for out of ordinary or extra services performed in conjunction with an emergency effort such as the activation of a coordinated call center system?

_____

_____

_____

What are your call center's non-recurring costs (e.g., costs for installation of telephone lines and purchase of equipment or furniture)?

_____

_____

_____

What are your call center's recurring costs (e.g., monthly costs of telephone lines, rent, utilities, and insurance)?

_____

_____

_____

What are your call center's operational costs (e.g., salaries and supplies)?

_____

_____

_____

TECHNOLOGY

What technologies are employed by your call center (e.g., standard telephones, Voice over Internet Protocols, Automatic or Uniform Call Distribution, Interactive Voice Response, or IP Networks)? Please be as specific as possible.

_____

_____

_____

_____

_____

What technologies are compatible with your call center (e.g., do you communicate with your target audience using standard, cellular, or satellite telephone or through text message, internet, or fax)?

_____

_____

_____

_____

Does your call center have technology that allows staff to take calls from home? If so, please describe this technology and how many staff would be able to work from home?

_____

_____

_____

_____

Is your call center able to communicate with individuals who are visually or hearing impaired or those whose primary language is other than English? Please describe technologies employed to communicate with these consumers?

_____

_____

_____

_____

Does your call center have the capability to transfer calls to 9-1-1? If so, briefly describe the process for this transfer.

_____

_____

_____

_____

Please describe other call centers to which you have transferred (or can transfer) calls. Please describe other call centers that have transferred (or can transfer) calls to your call center.

_____

_____

_____

_____

_____

Partnerships

Does your call center routinely redirect calls to another call center? If so, where are calls redirected and under what circumstances?

_____

_____

_____

_____

_____

_____

_____

_____

_____

Does your call center have any formal agreements (MAAs, MOAs, MOUs) in place with other call centers to share resources? If so, please describe these agreements and how they are used or might be used during a disaster scenario if your call center is overwhelmed with calls?

_____

_____

_____

_____

_____

_____

_____

_____

_____

Planning

Does your call center have a disaster recovery plan? ❑ Yes ❑ No

Does your call center have a Continuity of Operations Plan (COOP)? ❑ Yes ❑ No

Expanded Role

In addition to the services that your call center currently provides, please indicate the services it can provide if needed during an influenza pandemic or other public health emergency.

Call Routing – Manual (Operator Assisted) ❑ Yes ❑ No

Call Routing – Automated ❑ Yes ❑ No

Caller Triage – Medical ❑ Yes ❑ No

Information Dissemination – Medical ❑ Yes ❑ No

Information Dissemination – Non-Medical ❑ Yes ❑ No

In addition to the types of calls your call center currently manages, please indicate the types of calls your call center can manage if needed during an influenza pandemic.

Medical/Emergency ❑ Yes ❑ No

For example, people critically ill with influenza, heart attack sufferers, or severe accident victims.

Medical/Non-Emergency ❑ Yes ❑ No

For example, chronic disease management, acute illnesses with moderate/mild symptoms, minor accidents or injuries, "worried sick," or "worried well" calls.

Non-Medical/Emergency ❑ Yes ❑ No

For example, fires, law enforcement calls (e.g., robberies and acts of violence), or weather related emergencies.

Non-Medical/Non-Emergency ❑ Yes ❑ No

For example, reports of minor service interruptions or requests for information and services.

In addition to the expertise your call center personnel offer on a day-to-day basis, please describe other areas where their expertise may be of use in a call center during an influenza pandemic or other public health emergency.

_____

_____

_____

_____

_____

_____

You have completed the questionnaire! Thank you for your input and support!

You have completed Step 1: Determine Where You Are. Please proceed to the next step:

Step 2: Determine Where You Need to Be.

Step 2: Determine Where You Need to Be

Now that you've established your community's benchmark, your next step is to determine where your community needs to be with regard to pandemic influenza and a coordinated call center system. First, keeping your Concept of Operations in mind, you will identify your system's functional call management requirements. After identifying these functions, you will look at the criteria for managing calls during an influenza pandemic, and you will catalog your existing call centers by those criteria. From those tasks, you will be able to determine where you have gaps in call management and shortages in the parts needed for your system. As these gaps are filled and your functional requirements are established, you will be able to objectively measure your progress in establishing a coordinated call center system.

What Services Will Your Coordinated Call Center System Provide?

As stated in the *Introduction* section to this workbook, your coordinated call center system will be expected to provide three services:

1. **Triage calls into the system.** Your system will operate as a "router" of calls to designated call centers that are qualified and capable of managing the call.
2. **Triage the caller.** A "sector" of your system will offer medical triage of those seeking medical care for influenza, other diseases, or other emergencies.
3. **Disseminate information.** Your system will be tasked with answering questions and providing mass dissemination of information to the general public or certain groups or subgroups within your community through a variety of channels, such as a web site, a telephone, or e-mail.

Medical triage over the telephone is regulated by state law, and such legislation varies from state to state. You must consult your Legal Team to determine who (e.g., registered nurse, physician, or other medical professional) is allowed to conduct medical triage over the telephone in your state. Additionally, if there is the likelihood that your coordinated call center system will be managing calls from a neighboring state, you will need to investigate current legislation that allows or prohibits interstate telephone triage and medical practice.

What Types of Calls Will Be Received During an Influenza Pandemic?

Just what types of calls will your coordinated call center system receive during an influenza pandemic? There are four types that will come into the system:

- **Medical/Emergency** – For example, people critically ill with influenza, heart attack sufferers, or severe accident victims.
- **Medical/Non-emergency** – For example, chronic disease management, acute illnesses with moderate/mild symptoms, minor accidents or injuries, or "worried well" calls.
- **Non-medical/Emergency** – For example, fires, law enforcement calls (e.g., robberies and acts of violence), or weather related emergencies.
- **Non-medical/Non-emergency** – For example, reports of minor service interruptions or requests for information and services.

How Many Calls Can Be Expected During an Influenza Pandemic?

In the *Introduction* to this workbook, a working premise was given. The premise was that, in an emergency situation, the public will use the telephone as their primary method of communicating with emergency response agencies for requests for information and services. So, if your community were to only communicate with your coordinated call center system by telephone, how many calls could be expected during an influenza pandemic? There is not an exact answer to this question because there are many factors and criteria to consider when determining the number of calls that might be received during an influenza pandemic. For example, the severity of the event, the public's perception of risk during the event, and the length of the event need to be considered. Suffice it to say that your system will be contacted much more than you might expect.

Don't Forget!

Other medical and non-medical emergencies will still occur in your community. People will still need emergency services for emergencies unrelated to the influenza pandemic, such as heart attacks and injuries. So, remember, the numbers of calls shown in Table 2 (on the next page) are in addition to the calls that the parts of your system would manage on a "normal" day.

To give you an example, consider the information provided in Table 2 below which shows the number of *additional* calls your system could expect under differing public perceptions of risk when the expected length of each pandemic wave is 60 days and the telephone is the only method of communication used to contact you.

Table 2 • Hypothetical Model of Number of Additional Telephone Calls to Expect*					
If the population size of your community is:	You can expect to receive this many ADDITIONAL telephone calls per day in which staffing resources will be required if this percentage of your community needs to contact you:				
	10% **	20% **	30% **	40% **	50% **
10,000	12	23	35	47	58
25,000	29	58	88	117	145
50,000	58	116	175	233	292
100,000	117	233	350	467	583
250,000	292	583	875	1167	1458
500,000	583	1167	1750	2333	2917
1,000,000	1167	2333	3500	4667	5833
Assumptions:	1. The telephone will be the only means of communication used to contact your coordinated call center system. 2. Each pandemic wave will last 60 days.				

* Based on the Rocky Mountain Regional Health Emergency Assistance Line and Triage Hub (HEALTH) Model (http://www.ahrq.gov/research/health/health.asp)

** Denotes the public's perception of risk, shown in the percentage of people in your community who may need to contact you.

How many additional calls can your community's coordinated call center system expect to receive during an influenza pandemic? You and your planning team members will need to estimate this number, and you can use the above criteria as a guideline. This estimate will help you to determine later in this section your system's capacity for call management.

Task 2.1

Estimate how many additional calls your coordinated call center system can expect during an influenza pandemic. *(Write your estimate in the box below.)*

My community's coordinated call center system can expect to receive this many additional calls during an influenza pandemic:	

Reducing the Number of Calls

For this section, you are operating under the premise that the telephone will be the only communication method available to you. However, as you will see in the next section, there are other means of communication and other strategies you can incorporate to reduce the number of calls into your system.

Who Will Be Making These Calls?

At first glance, the answer to this question would be, "Everyone!" However, you need to give the question extra thought, because "everyone" in your community comprises many groups and sub-groups of people. Consider the list in Table 3 below. As you review the list, you will see that each listed group has particular communication and service needs.

Table 3 • Examples of People Who Will Be Calling Your Coordinated Call Center System

- General public
- Elderly (assisted living, nursing homes, and in-home care)
- Expectant mothers
- Parents with sick children
- Students
- "Worried well"
- "Worried sick" (i.e., persons with mild illness)
- Prisons/detention centers
- Homeless/marginally housed populations
- Tourists/travelers
- Immigrants/non-English speaking populations
- Other special needs populations
- Mental health/behavioral challenged
- Hearing/vision impaired

Note

Within your community, there are agencies or groups that deal with these populations on a day-to-day basis. These agencies or groups may operate at the local, regional, state, or national level. They can provide you with insight on issues or obstacles associated with communicating with these populations. You should engage these agencies or groups early in your planning and development efforts, and you should incorporate them into your coordinated call center system, as appropriate.

What is Required to Manage These Calls?

Call management falls into the three categories identified on the previous page: route calls, triage the caller, and disseminate information. For each of these categories, there will be certain technological and human resource needs. Examples of these are shown in Table 4 below.

Table 4 • Examples of Technological and Human Resource Needs for Call Management

Category	Technology	Human Resource
Route Calls	• Interactive Voice Response (IVR) • Automatic Call Distribution (ACD) • Uniform Call Distribution (UCD)	• A trained operator, if it is to be done manually
Triage the Caller	• IVR	• Registered nurse • Licensed physician • Other medical professional (as allowed by state law)
Disseminate Information – Medical	• IVR	• Appropriately trained medical personnel
Disseminate Information – Non-Medical	• IVR	• Appropriately trained non-medical personnel

What Capabilities Do Your Existing Call Centers Have for Call Management During an Influenza Pandemic?

To summarize what has been discussed thus far in this section, during an influenza pandemic, there are four criteria to consider for determining a call center's capability for call management:

1. **Service(s) –** Does/can the call center provide call routing, medical triage, or information dissemination?
2. **Call type(s) –** Does/can the call center manage medical, non-medical, emergency, or non-emergency calls?
3. **Expertise –** Does/can the call center employ licensed physicians, registered nurses, or other medical professionals?
4. **Call Capacity –** What is the call center's average daily call volume? How many calls can the call center manage at one time? What technologies does the call center use?

In order to determine your call centers' capabilities for call management, look at the configurations of your community's call centers that you identified in Task 1.2 (the call center questionnaire). Next, catalog these call centers by the four criteria identified above.

Task 2.2

Using the worksheets on the following pages, catalog your existing call centers by criteria.

An additional copy of this worksheet can be found in the back of this workbook.

Step 2: Determine Where You Need to Be

A Catalog of Your Community's Call Centers by Criteria

Instructions: Put a check mark (√) by the services, call types, and expertise the call center currently provides. Put a dot (•) by the services, call types, and expertise the call center can provide if needed. Write in call capacities and technologies used.

	Services			Call Types				Expertise			Call Capacity			
Call Center Name	Call Routing	Medical Triage	Information Dissemination	Medical/Emergency	Medical/Non-Emergency	Non-Medical/Emergency	Non-Medical/Non-Emergency	Licensed Physician	Registered Nurse	Other Medical Professional	Average Daily Call Volume	Simultaneous Call Capacity	Estimated Maximum Daily Call Volume	Technologies Used

A Catalog of Your Community's Call Centers by Criteria

Instructions: Put a check mark (√) by the services, call types, and expertise the call center currently provides. Put a dot (•) by the services, call types, and expertise the call center can provide if needed. Write in call capacities and technologies used.

	Services			Call Types			Expertise			Call Capacity			
Call Center Name	Call Routing	Medical Triage	Information Dissemination	Medical/Emergency	Medical/Non-Emergency	Non-Medical/Emergency	Non-Medical/Non-Emergency	Licensed Physician	Registered Nurse	Other Medical Professional	Average Daily Call Volume	Simultaneous Call Capacity	Estimated Maximum Daily Call Volume	Technologies Used

Do Your Existing Call Centers Have the Capacity to Manage Calls During an Influenza Pandemic?

To restate this question, can your community's call centers manage the number of additional calls that can be expected during an influenza pandemic *in addition* to their normal daily load? This is a tough question to answer because you will have to rely on three estimates that have been made—average daily call volume, number of additional calls expected, and maximum daily volume. In order to determine if your existing call centers do have the capacity to manage calls during an influenza pandemic, you need to look at the worksheets you filled out for Tasks 2.1 and 2.2.

Task 2.3

Determine your call centers' capacity for call management. Using the worksheets from Tasks 2.1 and 2.2, enter the appropriate data in the right hand column in the table below.

Your Call Centers' Capacity for Call Management	
Average Daily Call Volume of All Call Centers (Totaled from the Average Daily Call Volume column in Task 2.2)	
Estimated Number of Additional Calls Expected (From Task 2.1)	
Total Estimated Call Volume During an Influenza Pandemic (The sum of average daily volume and estimated number of additional calls expected)	
Estimated Maximum Daily Call Volume of All Call Centers (Totaled from the Estimated Maximum Daily Call Volume column in Task 2.2)	
Difference (Subtract estimated maximum daily call volume of all call centers from total estimated call volume during an influenza pandemic)	

If the *Difference* box above is a positive number, this is your gap in call management capacity. If the *Difference* is a negative number, then your call centers *may* have the capacity to manage calls. The term *may* is used because, while call centers have maximum capacities at which they can operate, there are factors that may influence this operating capacity, such as costs of staff and equipment as well as hours of operation. Some of your call centers may not be able to operate at maximum capacity for the predicted length of an influenza pandemic.

Plan Ahead!

You should assume that, in a severe pandemic, your system will be overloaded with calls. Your Operations Team and Technology Team should develop a plan to manage or mitigate this anticipated overload prior to an actual pandemic event.

The next step in this workbook will focus on filling your gaps in call management, which should be considered even if your existing call centers *may* have the needed capacity for call management.

Does Your Community Have the Parts Needed to Develop a Coordinated Call Center System?

The other three criteria in Task 2.2—Services, Call Types, and Expertise—represent the *capabilities* of your existing call centers. They also make up the *parts* of your coordinated call center system, which are:

1. **Entry Point(s)** – The "central" phone number(s) or call center(s) the public will call in order to enter your system and then be routed to triagers or disseminators.
2. **Router(s)** – The system to distribute incoming calls to triagers or disseminators. This system could be technological or manual (operator assisted) or a combination of both.
3. **Triagers** – Medical professionals to conduct medical triage and make medical determinations.
4. **Disseminators** – Trained personnel to provide medical or non-medical information to callers.

Take a Moment to Jump Ahead

At this point, it will be necessary for you to jump ahead in this workbook to get an idea of what your coordinated call center system will look like. Go to Step 4: Develop Your Coordinated Call Center System (on page 109) and review the sub-steps outlined to see what is required of you and your Planning Team with regard to developing your coordinated system. Once you understand Step 4, look back at your worksheets from Task 2.2 (A Catalog of Your Call Centers by Criteria) and, with the input from your Planning Team members, determine the parts of your system. From this determination, you will discover whether your community has the parts needed to develop a coordinated call center system and, as a result, you will discover where you have shortages in these needed parts.

Does your community have the parts needed to develop a coordinated call center system? Look back at your worksheet for Task 2.2. Are there shortages of the needed parts? Use Table 5 to assist you.

Table 5 • Identifying Shortages in Parts	
Ask yourself and your team members the following questions to determine your shortages in parts for your coordinated call center system.	
Do we have one or more call centers that can act as an entry point into the coordinated call center system?	❑ Yes ❑ No
Do these entry points have the capacity to accept and route large numbers of calls?	❑ Yes ❑ No
Is there a sufficient number of call centers that offer medical triage or can disseminate medical information?	❑ Yes ❑ No
Is there a sufficient number of call centers that can managed general information calls or disseminate non-medical information?	❑ Yes ❑ No

For those questions you answered *No* in Table 5, use Task 2.4 to list the shortages you identified for those specific parts of your system.

Task 2.4

Identify your shortages in the parts needed to develop your coordinated call center system.

An additional copy of this worksheet can be found at the end of this workbook.

Your Shortages in Coordinated Call Center System Parts	
Entry Point(s)	
Routers	

Your Shortages in Coordinated Call Center System Parts	
Triagers	
Disseminators	

You have completed Step 2: Determine Where You Need to Be.
Please proceed to the next step:

Step 3: Determine How You Are Going to Get There.

Step 3: Determine How You Are Going To Get There

The first two steps in this workbook have been your pre-planning steps. Now it is time to look at how you're going to move your community forward toward a coordinated call center system. In this step you will look at solutions to filling the gaps in call management and shortages in system parts that you identified in the previous step. Additionally, you will look at the obstacles your may encounter while filling these gaps and shortages, and you will develop strategies to overcome these obstacles. Once you have completed all of these tasks, you can move into the developmental phase of your coordinated call center system, which is covered in Step 4.

Identify Solutions to Filling Your Gaps in Call Management and Shortages in System Parts

The gaps and shortages that you identified in both Task 2.3 *(Your Gaps in Call Management)* and 2.4 *(Your Shortages in Coordinated Call Center System Parts)* basically fall into two categories: capacities/capabilities and expertise/services. How can you fill these gaps or shortages? This question was posed to a group of subject matter experts. Their overall suggestion was to expand the configurations of your existing call centers. Their particular suggestions for filling in your gaps and shortages are shown in Table 6 below.

Table 6 • Suggested Solutions for Filling Gaps in Call Management and Shortages in System Parts	
Category	**Suggested Solutions**
Capacities/Capabilities	• Add telephones • Add telephone lines • Add work stations • Use existing, unused telephone extensions • Leverage those calls centers that possess the technology to manage large numbers of calls • Incorporate new technology that allows for expansion of call capacity • Incorporate new technology that allows for automated call routing and voice scripts (e.g., Interactive Voice Response)
Expertise/Services	• Use professionals who will be displaced by an influenza pandemic (e.g., school nurses) • Use your local Medical Reserve Corps or American Red Cross health services volunteers • Use personnel from organizations that interact with special needs or at-risk populations • Use displaced workers (e.g., teachers) to work in a call center • Use your community's volunteer organizations as a source for human resources

At the end of this section, you will find a worksheet for each of the two categories listed above. The purpose of these worksheets is to help you and your Planning Team think through and work through the hurdles you may encounter as you develop your coordinated call center system. Each worksheet has space for writing in the gaps in call management and the shortages in system parts you identified in Tasks 2.3 and 2.4. Each worksheet also provides space for writing in possible solutions to these gaps and shortages. Please proceed to these worksheets and write in the gaps in call management and shortages of system parts you identified in Tasks 2.3 and 2.4. Following that, please write in your possible solutions to each identified gap or shortage.

About Volunteers

Recruiting volunteers and other human resource assets takes time, so the earlier you begin with your recruitment of your volunteers, the better off your coordinated call center system will be in the long term.

Note

The suggestions offered by the team of subject matter experts in this step are just that—suggestions. You do not have to "force" these suggestions to work within your community's call center system framework. Your Planning Team may have other suggestions that may be more suitable and feasible for you to incorporate into your system.

Task 3.1a

Identify possible solutions to your gaps in call management and shortages in system parts.

For each task, please proceed to worksheet on page 103.

An additional copy of this worksheet can be found at the end of this workbook.

Identify Obstacles to Implementing These Solutions

The same subject matter experts that provided the suggestions listed in Table 6 also identified obstacles that may prevent you from implementing your solutions to your gaps in call management and shortages in system parts. The most common obstacles these subject matter experts identified are:

- **Money** – There are no financial resources available to expand your existing call centers' configurations or add new technology.
- **Physical Space** – There is no physical space available to expand a call center.
- **Human Resources** – There is a lack of qualified individuals to medically—and legally—triage a caller or make medical determinations. There is a lack of volunteer personnel to perform other functions in a call center.
- **Interoperability** – New technology will not be interoperable with existing technology.
- **Feasibility** – It is not feasible to expend financial, physical, and technological resources on a system that won't be used every day or may not be used at all.

Note: You do not have to "fit" the obstacles you have encountered thus far into the above list. There may be other obstacles that you have identified and need to address, such as legal/liability issues or cultural differences.

Each of the two worksheets at the end of this section has space for writing in the obstacles that may prevent you from implementing your solutions to filling your identified gaps or shortages. Please proceed to these worksheets and write in your obstacles.

Task 3.1b

Identify obstacles that may prevent you from filling your gaps in call management or your shortages in system parts.

For each task, please proceed to worksheet on page 103.

An additional copy of this worksheet can be found at the end of this workbook.

Identify Strategies That Can Be Used to Overcome These Obstacles

It is beyond the scope of this workbook to offer solutions to a community's financial hardships, but there are several strategies that you can use to overcome your obstacles to filling in your gaps in call management or shortages in system parts. These strategies are:

1. **Use Interactive Voice Response (IVR).** IVR allows you to route calls or provide information through a menu-driven interface. IVR technology would decrease the need for human operators, and would allow for a single point of entry into your system.

2. **Use Automatic Call Distribution (ACD).** ACD combined with IVR could distribute calls over several call centers, thus reducing stress on any single call center.

3. **Use Uniform Call Distribution (UCD).** UCD offers ACD functionality at a lower cost. UCD is easy to set up in an existing work environment where personnel can be reassigned call center duties while sitting at their normal work station.

A Note about Technology

Technology is a forever evolving science. Keeping up with it is difficult for the "commoner," and understanding it is even more difficult. However, technology more than likely will be the solution to your problems with call management and call center coordination. You will need to rely heavily on your Technology Team members to assist you in making informed decisions about incorporating new technology into your coordinated call center system.

4. **Use a hosted call center platform.** As the name implies, this type of platform is "hosted" by a service provider. The advantage to a hosted platform is that it requires no expansion of infrastructure. Rather, call routing is managed by the service provider. This platform also allows for the management of large number of calls. The disadvantage to this platform is its cost; however, there are some reasonably priced hosted call center platforms available. Your Technology Team members will be able to brief you on this type of platform and its costs in your community.

5. **Use Voice Over Internet Protocol (VoIP) technology.** VoIP can expand call capacity without the need for additional phone lines. Phones need to be VoIP compatible, however.

6. **Use e-mail and Internet web sites as a form of communication.** As with IVR, ACD, and UCD, using e-mail and web sites as a form of communication can decrease the need for human telephone operators. As long as the information you provide is viewed as current, accurate and reliable, the public will be acceptable to this form of communication.

7. **Have personnel telecommute.** Physicians or registered nurses working from home can be incorporated into your coordinated call center system by having calls go to a central dispatch system that would, in turn, route them to these physicians or nurses for triage.

8. **Maximize medical oversight.** A physician or registered nurse working in a call center can stand behind (non-medical) call screeners who would collect the necessary medical information from the caller and give it to this physician or nurse to make a medical determination. This strategy would allow for one doctor or nurse to assess multiple calls into the system. However, a drawback to this approach is that it relies on an unlicensed person to collect medical information.

9. **Use state or regional call centers.** There are many hotlines, telephone triage/nurse advice lines, or crisis centers within a community's region or state (or adjacent region or state) that may be able to be tapped into as a resource for your coordinated call center system. Calls into your system would only need to be routed to these regional/state call centers.

10. **Incorporate non-medical, non-emergency response call centers.** Now may be the time for you to look at non-medical, non-emergency response call centers operating in your community. For example, within your community (or region or state), you may find travel industry call centers (e.g., airlines, car rental agencies, and hotels); retail call centers offering mail-order services (e.g., catalog sales); technical call centers (e.g., computer service); utility call centers (e.g., telephone, cable, gas, water, and electricity); or government call centers. You may be able to incorporate these into your coordinated call center system to overcome some or all of your obstacles.

Reminder!

As pointed out earlier in this workbook, medical triage over the phone is regulated by state law, and such legislation varies from state to state. You must consult your legal team to determine who (e.g, registered nurse, physician, or other) is allowed to conduct medical triage over the phone in your state. Additionally, if there is the likelihood that your coordinated call center system will be managing calls from a neighboring state, you will need to investigate current legislation that allows or prohibits interstate telephone triage and medical practice.

11. **Partner with your neighboring communities.** For small communities, partnering with neighboring communities to combine human and technological resources may be the best option for overcoming obstacles to call management. By "sharing the load," participating communities reduce the stress on their planners and their existing call center systems.

Remember the Primary Goal!

As you and your Planning Team members consider these (or any other) strategies, remember that your primary goal is to meet the needs of the caller. For each strategy, ask, "How will incorporating this strategy meet the needs of the caller?"

Duplicating Efforts?

Even if you are not going to partner with your neighboring communities, you may be able to benefit from their experiences. In the Getting Started section of this workbook, it was suggested that you and your planning team look at what other communities in your region or across the country have done with regard to a coordinated call center system to see if you could adopt or adapt their framework to yours and to avoid spending many hours of time duplicating efforts. It may help you here to review your research into these other communities to see what strategies they incorporated into their coordinated system. Remember the mantra! Learn and share!

Each of the two worksheets at the end of this section has a space for writing in your strategies to overcoming the obstacles to overcoming your gaps in call management. Please proceed to these worksheets and write in your strategies.

Task 3.1c

Identify strategies to overcome the obstacles to solutions of gaps in call management.

For each task, please proceed to worksheet on page 103.

An additional copy of this worksheet can be found at the end of this workbook.

Solutions, Obstacles, and Strategies to Your Gaps in Call Management and Shortages in System Parts

Capacities/Capabilities	
Gap(s)	
Solution(s)	

Solutions, Obstacles, and Strategies to Your Gaps in Call Management and Shortages in System Parts

Capacities/Capabilities	
Obstacle(s)	
Strategy(s)	

Solutions, Obstacles, and Strategies to Your Gaps in Call Management and Shortages in System Parts

Expertise/Services	
Gap(s)	
Solution(s)	

Solutions, Obstacles, and Strategies to Your Gaps in Call Management and Shortages in System Parts

Expertise/Services	
Obstacle(s)	
Strategy(s)	

You have completed Step 3: Determine How You Are Going to Get There.
Please proceed to the next step:

Step 4: Develop Your Coordinated Call Center System.

Step 4: Develop Your Coordinated Call Center System

Now it is time for you to develop your community's coordinated call center system. This is the point where you start linking the parts together. First, you will identify the parts of your system and sketch out how they will coordinate with each other. You will look at what agreements need to be established. At the end of this step, you will address the needs of the people employed in your system as well as the role of the news media.

Identify the Parts of Your Coordinated Call Center System

The parts of your coordinated call center system were briefly discussed in *Step 2: Determine Where You Are*. Essentially, there are four parts to your system:

1. **Entry Point(s)** – The "central" phone number(s) or call center(s) the public will call in order to enter your system and then be routed to triagers or disseminators.
2. **Router(s)** – The system to distribute incoming calls to triagers or disseminators. This system could be technological or manual (operator assisted) or a combination of both.
3. **Triagers** – Medical professionals to conduct medical triage and make medical determinations.
4. **Disseminators** – Trained personnel to provide medical or non-medical information to callers.

A more detailed discussion of each is provided below.

Entry Point(s)

There are two options you can choose for your coordinated call center system's entry point(s): use a single entry point or use multiple entry points. Tables 7 and 8 below provide examples, advantages, and disadvantages for each option.

Consider 2-1-1

2-1-1 operates in many states and has the capability of managing calls from any segment of the general population, including many non-English speaking people and special population. They provide assistance and make referrals on a 24/7 basis. 2-1-1 could be a valuable resource to your coordinated call center system and could serve as an entry point into your system. At the very least, it could be a dedicated number for information dissemination. (See Appendix C for more information about 2-1-1.)

Table 7 • Examples, Advantages, and Disadvantages to a Single Entry Point

Examples	Advantages	Disadvantages
Use an existing call center operating in your community, such as a hotline or 3-1-1.	• It is a telephone number people know. • It is already in place. • It may already be configured to manage all incoming calls. • It is not financially burdensome.	• It may not already be configured to manage all incoming calls. • It may not be available to the extent that you would use it. • Transferred calls may tie up a trunk until the call is completed, thus reducing overall call capacity of the system.
Use an existing call center operating in your state or region, such as 2-1-1 or Poison Centers.	• It is a telephone number people probably know. • It is already in place. • It may already be configured to manage all incoming calls. • It is linked into statewide or region-wide call centers. • It may not be financially burdensome.	• It may not already be configured to manage all incoming calls. • It may not be available to the extent that you would use it. • Transferred calls may tie up a trunk line the call is completed, thus reducing overall call capacity of the system.
Set up a new, dedicated telephone number.	• It is easy to familiarize people with one telephone number. • It can be set up ahead of time and activated in minutes. • It may be able to be serviced on phone service provider equipment.	• A cost per call may be incurred when it is used. • It could be expensive to set up and maintain. • Transferred calls may tie up a trunk until the call is completed, thus reducing overall call capacity of the system.
Use your 9-1-1 system. (Note: This option should only be used as a last resort!)	• People are already familiar with it. • It is already in place	• It increases the burden on your 9-1-1 system. • It defeats the purpose of developing a coordinated call center system (which is to reduce calls to 9-1-1). • Additional staff will need to be trained and added to the call center. • Your 9-1-1 system may not have the needed call capacity.

Table 8 • Examples, Advantages, and Disadvantages to Multiple Entry Points

Examples	Advantages	Disadvantages
Use two or more call centers operating in your community (e.g., delegating existing local call centers as triagers or disseminators).	• These are telephone numbers that people know. • They are already in place. • They may already be configured to manage all incoming calls. • It is not financially burdensome.	• They may not already be configured to manage all incoming calls. • They may not be available to the extent that you would use them. • It may be difficult to coordinate. • It may confuse people as to who to call. • The public will have to be educated on who to call.
Use two or more call centers operating in your state or region (e.g., delegating existing state/regional call centers as triagers or disseminators).	• These are telephone numbers that people probably know. • They are already in place. • They may already be configured to manage all incoming calls. • They are linked into statewide or region-wide call centers. • It may not be financially burdensome.	• They may not already be configured to manage all incoming calls. • They may not be available to the extent that you would use them. • It may be difficult to coordinate. • It may confuse people as to who to call. • The public will have to be educated on who to call.
Set up two or more new, dedicated telephone lines (e.g., one for triage and one for information).	• It can be set up ahead of time and activated in minutes. • It may be able to be serviced on telephone provider equipment.	• A cost per call may be incurred when they are used. • They could be expensive to set up and maintain. • The public will have to be educated on the new phone numbers.

Router(s)

Call Transfers

One of the overall objectives of a coordinated call center system is to divert calls from your community's 9-1-1 system. To accomplish this task your coordinated system needs to be designed so that 9-1-1 can transfer calls to the other call centers in your system, thus moving these calls off of the 9-1-1 network.
With regard to the opposite call transfer—transferring calls to 9-1-1, an issue that may arise is that the telephone number and address of the caller may not be transferred along with the call. Your Operations and Technology Teams can help you address this issue.

The router(s) will be a part of the entry point(s). Most call centers either have manual (operator assisted) or technological [e.g., Interactive Voice Response (IVR)] routing capabilities. If the calls are to be routed manually, then the call screener will need to be provided with a set of questions (such as "Do you need medical treatment?") to route the call to the appropriate call center within the system. These questions would have to be developed under the supervision of a public health or medical professional. The call screener also would need to know the telephone numbers of all of the call centers in the system to which the call could be routed.

Triagers

As pointed out several times in this workbook, medical triage over the telephone is regulated by state law, and such legislation varies from state to state. You must consult your Legal Team to determine who (e.g., registered nurse, licensed physician, or other medical professional) is allowed to conduct medical triage over the telephone in your state. Additionally, if there is the likelihood that your coordinated call center system will be managing calls from a neighboring state, you will need to investigate current legislation that allows or prohibits interstate telephone triage and medical practice.

Don't Forget!

Your triagers are triaging the patient, not pandemic influenza. As discussed earlier in this workbook, other emergencies will still occur during an influenza pandemic. People will be calling with mild symptoms of pandemic influenza who may not need immediate treatment. They also may be calling with symptoms that may appear to be influenza but could also represent symptoms of other diseases or be calling with regard to other maladies that will need to be triaged and directed to the appropriate healthcare setting.

Disseminators

Non-medical information dissemination could be managed by your non-medical related call centers, such as 3-1-1 or communication centers. Dissemination of medical information could be managed by a public health line or public health workers who are stationed at a 2-1-1 or 3-1-1 call center. Whichever call centers you delegate information dissemination responsibilities, they must receive their information from your community's Joint Information Center (JIC) which will ensure that the information meets the "rules" of public information dissemination described on the next page.

It should be noted that triagers also can be disseminators, but the opposite is not necessarily true (that disseminators can be triagers).

The Other Information Dissemination Task

One method of diverting unnecessary calls from 9-1-1 and non-critically ill patients from the healthcare system is to disseminate information to the general public directing them on whom to call or what to do in certain situations (e.g., *Please call a telephone triage/nurse advice if you feel like you need medical care.*) In order to accomplish this objective, you must start with a single information source: your Joint Information Center (JIC). (See Appendix B) Doing so ensures that you adhere to the four critical "rules" of public information dissemination which are:

1. Public information must be delivered on time. The general public expects to receive information at the moment, not at a later time or date. If they don't get the information they need, they will become anxious, look for the information elsewhere, or even "make up" their own information. As a result, rumors may begin spreading throughout the community.

2. Public information must be up to date. During a public health emergency, circumstances change. As a result, recommendations, interventions, and courses of action will change. The general public will need to be kept up to date on these changes in order to keep them informed and maintain calm.

3. Public information must be consistent across all information sources. Differing and conflicting information being disseminated from differing sources will lead to increased public anxiety and public distrust of information sources. This may result in the public eventually not listening to the messages that are being sent out by governing bodies.

4. Public information must be accessible. Certain subgroups in a community, such as the homeless population, the hearing or vision impaired, the immigrant, or non-English speaking communities, may have barriers that preclude them from having access to the same information to which the general public has. These barriers could be physical, socio-economic, or technological. Regardless, all members of the general public must have access to the same public information.

Once you have the information you want to disseminate, how do you go about the task? There are many avenues and technologies you can use to achieve this task. These are:

- Internet web sites
- News media (newspapers, radio, and television)
- Emergency Notification System
- Text messaging
- Fax machines
- Public billboards
- Community leaders
- Celebrities (e.g., sports figures or music stars)

In addition to the various avenues and technologies for you to consider when disseminating information, there is another variable to take into account: your audience. People differ on the manner in which they like to receive their information due to several variables. These are:

- **Age** – Adolescents prefer text messaging and social networking Internet web sites such as YouTube, My Space, FaceBook, and Twitter. The elderly prefer television and newspapers.
- **Education Level** – Some people can process detailed information; others cannot. Some prefer text; others prefer graphics.
- **Race/Ethnicity** – Some races or ethnicities have a mistrust of governmental authorities and, as a result, prefer to get their information from people whom they trust, such as community leaders.
- **Socio-economic Status** – Lower income families do not have access to many of the technologies that you may use.

Members of your Communication Team should be given the task of managing information dissemination.

Taking this step's discussion into account, proceed to Task 4.1.

Task 4.1

Identify the parts of your system and briefly describe their roles and responsibilities.
An additional copy of this worksheet can be found at the back of this workbook.

The Parts of Your Coordinated Call Center System
Entry Point
Roles/Responsibilities
Entry Point
Roles/Responsibilities
Entry Point
Roles/Responsibilities
Entry Point
Roles/Responsibilities

The Parts of Your Coordinated Call Center System
Router
Roles/Responsibilities
Router
Roles/Responsibilities
Router
Roles/Responsibilities
Router
Roles/Responsibilities

The Parts of Your Coordinated Call Center System
Triager
Roles/Responsibilities
Triager
Roles/Responsibilities
Triager
Roles/Responsibilities
Triager
Roles/Responsibilities

The Parts of Your Coordinated Call Center System
Disseminator
Roles/Responsibilities
Disseminator
Roles/Responsibilities
Disseminator
Roles/Responsibilities
Disseminator
Roles/Responsibilities

Determine How You Are Going to Technically Integrate the Parts of Your System

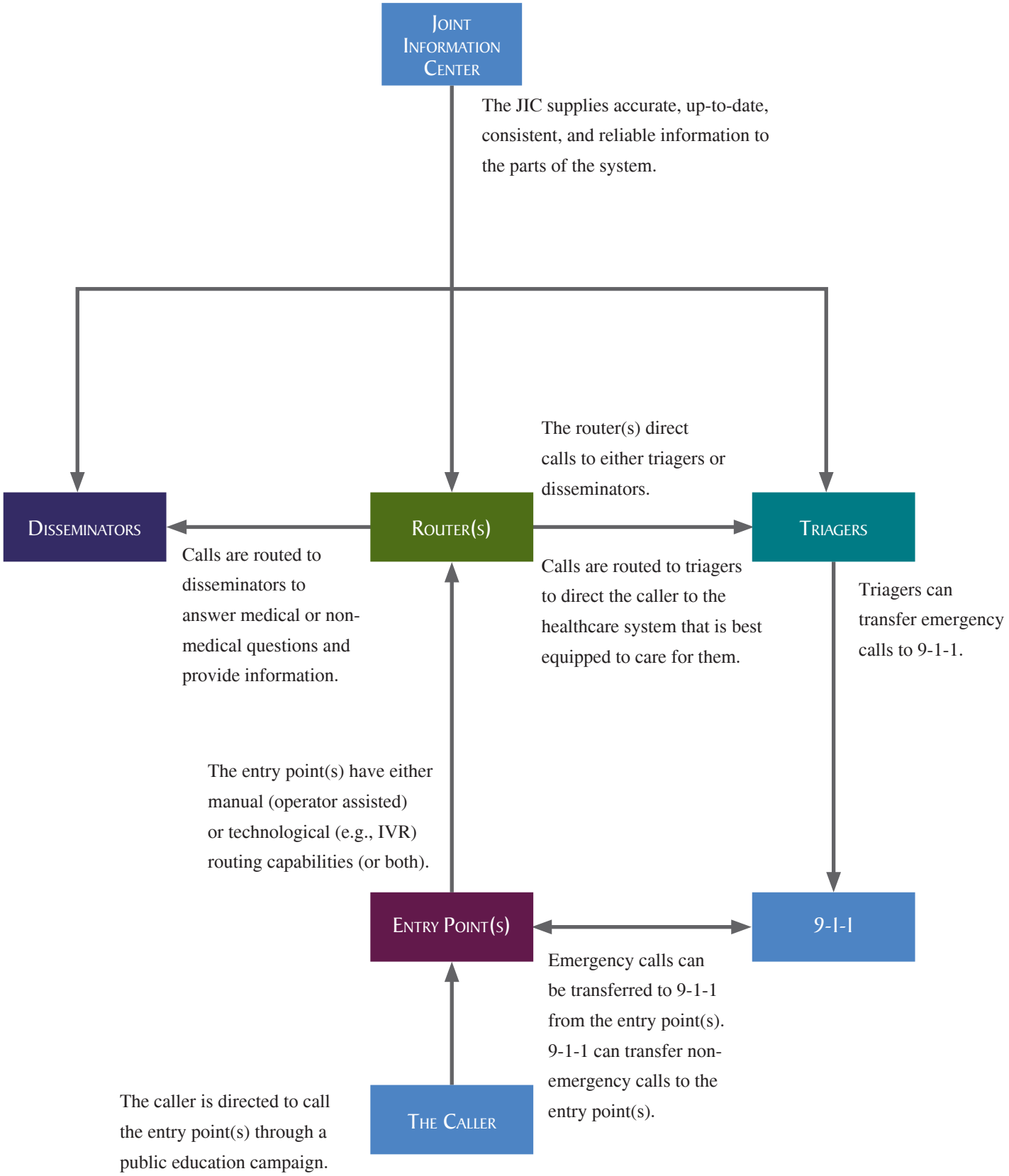
How do you integrate the parts of your system? To answer this question, you will have to rely heavily on the expertise of your Technology Team members because the parts of your system will be linked together through various types of technology. The best way to determine how to integrate the parts of your system is to draw a diagram of the system to show how the parts are interlinked. A simple diagram is shown on the following page as an example. When you draw your diagram, you will want to be more detailed by naming entry points and call centers that will manage both medical triage and information dissemination. You will also want to describe how these parts will be connected through technology.

How will you integrate the parts of your system? Proceed to Task 4.2 to make this determination.

Task 4.2

Diagram your coordinated call center system.

Note: Diagramming your system will take time and physical space (such as a blackboard or whiteboard). This task initially will have to be accomplished outside of the framework of this workbook. Once you have diagrammed your system, you may want to "shrink it" to a size that will fit in this workbook so that you can keep a record of what you produced from the tasks you completed throughout this workbook.


Joint Information Center
The JIC supplies accurate, up-to-date, consistent, and reliable information to the parts of the system.
The router(s) direct calls to either triagers or disseminators.
Disseminators
Router(s)
Triagers
Calls are routed to disseminators to answer medical or non-medical questions and provide information.
Calls are routed to triagers to direct the caller to the healthcare system that is best equipped to care for them.
Triagers can transfer emergency calls to 9-1-1.
The entry point(s) have either manual (operator assisted) or technological (e.g., IVR) routing capabilities (or both).
Entry Point(s)
9-1-1
Emergency calls can be transferred to 9-1-1 from the entry point(s). 9-1-1 can transfer non-emergency calls to the entry point(s).
The caller is directed to call the entry point(s) through a public education campaign.
The Caller

Identify Agreements or Plans That Need to Be Established

Now that you have identified the parts of your coordinated call center system and how you will integrate them, you will need to decide whether formal agreements need to be established between/among these entities and, if so, what type of agreement needs to be established. Types of formal agreements that have already been presented in this workbook are:

- **Mutual Aid Agreements (MAAs) –** Written agreements among and between agencies and/or jurisdictions in which they agree to assist one another upon request by furnishing personnel and equipment.
- **Memoranda of Agreement (MOAs) –** Written agreements among and between agencies and/or jurisdictions in which they agree to cooperatively work together within a specified scope and criteria in certain situations. MOAs can be legally binding documents.
- **Memoranda of Understanding (MOUs) –** Written documents between agencies and/or jurisdictions outlining agreements and expectations of these parties in specified situations. MOUs may or may not be legally binding.

Types of plans that may need to be established are:

- **Continuity of Operations (COOP) Plans –** Plans established to ensure that business operations continue in emergency situations, such as terrorist attacks, natural disasters, and public health emergencies. As pointed out earlier in this workbook, the parts of your coordinated call center system will be just as impacted by an influenza pandemic as the general public. As a result, these parts will need to have prepared for continuity of their operations in the face of this event.
- **Contingency Plans –** Plans established to define how the call center will be used outside of its ordinary, day-to-day routine during a public health emergency.

Looking at the parts that you are incorporating into your coordinated call center system, what agreements or plans do you need to establish?

Task 4.3

Identify agreements or plans that need to be established.

An additional copy of this worksheet can be found in the back of this workbook.

Agreements or Plans that Need to Be Established

Note: For agreements that need to be established, identify the parties to the agreement. For both agreements and plans, establish a timeline for completing the agreements or plans. Also, identify a "champion" who will oversee the completion of these plans and agreements.

Agreement/Plan	Parties to Agreement/Plan	Timeline for Completion	Champion
Mutual Aid Agreements			
Memoranda of Agreement			
Memoranda of Understanding			
Continuity of Operations Plans			
Contingency Plans			
Other Agreements/Plans			

Agreements or Plans that Need to Be Established

Note: For agreements that need to be established, identify the parties to the agreement. For both agreements and plans, establish a timeline for completing the agreements or plans. Also, identify a "champion" who will oversee the completion of these plans and agreements.

Agreement/Plan	Parties to Agreement/Plan	Timeline for Completion	Champion
Mutual Aid Agreements			
Memoranda of Agreement			
Memoranda of Understanding			
Continuity of Operations Plans			
Contingency Plans			
Other Agreements/Plans			

Address the Needs of Those Involved in Your System

The needs of the staff employed in your coordinated call center system should not be overlooked. They will be operating under stress during an influenza pandemic, and need support in several different ways.

- **Clear lines of authority –** System personnel need to know to whom they report and from whom they take directions. They also need to know what independent authority they have to act and make decisions.
- **Clearly defined roles and responsibilities –** Staff should be told explicitly what function they will perform and what their responsibilities will be in the coordinated system.
- **Psychological support –** As pointed out earlier in this workbook, personnel employed in your coordinated call center system will be just as impacted by an influenza pandemic as the general population. Add to that the stress of managing calls from distressed individuals, and your call center personnel potentially can become emotionally overwhelmed and drained from the work they are performing. These personnel will need readily available psychological support around the clock.
- **Adequate training –** Some system personnel may be performing tasks with which they are not familiar; therefore, they will need to be appropriately trained to perform these tasks. Without this training, the possibility for mistakes arises.
- **Pre-developed scripts and algorithms –** One of the critical rules of information dissemination is that public information should be consistent across all information sources. By providing your system personnel with pre-developed scripts (for disseminating information) and algorithms (for medically triaging calls), you will ensure that your system is providing consistent information across all parts of the system.
- **Legal protections –** To the extent possible during an influenza pandemic (or other public health emergency), the personnel working in your system need to know that they are protected from legal recourse for their actions or their decisions. For example, they

Note

Pre-developed scripts for pandemic influenza (as well as for other disease outbreaks and public health incidents) are available from CDC-INFO (gtr3@cdc.gov). Pre-developed algorithms for triaging pandemic influenza patients should be developed using federal guidelines and also with input from state or local public health departments.

may need to be protected with regard to legal recourse related to patient confidentiality as prescribed in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) or other acts or laws.

- **Access to expertise –** In conjunction with legal protections, personnel working in your system who lack medical expertise will need access to those who have the expertise to make medical diagnoses and decisions.

Task 4.4

With the assistance of your planning team, determine which items need to be addressed further.

Incorporate the News Media into Your Coordinated System

The news media—newspaper, television, radio, and the Internet— should not be a forgotten entity in the development of your coordinated system. They will be your chief information disseminator to the public. That is why they were listed as a member of your initial planning team. Examples of ways the news media can benefit your coordinated call center system are:

- **Educate the public.** The media has the power to reach more people than any other avenue you could choose, and they can reach them quickly. They can educate the public on the context and intent of your coordinated call center system as well as the expectations of the public for interacting with the system when it is activated. Also, the media can educate the public on the medical aspects of an influenza pandemic, such as prevention measures and signs and symptoms of the disease.
- **Direct the public on what actions to take.** The media can be used to direct the public to call into the coordinated call center system instead of 9-1-1 or to call a telephone triage/ nurse advice line before going to a healthcare facility.
- **Keep the public informed.** The media can inform the public on who to call, when to call, and why to call. They also can provide real-time updates on the status of the influenza pandemic and efforts to mitigate it.

- **Quell rumors or misinformation.** During an influenza pandemic, there is a high likelihood of rumors and misinformation spreading throughout the community. A well informed and partnered media can dispel these rumors and misinformation quickly.
- **Provide a means to reach a broader audience**. The media can reach most population groups within your community, and, as pointed out earlier, they can do so quickly.

As you are probably aware by now, all information provided to the news media for dissemination to the public should come from your community's Joint Information Center (JIC). You also should be aware that it is essential to establish relationships with media contacts before an influenza pandemic occurs. It is for this reason that members of the news media are included on your Communications Team.

Taking the above information into account, identify the specific media outlets in your community, their type, and their target audiences. This list will be useful to your system's Information Liaison in the JIC for targeting particular segments of your community's population for information dissemination.

Task 4.5

Identify media outlets operating in your community by name, type (newspaper, radio, television, or Internet), and target audience.

An additional copy of this worksheet can be found in the back of this workbook.

Media Outlets Operating in Your Community

Name	Type	Target Audience	Contact	Phone Number/ E-mail Address

You have completed Step 4: Develop Your Coordinated Call Center System.
Please proceed to the next step:

Step 5: Launch Your Coordinated Call Center System.

Step 5: Launch Your Coordinated Call Center System

While you may have completed the most difficult tasks in this workbook, you still are faced with the tough task of "selling" your system to the general public. Don't forget, they are used to the conventional call centers (e.g., 4-1-1 and 9-1-1) and may be resistant to change. In addition to educating the public, you also have to train the people you will be employing in your system. Finally, you will need to test your coordinated system to determine its functionality and to identify gaps or areas for improvement.

Educate Your Community about Your Coordinated Call Center System

Educating your community about your coordinated call center system should begin early in the developmental stages of the system and continue throughout until the completion of the system and even afterward. As mentioned in the previous section, the news media is the best tool for educating the public because they have the power to reach more people and they can do so quickly. In addition to the media, there are other options for educating the public, such as billboards, mail-outs, and public meetings. Your liaison in your community's Joint Information Center (JIC) should be able to take the lead in determining how to educate your community on your coordinated call center system.

The aspects of your coordinated call center system on which your community should be educated are:

- **Why are we doing this?** Provide the "big picture" of the impact of an influenza pandemic on your community and its call centers. This education will provide the foundation for the expectations that you will place on them during the activation of your coordinated call center system.
- **How are you going to do it?** Explain the existing call centers and resources that you are going to tap into to develop the coordinated system.
- **What is it?** How does it work? Explain the scope and operational aspects of your system to your community so that they can gain understanding of the system and, perhaps, become comfortable with it.

- **How is it different from what we are using today?** Explain how a coordinated call center system differs from the individually operating call centers that are used under normal circumstances.
- **When will it be activated?** Explain the "triggers" that will activate the system.
- **What is expected of the public?** Lay out what is expected of the public. Tell them, *"In the event of an influenza pandemic, you will be expected to ___."* so that they are prepared for the time when the system gets activated. Examples of expectations are:
  - *Call _____ instead of 9-1-1.*
  - *Call our telephone triage/nurse advice line at _____ if you are feeling ill*
  - *Dial _____ for assistance/information.*
  - *Monitor media outlets for information updates.*
  - *Go to your designated Point of Distribution (POD) for medicine instead of a healthcare facility.*

Within your community, there are public education plans for public health emergencies that have already been developed. Your JIC liaison should determine what plans exist and should incorporate education about your coordinated call center system into these plans.

Task 5.1

Integrate public education about your coordinated call center system into existing public education plans

Note: This task will be accomplished outside of the framework of this workbook (i.e., without a worksheet).

Train Those Involved in Your System

One of the needs for those involved in your coordinated call center system is adequate training. Preferably, this training should be provided prior to a public health emergency, such as an influenza pandemic. When considering and developing training for your coordinated call center personnel, ask yourself the following questions:

- **Who needs the training?** The first thing you need to know is who you are going to train. Most likely, it will be volunteers who are unfamiliar with equipment or technology.

- **What is the scope of the training?** This question answers why training is needed. There are several areas where your staff—particularly volunteer staff—will need training: triaging the call, triaging the caller, disseminating information, learning new technology (both hardware and software), learning the configurations of other call centers in the coordinated system, learning the objectives of the overall system, and getting educated on pandemic influenza.
- **Who is going to provide this training?** You need to identify subject matter experts who can develop the training modules on the various areas identified above.
- **When will you train your staff?** Ideally, you want to provide your training prior to an event; however, there may be some cases where that will not be possible which will require just-in-time (JIT) training. Therefore, you will need to develop JIT training modules for these instances.
- **How long will it take to train them?** The length of time it takes to train staff has a bearing on training costs and the willingness of personnel to undertake the training.
- **How will your staff be trained?** In today's world of ever evolving technologies, in addition to the standard classroom training, there are a number of ways that you can train your staff: computer-based training, web-based training, and training through a personal digital assistant (PDA) or a mobile telephone. In addition to the subject matter experts needed to develop training modules, you will need technical experts to develop these technology-based training systems.

At this point, your task will be to (1) identify where training is needed, (2) delegate responsibility for developing and conducting this training to your team members, and (3) determine when this training will take place. How those involved in your system will be trained will be determined outside of the framework of this workbook.

Task 5.2

Identify training needs for those involved in your system and delegate responsibility for developing and conducting this training.

An additional copy of this worksheet is located in the back of this workbook.

Training Needs Assessment															
Areas Where Training is Needed															
Responsible Party															
Completion Date															

Training Needs Assessment															
Areas Where Training is Needed	Responsible Party	Completion Date													

Test Your Coordinated Call Center System

Obviously, it would be important to know that your coordinated system functions according to its design, and it would be important to know this prior to an actual public health emergency. How can you test your coordinated call center system? The best way to go about it is to take a tiered approach as outlined below.

1. **Train the parts of your system on their roles and responsibilities as well as the objectives of the coordinated call center system.** The scope of this training is described in the previous section, and responsibility for developing and conducting the training also was delegated.

2. **Set up tabletop exercises involving all of the parts of your system.** A tabletop exercise is a guided discussion or "walk-through" of the planned response to an emergency to determine if protocols and expected actions are understood and performed according to the plan. In your case, the "plan" that would be exercised would be your coordinated call center system. Once the parts of your system have been trained on their roles and responsibilities, these parts would conduct their own individual tabletop exercise to make sure that their personnel understand what is expected of them and perform to these expectations. Following these individual tabletop exercises, the "managers" of each part of your system would come together at a larger tabletop exercise to walk through the system's response to an influenza pandemic or other public health emergency.

3. **Evaluate the tabletop exercises and identify areas for improvement.** An essential component to any tabletop exercise is evaluation. For the tabletop exercises discussed above, you would want to develop objectives for each exercise and evaluate each exercise on those criteria. The goal of evaluation is to identify strengths and areas for improvement. Once these areas for improvement have been identified, you or the "manager" of the area needing improvement can develop a corrective action plan outlining the steps that need to be taken to make improvements.

4. **Conduct follow-up tabletop exercises, as needed.** Depending on the scope of the corrective actions to be taken based on exercise evaluation, you may want to conduct follow-up tabletop exercises to make certain that those corrective actions have, in fact, been incorporated into the system.

5. **Conduct simulated drills of the coordinated system.** Once you are comfortable with the results of your tabletop exercises, the next step for you to take would be to conduct simulated drills of your system.

6. **Prepare after action reports following the activation of your system.** Should you activate your coordinated call center system, you will want to prepare an after action report that indicates how the system actually performed in contrast to how it was expected to perform. From this comparison, you will want to identify areas for improvement. Following that, you will want to retrain the parts of your system as discussed in #1 above and go through the process again.

Testing Your Technology

The technological components of your coordinated call center system can be tested on a regular basis, and do not need for you to organize a drill to test them. Your Technology Team members should be given the task of developing a plan that would allow for regularly scheduled tests of your system's technological components.

Task 5.3

Establish a timeframe for conducting your coordinated call center systems' first tabletop exercise (i.e., the "manager" tabletop exercise described in #3 above).

Our coordinated call center system will conduct its management tabletop exercise by:	

You have completed Step 5: Launch Your Coordinated Call Center System
Please proceed to the next step:

Step 6: Maintain Your Coordinated Call Center System.

Step 6: Maintain Your Coordinated Call Center System

The final step in this workbook is for you to identify how you will maintain your coordinated call center system. Your maintenance strategy will involve monitoring your system and periodically retesting/re-exercising it to identify areas for improvement. It will also involve incorporating new technologies or call centers that emerge.

Monitor Changes to Your System

The parts of your system may change for a number of reasons. A call center may cease operating. Phone numbers, e-mail addresses, and web sites may change. Changes in management of call centers may occur. It is important that you keep abreast of all of these changes to insure that your system will operate as effectively and efficiently as it was designed to do.

Task 6.1

Describe how you will monitor changes to your system and who will monitor it.

Your Plan for Monitoring Changes to Your System	
How will you monitor changes to your system?	
Who will monitor changes to your system?	

Determine How and When You Will Retest Your System

Fortunately, in reality, you will activate your coordinated call center system very infrequently. Unfortunately, this level of system inactivity will call for periodic retesting of the system. As for how you retest your system, ideally it would be through the same exercise process outlined in the previous section. As for when you should retest your system, consider the following criteria upon which to base your decision:

- **When new technology is incorporated into your system**. The world of technology changes on a daily basis. New technology becomes available. Old technology gets updated. Current technology becomes more affordable. As new or updated technology enters your system, people will need to be trained on the technology, and your overall system may need to be exercised to ensure functionality and interoperability of the technology.
- **When the structure of your system changes**. New call centers may be added to your coordinated system. Existing call centers may drop out for a number of reasons (e.g., loss of funding). New personnel may replace existing personnel. As the structure of your system changes, training and exercises will have to occur to make sure that there is a seamless transition in these changes.
- **When the scope of your system changes**. This workbook details the development of a coordinated call center system for pandemic influenza. But, what if a newer, more threatening disease emerged? What if your system were to focus on non-medical emergencies? With these changes come needed modifications in training and exercising of the system.
- **When the response to a real incident shows a failure of the system**. Should your coordinated system be activated for a real public health emergency, you will want to prepare an after action report detailing how the system actually operated as compared how it was planned to operate. This report should detail where the system did not perform to expectations as well as suggest corrective actions to be taken. Once these actions have been completed, the overall coordinated system will need to be re-exercised to verify that they have been incorporated into the system.

Some of these criteria may not require you to re-exercise your entire system. In some case, you would only exercise the parts of the system that have experienced changes.

How will you retest the system? Use the worksheet on the following page, determine when you will retest your system.

Task 6.2

Determine when you will retest your system.

Your Criteria for Retesting Your System	
Place a check (√) in the appropriate box to the right of the listed criteria for retesting your system. Add new criteria as needed.	
When new technology is incorporated into your system.	❑ Yes ❑ No
When the structure of your system changes.	❑ Yes ❑ No
When the scope of your system changes.	❑ Yes ❑ No
When the response to a real incident shows a failure of the system.	❑ Yes ❑ No
Other:	
Other:	
Other:	
Other:	
Other:	

Determine When to Incorporate New Technologies and/or Call Centers

As pointed out earlier in this section, we live in a world in which technology changes on a daily basis. New technology becomes available. Old technology gets updated. Current technology becomes more affordable. With the emergence of new technology may come the emergence of new call centers. As these changes occur, you may want to consider incorporating new technology or call centers into your coordinated system. Here are criteria for you to consider when deciding whether to incorporate new technology or call centers:

- **Interoperability** – Is the new technology interoperable with the technology currently being used in the system? Does the new call center use technology that is interoperable with the technology currently being used by call centers in the system?

- **Cost/benefit –** Is the cost of the new technology or the new call center worth the return on investment? (Remember: changes to the system require certain levels of retraining and re-exercising.)
- **Need –** Is the new technology or new call center really needed? Or will it be duplicating the efforts of another technology or call center?
- **Feasibility –** In addition to the cost/benefit, is it feasible to incorporate new technology or call centers?

If you decide that you want to incorporate new technologies or call centers, when is the best time to incorporate them? Here are some criteria to consider:

- **Prior to a planned exercise or drill**. Incorporating new technologies or call centers prior to a planned exercise or drill will give your system time to review and train to the new technology/call center.
- **When the response to an actual incident shows a need for new technology or call centers.** An after action report and subsequent corrective action plan may call for the addition of new technology or more call centers into your system.
- **When existing technology becomes obsolete or seldom used by the public**. As has been stated several times in this workbook, we live in a world of ever evolving technology. As new technology emerges or existing technology is improved, some technology may fall by the wayside. If the technology used by your system becomes obsolete or seldom used by the public, you will have no choice but to incorporate new technology into your system.
- **When the cost of technology drops to affordable prices**. You may have considered new technology for your system but been unable to afford it. As technology evolves and new competitors enter the market, the cost of technology may drop to affordable prices.

Using the worksheet on the following page, determine who will monitor your system for new technologies, how they will monitor for them, and when new technologies will be incorporated into your system.

Task 6.3

Determine who will monitor for new technologies, how they will monitor for them, and when new technologies will be incorporated into your system.

Your Criteria for Retesting Your System

Who will monitor for new technologies? _____

How will they monitor for them? _____

Place a check (√) in the appropriate box to the right of the listed criteria for incorporating new technologies into your system. Add new criteria as needed.

Prior to a planned exercise or drill.	❑ Yes ❑ No
When the response to an actual incident shows a need for new technology or call centers.	❑ Yes ❑ No
When existing technology becomes obsolete or seldom used by the public.	❑ Yes ❑ No
When the cost of new technology drops to affordable prices.	❑ Yes ❑ No
Other:	
Other:	
Other:	
Other:	
Other:	

You have completed Step 6: Maintain Your Coordinated Call Center System.
Please proceed to:

Conclusion.

Conclusion

Congratulations! You have completed all of the tasks assigned in this workbook!

Perhaps, instead of *Conclusion*, this section could be entitled *Step 7: Relax*. However, while it is time to give yourself and your team members a pat on the back for a job well done, you cannot really relax and take some time off when it comes to your coordinated call center system. As shown in *Step 6: Maintain Your Coordinated Call Center System*, you must continually monitor the parts of the system for training needs, retesting, and technological updates. On the other hand, if you have developed a strong team atmosphere among your partners, you will have been able to efficiently delegate maintenance responsibilities so that "many eyes" are watching over the system. That fact, at least, should give you some comfort and allow you to relax just a bit.

With that said, the only thing you can do now is . . .

Stop! You have completed the workbook!

Congratulations! You should be proud of the accomplishments of you and your team!

Appendix A: Overview of the Incident Command System

Incident Command

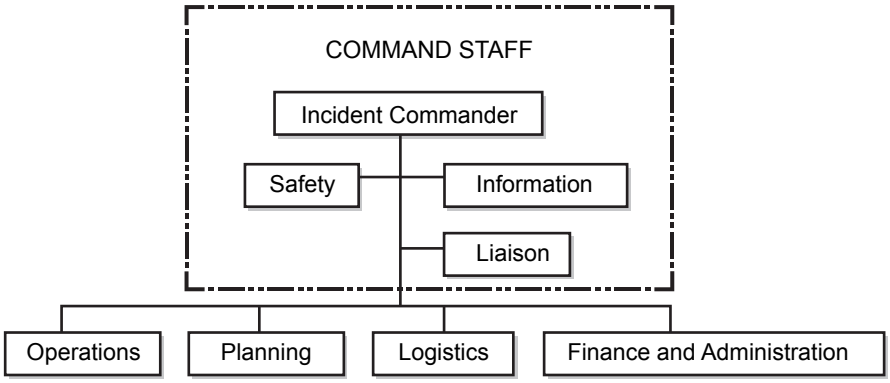
From the U.S. Department of Labor, Occupational Safety and Health Administration,
http://www.osha.gov/SLTC/etools/ics/what_is_ics.html

The ICS is a standardized on-scene incident management concept designed specifically to allow responders to adopt an integrated organizational structure equal to the complexity and demands of any single incident or multiple incidents without being hindered by jurisdictional boundaries.

In 1980, federal officials transitioned ICS into a national program called the National Interagency Incident Management System (NIIMS) (now known as the National Incident Management System [NIMS]), which became the basis of a response management system for all federal agencies with wildfire management responsibilities. Since then, many federal agencies have endorsed the use of ICS and several have mandated its use.

An ICS enables integrated communication and planning by establishing a manageable span of control. An ICS divides an emergency response into five manageable functions essential for emergency response operations: command, operations, planning, logistics, and finance and administration. Figure 1 below shows a typical ICS structure.

Figure 1 — Incident Command System Structure



The **Incident Commander** (IC) or the **Unified Command** (UC) is responsible for all aspects of the response, including developing incident objectives and managing all incident operations.

The IC is faced with many responsibilities when he/she arrives on scene. Unless specifically assigned to another member of the Command or General Staffs, these responsibilities remain with the IC. Some of the more complex responsibilities include:

- Establish immediate priorities especially the safety of responders, other emergency workers, bystanders, and people involved in the incident.
- Stabilize the incident by ensuring life safety and managing resources efficiently and cost effectively.

Determine incident objectives and strategy to achieve the objectives.

- Establish and monitor incident organization.
- Approve the implementation of the written or oral Incident Action Plan (IAP).
- Ensure adequate health and safety measures are in place.

The **Command Staff** is responsible for public affairs, health and safety, and liaison activities within the incident command structure. The IC/UC remains responsible for these activities or may assign individuals to carry out these responsibilities and report directly to the IC/UC.

- The **Information Officer's** role is to develop and release information about the incident to the news media, incident personnel, and other appropriate agencies and organizations.
- The **Liaison Officer's** role is to serve as the point of contact for assisting and coordinating activities between the IC/UC and various agencies and groups. This may include Congressional personnel, local government officials, and criminal investigating organizations and investigators arriving on the scene.
- The **Safety Officer's** role is to develop and recommend measures to the IC/UC for assuring personnel health and safety and to assess and/or anticipate hazardous and unsafe situations. The Safety Officer also develops the Site Safety Plan, reviews the Incident Action Plan for safety implications, and provides timely, complete, specific, and accurate assessment of hazards and required controls.

The **General Staff** includes Operations, Planning, Logistics, and Finance/Administrative responsibilities. These responsibilities remain with the IC until they are assigned to another individual. When the Operations, Planning, Logistics or Finance/Administrative responsibilities are established as separate functions under the IC, they are managed by a section chief and can be supported by other functional units.

- The **Operations Staff** is responsible for all operations directly applicable to the primary mission of the response.
- The **Planning Staff** is responsible for collecting, evaluating, and disseminating the tactical information related to the incident, and for preparing and documenting IAPs.
- The **Logistics Staff** is responsible for providing facilities, services, and materials for the incident response.
- The **Finance and Administrative Staff** is responsible for all financial, administrative, and cost analysis aspects of the incident.

The following is a list of Command Staff and General Staff responsibilities that either the IC or UC of any response should perform or assign to appropriate members of the Command or General Staffs:

- Provide response direction;
- Coordinate effective communication;
- Coordinate resources;
- Establish incident priorities;
- Develop mutually agreed-upon incident objectives and approve response strategies;
- Assign objectives to the response structure;
- Review and approve IAPs;
- Ensure integration of response organizations into the ICS/UC;
- Establish protocols;
- Ensure worker and public health and safety; and
- Inform the media.

The modular organization of the ICS allows responders to scale their efforts and apply the parts of the ICS structure that best meet the demands of the incident. In other words, there are no hard and fast rules for when or how to expand the ICS organization. Many incidents will never require the activation of Planning, Logistics, or Finance/Administration Sections, while others will require some or all of them to be established. A major advantage of the ICS organization is the ability

to fill only those parts of the organization that are required. For some incidents, and in some applications, only a few of the organization's functional elements may be required. However, if there is a need to expand the organization, additional positions exist within the ICS framework to meet virtually any need.

For example, in responses involving responders from a single jurisdiction, the ICS establishes an organization for comprehensive response management. However, when an incident involves more than one agency or jurisdiction, responders can expand the ICS framework to address a multi-jurisdictional incident.

The roles of the ICS participants will also vary depending on the incident and may even vary during the same incident. Staffing considerations are based on the needs of the incident. The number of personnel and the organization structure are dependent on the size and complexity of the incident. There is no absolute standard to follow. However, large-scale incidents will usually require that each component, or section, is set up separately with different staff members managing each section. A basic operating guideline is that the Incident Commander is responsible for all activities until command authority is transferred to another person.

Another key aspect of an ICS that warrants mention is the development of an IAP. A planning cycle is typically established by the Incident Commander and Planning Section Chief, and an IAP is then developed by the Planning Section for the next operational period (usually 12- or 24-hours in length) and submitted to the Incident Commander for approval. Creation of a planning cycle and development of an IAP for a particular operational period help focus available resources on the highest priorities/incident objectives. The planning cycle, if properly practiced, brings together everyone's input and identifies critical shortfalls that need to be addressed to carry out the Incident Commander's objectives for that period.

Unified Command (UC)

From U.S. Department of Labor, Occupational Safety and Health Administration,
http://www.osha.gov/SLTC/etools/ics/what_is_uc.html

Although a single Incident Commander normally handles the command function, an ICS organization may be expanded into a Unified Command (UC). The UC is a structure that brings together the "Incident Commanders" of all major organizations involved in the incident in order to coordinate an effective response while at the same time carrying out their own jurisdictional responsibilities. The UC links the organizations responding to the incident and provides a forum for these entities to make consensus decisions. Under the UC, the various jurisdictions and/or agencies and non-government responders may blend together throughout the operation to create an integrated response team.

The UC is responsible for overall management of the incident. The UC directs incident activities, including development and implementation of overall objectives and strategies, and approves ordering and releasing of resources. Members of the UC work together to develop a common set of incident objectives and strategies, share information, maximize the use of available resources, and enhance the efficiency of the individual response organizations.

The UC may be used whenever multiple jurisdictions are involved in a response effort. These jurisdictions could be represented by:

- Geographic boundaries (such as two states, Indian Tribal Land);
- Governmental levels (such as local, state, federal);
- Functional responsibilities (such as fire fighting, oil spill, Emergency Medical Services (EMS));
- Statutory responsibilities [such as federal land or resource managers, responsible party under the Oil Pollution Act of 1990 (OPA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)]; or
- Some combination of the above.

Actual UC makeup for a specific incident will be determined on a case-by-case basis taking into account: (1) the specifics of the incident; (2) determinations outlined in existing response plans; or (3) decisions reached during the initial meeting of the UC. The makeup of the UC may change as an incident progresses, in order to account for changes in the situation. The UC is a team effort, but to be effective, the number of personnel should be kept as small as possible.

Frequently, the first responders to arrive at the scene of an incident are emergency response personnel from local fire and police departments. The majority of local responders are familiar with National Incident Management System (NIMS) ICS and are likely to establish one immediately. As local, state, federal, and private party responders arrive on-scene for multi-jurisdictional incidents, responders would integrate into the ICS organization and establish a UC to direct the expanded organization. Although the role of local and state responders can vary depending on state laws and practices, local responders will usually be part of the ICS/UC.

Members in the UC have decision-making authority for the response. To be considered for inclusion as a UC representative, the representative's organization must:

- Have jurisdictional authority or functional responsibility under a law or ordinance for the incident;

- Have an area of responsibility that is affected by the incident or response operations;
- Be specifically charged with commanding, coordinating, or managing a major aspect of the response; and
- Have the resources to support participation in the response organization.

The addition of a UC to the ICS enables responders to carry out their own responsibilities while working cooperatively within one response management system. Under the National Contingency Plan (NCP), the UC may consist of a pre-designated On-Scene Coordinator (OSC), the state OSC, the Incident Commander for the Responsible Party (RP), and the local emergency response Incident Commander.

For additional, in-depth training, please go to the FEMA Emergency Management Institute site (http://training.fema.gov/IS/crslist.asp) and consider taking the following Independent Study Program courses:

IS-100.a Introduction to Incident Command System

IS-200.a ICS for Single Resources and Initial Action Incidents

IS-700.a National Incident Management System (NIMS) An Introduction

Appendix B: Coordinating Public Information

During emergencies, the public may receive information from a variety of sources. As a result, it is important to ensure that this information is accurate, consistent, coordinated, timely, and easy to understand. This goal can be accomplished through the establishment of a Joint Information System and Joint Information Center.

A Joint Information System (JIS) is an organized, integrated, and coordinated structure designed to deliver accurate, consistent, timely, and understandable public information during an emergency or crisis. It integrates incident information and public affairs into a cohesive organization. It encompasses all public information operations related to the incident. It provides interagency coordination and the development and delivery of messages. It also provides support for decision makers. In simplified terms, the JIS describes the communication links between public information personnel and their command and operations centers.

A Joint Information Center (JIC) is a physical location where public affairs officials from organizations involved in incident management co-locate to perform the critical emergency information, crisis communications, and public affairs functions through the JIS framework. The JIC provides the organizational structure for coordinating and disseminating official information. JICs may be established at each level of incident management, as required.

Incident Commanders and multi-agency coordination entities are responsible for establishing and overseeing JICs, including processes for coordinating and clearing public communications. In the case of a Unified Command, those contributing to joint public information management do not lose their individual identities or responsibilities. Rather, each entity contributes to the overall unified message.

There are many advantages of a JIC. For example, a JIC:

- Provides a central location where Public Information Officers (PIOs) can gather to facilitate operation of the JIS during and after an incident.
- Provides uniform tools and templates to enhance the coordination and flow of public information and to reduce misinformation.
- Maximizes public information resources.
- Enhances the media's ability to get accurate information.

- Provides "a one-stop shop" for official information.

JICs are usually divided into teams, with each team integrally involved in gathering, sharing, and processing relevant information. An example of JIC teams and their roles and responsibilities are shown below. (Please note that not all JICs are structured exactly the same way.)

- **PIO Team:** All press releases and information generated in the JIC and disseminated to the public and the media are approved by the PIOs. The PIO Team provides a forum for coordinating critical information and release of the information.
- **JIC Management Team:** The JIC Management Team consists of a JIC Manager and one or more assistants. The JIC Manager is responsible for all JIC operations.
- **Media Team:** The Media Team is the interface between the media and the JIC. The team will consist of a Media Liaison, Media Inquirer, and Media Monitor.
- **News Writing Team:** The News Writing Team generates news releases and information under the direction of the PIO Team.
- **Public Inquiry Team:** The Public Inquiry Team answers questions and provides information to the general public. They will record and respond to public feedback.
- **JIS Team:** The JIS Team will coordinate information to and from other agencies that do not have a representative in the JIC.
- **Support Team:** The Support Team consists of Status Board operators, fax/copier operators, security, runners, and others needed to operate a functional JIC.

The location of a JIC is dependent upon the type and size of the incident. A single location is preferred, but the JIS should be flexible and adaptable enough to accommodate multiple JIC locations as needed.

Appendix C: Overview of 2-1-1

2-1-1 is an easy to remember phone number that connects individuals with resources in their community.

With approximately 1.5 million nonprofit organizations in the United States plus scores of government agencies, finding help can be confusing and intimidating. People who want to give help often do not know where to begin. 2-1-1 centers are staffed by trained specialists who quickly assess the callers' needs and refer them to the help they seek. It's simple to remember, accessible to everyone at no cost, available 24/7, with multilingual capabilities.

2-1-1 enables people to get help or give help.

2-1-1 offers information on a broad range of services, including rent assistance, food banks, affordable housing, health resources, child care, after-school programs, elderly care, financial literacy, and job training programs. Specialists at 2-1-1 centers faciliate thousands of volunteer hours and direct donors to locations where their gifts may be most needed and appropriate. One call center's referrals facilitated nearly 65,000 volunteer staff hours worth over $1 million.

2-1-1 benefits the nation.

The human services system in many of our cities and states is not only inefficient and costly, but is confusing and time consuming for consumers seeking to give or get help. It need not be this way. A 2004 University of Texas at Austin cost-benefit analysis of 2-1-1 estimates a net value to society approaching $130 million in the first year alone, and a conservative estimate of $1.1 billion over ten years. A national 2-1-1 system produces cost savings for tax payers, employers and government; and 2-1-1 in any community saves time and enhances the human services experience for those needing assistance.

Supporting 2-1-1 benefits your community.

2-1-1 is locally designed by community stakeholders, who are aware of their local and state needs and resources. 2-1-1 is part of the community fabric, employs local citizens, and serves the local community. Businesses, nonprofit organizations, and government officials support 2-1-1 as a way to improve the lives of the residents in their communities. As of April, 2009, 2-1-1 was available to over 240 million Americans – approximately 80% of the U.S. population – covering all or parts of 46 states, the District of Columbia and Puerto Rico.

2-1-1 enhances public safety and crisis recovery efforts.

The nation is prepared to make considerable investments in public safety and disaster relief infrastructure and capacity in response to events of natural or human agency. From hurricanes and floods to bio-terrorism, 2-1-1 call centers that already exist in communities, operating 24/7, are the logical platform for building emergency response communication capacity. In the wake of the Hurricanes Katrina and Rita, hundreds of thousands of Louisiana, Mississippi, Texas, and Alabama residents called 2-1-1 with a multitude of needs, including shelter, transportation, medical, food and water, construction materials, mental health, and questions about the availability of and application process for federal, state, and nonprofit assistance. 9-1-1 referred non-emergency calls to 2-1-1, freeing up 9-1-1 operators for life-and-death situations.

"2-1-1 offers information on a broad range of services, including rent assistance, food banks, affordable housing, health resources, child care, after-school programs, elderly care, financial literacy, and job training programs."

2-1-1 is a private-public partnership.

2-1-1 is funded through local and state sources including local United Ways and other nonprofits, foundations, businesses, and state and local government. *The Calling for 2-1-1 Act* seeks to authorize federal funding of $150 million for years one and two, and $100 million for years three through five through the U.S. Department of Health and Human Services (HHS) to help implement and sustain 2-1-1 nationwide. States would be required to provide a 50% match in order to draw down the federal dollars.

For additional information, visit United Way of America's web site at http://www.liveunited.org/211/

Appendix D: Acknowledgements

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Appendix E: Resources

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(http://www.ahrq.gov/research/health/health.asp)

Appendix F: Abbreviations/Acronyms

ACD ..... Automatic Call Distribution

AIRS ..... Alliance of Information and Referral Systems

ASPR..... Office of the Assistant Secretary for Preparedness and Response

ASTHO ..... Association of State and Territorial Health Officials

CDC .....Centers for Disease Control and Prevention

CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act

COOP..... Continuity of Operations Plan

DHQP..... Division of Healthcare Quality Promotion

DHS..... U.S. Department of Homeland Security

DOT ..... U.S. Department of Transportation

E9-1-1 .....Enhanced 9-1-1

EMS ..... Emergency Medical Services

FCC .....Federal Communications Commission

FEMA .....Federal Emergency Management Agency

HHS..... U.S. Department of Health and Human Services

HIPAA ..... Health Insurance Portability and Accountability Act of 1996

IAP ..... Incident Action Plan

ICS .....Incident Command System

IO .....Information Officer

IT..... Information Technology

IVR..... Interactive Voice Response

JIC ..... Joint Information Center

JIS ..... Joint Information System

JIT ..... Just-in-Time

LPN ..... Licensed Practical Nurse

LVN ..... Licensed Vocational Nurse

MAA ..... Mutual Aid Agreement

MOA ..... Memorandum of Agreement

MOU ..... Memorandum of Understanding

NACCHO ..... National Association of City and County Health Officials

NANP ..... North American Numbering Plan

NCHM ..... National Center for Health Marketing

NCP ..... National Contingency Plan

NG9-1-1 ..... Next Generation 9-1-1

NHTSA ..... National Highway Traffic Safety Administration

NIMS ..... National Incident Management System

OEMS ..... Office of Emergency Medical Services

OPA ..... Oil Pollution Act of 1990

ORISE ..... Oak Ridge Institute for Science and Education

OSC ..... On-Scene Coordinator

PDA ..... Personal Digital Assistant

PIO ..... Public Information Officer

POD ..... Point of Distribution

PSAPs ..... Public Safety Answering Points

RN ..... Registered Nurse

RP ..... Responsible Party

SNS ..... Strategic National Stockpile

TRS ..... Telecommunications Relay Services

TDD ..... Telecommunications Device for the Deaf

TTY ..... Text Telephone

UC ..... Unified Command

UCD ..... Uniform Call Distribution

VoIP ..... Voice over Internet Protocol

Appendix G: Glossary of Terms

Automatic Call Distribution (ACD) – A system that automatically distributes calls based on parameters set up by the host of the system. An example of an ACD is phone banks set up for a fundraising activity. Calls into the system are automatically routed to the first available call taker. ACDs usually incorporate IVR technology (e.g., Press 1 for Medical, Press 2 for Information).

Attack rate – The cumulative incidence of infection in a group of people observed over a period of time during an epidemic or pandemic. It is defined as the number of exposed persons infected with the disease divided by the total number of exposed persons.

Disease surveillance – The identification of index patients and their contacts, the detection of disease outbreaks, and the determination of the incidence and demographics of an illness.

Disseminator – Trained personnel who provides medical or non-medical information to callers over the telephone.

Emergency Notification System – A method of rapidly and simultaneously notifying the general public of an incident by sending a message from a 9-1-1 call center directly to community-wide telephones (capable of being called by the 9-1-1 call center).

Entry Point – The "central" phone number or call center the public will call in order to enter a coordinated call center system and then be routed to triagers or disseminators.

Incident Command System (ICS) – A standardized on-scene incident management concept designed specifically to allow responders to adopt an integrated organizational structure equal to the complexity and demands of any single incident or multiple incidents without being hindered by jurisdictional boundaries

Interactive Voice Response (IVR) – An automated phone system that allows a caller to make a selection from a voice menu using either a telephone's keypad or through a voice response. The system plays voice prompts that lead the caller through a series of menu options (e.g., Press or say 1 for Customer Service) to direct the call to the appropriate end point.

Interoperability – The ability of call center technologies and communication systems to interface and communicate with each other without special technical effort.

Isolation – A public health practice used to separate ill persons who have a communicable disease from those who are healthy. Isolation restricts the movement of ill persons to help stop the spread of certain diseases. For example, hospitals use isolation for patients with infectious tuberculosis.

Joint Information Center (JIC) – A co-located group of representatives from local, state, federal and private organizations designated to handle public information needs during an incident or event.

Landline – A telephone circuit that travels over terrestrial circuits supplying a physical connection between two telecommunications devices that uses wire, fiber optic cables, or fixed microwave.

Medical triage – The process of evaluating and classifying people based on their need for immediate medical treatment.

Memoranda of Agreement (MOAs) – Written agreements among and between agencies and/or jurisdictions in which they agree to cooperatively work together within a specified scope and criteria in certain situations. MOAs can be legally binding documents.

Memoranda of Understanding (MOUs) – Written documents between agencies and/or jurisdictions outlining agreements and expectations of these parties in specified situations. MOUs may or may not be legally binding.

Mutual Aid Agreements (MAAs) – Written agreements among and between agencies and/or jurisdictions in which they agree to assist one another upon request by furnishing personnel and equipment.

Pandemic wave – The length of a pandemic influenza outbreak measured by disease incidence, from onset (zero to low incidence) to peak (high incidence) to the return to zero to low incidence levels. Pandemic waves may vary in number, length, and intensity.

Quarantine – A public health practice used to separate and restrict the movement of well persons who may have been exposed to a communicable disease to see if they become ill. These people may have been exposed to a disease and do not know it, or they may have the disease but do not show symptoms. Quarantine can also help limit the spread of communicable disease.

Router – The system to distribute incoming calls to triagers or disseminators. This system could be technological or manual (operator assisted) or a combination of both.

Social distancing – Public health measures that increase the physical space between people and reduce the frequency of close contact

Strategic National Stockpile – Overseen by CDC, SNS has large quantities of medicine and medical supplies to protect the American public if there is a public health emergency (terrorist attack, flu outbreak, earthquake) severe enough to cause local supplies to run out. Once federal and local authorities agree that the SNS is needed, medicines will be delivered to any state in the U.S. within 12 hours. Each state has plans to receive and distribute SNS medicine and medical supplies to local communities as quickly as possible. For more information, please consult their webpage at http://www.bt.cdc.gov/stockpile/

Telephone triage – An interactive process between nurse and client (caller) that occurs over the telephone and involves identifying the nature and urgency of client healthcare needs and determining appropriate disposition.

Telephone Triage /Nurse Advice Lines – Telephone triage lines/nurse advice lines are staffed by licensed healthcare professionals [usually registered nurses (RNs)] who help the caller determine the nature and urgency of their problem and direct them to the appropriate level of care. These lines may or may not incorporate a treatment component as well. Sometimes these lines area associated with health insurance or healthcare providers.

Triager – Medical professional who conducts medical triage and makes medical determinations.

Trunk – A communication line between two switching systems.

Uniform Call Distribution (UCD) –A technology that uniformly distributes calls to one or more operators who have signed into the UCD system by directing an incoming call to the next available operator through a rotation of call lines. It has the capability of allowing existing telephones to be used as a call center through the operator joining the UCD system by dialing a code.

Voice over Internet Protocol (VoIP) – A technology that allows telephone calls to be made over the Internet instead of the standard (or analog) telephone line. Some VoIP services may only allow calls to other people using the same service, but others may allow calls to anyone who has a telephone number, including local, long distance, mobile, and international numbers. Also, while some VoIP services only work over a computer or a special VoIP phone, other services allow the use of a traditional phone connected to a VoIP adapter.

"Worried Well" – A term used for people who seek medical attention during a disease outbreak who are not ill but are concerned that they might be.

Extra Forms

This section contains a blank copy of each form used in this workbook.

Management/Oversight Team	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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Management/Oversight Team	
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Operations Team

Name:	
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Technology Team	
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Name:	
Title:	
Organization:	
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Telephone Number:	
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Notes:	

Legal Team	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	

Legal Team	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
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Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	

State/Regional Resources Team

Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	
Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
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State/Regional Resources Team

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Name:	
Title:	
Organization:	
Telephone Number:	
E-mail Address:	
Notes:	

Objectives for Your Coordinated Call Center System

Instructions: Write down your objectives for your coordinated call center system in the space provided below.

Objective #1	
Objective #2	
Objective #3	

Objectives for Your Coordinated Call Center System

Instructions: Write down your objectives for your coordinated call center system in the space provided below.

Objective #4	
Objective #5	

Your Concept of Operations

Instructions: After you have done your research on your community's ICS and JIC, identify these key components of your concept of operations.

Trigger(s)	
Chain of Command	

Your Concept of Operations

Instructions: After you have done your research on your community's ICS and JIC, identify these key components of your concept of operations.

Operations	
Liaison(s)	

What Other Communities Have Done

Community:	Contact:
Phone Number(s):	E-mail Address:

Notes:

What Other Communities Have Done

Community:	Contact:
Phone Number(s):	E-mail Address:

Notes:

What Other Communities Have Done

Community:	Contact:
Phone Number(s):	E-mail Address:

Notes:

What Other Communities Have Done

Community:	Contact:
Phone Number(s):	E-mail Address:

Notes:

Extra Forms - Task GS.5

Your Schedule for Developing a Coordinated Call Center System

Task Number	Task	Champion	Estimated Completion Date	Actual Completion Date	Comments
1.1	Identify call centers operating in your community.				
1.2	Survey your community's call centers to identify their configurations, technologies, and partnerships.				
2.1	Estimate how many calls your coordinated call center system can expect during an influenza pandemic.				
2.2	Catalog your existing call centers by criteria.				
2.3	Determine your call centers' capacity for call management.				
2.4	Identify shortages in the parts needed to develop your coordinated call center system.				

Your Schedule for Developing a Coordinated Call Center System

Task Number	Task	Champion	Estimated Completion Date	Actual Completion Date	Comments
3.1a	Identify possible solutions to your gaps in call management and shortages in system parts.				
3.1b	Identify obstacles that may prevent you from filling your gaps in call management or your shortages in system parts.				
3.1c	Identify strategies to overcome the obstacles to solutions of gaps in call management.				
4.1	Identify the parts of your system and briefly describe their roles and responsibilities.				
4.2	Diagram your coordinated call center system.				
4.3	Identify agreements or plans that need to be established.				
4.4	With the assistance of your Planning Team, determine which items need to be addressed further.				
4.5	Identify media outlets operating in your community by name, type, and target audience.				

Extra Forms - Task GS.5

Your Schedule for Developing a Coordinated Call Center System

Task Number	Task	Champion	Estimated Completion Date	Actual Completion Date	Comments
5.1	Integrate public education about your coordinated call center system into existing public education plans.				
5.2	Identify training needs for those involved in your system and delegate responsibility for developing and conducting this training.				
5.3	Establish a timeframe for conducting your coordinated call center systems' first tabletop exercise.				
6.1	Describe how you will monitor changes to your system and who will monitor it.				
6.2	Determine when you will retest your system.				
6.3	Determine who will monitor for new technologies, how they will monitor for them, and when new technologies will be incorporated into your system.				

Call Centers Operating in Your Community

Instructions: Identify the names and types (e.g., emergency response, public health, healthcare, or medical) of call centers that operate in your community.

Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	

Call Centers Operating in Your Community

Instructions: Identify the names and types (e.g., emergency response, public health, healthcare, or medical) of call centers that operate in your community.

Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	
Name:	
Type:	
Contact Info:	

Community Call Center Questionnaire

The purpose of this questionnaire is to gain an understanding of the functional and operational aspects of our community's call centers in order to determine their possible incorporation into a coordinated call center system that we are developing. The purpose of this system is to divert non-emergency calls from our 9-1-1 system and non-critical patients away from our healthcare system during an influenza pandemic or other public health emergency. This objective will be accomplished by routing non-emergency calls to other qualified call centers and disseminating information to the public to direct them on what actions to take. The information you provide will be used to determine if your call center can be incorporated into this system and, if so, what role it would play. This information will not be disseminated outside of our Planning Team.

General Information

Call Center Name/Type/Phone Number:

_____

_____

Hours of Operation:

_____

_____

Address (if a physical location):

_____

_____

_____

Call Center Manager or Primary Contact:

_____

_____

_____

Configuration

What services does your call center provide? What types of information do you provide to callers?

_____

_____

_____

Does your call center provide medical information? ❑ Yes ❑ No

Does your call center perform medical triage? ❑ Yes ❑ No

What is the context of medical information or medical triage that your call center provides?

_____

_____

_____

_____

What types of people typically call your call center? Who is your target audience?

_____

_____

_____

_____

What is your service area? Where do the majority of your callers live?

_____

_____

What is the average number of calls your center receives each day?

_____

_____

What is your call center's capacity (i.e., what is the most number of calls your call center can manage at one time)?

_____

_____

What do you estimate to be the maximum daily volume your call center could manage?

_____

_____

How many staff does your call center have?

Full-Time	Part-Time

How do you define full-time?

_____ hours per _____

How do you define part-time?

_____ hours per _____

How many staff work each shift?

Full-Time	Part-Time

How many licensed physicians, nurses, or other medical professionals do you have on staff?

Physicians	RNs	LPNs/LVNs	Unlicensed Personnel
Full-time:	Full-time:	Full-time:	Full-time:
Part-time:	Part-time:	Part-time:	Part-time:

If you use other medical professionals, what is their title and level of medical expertise (e.g., Physician's Assistant)?

_____

_____

_____

_____

What is the role of licensed physicians, registered nurses, or other medical professionals in your call center?

_____

_____

_____

_____

How long is a typical shift?

_____

_____

_____

What training is required before staff members can take calls at your center?

_____

_____

_____

_____

_____

On average, how long does it take a new employee to complete training before he/she begins taking calls?

_____

_____

_____

_____

_____

Does your call center use volunteers? If so, from where do you recruit them, how many are available to your call center, and what is their role?

_____

_____

_____

_____

_____

FUNDING

How is your call center funded?

_____

_____

_____

What protocols do you have in place to charge for and be reimbursed for out of ordinary or extra services performed in conjunction with an emergency effort such as the activation of a coordinated call center system?

_____

_____

_____

What are your call center's non-recurring costs (e.g., costs for installation of telephone lines and purchase of equipment or furniture)?

_____

_____

_____

What are your call center's recurring costs (e.g., monthly costs of telephone lines, rent, utilities, and insurance)?

_____

_____

_____

What are your call center's operational costs (e.g., salaries and supplies)?

_____

_____

_____

TECHNOLOGY

What technologies are employed by your call center (e.g., standard telephones, Voice over Internet Protocols, Automatic or Uniform Call Distribution, Interactive Voice Response, or IP Networks)? Please be as specific as possible.

_____

_____

_____

_____

_____

What technologies are compatible with your call center (e.g., do you communicate with your target audience using standard, cellular, or satellite telephone or through text message, internet, or fax)?

_____

_____

_____

_____

Does your call center have technology that allows staff to take calls from home? If so, please describe this technology and how many staff would be able to work from home?

_____

_____

_____

_____

Is your call center able to communicate with individuals who are visually or hearing impaired or those whose primary language is other than English? Please describe technologies employed to communicate with these consumers?

_____

_____

_____

_____

Does your call center have the capability to transfer calls to 9-1-1? If so, briefly describe the process for this transfer.

_____

_____

_____

_____

Please describe other call centers to which you have transferred (or can transfer) calls. Please describe other call centers that have transferred (or can transfer) calls to your call center.

_____

_____

_____

_____

_____

Partnerships

Does your call center routinely redirect calls to another call center? If so, where are calls redirected and under what circumstances?

_____

_____

_____

_____

_____

_____

_____

_____

_____

Does your call center have any formal agreements (MAAs, MOAs, MOUs) in place with other call centers to share resources? If so, please describe these agreements and how they are used or might be used during a disaster scenario if your call center is overwhelmed with calls?

_____

_____

_____

_____

_____

_____

_____

_____

_____

Planning

Does your call center have a disaster recovery plan? ❑ Yes ❑ No

Does your call center have a Continuity of Operations Plan (COOP)? ❑ Yes ❑ No

Expanded Role

In addition to the services that your call center currently provides, please indicate the services it can provide if needed during an influenza pandemic or other public health emergency.

Call Routing – Manual (Operator Assisted) ❑ Yes ❑ No

Call Routing – Automated ❑ Yes ❑ No

Caller Triage – Medical ❑ Yes ❑ No

Information Dissemination – Medical ❑ Yes ❑ No

Information Dissemination – Non-Medical ❑ Yes ❑ No

In addition to the types of calls your call center currently manages, please indicate the types of calls your call center can manage if needed during an influenza pandemic.

Medical/Emergency ❑ Yes ❑ No

For example, people critically ill with influenza, heart attack sufferers, or severe accident victims.

Medical/Non-Emergency ❑ Yes ❑ No

For example, chronic disease management, acute illnesses with moderate/mild symptoms, minor accidents or injuries, "worried sick," or "worried well" calls.

Non-Medical/Emergency ❑ Yes ❑ No

For example, fires, law enforcement calls (e.g., robberies and acts of violence), or weather related emergencies.

Non-Medical/Non-Emergency ❑ Yes ❑ No

For example, reports of minor service interruptions or requests for information and services.

In addition to the expertise your call center personnel offer on a day-to-day basis, please describe other areas where their expertise may be of use in a call center during an influenza pandemic or other public health emergency.

_____

_____

_____

_____

_____

_____

You have completed the questionnaire! Thank you for your input and support!

A Catalog of Your Community's Call Centers by Criteria

Instructions: Put a check mark (√) by the services, call types, and expertise the call center currently provides. Put a dot (•) by the services, call types, and expertise the call center can provide if needed. Write in call capacities and technologies used.

	Services			Call Types				Expertise			Call Capacity			
Call Center Name	Call Routing	Medical Triage	Information Dissemination	Medical/Emergency	Medical/Non-Emergency	Non-Medical/Emergency	Non-Medical/Non-Emergency	Licensed Physician	Registered Nurse	Other Medical Professional	Average Daily Call Volume	Simultaneous Call Capacity	Estimated Maximum Daily Call Volume	Technologies Used

A Catalog of Your Community's Call Centers by Criteria

Instructions: Put a check mark (√) by the services, call types, and expertise the call center currently provides. Put a dot (•) by the services, call types, and expertise the call center can provide if needed. Write in call capacities and technologies used.

	Services			Call Types				Expertise			Call Capacity			
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Your Shortages in Coordinated Call Center System Parts	
Entry Point(s)	
Routers	

Your Shortages in Coordinated Call Center System Parts	
Triagers	
Disseminators	

Solutions, Obstacles, and Strategies to Your Gaps in Call Management and Shortages in System Parts

Capacities/Capabilities	
Gap(s)	
Solution(s)	

Solutions, Obstacles, and Strategies to Your Gaps in Call Management and Shortages in System Parts

Capacities/Capabilities	
Obstacle(s)	
Strategy(s)	

Solutions, Obstacles, and Strategies to Your Gaps in Call Management and Shortages in System Parts

Expertise/Services	
Gap(s)	
Solution(s)	

Solutions, Obstacles, and Strategies to Your Gaps in Call Management and Shortages in System Parts

Expertise/Services	
Obstacle(s)	
Strategy(s)	

The Parts of Your Coordinated Call Center System

Entry Point
Roles/Responsibilities

Entry Point
Roles/Responsibilities

Entry Point
Roles/Responsibilities

Entry Point
Roles/Responsibilities

The Parts of Your Coordinated Call Center System
Router
Roles/Responsibilities
Router
Roles/Responsibilities
Router
Roles/Responsibilities
Router
Roles/Responsibilities

The Parts of Your Coordinated Call Center System
Triager
Roles/Responsibilities
Triager
Roles/Responsibilities
Triager
Roles/Responsibilities
Triager
Roles/Responsibilities

The Parts of Your Coordinated Call Center System
Disseminator
Roles/Responsibilities
Disseminator
Roles/Responsibilities
Disseminator
Roles/Responsibilities
Disseminator
Roles/Responsibilities

Agreements or Plans that Need to Be Established

Note: For agreements that need to be established, identify the parties to the agreement. For both agreements and plans, establish a timeline for completing the agreements or plans. Also, identify a "champion" who will oversee the completion of these plans and agreements.

Agreement/Plan	Parties to Agreement/Plan	Timeline for Completion	Champion
Mutual Aid Agreements			
Memoranda of Agreement			
Memoranda of Understanding			
Continuity of Operations Plans			
Contingency Plans			
Other Agreements/Plans			

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Memoranda of Agreement			
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Continuity of Operations Plans			
Contingency Plans			
Other Agreements/Plans			

Media Outlets Operating in Your Community

Name	Type	Target Audience	Contact	Phone Number/ E-mail Address

Media Outlets Operating in Your Community

Name	Type	Target Audience	Contact	Phone Number/ E-mail Address

Training Needs Assessment

Areas Where Training is Needed	Responsible Party	Completion Date

Training Needs Assessment		
Areas Where Training is Needed	Responsible Party	Completion Date