

Managing Calls and Call Centers during a Large-Scale Influenza Outbreak

Implementation Tool

Introduction

During a response to a large-scale influenza outbreak such as the current H1N1 outbreak, a community's 9-1-1 and healthcare systems may experience a surge in calls or walk-in visits for care, advice, and information. In fact, call volumes or walk-in visits could reach the point of overwhelming the 9-1-1 and healthcare systems, rendering them unable to respond to other emergencies in an efficient and effective manner. In those instances, community planners should take steps to divert unnecessary calls away from the community 9-1-1 system and non-critically ill patients away from the healthcare system to reserve both for actual emergency situations. This implementation tool provides a step-by-step approach to achieving this objective by focusing on alternative call center resources.

Overview

The process for managing calls and call centers is not an exact science. It is not a one-size-fits-all process. Each community varies in size, capacities, and capabilities. Some communities have a wealth of resources at their disposal; others do not. This tool is provided under the premise that each community will work with the resources and tools currently available to it. It is not the intent of this tool to dictate that a community develops a new and perhaps costly process or system. Instead, this tool is intended to encourage a community to examine existing resources that might not have otherwise been considered. However, those communities with very limited resources may need to contact their state agencies (e.g., public health and emergency management) for assistance.

Step 1 – Identify and Meet with Your Key Partners

The first step to managing calls and call centers is to bring together a team of key partners to help you work through this step-by-step process. Your key partners will be your subject matter experts. They should be able to guide you on the logistical, operational, technological, and legal aspects of managing calls and call centers. Your key partners will be representatives from your local public health department, emergency management agency, 9-1-1 authority, 9-1-1 call center, Emergency Medical Services (EMS), N-1-1 call centers (such as 2-1-1 or 3-1-1), healthcare agencies, and pertinent government officials. The desired representation from these agencies is shown in Table 1. (For those communities with limited resources, equivalent representation from state agencies may be needed.)

Note: This list is not all inclusive. As you discuss your objectives and tasks with your key partners, the need for bringing in other partners may be identified.

Table 1 Key Partners	
Partner	Representative
Public Health	<ul style="list-style-type: none"> - Public Health Manager/Director - Pandemic Flu Planner/Coordinator - Health Information Line manager
Emergency Management (EM)	<ul style="list-style-type: none"> - EM Manager/Director
9-1-1/EMS/N-1-1	<ul style="list-style-type: none"> - 9-1-1 Authority - 9-1-1 Call Center - 9-1-1 Medical Director - EMS Dispatch Manager - EMS Medical Director - N-1-1 Operations Manager
Healthcare	<ul style="list-style-type: none"> - Pandemic Flu Planner/Coordinator - Nurse Advice Line Coordinator - Infection Control Manager - Triage Nurse - Disaster/Emergency Preparedness Coordinator
Communications	<ul style="list-style-type: none"> - Public Information Officers (PIOs) from Public Health, EM, and healthcare. - City/county Public Affairs officials
Local Government/Utilities	<ul style="list-style-type: none"> - Information Technology (IT) representative - Phone Service provider representatives - City/County Attorney

Step 2 – Discuss What You Want to Accomplish

Once you have assembled your key partners, you will need to discuss your objective, which is to divert unnecessary calls away from the community 9-1-1 system and non-critically ill patients away from the healthcare system to reserve both for actual emergency situations. Your discussion will focus on three probable courses of action to achieve this objective:

1. Route non-emergency calls to call centers that are adequately staffed and equipped to manage them.
2. Accurately triage people with medical needs to direct them to the healthcare setting that is best equipped to care for them, thus reducing surge on the healthcare system.
3. Disseminate information to the public to direct them not to call 9-1-1 unless it is an emergency and also to direct them on other actions to take or not to take (e.g., *Don't go to a hospital until you have called a medical advice/treatment line.*). Also, provide the public with information in advance so that they will not need to call to ask for it.

Your key partners will be able to provide suggestions and input on how your objective can be accomplished from both an operational and technological perspective. They also may be aware of similar undertakings by others that can be adapted for use in your community.

Step 3 – Identify Your Concept of Operations

Your community's response to a large-scale influenza outbreak (or other public health emergency) will operate under the framework of its Incident Command System (ICS). As such, your management of calls and call centers (i.e., your call center system) also will operate within this framework. With the assistance of your key partners, you need to identify four key points that will determine your concept of operations:

1. Trigger(s) – What set of circumstances during a large-scale public health emergency causes ICS to be activated? What set of circumstances causes your call center system to be activated?
2. Chain of Command – Who activates your community's ICS? Who is the Incident Commander? Who activates your call center system? Who is the "Call Center Commander?"
3. Operations – How does your call center system get activated (i.e., how do its parts get set into motion)? How does it get scaled down as the public health threat subsides?
4. Liaison(s) – Who will represent the call center system in the Joint Information Center (JIC)?

Step 4 – Determine How You Can Accomplish Your Objective

Single Entry Point

The most effective approach to directing non-emergency calls to other call centers is to use a "single-entry-point approach," or, in other words, provide a single dial-in number to a system that can route the call to the appropriate call center. As you know, people are very familiar with the single number 9-1-1; they also can be familiarized with a second number. Additionally, using an existing call center as a single entry point is desirable because setting up a dedicated line or new call center takes time and costs money.

There is a possible drawback to using a single-entry-point approach. For those communities with certain technological configurations in the call center system, a transferred call ties up a phone channel until the call is completed, reducing overall call capacity of the system. Your IT representatives on your team will be able to determine if any of your call centers will experience this issue.

Most community's have access to one or two N-1-1 call centers that may be adapted to serve as a single point of entry. These N-1-1 call centers are:

- 2-1-1 – A health and human services information and referral line operated by United Way and Alliance of Information and Referral System's 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 your 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/7 days a week/ 365 days a year.
- 3-1-1 – A municipal services and information line. (In some areas of the country, 3-1-1 is a partner of 2-1-1.)

Other call center options within your community are telephone triage lines, nurse advice lines, health information lines, hotlines/crisis centers, utility outage reporting centers, television/radio telethon centers, or commercial answering services. Your key partners will be able to help you identify these

types of call centers operating in your community and determine the feasibility of using them as a single entry point.

If no local call centers are available to assist you, you will have to approach your task at the state, regional, or national level. Two call centers that may be of use to you are:

- 5-1-1 – A transit and traffic information line operated by state Departments of Transportation.
- Poison Centers – A line that offers medical information, advice, and assistance as it relates to poisonous or hazardous substances. They can be contacted via a nationwide, toll free telephone number (1-800-222-1222).

If no call centers are available locally, statewide, or regionally, then there are three other options at your disposal:

1. Use your 9-1-1 call centers as a single entry point. However, taking such a course of action may require expanding the call centers logistically, technologically, and human resource wise. Your 9-1-1 and EMS partners will be able to discuss the feasibility of this approach.
2. Set up a dedicated call line and work with service providers to design it to route calls. Toll-free (e.g. 800) numbers can be established ahead of time and activated in minutes. They can be pointed toward existing phone numbers, but the monetary charge is per call when they are used. A similar capability may exist for 10-digit phone numbers serviced on telephone service provider equipment. Your IT partner or telecommunications service provider representative will be able to discuss options, costs, and timelines with you.
3. Assign your community's existing call centers roles (e.g., information dissemination or medical advice) and either use an automated answering system or published materials to direct the public to call these call centers for the information or advice. The drawback with this approach is that it requires either an automated system or multiple entry points (i.e., phone numbers) which may require a large public education campaign to get the public to remember. It also relies on the public to adhere to your directive to call these call centers. Some of the public likely will not follow through as directed and will call the number with which they are most familiar, which probably will be 9-1-1.

Routing Calls Manually

The calls coming into your single entry point will be from people seeking medical advice/treatment or general information. A simple set of questions (such as "Do you need medical treatment?") can help the call screener route the call to the appropriate call center. Therefore, you will need to provide the call screener with questions to ask to assist them in determining where to direct the call. Your key partners can help in the development of these questions. Additionally, the involvement of an EMS medical director and 9-1-1 medical director can help ensure appropriate medical oversight. The [*Interim Guidance for Emergency Medical Services \(EMS\) Systems and 9-1-1 Public Safety Answering Points \(PSAPs\) for Management of Patients with Confirmed or Suspected Swine-Origin Influenza A \(H1N1\) Infection*](#) provides an example of routing emergency calls for medical assistance.

Calls seeking medical advice or treatment usually must be routed to certified or licensed medical personnel whereas general information calls do not. Types of call centers that are staffed and equipped to manage these two types of calls are shown in Table 2. These would be the types of call centers that you would route calls to from your single entry point or through a public education campaign.

Table 2 Types of Call Centers	
Medical Advice/Treatment	General Information
Nurse advice lines	Answering services
Telephone triage lines	Non-profit organizations
Health information lines	Customer service lines
Poison centers	Governmental call centers
Medical hotlines	Communication centers
Medical insurance referral lines	Product/service ordering centers

In anticipation of large call volumes, these call centers may use volunteer call screeners. These volunteer personnel—as well as regular employees—need to be trained on how to manage a call as well as what information to provide to the caller. Non-trained volunteers can quickly be trained to manage informational calls using pre-developed scripts coordinated through your community’s JIC. For medical calls, some communities have used volunteers from their local Medical Reserve Corps. Your key partners will be able to help you to determine who needs to be trained and the scope of the training.

Routing Calls Technologically

Using a single-entry-point approach, calls can be routed technologically through:

- Interactive Voice Response (IVR) – An automated phone system that allows a caller to make a selection from a voice menu using either the 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 endpoint. IVR also allows the caller to listen to prerecorded messages providing information and updates on outbreak status, thus lessening the need for the caller to talk to a person.
- Automatic Call Distribution (ACD) – As the name implies, a system that automatically distributes calls based on parameters set up by the host of the system. An example of the use 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*).

Some of your community’s call centers already use these technologies. Your key partners will be able to identify those that do use them. If one of these call centers is staffed and equipped to manage high call volumes, it may be possible to use it as your single entry point.

Disseminating Information

There are two objectives for disseminating information to the general public:

1. Direct them on what actions to take or not to take (such as, *Don’t call 9-1-1 unless it’s a true emergency. Instead, call _____. or Please call a medical advice line before going to a hospital.*)
2. Provide them with the information they may be seeking from 9-1-1 or other call centers.

The first objective can be accomplished quickly through a news media campaign. The second objective also can be accomplished through a news media campaign, but additionally can be accomplished

through other means, such as web sites, handouts, and mailings. The Public Information Officers on your team will be able to direct and manage these tasks for you.

Please note that, if you are using IVR, it would be beneficial to front load important information for the caller (such as, *Due to the current emergency, you may experience extended call wait times. You may find the most current information at www.cdc.gov.*) to encourage the caller to seek information from other reliable sources and, thus, reduce calls into your system.

Important Note about Information Dissemination

Successful public information campaigns rely on disseminating information that is delivered on time and is up-to-date, consistent, and accessible by all in the community. Having all components of your call center system "speaking with one voice" is essential to helping the public make informed decisions about appropriate actions to take. It also shows the public that you are a reliable source of information and in control of the situation.

In emergency situations, information dissemination is a component of your community's ICS and would be managed by a JIC. It is imperative that you and your key partners operate within your community's ICS and JIC frameworks and that you have a representative of your call center system in the JIC. Additionally, information dissemination should include information on the closure and recovery after the incident to successfully return the community to its normal state.

Step 5 – Prepare for the Next Wave

The current wave of H1N1 is not as severe as previously expected or anticipated in prior community public health planning. However, future waves of the virus or new viruses may be more severe than what is being seen today which will result in even higher call volumes to a community's 9-1-1 system. In addition, many calls requiring medical triage or clinical guidance—as opposed to general information—can be expected. As a result, to prepare for the next wave, communities should continue looking at ways to manage calls and call centers with an eventual goal being to develop a coordinated call center system, for which future implementation guidance may be forthcoming. In the interim, it would be helpful to look at what other communities have done with regard to coordinating call centers to find out how they accomplished the task and what lessons they learned from it. It also would be helpful to bring in more key partners to discuss call center capacities, capabilities, and technologies to gauge what truly is available within your community and to look at ways they may be linked to each other.

Resources

[*Interim Guidance for Emergency Medical Services \(EMS\) Systems and 9-1-1 Public Safety Answering Points \(PSAPs\) for Management of Patients with Confirmed or Suspected Swine-Origin Influenza A \(H1N1\) Infection*](#), April, 2009.

[*EMS Pandemic Influenza Guidelines for Statewide Adoption*](#), U.S. Department of Transportation, National Highway Safety Administration, May, 2007.

[*Preparing for Pandemic Influenza: Recommendations for Protocol Development for 9-1-1 Personnel and Public Safety Answering Points \(PSAPs\)*](#), U.S. Department of Transportation, National Highway Safety Administration, May, 2007.

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