

Innovation in Preparedness

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Summary

Philadelphia's Office of Emergency Management showcases no- and low-cost innovations to coordinate vulnerable populations and utilize diversified notification strategies during emergencies.

The ebb and flow of emergency management can make it challenging to garner attention and momentum around preparedness. At the height of an emergency and in the immediate aftermath, there is significant emphasis on disaster preparedness. Grant funding is flowing steadily, governments are rethinking strategic investments and the public is building kits and developing emergency plans for their households and workplaces. Yet once a crisis is abated, that momentum diminishes. It is the job of emergency management agencies to sustain the preparedness drumbeat and find meaningful and sustainable ways to grow and maintain prepared communities.

The Philadelphia Office of Emergency Management (OEM) is responsible for ensuring readiness for

emergencies of any kind. This is accomplished through an integrated and collaborative public education program and through partnering with government agencies and nonprofit organizations to develop comprehensive response-and-recovery strategies. Whether through modern technology or grassroots community outreach, OEM leverages partnerships with other agencies and the public to prepare the city for any crisis. The pillars of OEM's strategies include operationalizing efforts, building capacity, increasing efficiencies and fostering an honest dialogue with partners. This article focuses on OEM's coordination with vulnerable populations, diversified notification strategies, data utilization and planning initiatives to showcase examples of no- or low-cost innovation.

Partnering with vulnerable populations

In a large metropolitan area such as Philadelphia, with its population in excess of 1.5 million, there are limitations to the services that government agencies and nonprofits will be able to provide during the height of a major catastrophe. Individuals, neighborhoods and communities contribute to how expeditiously Philadelphia recovers from disasters. One of the most important aspects of a prepared community is ensuring that those with unique needs are active participants in preparedness conversations. While OEM's preparedness program has routinely engaged with community groups, there is a

renewed partnership with individuals and communities with functional and special needs.

Partnering with communities of interest affords OEM an opportunity to share preparedness tips and discuss the City's plans during crises, but equally importantly, it provides a platform for learning from community members about concerns they have and what they anticipate their needs to be, and to hear what suggestions they have for improving Philadelphia's readiness. In 2012, OEM started to develop a relationship with the deaf and hard-of-hearing community to discuss best practices for communicating emergency information. Some of these methods, such as text message alerts and utilizing social media, have become mainstays at OEM. Based on lessons learned from community members, OEM now secures American Sign Language interpreters during emergency press briefings with city officials.

In 2013, in response to several smaller-scale emergencies, OEM developed a targeted training program for personal care homes. OEM, in partnership with the Philadelphia Fire Department, the Department of Licenses and Inspections and Pennsylvania's Department of Public Welfare, developed a training program for personal care homes. The goal of these conferences was to educate personal care home leadership on their responsibilities during an emergency and to help improve their facilities' emergency plans. In addition to hearing from government agencies, two personal care homes briefed colleagues on their

experiences with developing and implementing their plans during emergencies.

OEM continues to identify other agencies to partner with. As part of the City of Philadelphia's signature event for National Preparedness Month in September, OEM, along with the American Red Cross Southeastern Pennsylvania Chapter and the Philadelphia Fire Department, provided training for families from Easter Seals of Southeastern Pennsylvania. Easter Seals, which assists children and adults with functional needs, also received 450 emergency supply kits through a grant from Target. These kits will be distributed to local Easter Seals families so they can be better prepared when a disaster strikes.

Diversified notification strategies

While the traditional means of local news and the emergency alert system continue to be utilized to alert the public in times of emergencies, OEM utilizes additional tools such as text and email messages, social media updates and digital billboards to enhance traditional notification mechanisms. A multi-pronged strategy is the best way to ensure that emergency messages are received by the widest audience.

With a simple message from ReadyNotifyPA, the region's emergency text and email alert system, OEM can alert the public via text, email or social media. These alerts can be limited to a geographical area or sent to a predetermined

group. Subscribers can opt in to receive alerts from various groups within the ReadyNotifyPA system ranging from severe weather, road closures and transit information to alerts from the Philadelphia Energy Solutions refinery. Through the use of really simple syndication (RSS) feeds, the text and email messages from ReadyNotifyPA automatically update OEM's social media accounts. OEM's presence on social media allows the public to contribute through first-person reports during an incident or by asking questions regarding an emergency situation.

The Federal Emergency Management Agency (FEMA) recently granted OEM access to the Integrated Public Alert and Warning System (IPAWS). IPAWS wireless emergency alerts will broadcast notifications to cell phones based on their location, even if cellular networks are overloaded. These alerts are broadcast via cell phone towers, so if your cell phone is positioned within the coverage area of a tower broadcasting an alert, you will receive the message. The National Weather Service has been using this system for several months. Now OEM has the ability to send out these alerts in the event of a major emergency impacting Philadelphia.

The latest addition to OEM's emergency alert toolbox comes by way of Twitter. In September, OEM was among the first organizations to participate in Twitter Alerts. Twitter Alerts allows OEM to highlight their most important and time-critical content. It also makes this content easily consumable for the audience. Twitter Alerts are

immediately delivered to OEM's subscribers as text messages or as special notifications from their Twitter apps, putting this must-know information directly in front of them. The next time OEM needs to send out a warning or emergency alert, Twitter Alerts will enable them to deliver it instantly to their subscribers.

Improving data utilization

During Superstorm Sandy in 2012, OEM experienced challenges with data management. Data are critical to making smart decisions during emergencies, but without the right systems and protocols, data can be overwhelming and even paralyzing. The City's Emergency Operations Center (EOC) is the primary coordination and analysis center during crises. Information technology (IT) and Geographic Information Systems (GIS) experts from OEM are developing dashboards to improve the manner in which data enter the EOC, are utilized and drive decision making. For example, in the event of a major storm, dashboards will track road closures, downed trees, downed wires and power outages. Determining which problem or which area of the city to tackle first will be based on a comprehensive understanding of the city as a whole. The use of dashboards helps all agencies focus on common priorities and direct resources in an efficient manner.

OEM's Regional Integration Center, which is a 24-hour watch center, employs an additional GIS tool. This innovation came through the collaboration of the police,

fire and OEM GIS programs. The Unified Situational Awareness Portal provides a bird's-eye view of an incident and the surrounding community. A quick glance at this portal allows emergency personnel to locate critical infrastructure, hospitals, chemical storage facilities, facilities with vulnerable populations, evacuation routes, flood-prone areas, fire hydrants, gas lines and water mains. Delving deeper into the portal, emergency personnel can access property data, information on specific chemicals housed at certain facilities, population counts for a given area and even the weather. This portal provides crime-mapping data in addition to a real-time feed of fire department and emergency medical service activity in Philadelphia.

By accessing the information within the portal, OEM's Regional Integration Center can provide a comprehensive view of an incident. The information helps determine whether OEM personnel need to be deployed or if additional resources may be required. The situational awareness this portal delivers both enhances decision making and accelerates response times.

In addition to helping OEM operate more smoothly, GIS is also a great mechanism for sharing information with the public. OEM's GIS program has developed methods for the public to find emergency routes and critical locations. The interactive emergency evacuations route map on OEM's website allows residents to input their addresses and locate the evacuation routes for their neighborhoods.

A similar map was produced for the summer to locate nearby public pools and spray grounds, as well as public facilities with air conditioning such as libraries, recreations centers and older adult centers.

The balance between comprehensive and tactical planning

Comprehensive disaster planning is a primary responsibility of emergency management agencies. OEM coordinates the development of citywide disaster response and recovery plans for Philadelphia, but takes planning to the next level through the pairing of tactical protocols and procedures. Based on experience with localized emergencies and major disasters, OEM determined that a shelter prioritization strategy needed to supplement the city's comprehensive mass care and shelter plan. The shelter strategy ranks suitable public facilities by their ability to be converted into an emergency shelter for the public and/or their pets. A number of variables determine how facilities are ranked. Some facilities may be appropriate emergency shelters for those displaced by a fire but if that facility is in a flood-prone area, it would not be optimal during a major storm or flooding event.

OEM planners, along with representatives from various city agencies, including police and license and inspections, toured facilities throughout the city, taking note of their proximity to major roadways, handicapped

accessibility, parking, the energy sources that power and heat the facility, backup power sources, communal space for setting up cots, separate areas to shelter animals, suitable restrooms and even loading docks to quickly deliver shelter supplies to the facility. All of these factors were input into ranking the ideal facilities for a given incident. Regardless of where an incident occurs in Philadelphia, OEM can quickly find a suitable facility in the neighborhood to set up an emergency shelter for those residents and pets displaced by a given emergency. This tactical analysis streamlines decision making during a disaster and works to remove guesswork about the city's response strategy.

The examples shared demonstrate that innovation does not need to be complex or costly. Through a focus on maximizing investments and using scarce resources in strategic ways, OEM is improving Philadelphia's disaster resilience.

For more information on OEM, visit [HYPERLINK "http://www.phila.gov/ready"](http://www.phila.gov/ready) www.phila.gov/ready or follow PhilaOEM on Twitter, Facebook, Google+, LinkedIn, YouTube and Blogspot.

Edward Vassallo

Public Information Program Manager

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Edward Vassallo serves as the public information program manager in the External Affairs Division of

the Philadelphia Office of Emergency Management. There, he manages the office's public information activities, website content, social media and online videos.

Ed works to ensure that public information is accessible to all citizens, especially in times of emergency. He also coordinates the public appearances of the office's mascot, Wally Wise Guy, the Shelter-in-Place Turtle. In addition to his position at OEM, Ed is an inaugural member of the Department of Homeland Security's Virtual Social Media Work Group and the City of Philadelphia's Social Media and Communications Work Group.

Ed joined OEM in June 2008 after years in print media and public relations. He also holds a bachelor's in journalism from Penn State University.

**Samantha Phillips, MA, MPH
Deputy Managing Director
Philadelphia Office of Emergency Management**

Samantha Phillips is the deputy managing director for Emergency Management for the City of Philadelphia and is responsible for overseeing and leading the Office of Emergency Management. Since her appointment in June 2012, Phillips has reorganized OEM to further capitalize on and improve OEM's

capacity and refocused the agency's attention on strategic planning and now concentrates on the operational integrity and execution of citywide planning efforts.

Phillips was integral in the city's response to several citywide emergencies, including Superstorm Sandy (2012), Hurricane Irene (2011) and Tropical Storm Lee (2011), in addition to several major snowstorms and record flooding events. She has also led the city through the planning and execution of major special events.

Phillips has held several positions with OEM since joining the agency in 2007. Prior to being appointed as deputy managing director, Phillips held the position of assistant managing director for emergency management, serving as the principle advisor to the deputy managing director. Phillips also served as deputy director for planning, overseeing the agency's planning efforts, including health and medical, human services, recovery, weapons of mass destruction and hazard specific planning programs. Prior to joining OEM, Phillips worked with The George Washington University's Office of Public Safety and Emergency Management. She also served as a member of the National Preparedness and Response Corps with the Southeast Louisiana Chapter of the American Red Cross.

In addition to her position at OEM, Phillips is the vice chair of the Southeast Pennsylvania Regional Task Force and the chair of the FEMA Region III Regional Advisory Council. Phillips has a bachelor of science from American University, a master of public health from George Washington and a master's in security studies from the Naval Postgraduate School, Center for Homeland Defense and Security.

Joan Przybylowicz

Deputy Director, External Affairs

Philadelphia Office of Emergency Management

Joan Przybylowicz has served as the deputy director for external affairs for the Philadelphia Office of Emergency Management since 2007 and is responsible for overseeing its strategic and crisis communications planning efforts. In addition, Joan oversees the agency's media relations and its community outreach efforts through Ready Philadelphia. Ready Philadelphia is a comprehensive public education program designed to help Philadelphians prepare now before an emergency strikes. She also is responsible for implementing business continuity workshops that help local businesses and nonprofits learn how to stay open after an emergency happens. Joan is actively involved with the Southeastern Pennsylvania Regional Task

Force, made up of first-response professionals from emergency management agencies; police, fire and EMS departments; utilities; schools; hospitals; and agencies that serve vulnerable populations. She was the inaugural chair for the Task Force's Public Information, Education and Outreach Work Group, serving as chair from 2007 to 2012, and is still actively involved with the work group. Previously, Joan was employed by the Philadelphia Water Department Public Affairs Division for nearly 25 years, serving as its public relations manager. She also chaired the public relations committee for the Pennsylvania Section of the American Water Works Association for several years. Joan holds a bachelor's of science in business administration from LaSalle University, with a major in marketing.