

Alternative Methods of Dispensing: Model Highlights



Non-Linear POD Design for Private and Group PODs

Springfield-Greene County Health Department, Missouri



Background

With a population of 250,000, Springfield-Greene County, located in Southwest Missouri, includes the city of Springfield as well as many rural areas located outside of the city limits. Springfield city-proper is the third largest city in the state with 180,000 residents. The city is home to numerous businesses; public and private universities, including Missouri State University (MSU) with more than 18,000 students; and two large medical systems.

While Springfield is not part of the Metropolitan Statistical Area that participates in the Cities Readiness Initiative, the Springfield-Greene County Health Department intends to be ready during a public health emergency to provide medications to 100% of its residents within 48 hours. To do this, the health department has incorporated into its plan an amalgam of three different point of dispensing (POD) models – public, private, and group – and two POD flow designs – linear and non-linear.

The Plan

Like many local health departments, Springfield-Greene County's initial planning efforts focused solely on the utilization of public PODs. The County is divided into sectors, each

supporting a POD. Eleven sectors are within the city limits, and an additional seven are in rural areas, giving a total of 18 public PODs. Based upon the county's population, the health department estimates each POD will serve approximately 14,000 residents and require 100–120 personnel and volunteers to staff it effectively.

POD staffing will come from the health department, which employees 110 staff members; public schools where the PODs will be held; and local volunteer recruitment programs such as Community Heroes—a public health preparedness volunteer recruitment program funded through the Homeland Security Bioterrorism Preparedness Grant. Despite recruitment efforts to meet the need, the number of available staff members and volunteers significantly falls short of the 1800–2100 personnel that will be required if the County relies solely on public PODs.

Private PODs

In 2002, Springfield-Greene Health Department began incorporating private (closed) PODs into its response plan. The private PODs are operated by organizations, businesses, and other entities for their specific populations (i.e. members, employees, and family members) and are not open to the general public. In Springfield-Greene County, these entities currently include local universities, private businesses, faith-based institutions/churches, and City Utilities (Springfield's utilities company).

Large businesses are recruited for the private POD program through Chamber of Commerce publications. Additionally, the health department offers businesses an "all-hazards continuity of operations" planning manual, which provides an opportunity to dialog with businesses about the program. Due to the program's growing success, businesses are now approaching the health department, expressing their interest in serving as a private POD.

By Missouri law, both public and private PODs must have one medical professional, licensed to dispense medications, for every five to seven staff to oversee POD dispensing operations. Most of the private POD entities have been able to identify the appropriate number of licensed medical professionals. City Utilities, however, has found it more challenging to do so. Because of the strong relationship between the Springfield-Greene Health Department and City Utilities, the health

department will provide City Utilities with licensed staff. In return, City Utilities will dispense medications to first responders such as police officers and firefighters.

Springfield-Greene Health Department provides assistance to all the organizations and businesses hosting a private POD through a certification program the health department developed. The health department provides consultation on floor plans, job assignments for POD staff, and provides all necessary training. The certification program culminates in a POD exercise that the health department helps develop, but during the exercise, serves only in an observational capacity.

Group PODs

The private POD program was later followed by the development of a group POD model that mimics a head-of-household dispensing methodology, but for large groups. In a traditional head-of-household model, the head of a family or household will go to a dispensing site and pick up medications for every person within the household. This model is preferred in that it reduces the number of individuals who go through the POD and ultimately expedites flow-through.

With the Springfield-Greene program, any entity or group can serve as a group POD. Essentially, a registered representative for the group will go to a designated location to receive registration forms that he/she will take back to their group to be completed. When the completed forms are returned to the health department, they will be screened and orders filled. The representative will then receive a phone call when the medications are ready to be picked up.

The County will use this methodology to provide prophylaxis for its first responders. Group and nursing homes and other immobile or low-mobility populations are encouraged to participate in the group POD program. This model also works well for communities that, because of language or cultural differences, may not go to a public POD during an emergency event to obtain medications.

In Springfield-Greene County, this may be the case with the Amish and growing Hispanic communities. An outreach worker with the health department—one that is known or trusted within the community—will reach out to the community to talk about the group POD program and the benefits to community members. The outreach worker will either work to identify an individual to serve as the representative who will pick up medications for the group, or the outreach worker will serve as the representative. As with the other POD models, any medications must be dispensed with the oversight of a licensed medical professional.

Alternative POD Flow Design

One challenge for businesses that wish to serve as a private POD during a public health emergency is identifying sufficient personnel and volunteers to staff their POD. Approximately 1½ years ago, the health department began strategizing more efficient POD designs that would maximize staffing and make it feasible for more businesses to participate. The result was the development of a non-linear POD flow design, which requires significantly fewer staff members to effectively operate than the typical linear-type design. In a linear POD, community members enter the dispensing site, and in linear fashion move through

a series of stations for screening, education, and receipt of medications.

The non-linear model, however, can be described as an octopus or spoke-wheel design. Individuals are first screened for potential illness at the door. Those who may be ill are directed to a separate special-needs area. Those who do not exhibit signs of illness enter the dispensing site and are directed to an auditorium or classroom-style space where, when full or at timed intervals, the group will receive a brief educational component and direction on completing the patient history form. Based upon responses to questions on the form, individuals are color-coded according to the medication they are to receive or their given situation (i.e. family with mixed medications). The group will be directed to exit the room by separate doors according to color code (For example, in a pandemic flu scenario: Tamiflu is coded blue; Relenza, green; and mixed family, yellow).

The educational component includes a brief presentation given by a volunteer educator who provides information about the emergency, the agent/disease, and the dispensing process. Pharmaceutical information is provided, in written format, at the time the medication is dispensed. Additionally, a PowerPoint presentation, developed by the health department, illustrates step-by-step instructions to complete the form to the group. The education and form completion components can ideally be conducted within five minutes. Individuals are welcome to stay through a second session if needed and often more than one educator is present to provide additional assistance when needed.

The total number of staffing required to efficiently and effectively operate a non-linear POD is dependent upon the number of people who are expected to receive their medications at the given dispensing site, but in Springfield-Greene County, this number ranges from 10 to 25. Typical job positions include:

- Greeters/screeners at the door
- Educator(s)
- Medication dispensers, including licensed medical professional(s) for oversight
- Floaters
- Security personnel (generally significantly fewer than needed at public PODs)

While businesses and organizations that agree to participate in the private POD program are encouraged to utilize the non-linear design model, the health department is flexible and accommodates and supports the unique needs of each entity. As the first participant in 2002 (before the non-linear design model was available), Missouri State University has enjoyed a history of success and familiarity with the traditional linear design and continues to utilize it in their POD plan. For City Utilities, a hybrid model that marries the non-linear design with the group POD model is preferred. Individual departments will receive patient history forms electronically while on the job. Each department will then be called into the non-linear style POD to receive its medication.

For some very large businesses and organizations, there exists

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October 2008

the possibility the non-linear model will not work, as is the case with the public PODs. The number of individuals that can be accommodated at a given POD is based on the size of the facility and the available staffing. The health department anticipates that if the auditorium where the education is to be completed is not large enough to accommodate most, if not all, of the people who show up at a given time, it will create frustration and potential chaos. The department feels frustration and anxiety that results from waiting will be reduced if people are continually moving through the slower line of a linear POD rather than having to stop and wait until the group ahead of them has cleared the auditorium in a non-linear POD.

Springfield-Greene County Health Department estimates that with the availability of the non-linear POD flow design and the numbers of participating private and group PODs, the burden on the public POD system is currently reduced by approximately 20%. As the programs continue to grow through word-of-mouth and the health department's own outreach efforts, their goal of a 50% reduction is within reach.

Pros

- Private (closed) PODs can significantly reduce the burden on public PODs by reducing the number of people who will need to get medications from them, which subsequently, will reduce the numbers of volunteers and personnel needed to staff public PODs.
- The certification program for private PODs, developed and utilized in Springfield-Greene County, has had a positive impact on recruitment.
- The group POD model allows businesses and other groups that are unable to participate in a private (closed) program because they are either not large enough to qualify or that do not have sufficient human resources to operate a POD, an alternative to receiving medications at a public POD.
- The group POD model is an effective and useful methodology to reach vulnerable or at-risk populations such as low- or no-mobility populations and communities that, because of language or cultural differences, may not go to a POD to get the medications they need.
- The non-linear model can be an effective way to increase businesses', organizations', and other private entities' ability to participate in a private/closed POD program by drastically reducing the numbers of POD staff members they would need to recruit.

Cons

- A private (closed) POD program may not be effective in communities that are primarily rural, or that are smaller and do not have businesses or organizations with enough resources to effectively reduce the number of people that would otherwise go to a public POD.
- Group PODs operated similarly to Springfield-Greene County, may not be as effective in larger, urban, population-dense areas. Having to screen and manage orders for the potentially large number of participating groups may place a greater burden on the public health and response system than it relieves at the public PODs.
- The non-linear POD flow design is limited in the number of people it can accommodate, particularly if the auditorium is significantly smaller than the number of people who are expected to show up at any given time. An overwhelmed, non-linear POD can create frustration and anxiety in people who have to wait in large numbers outside of the POD. In this situation, moving slowly through a line at a linear-style POD may be less frustrating as it gives the perception that things are moving.

Costs/Resources Needed

- Costs and resources needed do not significantly differ from traditional PODs.

Planning Tips

- Be flexible. Accommodate and support, to the extent possible, the unique needs of private entities and groups who wish to participate in an alternative dispensing program. For Springfield-Greene County, this flexibility has resulted in strengthened partnerships with businesses and organizations that have "returned the favor" in ways that extend beyond reducing the burden on the public POD system.

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