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Administrative Preparedness Strategies: Expediting Procurement and Contracting Cycle Times During an Emergency

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Abstract

We assessed whether administrative preparedness processes that were intended to expedite the acquisition of goods and services during a public health emergency affect estimated procurement and contracting cycle times. We obtained data from 2014-2015 applications to the Hospital Preparedness Program and Public Health Emergency Preparedness (HPP-PHEP) cooperative agreements. We compared the estimated procurement and contracting cycle times of 61 HPP-PHEP awardees that did and did not have certain administrative processes in place. Certain processes, such as statutes allowing for procuring and contracting on the open market, had an effect on reducing the estimated cycle times for obtaining goods and services. Other processes, such as cooperative purchasing agreements, also had an effect on estimated procurement time. For example, awardees with statutes that permitted them to obtain goods and services in the open market had an average procurement cycle time of 6 days; those without such statutes had a cycle time of 17 days ($P = .04$). PHEP awardees should consider adopting these or similar processes in an effort to reduce cycle times.

Keywords

public health preparedness, emergency response, funds allocation

The ability to acquire goods and services quickly is vital for an effective response to a public health emergency.[1] The response to the H1N1 influenza pandemic (pH1N1) in 2009 highlighted the need to ensure that administrative processes facilitate rather than impede the flow of resources among government and private sectors. During that response, some states and localities indicated having administrative requirements in place that delayed the procurement of goods and services necessary to meet the demands of conducting a mass vaccination campaign.[2,3]

After the pH1N1 response, the US Department of Health and Human Services Assistant Secretary for Preparedness and Response and the Centers for Disease Control and Prevention worked with states, localities, and partner organizations to define administrative preparedness. In the 2012 Hospital Preparedness Program and Public Health Emergency Preparedness (HPP-PHEP) funding opportunity announcement, administrative preparedness was defined as "the process of ensuring that fiscal and administrative authorities and practices that govern funding, procurement, contracting, hiring, and legal capabilities necessary to mitigate, respond to, and recover from public health emergencies which can be accelerated, modified, streamlined, and accountably managed at all levels of government."[4] To achieve this US Department of Health and Human Services goal, the HPP-PHEP cooperative agreement awarded funding to 62 state, local, and territorial public health departments aiming to strengthen both public health and health care system preparedness and response. Beginning in fiscal year 2011 and continuing through fiscal year 2016, HPP-PHEP awardees were required to develop, implement, and report on administrative preparedness processes as a condition of the award. Awardees were not required to adopt specific processes, although several known evidence-based processes (eg, cooperative purchasing agreements) are intended to improve administrative preparedness.

As part of the 2014 HPP-PHEP application, awardees indicated which of 6 administrative processes (detailed

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later), informed by the literature, they had adopted (Table).[1,5-7] These processes were intended to expedite the procurement and contracting process during an emergency. To date, little evidence has been published about the relationship between the implementation of these administrative preparedness processes and the ability to manage or allocate federal preparedness funds in a timely or efficient manner.

The objective of this study was to examine the effectiveness of these administrative preparedness processes. We compared procurement and contracting cycle times between awardee settings that had implemented administrative preparedness processes and those that had not. Findings from this study may inform future discussions of the value of administrative preparedness processes.

Methods

We reviewed the funding opportunity applications of 61 HPP-PHEP awardees for 2014 and 2015: 49 states, 4 localities, and 8 US territories and freely associated states. From the 2014 applications, we collected information about the administrative preparedness processes that had been adopted by awardees. These processes included statutes that allowed states to obtain goods and services in the open market, cooperative purchasing agreements, procurement card policies, use of a host agency (fiscal agent), term contracts for medical supplies, and emergency clauses in existing contracts (Box). As part of the 2015 HPP-PHEP application, awardees were required to estimate the total number of days needed to procure and contract goods and services during an emergency. We removed 1 state as an outlier from the sample because its estimated cycle time during an emergency for both contracting and procurement was 3 times higher than the state with the next-highest time and considerably higher than the average times reported by other awardees.

We extracted data from the 2014 and 2015 applications to assess whether having $\geq$1 administrative preparedness process in place was associated with a reduction in estimated cycle times. We determined differences in the results with the Mann-Whitney U test and set significance at $P < .05$. We conducted all analyses with SPSS version 18.[8] The Centers for Disease Control and Prevention Office of Public Health Preparedness and Response human subjects review board determined that this study was public health practice not involving human subjects and therefore not subject to institutional review board review.

Results

We found a range of implementation across the 6 processes adopted by the 60 awardees. The most commonly implemented process (by 45 awardees) was procurement card programs. The least commonly implemented process (by 17 awardees) was use of a host agency (fiscal agent) to receive funding on behalf of the state from the federal government and expedite procurement processes (Table).

Box. Administrative preparedness processes adopted by 61 Hospital Preparedness Program and Public Health Emergency Preparedness awardees, United States, 2014-2015

- Statutes allowing the state to obtain in the open market any necessary supplies, materials, equipment, printing, or services for immediate delivery to any department, institution, or agency of the state government.
- Cooperative purchasing agreements available as a clearinghouse for all available contracting vehicles (mechanisms), which lists the contracts and the commodities available for purchase under them.
- Procurement card policies, which include a streamlined and simplified purchasing and payment process, the ability to set and control dollar limits, and the ability to control specific merchant categories and vendors.
- Use of a host agency (fiscal agent) to receive funding on behalf of the state from the federal government and expedite procurement processes.
- Term contracts for medical supplies, such as vaccines and biologicals, influenza vaccines, drugs and pharmaceuticals, apparel and supplies, and hospital sundries.
- Emergency clauses in existing contracts so that in case of an emergency, the process is expedited and the contract will automatically be executed.

Statutes allowing the awardee to obtain goods or services in the open market for immediate delivery had a large and significant impact on the estimated cycle times for procurement and contracting. Having such an administrative preparedness process in place led to an average reduction of 10.8 days for procurement (the difference between 16.7 and 5.9 days; $P = .04$) and 24.1 days for contracting (the difference between 34.2 and 10.1 days; $P = .05$). Cooperative purchasing agreements also substantially reduced the amount of time needed for procurement. The average number of days needed to procure goods or services was 4.7 days for those with the administrative preparedness process and 13.2 days for those without it ($P = .04$; Table).

Having in place both processes that were found to be significant for procurement reduced procurement cycle times by 18.1 days (the difference between 22.5 and 4.4 days; $P = .005$) and contracting cycle times by 38.3 days (the difference between 47.0 and 8.6 days; $P = .03$) compared with awardees that did not have either process in place (Figure).

Discussion

Public health emergencies often require an agency to quickly acquire goods and services.[1] Moreover, the public health department's needs may be difficult to predict during an emergency, and flexible funding mechanisms are also

Table. Distribution of Hospital Preparedness Program and Public Health Emergency Preparedness awardees (n = 61) according to adoption of processes intended to reduce procurement and contracting cycle times, with average estimated procurement and contracting cycle times in days during an emergency, United States,[4] 2014-2015

Type of Process	No. of Awardees With Process Implemented	Procurement Cycle Time, d		Contracting Cycle Time, d	
		Process Implemented	Process Not Implemented	Process Implemented	Process Not Implemented
Statutes that allow state to obtain goods and services in the open market[a]	44	5.9	16.7[b]	10.1	34.2[c]
Cooperative purchasing agreements[d]	31	4.7	13.2[b]	9.0	24.8
Procurement card programs[e]	45	7.0	14.3	14.7	22.7
Use of a host agency (fiscal agent)[f]	17	5.1	10.4	10.1	19.4
Term contracts for medical supplies[g]	42	9.0	8.8	17.3	15.5
Emergency clauses in preexisting contracts[h]	21	11.1	7.8	18.3	16.0

[a]Statutes in place allowing the state to obtain in the open market any necessary supplies, materials, equipment, printing, or services for immediate delivery to any department, institution, or agency of the state government.
[b]$P = .04$; determined by Mann-Whitney *U* test.
[c]$P = .05$; determined by Mann-Whitney *U* test.
[d]Cooperative purchasing agreements available as a clearinghouse for all available contracting vehicles (mechanisms), which list the contracts and commodities available for purchase under them.
[e]Procurement card programs, which include a streamlined and simplified purchasing and payment process, the ability to set and control dollar limits, and the ability to control merchant categories and vendors.
[f]Use of a host agency (fiscal agent) to receive funding on behalf of the state from the federal government and expedite procurement processes.
[g]Term contracts for medical supplies, such as vaccines and biologicals, influenza vaccines, drugs and pharmaceuticals, apparel and supplies, and hospital sundries.
[h]Emergency clauses in preexisting contracts so that in an emergency, the process is expedited and the contract will automatically be executed.

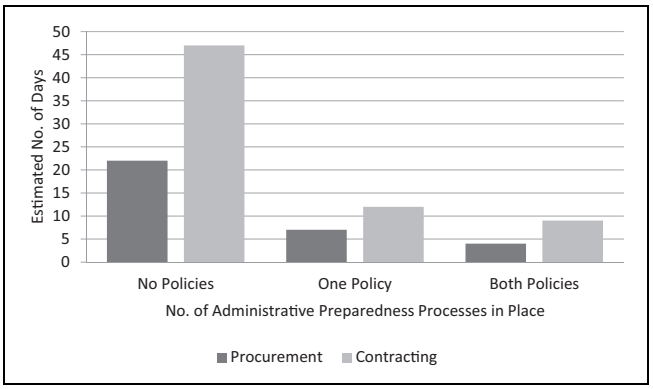

Figure. Average estimated procurement and contracting cycle times during an emergency for awardees of the Hospital Preparedness Program and Public Health Emergency Preparedness cooperative agreement (n = 61), by the number of administrative processes in place, United States, 2014-2015. The 2 processes examined were (1) use of the open market to obtain goods and services for immediate delivery and (2) use of cooperative purchasing agreements that list all available contracts and the commodities under them.

needed. We found that HPP-PHEP awardees had adopted numerous administrative preparedness processes designed to expedite procurement and contracting during an emergency. Our findings indicated that 2 of the 6 processes—(1) obtaining goods and services on the open market and (2) cooperative purchasing agreements—significantly reduced the estimated number of days needed to procure goods and services during an emergency.

Reductions in procurement and contracting cycle times of the magnitude shown here highlight the importance of having administrative preparedness processes in place. Although administrative preparedness has improved since the pH1N1 response, some HPP-PHEP awardees have not implemented processes to expedite the movement of funds.

Key findings indicate that certain processes were significantly related to timely administrative processes during a public health emergency. The process that would seem to afford the greatest speed and flexibility (ie, being able to obtain in the open market any necessary goods or services for immediate delivery), not surprisingly, had the largest impact on estimated procurement and contracting cycle times. Another administrative preparedness process (ie, having cooperative purchasing agreements that list all available contracts and the commodities available under them) that made a large difference on estimated procurement time also affords speed and flexibility. If a commodity that is needed is on the list, then acquiring that item is quick because the terms of the contract are already in place. We observed that using procurement cards offered speed within the controls put on the card, although the difference in cycle time was not significant.

Limitations

This study had several limitations. First, the cycle times were self-reported estimates, which were subject to error and perhaps social desirability bias. However, the staff members making these estimates work with procurement and

contracting on a daily basis and may have had to use some of the processes in actual emergencies, thus improving the accuracy of the estimates. We also know that the process has been exercised by 25% to 50% of awardees, thereby further increasing the accuracy of the estimates. Second, we considered only procurement and contracting times. In addition, one policy might have had a large effect in one state, although it did not show up as significant on average. For some awardees, a process that made no difference on average may have made a difference in their jurisdiction's operational efficiency. Future research should take into account other factors, such as the quality of the services and costs.

Conclusion

Our results suggest that some of the policies described here have an appreciable decrease in the cycle times for procuring and contracting during an emergency and should be considered for adoption by PHEP awardees. Future studies should consider collecting data on contracting and procurement time as a public health emergency is occurring.

Declaration of Conflicting Interests

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