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Special Report from the CDC: Readiness to surge: State health departments' workforce infrastructure during the opioid crisis*

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Abstract

Introduction: As part of scaling up the response to the opioid overdose epidemic, there is an opportunity to examine how state public health departments addressed workforce and other infrastructure needs to implement a large-scale opioid overdose prevention program. Understanding how this was done—and any lessons learned from the process—can inform future workforce development and capital improvement efforts.

Methods: Administrative data from the Centers for Disease Control and Prevention (CDC) Prescription Drug Overdose Prevention for States (PfS) program were analyzed to understand how states adapted to this emerging public health priority.

Results: Six months into the first year of funding, 6 of the 16 state health departments had filled all anticipated staffing positions. States faced challenges obtaining timely expenditure authority and hiring staff. However, states were able to overcome these challenges by strategically reassigning staff, hiring from within, and utilizing existing contract mechanisms.

Conclusion: Our analysis revealed how planning, using existing infrastructure, and maintaining a prepared workforce are critical to ensure that public health agencies have the ability to surge to meet emerging challenges and effectively utilize resources to achieve program goals.

practical applications: Greater attention should be directed toward strategically addressing known barriers and timelines in work plans and budgets during the application and selection process to ensure implementation readiness.

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Declarations of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Human participant compliance statement

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Keywords

Prevention for States; Prescription drug overdose; Public health infrastructure; State health departments

1. Introduction

The public health system depends on the presence of basic infrastructure to deliver essential public health services that keep our nation healthy. Critical elements of public health infrastructure include a capable and qualified workforce, up-to-date data and information systems, and agencies capable of assessing and responding to public health needs (Healthy People 2020: Public Health Infrastructure, 2019).

CDC's Prescription Drug Overdose Prevention for States (Robinson, Christensen, & Bacon, 2019) (PfS) program offers an opportunity to examine the role of the workforce as a critical component of infrastructure in implementing new programs to address urgent and emerging public health issues. Categorical ¹ funding to create opioid overdose prevention programs in state health departments (SHD) first became available in 2015–2016 through the PfS program. PfS initially funded 16 SHD and expanded to 29 as additional resources became available. Until this time, states relied on their existing infrastructure, which helped identify the problem and build prevention efforts, but could not adequately sustain the staffing and resources needed to support a comprehensive opioid overdose prevention program capable of addressing the growing crisis (Deokar et al., 2018). For example, CDC's Core Violence and Injury Prevention Program (Core VIPP) funded 20 states to address prioritized state injury prevention needs, and the Prescription Drug Overdose: Boost for State Prevention grant (Boost) funded five states to inform comprehensive state-level interventions.

Previous studies have noted the vital role of workforce and infrastructure in achieving public health outcomes (Lavinghouze, Snyder, & Rieker, 2014; Gebbie, 1999). Yet, there are times when public health workforce capacity “lacks the right number of people with the right skills in the right place at the right time” (Drehobl, Stover, & Koo, 2014). These gaps are especially noticeable during times of urgency that require an expedient public health response.

Fiscal management capabilities are a necessary skill for the public health workforce because public health programs are often supported through a patchwork of funding sources (Honoré & Costich, 2009; Mays et al., 2009). Strategic administrative and financial management skills are critical for leveraging and tracking funding sources, timelines, staffing, and deliverables in a unified way and are especially important during the first weeks and months upon notification of funding. It is during this time that funded agencies need to be agile while navigating complex systems to identify mechanisms for recruiting and hiring staff, compete and award contracts, and procure necessary space and supplies. Prevention activities often cannot begin until these components are in place and having them completed expeditiously upon funding notification allows more time to focus on the

¹Categorical funds are resources provided by the federal government for a specified purpose.

intended outcomes during the funding period. As such, strategic grants administration and fiscal management are critical but often invisible functions of public health programs that can facilitate mobilization of resources, including the workforce.

Public health uses a collaborative, cross-sector approach in bringing together multiple stakeholders, services, and resources available to address a public health problem (DeSalvo, O'Carroll, Koo, Auerbach, & Monroe, 2016). Therefore, understanding the challenges and facilitators experienced by SHDs in creating new opioid prevention programs may provide valuable insights about strategic use of resources and leveraging of partner efforts. These lessons could frame implementation expectations for funders and recipients and inform the ability to scaleup programs in a desirable timeframe

2. Methods

Administrative data were used to better understand how the initially-funded 16 PfS states allocated money in their first year of funding. Data for this article were abstracted from the PfS Year 1 Annual Progress Report (APR), a performance management tool used by CDC recipients to report their progress annually. The Year 1 APR included questions related to recipients' progress on the required strategies and implementation questions aimed at further understanding the existing staffing and administrative capacity that states had available when they received their Notice of Award from CDC. Year 1 (09/01/2015 to 08/31/2016) proposed budgets and justification narratives and Notices of Awards (NOAs) were examined to confirm total funding amounts to recipients in the categories of total personnel costs (salary and fringe), indirect funding, contracts, travel, supplies, equipment, and other.

All data were abstracted and analyzed in Microsoft Excel. Quantitative analysis consisting of basic descriptive statistics was conducted to understand how funds were allocated. Key partners/contractors and activities that those partners conducted were identified. Responses to three open-ended questions and challenge stories from the APR were coded and analyzed to identify common facilitators and barriers to hiring staff and implementing PfS.

3. Results

Fourteen of the initially-funded 16 states had been funded previously through CDC's Boost or Core State Violence and Injury Prevention Program, and four had been funded for both. Upon notification from CDC that they were funded for PfS, 16 states had 94 staff within their existing infrastructure to assist with implementation and management of PfS's statewide activities. This accounted for 39.81 Full Time Equivalent (FTE) positions or an average of 2.5 FTE positions per recipient. Forty-six of the 94 staff members or 21.82 FTE positions were reassigned from another funded program or hired from within their health department to work on PfS.

Six months into PfS, 6 of the 16 SHD had hired all the staff that they had identified in their original application and budget. Many states faced internal organizational challenges like long wait times to obtain expenditure authority and create new positions, recruit, and hire staff. Three state governments also had a hiring restriction in place that prohibited hiring additional staff. A few states mentioned difficulty finding candidates with the necessary

skill set, while some others experienced staff loss due to attrition or retirement. All of the states that fully staffed their programs indicated they had hired staff from other programs within their agency. In all, 17 staff or 11.95 FTE were hired from within. All staff competed for positions and several were promoted from within to positions of greater responsibility, which created new professional opportunities. Infrastructure-building programs, such as Core VIPP, Boost, and block grants were noted as critical in states' ability to surge because they hired staff and utilized existing contract mechanisms initiated through these programs. Two states that were under hiring restrictions contracted work to universities or consulting companies to ensure work progressed. Other states worked with partners on staff placement in other departments or agencies like the Prescription Drug Monitoring Program (PDMP) to ensure staff coverage and enhance their collaboration. This allowed SHDs and PDMP administrators to work together to leverage PDMPs as a public health tool.

Opioid overdose prevention work requires each state to intensively coordinate efforts with local health departments, state agencies, and a variety of multi-sector partners. Contracting allowed PFS states to identify needed workforce in a timely manner and ensure needed expertise was leveraged in implementation activities. Contracts to implement PFS activities accounted for 51 % of PFS funds. In contrast, personnel costs (salary and fringe) accounted for 33% of PFS funds. There was a negative correlation (Pearson's $R = -0.62$ and $R^2 = 0.4$) between personnel costs and contracting. In states where contracts made up the majority of the budget, personnel costs were low, and the reverse was also true. Overall, PFS states budgeted for 98 contracts. The range was from zero to 20. Contracted funds were primarily used to host and manage PDMPs and evaluate PFS activities. Other contracted activities included: academic detailing, project management, electronic health record data linkage, technical assistance to local communities, and communications.

States that reported challenges hiring and retaining staff also reported delays executing contracts. Even though 14 out of the 16 PFS states had a previously established contract or mechanism in place to fund overdose prevention activities, some states still reported challenges in their execution. States reported that contracts were delayed due to limited staff, staff managing numerous competing projects, hiring restrictions that hampered states ability to hire additional staff, staff turnover, and lack of budget authority to award contracts. Several states reported that contracts were delayed by at least six months, which further delayed contracted organizations from hiring their staff. The ripple effect of these delays meant that some contract work was delayed up to one year post award. In contrast, states that had previously established contracts from prior injury funded work reported being able to move work forward quickly by expanding current contracts.

CDC staff provided technical assistances to states on how they could work through staffing and contracting challenges by offering solutions from other states, facilitating conversations with necessary partners, and making subject matter expertise available where necessary. Despite setbacks, state health departments reported over 200 successes in their first annual progress report. Progress was made by upgrading their PDMPs, funding local health departments to implement community initiatives (e.g., academic detailing, naloxone distribution programs, expanded MAT waiver programs) through existing contracts, and

enhancing partnerships within and outside of the health department to strategically address gaps and barriers to addressing the opioid crisis.

4. Limitations

The results on distribution of funds across spending categories are based on 16 proposed state budgets, which may not reflect final approved budgets due to redirection requests and unobligated funds that occurred during the budget period. Analysis of states' progress and success and challenge stories were based on Year 1 Annual Progress Reports (APR); progress made by PfS funded state health departments during subsequent years and program expansion into more states are not reflected in this analysis. Differences may also exist in the quality and completeness of data reported by states in their APRs

5. Conclusion and Practical Applications

Overdose prevention work is multifaceted, requiring states to be strategic and agile in their response and use of resources. Our analysis showed that having existing infrastructure in place, including personnel, helped states move forward quickly while identifying permanent staff or executing contracts. PfS states that were able to move quickly to establish their overdose prevention programs strategically reassigned staff, hired from within, and leveraged contract mechanisms available to them. Critically important to SHD ability to surge were infrastructure-building programs that had capable staff in place already trained and experienced in implementing public health and injury prevention programs (e.g., Core VIPP, Boost, and public health block grant programs). Future studies could look at impacts to programs that lost staff during this time. While contracting appeared to help a few states overcome challenges faced by hiring restrictions, contracts require SHD staff resources to plan, manage, and negotiate and contractors can also face delays on their end. (Hilliard & Boulton, 2012; Palmer, 2000). SHD that proactively considered implementation challenges and developed strategies for overcoming them in their funding proposals were able to implement activities more quickly. For example, a SHD that budgeted at least six months for hiring new staff and had implementation-ready projects to go in the beginning of their first year were able to successfully expend year one funds. Having previously established partnerships and contracts in place enhanced states' readiness to provide community prevention activities.

Recent reports have highlighted the critical role of building strategic leadership and management skills in the public health workforce to achieve desired outcomes, including the ability to focus on upstream prevention efforts that are also essential for overdose prevention (Frasier, Castrucci, & Harper, 2017). Our analysis revealed that strategic planning and budgeting, existing infrastructure, and a prepared workforce are critical to ensure that public health agencies have the ability to meet emerging challenges and effectively leverage funds to achieve program goals. Greater attention should be directed toward strategically addressing known barriers and timelines in work plans and budgets during the application and selection process to ensure implementation readiness. As more funding became available for the overdose response, CDC supported states in leveraging their public health incident command structures. Future studies investigating states' experiences using

the incident command system could further highlight implications for workforce and best practices for embedding administrative flexibility that increase readiness to surge.

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Biography

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