Disaster Medicine and Public Health Preparedness

www.cambridge.org/dmp

Concepts in Disaster Medicine

Cite this article: Villarroel L, Kenney A, Stegemeyer J and Eller B (2025). The Necessity of a Health and Safety Officer in a Public Health Emergency Operations Center. *Disaster Medicine and Public Health Preparedness*, **19**, e23, 1–4
https://doi.org/10.1017/dmp.2024.314

Received: 26 July 2023
Revised: 19 June 2024
Accepted: 28 October 2024

Keywords:
health and safety officer; emergency operations center; public health; emergency preparedness; COVID-19

Corresponding author:
Lisa Villarroel;
Email: lisa.villarroel@azdhs.gov

The Necessity of a Health and Safety Officer in a Public Health Emergency Operations Center

Lisa Villarroel MD, MPH[1], Alicia Kenney BSW[2], Joshua Stegemeyer MA, PCC-MFT[3] and Brian Eller[2]

[1]Public Health Services, Arizona Department of Health Services, Phoenix, AZ, USA; [2]Office of Health Equity, Arizona Department of Health Services, Phoenix, AZ, USA and [3]Office of Injury Prevention, Division of Prevention, Arizona Department of Health Services, Phoenix, AZ, USA

Abstract

The COVID-19 pandemic response made extraordinary demands on the public health workforce. In response to national studies and local observations about trauma in public health personnel, the Arizona Department of Health Services (ADHS) broadened the scope of their Health Emergency Operations Center (HEOC) Safety Officer position to include not only physical, but mental, emotional, and workplace health and safety. The new Health and Safety Officer (HSO) began in August 2022 and served through the end of the COVID-19 activation. The HSO advocated for staff, counseled HEOC leadership, and validated leadership's prioritization of the health and wellness of HEOC staff. The impact of the HSO was felt within the HEOC and beyond, and this position should be considered a cost-effective, meaningful intervention in all jurisdictions to protect public health personnel. The HSO position is now a permanent part of the ADHS HEOC.

The scope and duration of the COVID-19 pandemic response made extraordinary demands on the public health workforce. Studies conducted during the first years of the pandemic found that symptoms of adverse mental health conditions, including post-traumatic stress disorder, disproportionately affected public health workers involved in the response.[1,2]

Prior to the COVID-19 pandemic, Health Emergency Operations Centers (HEOCs) routinely appointed a Safety Officer to give an initial safety briefing, monitor incident operations, and advise the Incident Commander on the physical and operational safety of incident personnel. The Safety Officer had the authority to stop unsafe action at any time,[3] although physical safety concerns in a public health HEOC were often limited to awareness of restrooms, trip hazards, and fire escapes.

During the COVID-19 pandemic, the Safety Officer position and other well-intended measures failed to meaningfully address stress and burnout. They were further undermined by organizational culture and structural factors. For example, although HEOC leaders advised their team to take time off when needed, they did not do so themselves. The Employee Assistance Program was brought in as a resource to staff, but few HEOC members attended their presentation. Additionally, due to the lack of trained replacements, HEOC staff rarely took sick, rest, or mental health days.

These observations were anecdotal until the second year of the pandemic response and the completion of Appendix P, a written collection of lived experiences gathered from HEOC staff in connection with the Year 2 hotwash (as presented by Dr. Villarroel, APHA 2022 Conference). Appendix P provided evidence that HEOC staff were traumatized by the workload and moral injury of the response. Given the perceived lack of support, they questioned agency commitment to their own health and well-being. However, it was notable that HEOC's pride in their public health identity remained unshaken.

The conclusion from Appendix P was that the public health workforce during the pandemic prioritized the mission above their personal health and wellness, which adversely affected themselves and their long-term performance. In fact, it appeared as if the HEOC workforce suffered from a cognitive dissonance between two equal yet opposing values that arranged the need to take care of oneself and/or family against the need to fully devote oneself to potentially life-saving efforts at work. This tension degraded professional performance, decreased personal satisfaction with life, and reduced their faith that ADHS was invested in their health and well-being.

ADHS recognized the need for a system-based intervention in the HEOC to address the health and safety of the staff.[4] With the Safety Officer rendered largely vestigial by the fully remote HEOC, a new role was developed: a Health and Safety Officer (HSO) external to the emergent day-to-day operations and command hierarchy. The HSO would attend to the mental health and

well-being of incident personnel as well as the more limited operational and physical safety concerns.

Concept Implementation

Creation of the Health and Safety Officer

With ADHS leadership approval, the HEOC Incident Command worked with the Logistics section to create a Job Action Sheet for the HSO position (Appendix 1). The new HSO position replaced and expanded the former Safety Officer position. All job responsibilities from the Safety Officer were retained, including the authority to remove someone from the HEOC if concerned about their health and/or safety. The new position remained within Incident Command and reported to the Incident Commander.

The stated objective of the HSO was to monitor and recommend measures for ensuring the physical, mental, emotional, and occupational safety of HEOC personnel, and to assess and/or anticipate and prevent hazardous or unsafe situations. Immediate deliverables from the position were to present an initial health and safety briefing, establish a bench of HSOs to rotate every operational period, and collaborate with other experts to ensure safety recommendations were up to date. Ongoing response activities were to regularly check-in with the HEOC, communicate concerns to the HEOC Manager, and present safety messages on mental and physical well-being, as appropriate. At demobilization, activities were to participate in hotwashes, hold emotional debriefing sessions, and create other special reports (e.g., Appendix P) or interventions.

Activation of the Health and Safety Officer

The HEOC Medical Director became the first HSO in August 2022, and quickly identified 3 others through peer recommendation to fill out the HSO bench: 1 licensed counselor, 1 social worker, and 1 school program manager. The 3 additional HSOs were selected not for their professional licensure, but for their accessibility, discretion, and passion for staff well-being. None had a current, active role within the HEOC and thus did not have competing emergency priorities. None of the HSOs answered directly to the Incident Commander outside of the HEOC, and there were no supervisory authority concerns or conflicts anticipated. With their appointments, the HEOC Medical Director took a back seat, remaining on the bench for support.

Throughout their activation in the HEOC, the HSOs produced all deliverables and jointly explored approaches to the new position.

Immediate deliverables

Upon activation, the HSO bench created a rotating schedule to correspond with operational periods. The initial health and safety briefing was given in August 2022, explaining the new HSO position and responsibilities, the specific physical health considerations for staff (vaccination, OSHA, HEOC room safety, workplace personal protective equipment), wellness considerations (workload, mental health), and a description of the crisis lines as a resource.

Ongoing activities

The HEOC Manager gave the on-duty HSO the first position in every briefing, with no time limit. This became a weekly 1-6 minute Health and Safety briefing, which opened with the statement of principle: "Your health and safety takes priority over these events" (Figure 1). The HSO proceeded to discuss any new physical, mental, and emotional safety concerns, and ended with a discussion, exercise, or demonstration of available resources. The morning after each Health and Safety briefing, HSOs emailed a copy of the presentation and recommendations to the entire HEOC.

Figure 1. The title slide for the weekly HEOC Health and Safety Officer briefing: Your health and safety takes priority over these events.

Although only 1 HSO was on duty at a time, all 4 HSOs met weekly to prepare briefings, discuss trends in staff well-being, and highlight upcoming concerns. The total time an HSO worked per week ranged between 1-5 hours. This commitment was cleared by their supervisors during the selection process. Over the course of their activation, the HSOs created templates for health and safety briefings, a weekly activity chart, and a Health and Safety Officer Guide for the benefit of other jurisdictions.

Demobilization activities

When the COVID-19 HEOC deactivated in April 2023, the HSOs returned to their normal job positions at the department, but continued to meet monthly on demobilization tasks, such as HEOC staff well-being assessments, HEOC hotwashes, HSO emotional debriefings, and HEOC recognition events. Emotional debriefings were offered by the HSOs to all HEOC members in November 2022, with an emphasis on feelings about the response. Findings from these debriefings were conveyed to HEOC leadership. The emotional debriefings also contributed to the creation of an HEOC recognition event in response to staff concerns about a perceived lack of recognition. After the close of the HEOC, HSOs sat in on hotwash debriefings and continued to meet with the HEOC Leadership on systematic ways to improve the health and safety of HEOC staff. For example, the HSOs recommended a change to the HEOC time-tracking system, which paradoxically seemed to reward individuals who worked the greatest number of HEOC hours per week but failed to capture the time that each HEOC member worked on their non-HEOC public health responsibilities.

Discussion

The impact of the COVID-19 pandemic response on public health personnel has now been well documented.[5] According to a 2022 Centers for Disease Control and Prevention (CDC) study, public health workers who spent most of their time on the COVID-19 response experienced a high prevalence of mental health symptoms including post-traumatic stress disorder and suicidal ideation. Notably, reported symptoms decreased when employers increased mental health resources. However, only around 1 in 4 surveyed public health workers perceived an increase in mental health resources.[6]

Organizational leaders across the country are working to create systematic ways to prevent and mitigate the impact of occupational stressors like the pandemic response. For example, a 2022 CDC

https://doi.org/10.1017/dmp.2024.314 Published online by Cambridge University Press

Public Health Infrastructure Grant seeks to "recruit, retain, support and train the public health workforce."[7] However, evaluations of those efforts are scant thus far. Even beyond the public health sector, a scoping review found a distinct lack of research evaluating organizational interventions addressing well-being in health care workers in disaster settings.[8]

The HSO position has been an important systematic change for ADHS. HSOs were active in the ADHS HEOC for nearly 8 months, briefing the 100 HEOC personnel still working on the pandemic response, and an additional 50 during concurrent activations for Mpox and the pediatric hospital surge. Their reach spread beyond the HEOC through their briefings, resources, and input that were forwarded throughout the department.

The response to the new HSO position was instantly positive. HEOC personnel reported that the position was a welcome system change that indicated leadership support for their health and wellness. Attendees of HEOC emotional debriefings voiced appreciation for the HSO and advocated that such debriefings become a regular part of demobilization. There were department-wide requests for the briefing presentations, particularly on sensitive topics of moral injury and powerlessness. In a 2023 HEOC recognition event, multiple HEOC members wrote on feedback forms about the positive impact of the HSO position (e.g., "This version of the Safety Officer should be implemented in all responses at the beginning").

The leadership response to the HSO position was also positive. During HEOC briefings, the HEOC Manager never rushed the HSO presentations, and followed up publicly with questions on the presented topic (e.g., "I hear what you're saying, but what should I do if I can't unwind?"). The HEOC Policy Chief requested HSO assistance in planning a recognition event for the HEOC. The HEOC Incident Command staff sought HSO advice outside of the HEOC for potentially difficult events or topics in their bureaus and divisions (e.g., staff reorganization, loss of grant opportunities). ADHS leadership began including HSOs in their meetings on staff health and well-being.

The Arizona public health community response to the HSO has also been positive. The HSO position, duties, and impacts were presented to Arizona county and tribal health departments. Arizona's 2 largest counties acknowledged the necessity of an HSO in all their future HEOC activations, one of which has requested technical assistance from the ADHS HSO to support their own efforts.

Replication of this position in all jurisdictions is possible under the following conditions. First, there must be genuine buy-in from the HEOC and departmental leadership. Second, the HSO must be a distinct position within the organizational chart and have no other HEOC related responsibilities. Third, leadership should attend early HSO bench meetings to understand and enhance momentum of the position. Fourth, there should be more than 1 HSO during any activation to reduce HSO burnout and to improve organizational resilience for future activations.

To implement the HSO role in an HEOC (or any Emergency Operations Center in which staff face stress, moral injury, or trauma), an organization should:

(1) Acquire leadership approval for the HSO position prior to the activation of an emergency response.
(2) Customize the HEOC Health and Safety Officer Job Action Sheet for the particular organization (Appendix 1).
(3) Identify potential HSOs from different areas of the organization to minimize the risk that all would be activated to hold a full-time position in the HEOC for a particular response.
(4) Set a threshold to activate the HSO based on time and intensity of a particular response.
(5) Build in evaluations, not only to measure the health and wellness of the HEOC staff, but of the impact of the HSOs.

Beyond these basic steps and principles, HSO implementation could be approached in many ways depending on the personalities and circumstances involved. For example, ADHS HEOC HSOs sang original voice-banjo compositions with lyrics about staff wellness, organized a 3 minute drawing exercise guided by a remote art therapist, and developed presentations on how to best access the Employee Assistance Program. Further, the focus and scalability of the HSO position can be adjusted according to the emergency. For a localized measles outbreak, the HSO could stress the importance of sustainable work hours and protective vaccinations, given the low likelihood of associated moral injury. For a widespread pandemic, the HSO would have a long-term, multifaceted focus on responders' physical, mental, and emotional well-being.

The HSO position is now a permanent role in the ADHS HEOC, complete with a bench, job action sheets, local resources, guides, and sample briefings ready for the next activation. In fact, based on our experience in the ADHS HEOC, the 4 original HSOs authoring this note believe our work should expand beyond the HEOC. There should be an HSO, distinct from wellness coordinators, with jurisdiction over entire health departments to support personnel changes, moral challenges, and funding disappointments that come with the work of public health.

Limitations

There are noted limitations to the implementation and evaluation of the first HSO at ADHS.

First, it took many months to get the initial approval to create the position. The position was only approved in anticipation of the concurrent HEOC activation for the pediatric hospital surge of 2022. Requests from numerous section leads likely played a role in the approval. As such, the full potential of the position was not achieved, nor was its full scope tested. What would have been the impact on staff if HSOs had been in place from the beginning of the pandemic? What would have been the impact on leadership if the HSO removed someone due to concerns for their mental health or well-being?

Second, the evaluation component of the new position was insufficient. Anecdotally, the impact was significant (one HSO referred to the HEOC personnel response to the Health and Safety presentations as "dehydrated people drinking water"), but this could be subject to bias. Although personnel completed surveys at the emotional debriefings, the data points were too small to include in this manuscript, and a more structured evaluation to defend and grow the position is indicated. There is limited literature on similar evaluations, which is likely due to the challenge of creating an evaluative process during an active emergency.

Conclusion

Expansion of the Safety Officer to an HSO position was a simple, inexpensive intervention that helped protect staff during an emergency activation. Additionally, it showed staff that their health and safety were important. Beyond the need to protect public health staff, this intervention fits into the Surgeon General's Workplace Mental Health & Well Being Framework[9] as a visible, tangible intervention seen and felt by members in the HEOC. A Health and Safety Officer Guide has been created, with position descriptions and

https://doi.org/10.1017/dmp.2024.314 Published online by Cambridge University Press

responsibilities. Activating this position can be easily reproduced in other emergency centers to support a mission-driven workforce.

Supplementary material. To view supplementary material for this article, please visit http://doi.org/10.1017/dmp.2024.314.

Data availability statement. No data is available to external entities.

Acknowledgments. Jessica Rigler, Sheila Sjolander, Carla Berg, Teresa Ehnert, Ed Valinski, Eugene Livar, Siman Qaasim, Teresa Manygoats, Jennifer Cunico, Matthew Jager.

Author contribution. L.V., A.K., J.S. and B.E. contributed equally to the conceptualization and drafting of this manuscript. L.V. created the first draft of the Appendix and A.K., J.S. and B.E. edited the Appendix.

Funding statement. No funding played into the creation of this initiative or manuscript.

Competing interest. No authors have competing interests.

Ethical standard. The authors have no conflicts of interest or other disclosures to report.

References

1. **Bryant-Genevier J**, **Rao CY**, **Lopes-Cardozo B**, et al. Symptoms of depression, anxiety, post-traumatic stress disorder, and suicidal ideation among state, tribal, local, and territorial public health workers during the COVID-19 pandemic — United States, March–April 2021. *Morb Mortal Wkly Rep.* 2021;**70**:1680–1685. https://doi.org/10.15585/mmwr.mm7048a6
2. **deBeaumont Foundation.** Rising stress and burnout in public health. Updated March 2022. Accessed April 15, 2022. https://debeaumont.org/wp-content/uploads/dlm_uploads/2022/03/Stress-and-Burnout-Brief_final.pdf
3. **FEMA.** Resource typing definition for response operational coordination: safety officer. Updated June 2021. Accessed April 15, 2022. https://www.fema.gov/sites/default/files/documents/fema_nqs-imt-safety-officer_nims-509.pdf
4. **Morabia, A.** Public health expertise cannot be improvised. *Am J Pub Health.* 2020;**110**:1590–1590. https://doi.org/10.2105/AJPH.2020.305941
5. **deBeaumont Foundation**. The public health workforce in the COVID-19 era. Updated August 2022. Accessed April 15, 2023. https://debeaumont.org/phwins/2021-findings/
6. **CDC**. Symptoms of mental health conditions and suicidal ideation among state, tribal, local, and territorial public health workers – United States, March 14-25, 2022. *Morb Mortal Wkly Rep.* 2022;**71**(29):925–930. https://doi.org/10.15585/mmwr.mm7129a4
7. **CDC.** Public health infrastructure grant program. Updated March 31, 2023. Accessed December 1, 2022. https://www.cdc.gov/infrastructure/program-overview.html
8. **Palmer J**, **Ku M**, **Wang H**. et al. Public health emergency and psychological distress among healthcare workers: a scoping review. *BMC Public Health* 2022;**22**:1396. https://doi.org/10.1186/s12889-022-13761-1
9. **Office of the Surgeon General**. *The U.S. Surgeon General's Framework for Workplace Mental Health & Well-Being*. Washington, DC: Department of Health and Human Services; 2022.