

# Workplace challenges among local public health workers during the COVID-19 pandemic



Bassett Healthcare Network  
Bassett Medical Center

Emily Lasher<sup>1</sup>, Anne Gadomski, MD, MPH<sup>1</sup>, Elizabeth Seale, PhD<sup>2</sup>

<sup>1</sup>Bassett Research Institute

<sup>2</sup>State University of New York College at Oneonta



## Introduction

Though health departments have led the public health response in mitigating the pandemic, few studies in the United States have explored the effects of COVID-19 on the mental health of public health workers (PHWs).

In NYS, local health departments (LHDs) are responsible for responding to disease outbreaks, enforcing public health measures, and issuing county health orders.<sup>1</sup> During the COVID-19 pandemic, NYS LHDs have conducted case investigations and contact tracing, enforced isolation/quarantine orders, and established testing and vaccine clinics.

These efforts have been met with significant challenges, including public criticism and backlash.<sup>2</sup> PHWs have experienced publication of private information, angry and armed protesters at their homes, death threats, vandalism, harassing phone calls and social media posts.<sup>3-6</sup> The impact of these attacks, as well as pandemic-related strain of overwork, on the health of this workforce is slowly being recognized.

A 2021 survey of 26,174 regional and local PHWs revealed 53% had symptoms of at least one mental illness, including depression (30.8%), anxiety (30.3%), PTSD (36.8%), or suicidal ideation (8.4%).<sup>7</sup> Respondents <29 years old, transgender or gender-diverse, and those who worked >41 hours per week reported the highest symptom prevalence. Symptom severity increased with time dedicated to the COVID-19 response.<sup>7</sup>

Some have attributed the stress and struggles of PHWs during COVID-19 to problems that predate the pandemic. Public health has been chronically underfunded,<sup>8</sup> constituting only 3% of US health care expenditures.<sup>9</sup> In 2019, the majority of LHDs (67%) experienced flat funding with either stagnant (52%) or reduced budgets (15%), despite inflation, population growth, and pre-pandemic public health challenges.<sup>10</sup> In NYS between 2011 and 2015, state-allocated funding for LHDs decreased by 40%.<sup>11</sup>

LHDs are significantly understaffed. In NYS, the LHD workforce outside NYC decreased by 33% from 2011 to 2017.<sup>11</sup> The pandemic has exacerbated funding and workforce shortages. Hundreds of PHWs have left their positions.<sup>3, 12-15</sup> In August 2020, a cross-sectional survey of 225 PHWs found that 66% reported burnout.<sup>16</sup>

Understanding the challenges PHWs have faced is critical to reinforcing, revitalizing, and strengthening the public health workforce.

### Study Objective:

*To measure the level and identify the causes of psychological distress among public health workers during the COVID-19 pandemic in NYS.*

## Methods

- Partnered with the New York State Association for County Health Officials (NYSACHO) to survey public health workers using a Knowledge, Attitudes, Beliefs and Behaviors survey.
- Survey distribution
  - NYSACHO emailed the survey invitation three times to 160 officials at 58 NYS LHDs. Recipients were asked to complete the survey and forward it to their employees.
  - Between September 7-20, 2021, PHWs consented and completed the survey via Qualtrics.
- Survey contents
  - Respondents were asked about their experiences working in public health during the pandemic, including questions relating to harassment from the public, workload, work/life balance, etc.
  - The Kessler-6 Index was used to measure psychological distress.
- Analysis
  - Descriptive statistics were calculated, and a regression analysis was conducted to determine the factors associated with PHW psychological distress.
  - Open comments were coded for qualitative analysis.

## Discussion

The factors associated with PHW psychological distress (Model 1), reflect the vast challenges facing our public health system: workforce recruitment and retention, antipathy towards public health, a workforce that feels undervalued and overwhelmed, and restrictive funding streams.

### Workforce Retention and Recruitment

- PHWs are critical in influencing health at the population level, however the number of FTEs working on Article 6 services declined by 7% between 2015 and 2020, in part attributable to an aging workforce (NYSDOH, unpublished data, 2021). Coupled with challenges related to burnout, harassment, and fatigue, many PHWs are retiring earlier due to the pressures of the pandemic response.
- In NYS, over 1,000 additional full-time staff are needed to provide adequate levels of public health services.<sup>17</sup>

### COVID-19 Fatigue and Concern over Exposure

- Lack of boundaries between work and home life for PHWs has led to distress and burnout.
- Fear of contracting the virus has also been a threat to the psychological wellbeing and occupational efficiency of frontline workers.<sup>18-20</sup>

### Threats and Harassment

- PHWs reported frequent harassment and threats while working with the public, over the phone, in person and on social media. Many shared experiences of being yelled at while contact tracing.

### Funding and Job Satisfaction

- One PHW wrote, "Public health funding, especially at the local level, has been cut and public health work has been overlooked and devalued. This has to change." To ensure current functions and prepare for future emergencies, public health funding must be increased significantly and should not be subject to repeated cuts.

### Study Limitations

#### Selection bias

- Surveys only sent to dept leaders
- Only PHWs employed at the time were included

#### Response bias

- Respondents primarily located in Upstate NY
- Possible bias toward over-worked respondents who were passionate about sharing their experiences
- Possible bias against those not participating due to heavy workloads

## Results

231 public health workers from 38 local health departments completed the survey. Due to the methodology, a precise rate of return is not calculable for individuals. On a LHD level, the response rate was 65% (38/58).

### Descriptive Statistics

Respondents were predominately White/Non-Hispanic (89.6%), female (82.1%), full-time employees (95.1%), and located in Upstate New York.

The majority of PHWs have felt overwhelmed, isolated, underappreciated, undercompensated, and have had difficulty with work-family balance. Nearly half (44%) have considered looking for alternative employment, while a quarter have sought professional help.

On a bivariate level, the strongest predictor of distress was job satisfaction (-.388), followed closely by COVID-19 fatigue (.386), and feeling bullied or harassed by the public (.331).

Themes from the qualitative analysis strongly supported these findings.

### Regression Analysis (Table 1)

Model 1 is statistically significant, per the f-statistic, and explains about one-third of the variation (adjusted R-square=.309).

This analysis revealed two additional factors associated with distress: considering leaving their job due to the pandemic and concerns around exposure.

Demographic variables were included in an additional model, though were found not to be statistically significant.

**Table 1. OLS Regression Predicting PHW Distress (Kessler-6)**

	Model 1		
	Unstandardized Coefficients	S.E.	Standardized Coefficients
	B	S.E.	b
Felt Bullied/Harassed by Public	2.634***	.750	.222
Worried about Exposure to COVID-19	1.553*	.757	.128
Considered Leaving Job Because of Pandemic	1.542*	.774	.130
Job Satisfaction Index	-.120***	.036	-.225
COVID Fatigue Index	.418***	.117	.238
Constant	6.619**	2.622	
Adjusted R-squared	.309		
F-statistic	17.74***		
Number of Observations	197		

Statistical significance levels: \*=.05, \*\*=.01, \*\*\*=.001

## Recommendations

- Broader protections and holistic support for PHWs, whether it be legal (i.e. stronger state laws), technological, security, or mental health (integrative health approach).
- Policymakers and hiring agencies should offer competitive salaries, establish loan repayment/forgiveness programs, and promote policies that allow for a positive work-life balance, job security, retiree insurance, and benefits not offered by the private sector.
- Increased investments are necessary to improve how vital public health services are funded to ensure that these public health entities are appropriately staffed, enable PHWs to be fairly compensated for their work, feel valued in their jobs, manage work-life balance, and avoid burnout. These investments are a necessary part of future crisis management.

## Acknowledgements

Thank you to the dedicated governmental public health workers who, despite long-hours, burnout, harassment and exhaustion, persevered throughout pandemic response in New York State and across the nation. Your public servitude saved lives. To those who responded to the survey, thank you for taking the time to share your experiences. We would also like to thank Dr. Caroline Gomez-DiCesare and Jim Zians for early work in survey design and Cristina Dyer-Drobnack for assisting with survey distribution.

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## **CONTACT INFORMATION**

Please reach out to Emily Lasher  
([emilyglasher@gmail.com](mailto:emilyglasher@gmail.com)) with any questions.