

The Effects of the COVID-19 Response on Public Health: Mental Health, Burnout, and Essential Functions

CSTE Disaster Epi
Workgroup

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Presented by
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Collaboration

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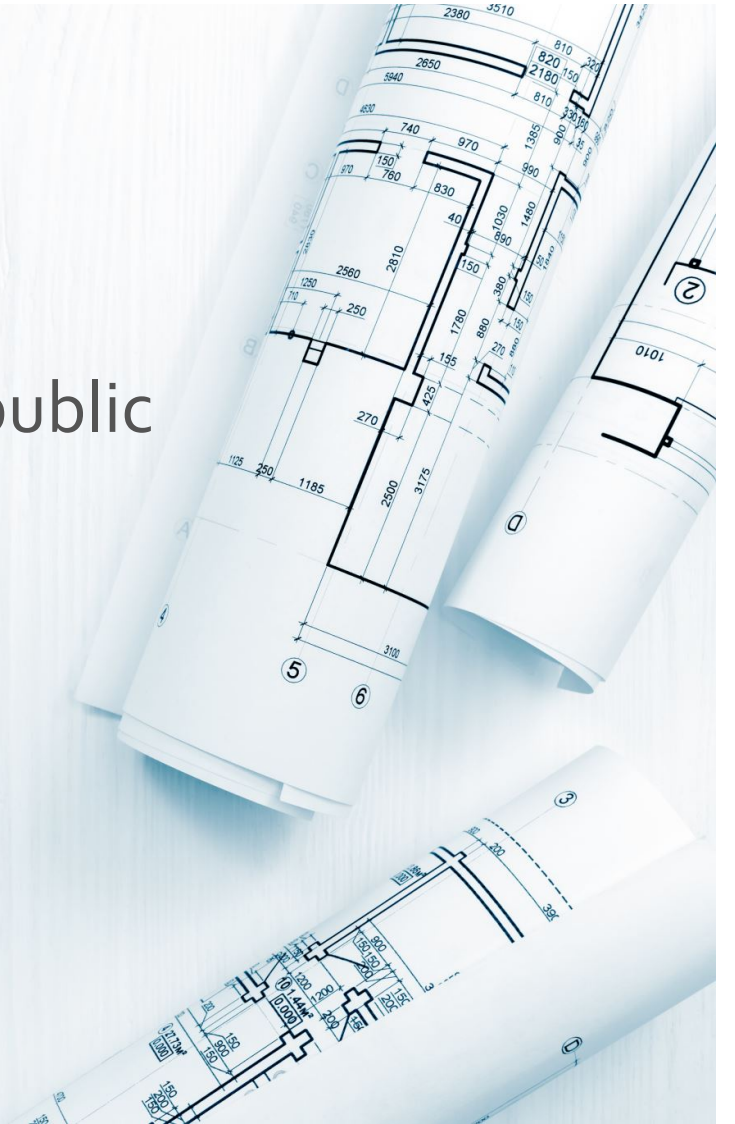
Objectives

To assess the effects of the COVID-19 response on the U.S. public health workforce:

- Mental and physical health
- Risk and protective factors for burnout
- Short- and long-term career decisions
- Essential functions and tasks

Project Inception

- Early discussions about pandemic-related mental health challenge among public health practitioners were community-focused.
- We identified a need for "internal" occupational assessment.



Background

Frontline Healthcare Workers

- Among healthcare workers treating COVID-19 patients in China (Lai et al., 2020):
 - 72% reported feeling distress
 - 50% reported symptoms of depression
 - 34% reported experiencing insomnia
 - 45% reported symptoms of anxiety
- Among frontline healthcare workers who treated SARS patients in Hong Kong (Poon et al., 2004) and Canada (Maunder et al., 2006):
 - Higher self-reported anxiety, worry, and burnout scores than controls
 - Anxiety was correlated with burnout
 - High burnout continued among 30% of workers 1-2 years later

Background

Public Health Workers

- Pre-pandemic, the U.S. public health workforce faced serious challenges (Association of Schools of Public Health, 2008; Leider et al., 2018):
 - Chronic underfunding
 - Expansion of scope
 - Challenges hiring and retaining staff
 - Anticipated retirements
- Mid- and post-pandemic, the potential burnout of these frontline workers is alarming



1. Cross-sectional survey of public health professionals via social media groups, professional networks, and listservs (Status: Ongoing)

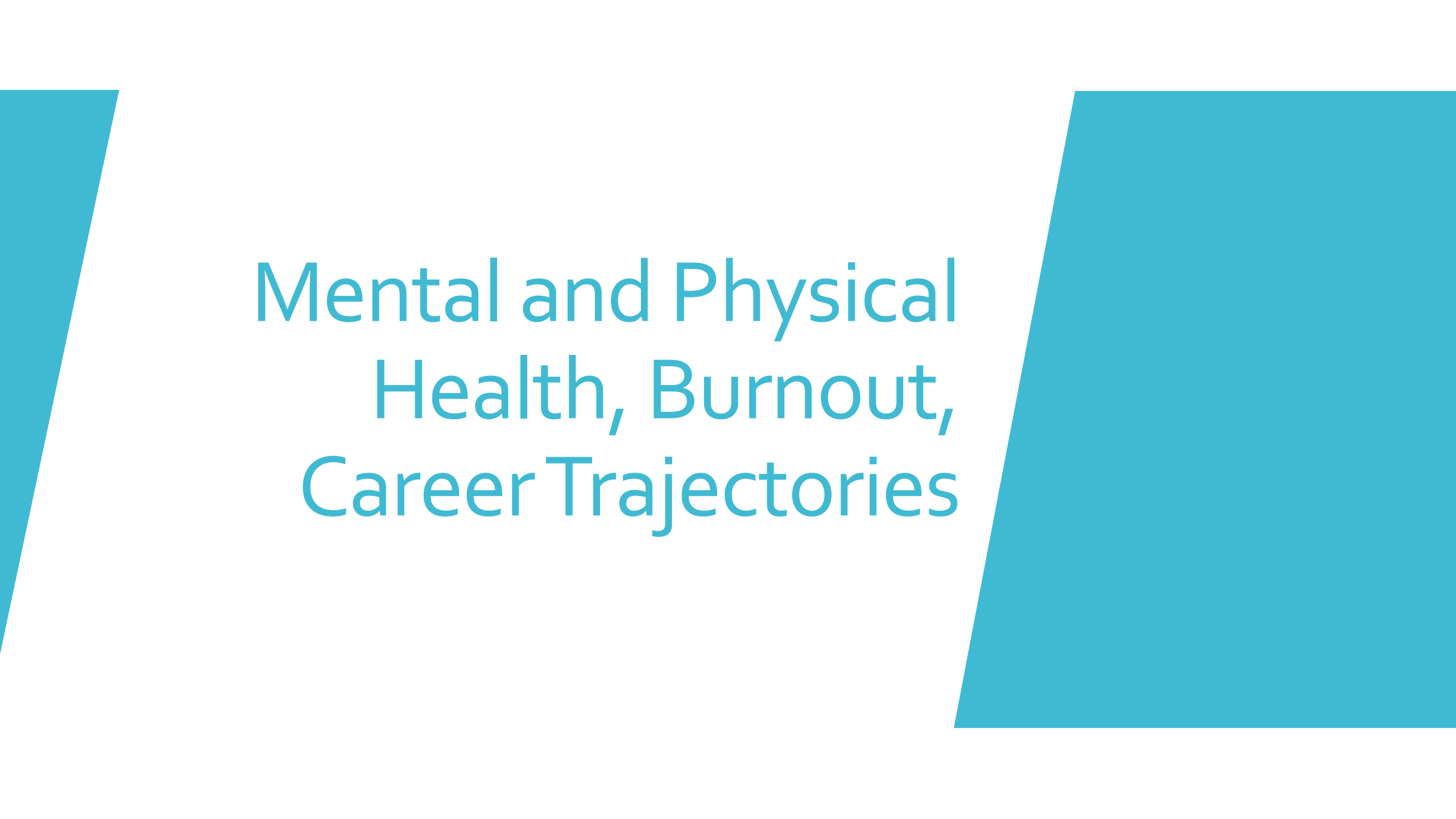


2. Key informant interviews of selected survey volunteers (Status: In progress)



3. Longitudinal study (Status: Dependent on future grant funding)

Methods

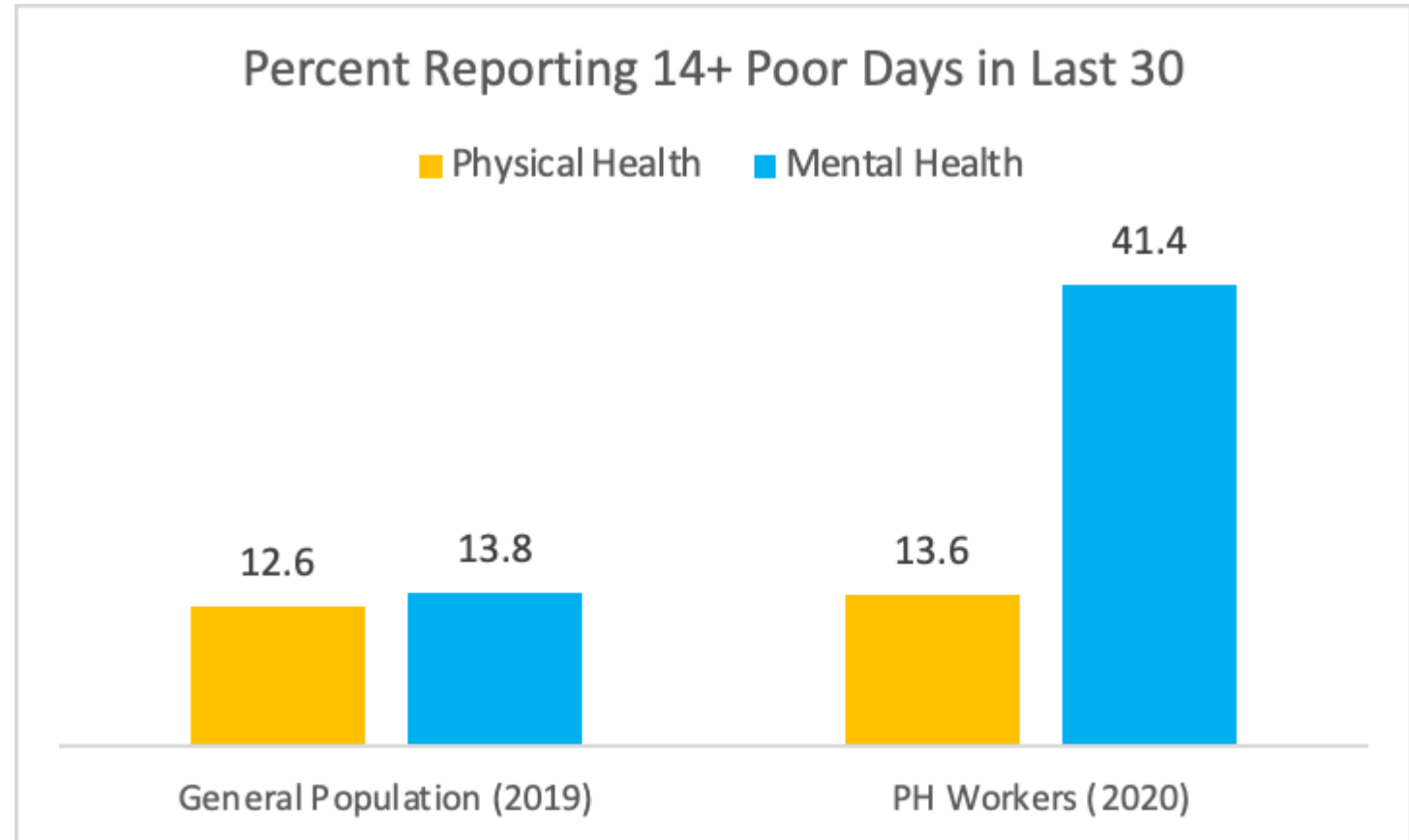


Mental and Physical Health, Burnout, Career Trajectories

Demographics

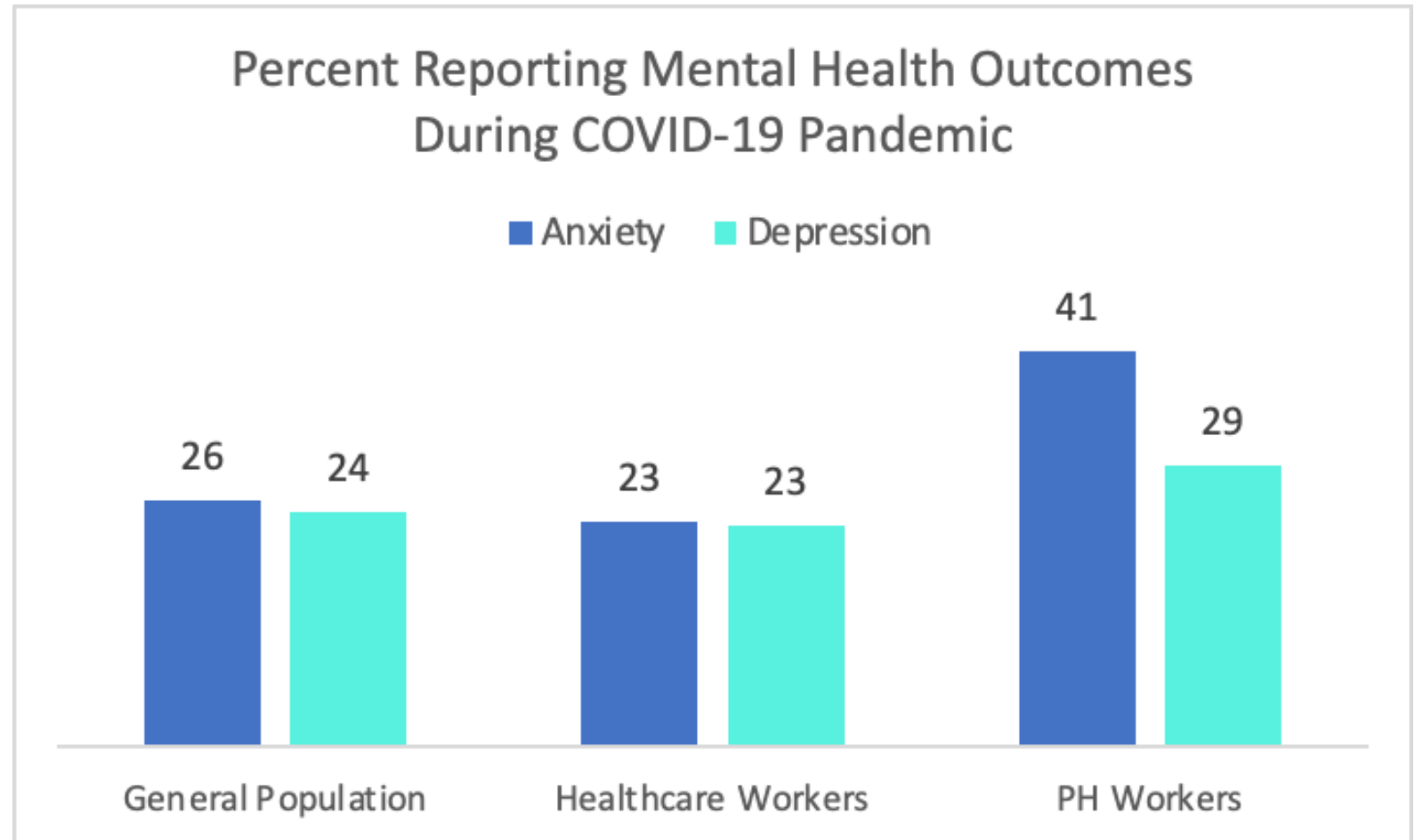
- Survey Responses:
August 23 – September 11, 2020
- 225 public health workers
- 31 U.S. states and the District of Columbia
- 56% from Western states
- 79% Public health practice (78.9%)
- 85% female
- 77% White non-Hispanic
- 60% under the age of 40

Wellbeing



General population (Centers for Disease Control and Prevention, 2019)

Anxiety & Depression



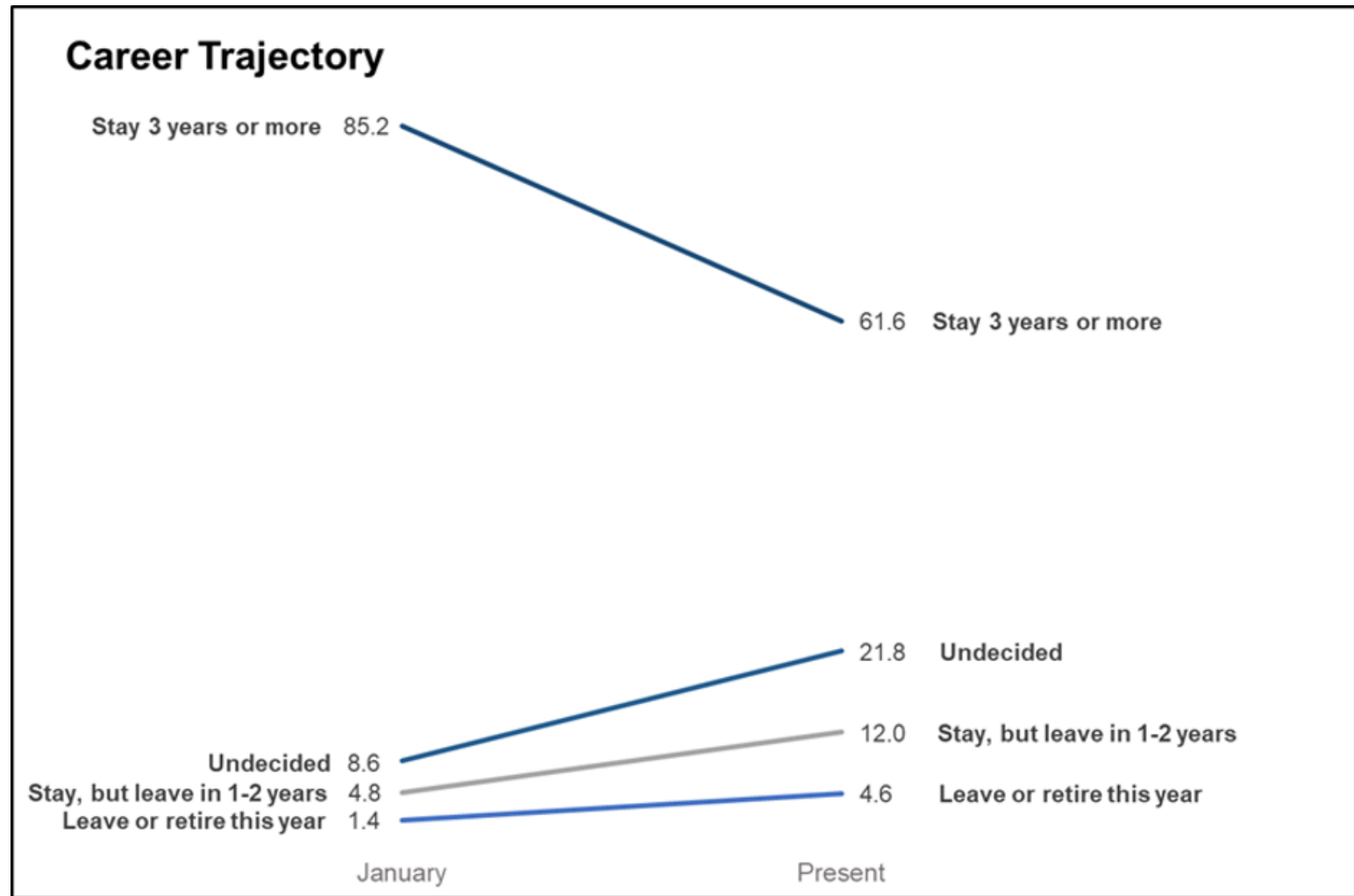
General population (Czeisler et al., 2020)

Healthcare workers (Pappa et al., 2020)

Burnout

- 66% overall
- Higher among females (68%) than males (60%)
- Highest among those with 1-4 years of experience (72%)

Impact of COVID on Career Trajectory



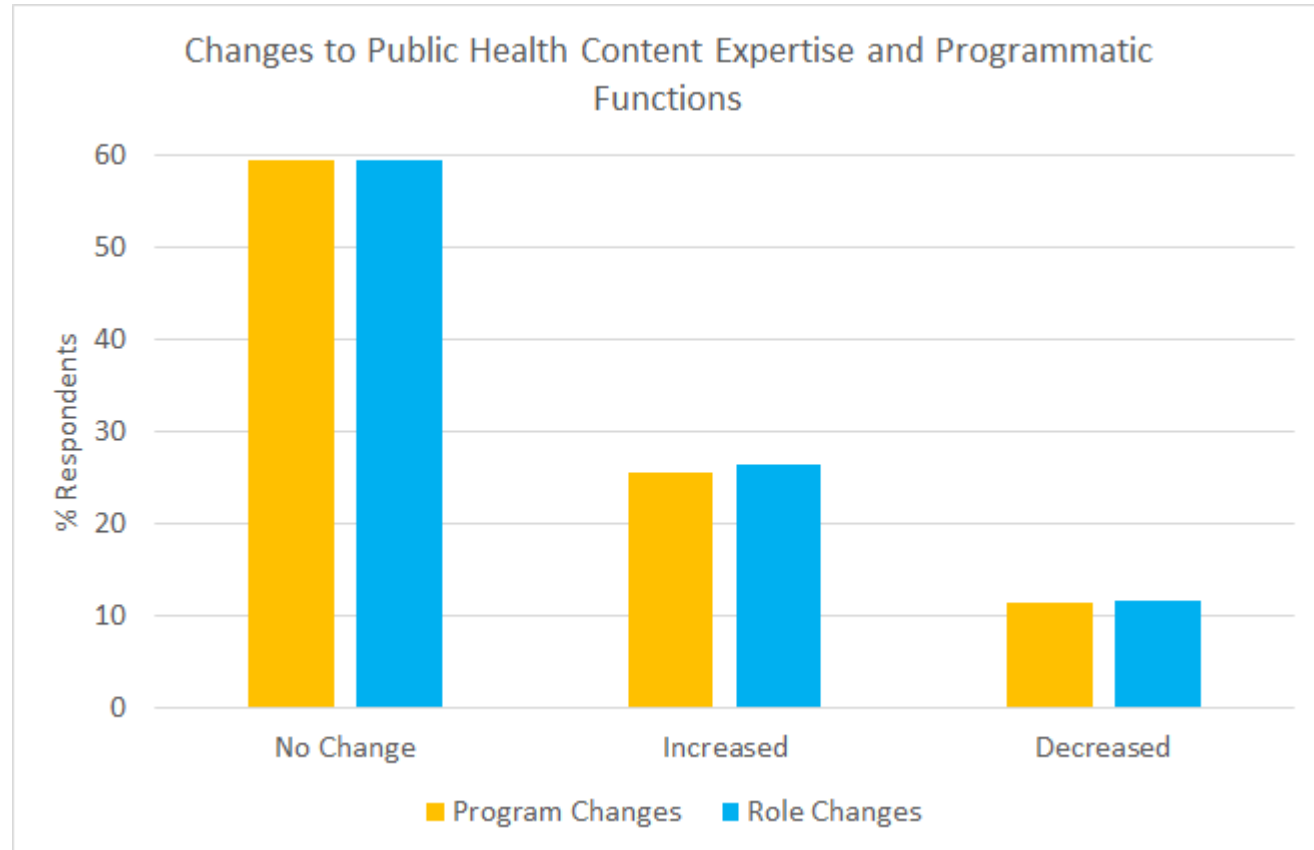


Gaps in Workforce and Public Health Functions

Demographics

- Survey Responses:
August 23 – October 5, 2020
- 298 public health workers
 - 16 (5%) new hires
 - 282 (95%) worked in public health pre-pandemic
- 62% from Western states
- 84% Public health practice
- 82% female
- 74% White non-Hispanic
- 60% under the age of 40
- 51% had 1-9 years of experience
 - 38% had 10+ years

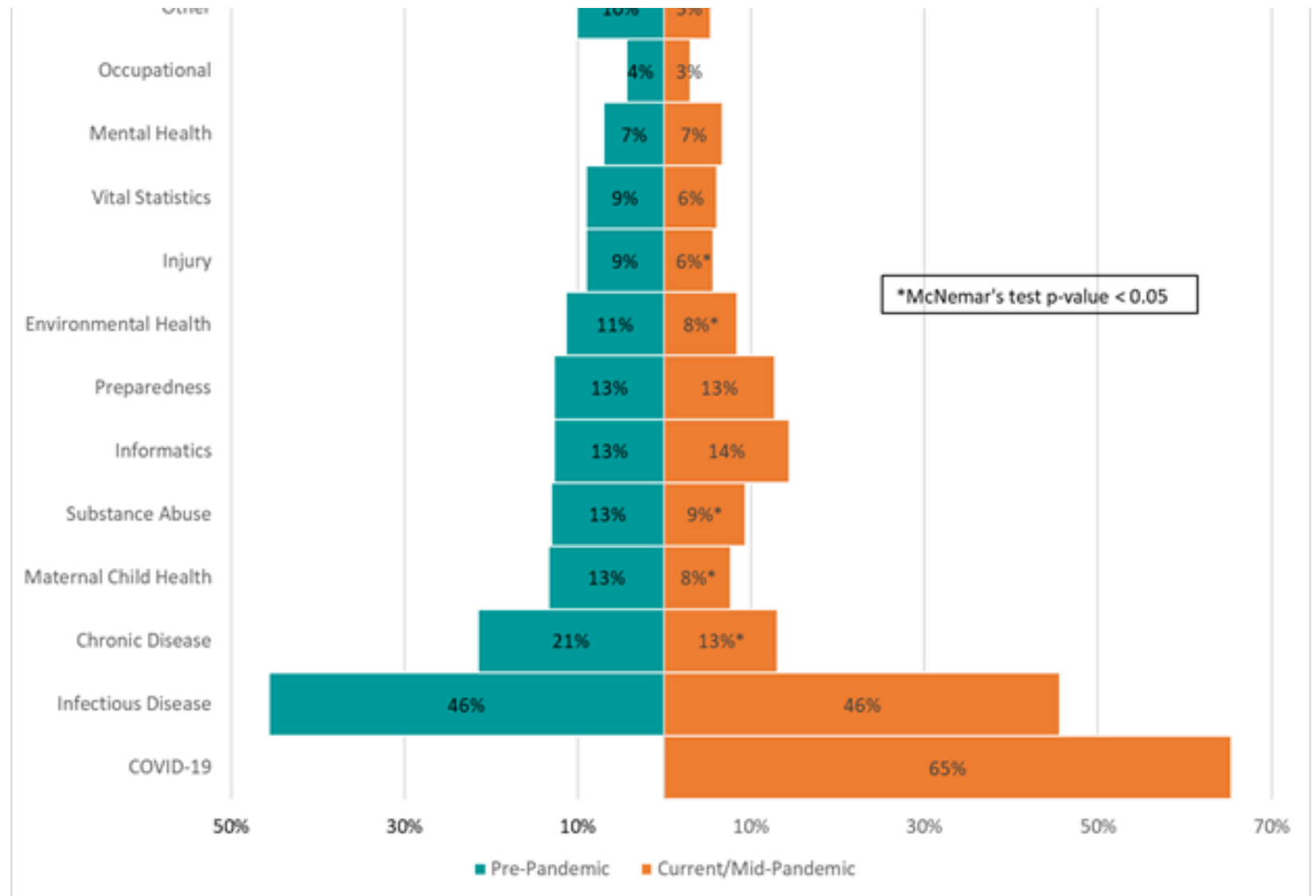
Pre-Pandemic Public Health Workforce (n=282)



Types of Program or Content Expertise Covered (pre- vs. current/mid-pandemic)

All respondents (n=298)

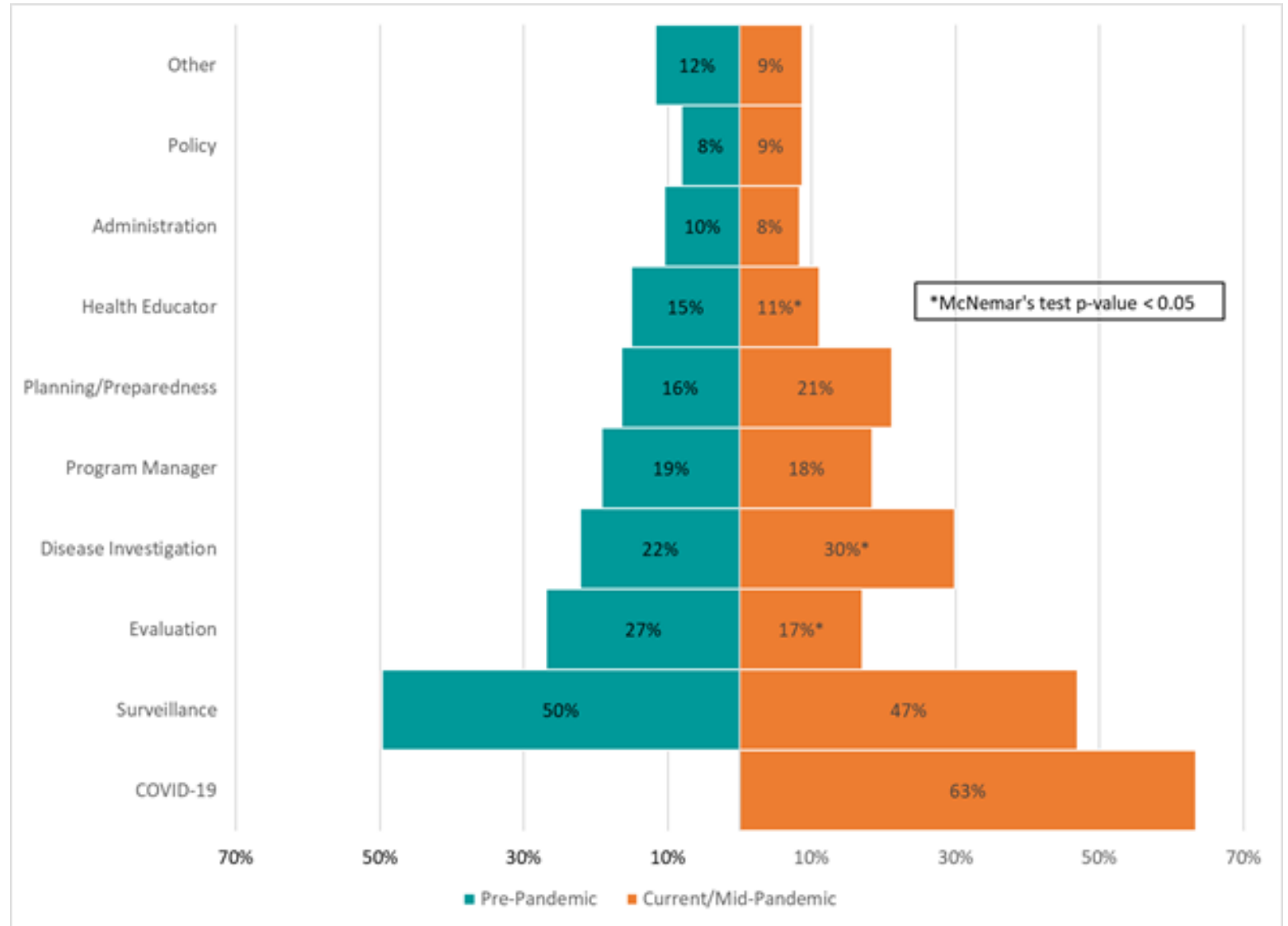
Total number of functions/roles increased from 509 to 607 or 1.7 to 2.0 areas per person



Types of Programmatic Functions Covered (pre- vs. current/mid-pandemic)

All respondents (n=298)

Total number of functions/roles increased from 536 to 697 or 1.8 to 2.3 roles per person



During the response to COVID-19, what routine duties or services have/are not able to be done?

What pre-pandemic public health services are not getting done now, like foodborne investigations?

- Investigations related to other communicable and non-communicable diseases (e.g., STIs, enterics, Hep B and C, blood lead, vectorborne, immunizations)
- Routine disease surveillance and evaluations of surveillance programs
- Closure of public health facilities limits walk-in programs for addiction, stakeholder collaborations, MCH programming
- Grant-funded work (e.g., opioid abuse prevention)

From where
are COVID-19
response staff
being pulled?

Content Expertise

Program	%
Infectious disease	47
Chronic disease	23
Substance abuse	16
MCH	15
EH	14
Informatics	13
Preparedness	13
Injury	11
Vital Stats	11

Programmatic Functions

Role	%
Surveillance	56
Evaluation	29
DIS	27
Planning/ preparedness	21
Program manager	19
Health education	16
Administration	11
Policy	10

Where was workforce maintained during pandemic?

Content Expertise

Program	% pre-pandemic workers
Infectious disease	49
Substance abuse	49
Preparedness	47
Informatics	39
Vital Stats	37
MCH	33
EH	32
Injury	30
Chronic disease	20
OH	15

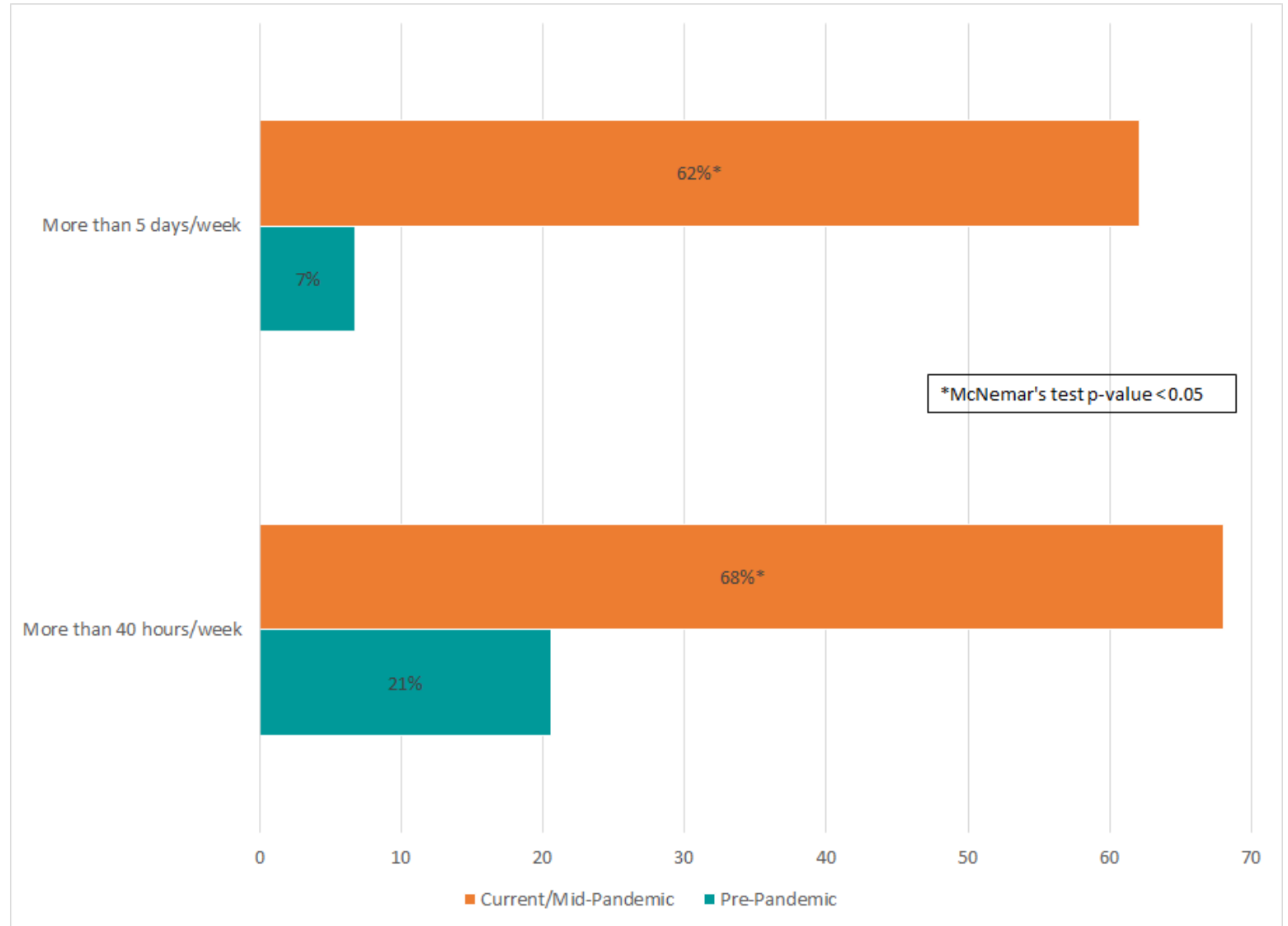
Programmatic Functions

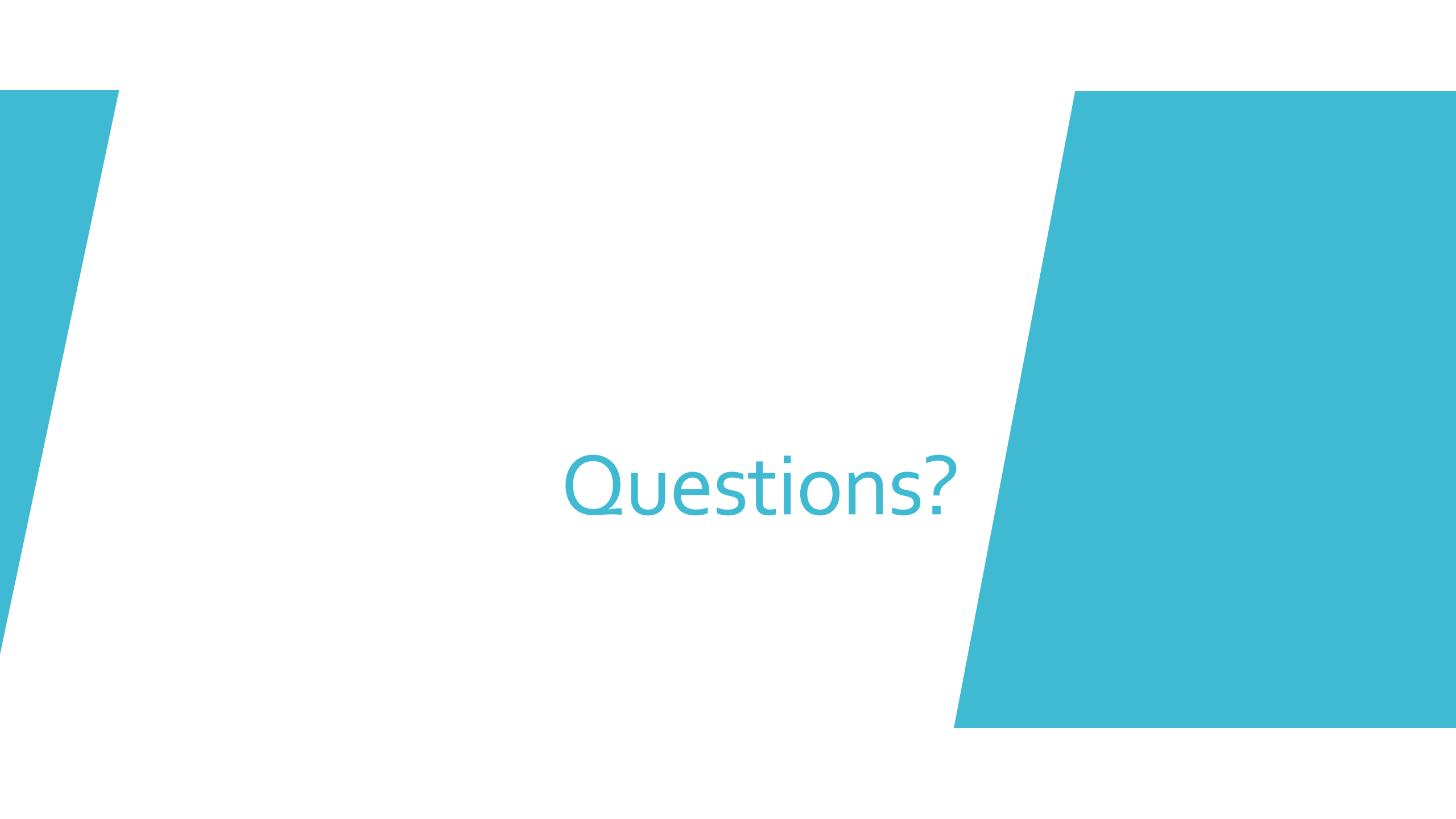
Role	% pre-pandemic workers
Surveillance	71
Program manager	42
Policy	25
Health educator	24
Planning/ preparedness	22
DIS	18
Evaluation	18
Administration	13

Changes to Workdays/Hours per Week

Average days per week
increased by 0.8 days

Average hours per week
increased by 11.2



The image features a white background with two large teal geometric shapes. On the left, a teal triangle points towards the center. On the right, a teal trapezoid is positioned, also pointing towards the center. The word "Questions?" is centered between these two shapes.

Questions?

Discussion Question

Thinking about the COVID-19 response, at the **public health system level, what stressors from local-, state-, or federal-level partnerships** (such as reporting, guidance, meetings) have impacted your or your colleague's mental health most in your opinion?

Contact Information



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The public health response to the SARS-CoV-2 (COVID-19) pandemic is unprecedented in recent history; as such, it is taking a toll on the health and well-being of essential workers. As the response will likely continue for months and intensify in some areas, understanding the on-going impacts on public health practitioners will allow us to modify and adapt policies and procedures to allow for a more sustained and healthy workforce.

The goal of this survey is to systematically assess the impacts of the COVID-19 response on the mental and physical health of epidemiologists and other public health workers; identify risk and protective factors for burnout within workplaces and communities; and understand short- and long-term career decisions that may result from the pandemic and response.

The target population of this assessment includes epidemiologists and those working in public health doing epidemiology-related functions who have been directly and indirectly impacted by the public health response to COVID-19. This survey was reviewed by the University of Delaware Institutional Review Board and determined to be exempt (IRB #1641836-1).

Do you wish to participate in this assessment?



[https://tinyurl.com/
covidphworkforce](https://tinyurl.com/covidphworkforce)

Open Survey
Link

