Working in hospitals can be highly stressful and even dangerous, with the risk to employees of injury or illness exceeding that of workers in manufacturing or construction (OSHA, 2021). Prior research has examined the impact of this work-related stress on doctors’ and nurses’ mental health. However, we know much less about the effects of work-related stress on the mental health of healthcare service workers.

As evident during the COVID-19 pandemic, healthcare service workers are exposed to similar workplace stresses and risks as doctors and nurses. Research on the social determinants of health suggests that service workers may face additional stressors less commonly experienced by nurses and doctors, including racism and material hardship, and may be less likely to have access to quality mental health care. This research brief presents findings from mental health screening tools administered to nurses and healthcare service workers one year into the COVID-19 pandemic.

This research brief uses data from the Healthcare COVID Survey, which was conducted from March 2021 through May 2021. Participants were recruited by email and Hustle, a peer-to-peer text messaging system. This sample includes 536 unionized healthcare workers from four Pittsburgh-area hospitals belonging to the same health network. The survey asked a set of questions about their mental health. Mental health measures included commonly used screens for depression (PHQ-2), suicidal ideation (Question 9 from PHQ-9), a COVID-modified posttraumatic stress disorder (PTSD-5), generalized anxiety disorder (GAD-7), and vicarious trauma (Vicarious Trauma Scale). Items related to personal and employment burnout (Copenhagen Burnout Inventory) and perceived stress (PSS-4) were also included. Descriptive statistics were used to report the percentage of respondents with a positive screen.

Note. See the appendix for more information on these measures.
### Background: Nurses vs. Service Workers

<table>
<thead>
<tr>
<th></th>
<th>Nurses</th>
<th>Service Workers*</th>
</tr>
</thead>
<tbody>
<tr>
<td>(308 workers)</td>
<td></td>
<td>(228 workers)</td>
</tr>
</tbody>
</table>

#### In both groups, workers are **predominantly female**.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Nurses</th>
<th>Service Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>91%</td>
<td>79%</td>
</tr>
<tr>
<td>Male</td>
<td>9%</td>
<td>21%</td>
</tr>
</tbody>
</table>

#### Most workers in both groups are **White**, but the proportion of Black workers is higher among service workers.

- Smaller race/ethnicity groups are included in the “Other” category, such as Latino/a, Asian/Pacific Islander, Native American Indian, and multiracial.

#### Nurses are **slightly younger** than service workers.

- **Median Age**: 32
- **Median Age**: 39

#### A larger proportion of nurses have an **associate degree or higher**.

- **83%** Had an Associate Degree or Higher
- **48%** Had an Associate Degree or Higher

#### There is a **huge difference (almost $11 an hour)** in median wage levels between nurses and service workers.

- **Median Hourly Wage**: $29.45
- **Median Hourly Wage**: $18.50

#### Also, there is an **enormous difference ($30,000)** in the median annual household income between nurses and service workers.

- **Median Household Income**: $72,500
- **Median Household Income**: $42,500

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*The term “service worker” is used to include all workers covered by service/technical/clerical employee union contracts, such as food service workers, housekeepers, patient transporters, patient attendant, medical/nursing assistants, secretary, office coordinators, pharmacy/cardiac/central processing monitor technicians, phlebotomists, etc.*
Well-established screening tools were used to understand the frequency of mental health problems among nurses and service workers.

The results of the survey show that nearly 30% of both nurses and service workers experience depression and anxiety symptoms. About 10% of both nurses and service workers also screened positive for suicidal ideation. Thirty-one percent of nurses and 30% of service workers reported experiencing PTSD symptoms related to the COVID-19 pandemic. There was no significant difference between nurses and service workers regarding the portion of workers with positive screens for depression, anxiety, PTSD, and suicidal ideation.

Note. Mental health screens are not diagnostic tools; rather, they are a valid, effective method of identifying when further discussion or evaluation is indicated.
Over half of workers reported high or moderate personal burnout. Two-thirds of nurses and one half of service workers reported high or moderate work-related burnout. Three-quarters of nurses and half of service workers reported high or moderate vicarious trauma.

**Personal Burnout**

- High: 16%
- Moderate: 42%
- No/ Low: 42%

**Work-Related Burnout**

- High: 22%
- Moderate: 33%
- No/ Low: 45%

**Vicarious Trauma**

- High: 30%
- Moderate: 48%
- Low: 22%

- High: 13%
- Moderate: 36%
- Low: 51%

Nurses
Service Workers

**Personal burnout** indicates physical and psychological fatigue that accumulates over the day. 58% of nurses and 55% of service workers experience moderate or high levels of personal burnout. There was no significant difference in the proportions of nurses and service workers reporting personal burnout.

**Work-related burnout** represents the levels of exhaustion and fatigue that derive specifically from work. About 66% of nurses and 51% of service workers experience moderate or high levels of work-related burnout. There was a significant difference between nurses and service workers in work-related burnout, with a higher prevalence of work-related burnout among nurses than service workers.

**Vicarious trauma** refers to distress resulting from engaging with others who have had traumatic experiences. A positive screen for vicarious trauma is more prevalent among nurses, with about 78% of nurses and 49% of service workers screening positive.
This research brief reviewed mental health screening data from a survey of 536 unionized nurses and healthcare service workers from four Pittsburgh-area hospitals. Surveys were completed in Spring 2021, so workers’ symptoms were likely influenced by a large number of factors, including their own mental health status, working in a stressful and sometimes unsafe work environment, and the particular challenges of 2021 related to the dual pandemics of COVID-19 and racial injustice.

Nurses’ demographic characteristics differed significantly from those of service workers. Both groups were majority white, but compared to nurses, a higher proportion of service workers were Black. Most nurses had an associate’s degree or higher, while slightly less than half of service workers had this level of education. Healthcare service workers had significantly lower median hourly wages and household incomes.

Despite these large demographic differences, a similar proportion of nurses and healthcare service workers indicated a positive screening for common mental health problems and stress. Nurses reported significantly higher levels vicarious trauma and work-related burnout.

1. **HEALTHCARE WORKERS NEED MORE SUPPORT FOR THEIR MENTAL HEALTH**

Large proportions of nurses and healthcare service workers screened positively for anxiety, depression, PTSD, and suicidal ideation. These results are concerning and suggest that healthcare workers need more support for their mental health. Additional research on workers’ mental health treatment needs and access, including an evaluation of access and quality of employee assistance programs (EAP), should be completed.

2. **HEALTHCARE SERVICE WORKERS’ MENTAL HEALTH NEEDS ARE IMPORTANT TOO**

In the research literature and among the general public, healthcare service workers’ labor is often minimized, devalued, or even forgotten. Doctors and nurses are more often lauded for their contributions to community health, and their mental health has been researched more, particularly during the COVID-19 pandemic. This research suggests that healthcare service workers have similar mental health needs to nurses, and thus also require attention and support.

3. **HEALTHCARE EMPLOYERS MUST ADDRESS VICARIOUS TRAUMA & BURNOUT**

Both nurses and healthcare service workers reported high levels of vicarious trauma, work-related burnout, and personal burnout. It is important that their employers recognize the stress of healthcare work and address potential contributors to trauma and burnout. One possibility would be to take formal steps to become trauma-informed organizations, and, at a minimum, to increase access to mental health supports. Additionally, healthcare employers can continue to increase wages and improve benefits to reduce worker stress, which is associated with worse mental health among healthcare workers.

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**Appendix: Measures**

**Depression (PHQ-2)**
- Little interest or pleasure in doing things
- Feeling down, depressed, or hopeless

**Anxiety (GAD-7)**
- Feeling nervous, anxious, or on edge
- Not being able to stop or control worrying
- Worrying too much about different things
- Trouble relaxing
- Being so restless that it's hard to sit still
- Becoming easily annoyed or irritable
- Feeling afraid as if something awful might happen

**Suicidal ideation (Question 9 from PHQ-9)**
- Thoughts that you would be better off dead or of hurting yourself in some way

**Post-Traumatic Stress Disorder (PTSD) (PTSD-5)**
- In the past month, have you had nightmares about COVID or thought about COVID when you did not want to?
- In the past month, have you tried hard not to think about COVID or went out of your way to avoid situations that reminded you of COVID?
- In the past month, have you been constantly on guard, watchful, or easily startled?
- In the past month, have you felt numb or detached from people, activities, or your surroundings?
- In the past month, have you felt guilty or unable to stop blaming yourself or others for COVID or any problems COVID may have caused?

**Vicarious trauma (Vicarious Trauma Scale)**
- My job involves exposure to distressing material and experiences.
- My job involves exposure to traumatized or distressed patients.
- I find myself distressed by listening to my patients’ stories and situations.
- I find it difficult to deal with the content of my work.
- I find myself thinking about distressing material at home.
- Sometimes I feel helpless to assist my patients in the way I would like.
- Sometimes I feel overwhelmed by the workload involved in my job.
- It is hard to stay positive and optimistic given some of the things I encounter in my work.

**Personal burnout (Copenhagen Burnout Inventory – Personal burnout subscale)**
- How often do you feel tired?
- How often are you physically exhausted?
- How often are you emotionally exhausted?
- How often do you think: “I can't take it anymore”?
- How often do you feel worn out?
- How often do you feel weak and susceptible to illness?

**Work-related burnout (Copenhagen Burnout Inventory – Work-related burnout subscale)**
- Do you feel worn out at the end of the working day?
- Are you exhausted in the morning at the thought of another day at work?
- Do you feel that every working hour is tiring for you?
- Do you have enough energy for family and friends during leisure time?
- Is your work emotionally exhausting?
- Does your work frustrate you?
- Do you feel burnt out because of your work?