Washington Center for Nursing: COVID-19 Impact on the Nursing Workforce Study
ABOUT SURVEY INFORMATION ANALYTICS (SIA), LLC

Survey Information Analytics (SIA) is a small minority- and woman-owned research firm (MWOBE and DBE certified) whose goal is to bridge the gap between people, organizations, and decision-making through advanced research methods and data collection tools.

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ABOUT THE WASHINGTON CENTER FOR NURSING

WCN is a 501(c)3 transforming communities in Washington State through increased access to quality nursing care. WCN supports a healthy Washington by engaging nurses’ expertise, influence, and perspective and by building a diverse, highly qualified nurse workforce to meet future demands. We do this by:

- Providing compelling data: The WCN uses data to provide an accurate picture of Washington’s nursing workforce to inform health workforce policy in the state.
- Increasing workforce diversity: The WCN works to increase the diversity of the nursing workforce to better reflect the people of Washington and promote health equity.
- Promoting nursing leadership: The WCN works to enhance nursing career mobility and nursing leadership development opportunities for Washington’s RNs.
- Advancing nursing education: The WCN collaborates with nursing educators and stakeholders to evaluate and improve the effectiveness of nursing education and articulation in Washington State.
- Promoting nursing as a profession: The WCN works to educate and inform K-12 students and the general public about careers in nursing.

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Executive Summary

In a field that was my dream job, I thought about giving up…
(Public Health Nurse, 2021)

In January 2020, the first case of COVID-19 was reported in Washington (and in the U.S.). On March 23, 2020, Washington State Governor, Jay Inslee, issued a “Stay Home, Stay Healthy” order in response to a growing number of COVID-19 cases (2,133 at the time of the order). Due to uncertainty around how the virus is transmitted or how best to manage the pandemic, healthcare workers faced fluctuating policy changes and were forced to contend with unknown variables such as what workers were “essential” and what was adequate personal protective equipment (PPE).

Such incertitude combined with the ongoing pandemic impacted the way healthcare workers apprehended their work and responsibilities. This report highlights some of the challenges faced by the nursing workforce in Washington State due to COVID-19 in addition to its impact on this workforce.

Summary of Key Findings

To better understand the impact of COVID-19 on the nursing workforce in Washington State, Survey Information Analytics (SIA) surveyed 418 nurses who held active nursing licenses about their experiences during 2020. Among them

- 51% were laid off or furloughed from one or more nursing/healthcare jobs.
- 42% thought about or made plans to leave the field of nursing.
- 69% reported moderate or extreme COVID-19 related staffing concerns.
- 61% reported moderate or extreme concern for their friends’/family’s safety.
- 42% believed their employers provided adequate quarantining for employees who may have been/were exposed to COVID-19.
- 67% agreed or strongly agreed their employer provided more telehealth nursing services during the pandemic in comparison to pre-pandemic services.
- 35% felt they were discriminated against in their primary nursing role because of accent/language barriers.

1 According to Washington State’s Department of Health
2 For methodology, please see the report overview. Due to the pandemic and time/resource limitations, this report includes preliminary findings based on a convenience sample to provide a snapshot of the experiences of nurses during 2020 and may not be generalizable to all nurses in Washington State.
Additionally, the following themes emerged from SIA’s nine focus groups (n=67):

❖ The need for better transparency in communication
❖ How constant policy changes impacted work duties
❖ The need for behavioral health services
❖ Role/position changes and adaptations
❖ Job/financial security
❖ Diversity/equity in relation to the workforce

Thematic and survey findings are integrated throughout this report.

**Overview**

Between July and September 2020, Survey Information Analytics (SIA), LLC conducted a data assessment project for the Washington Center for Nursing (WCN). The purpose of this data assessment was to provide insight on the availability of data related to the impact of COVID-19 on the nursing workforce. That initial assessment led to the development of the study discussed in this report: WCN COVID-19 Impact on the Nursing Workforce Study.

**Methodology**

Between January and March 2021, SIA launched a survey and a series of focus groups examining the impact of COVID-19 on the nursing workforce in Washington State. The survey, administered online via Survey Monkey, consisted of demographic questions and questions measuring various aspects of impact (i.e., behavioral health, layoffs/furloughs, COVID-19 testing/diagnoses, access to PPE, biases/inequities, etc.). Upon completion, survey respondents received a $5 Amazon e-gift card incentive for participating. Focus group participants received a $20 Amazon e-gift incentive. Intentional recruitment efforts were used to engage underrepresented nurses (i.e., email listserv to various professional organizations). To qualify, respondents must have held an active nursing license AND have been employed as a nurse or in a nursing-related role in 2020 in the State of Washington. The survey was launched on Wednesday February 10th and closed, within 48 hours, on Thursday February 11, 2021. This report includes the responses of a total of 418 survey respondents. (The survey instrument is attached as Appendix A).

Additionally, SIA conducted nine focus groups with a total of 67 participants\(^3\), also recruited through nursing listservs, representing nurses employed across a variety of sectors and nursing students. Focus groups were conducted online via Zoom and lasted between 60-90 minutes. SIA provided one facilitator and one notetaker for each focus group. Data collection addressed nurses’ experiences working during the pandemic,

\(^3\) Four participants did not provide demographic information (discussed in a later section).
access to PPE/resources, behavioral health, and biases or inequities underrepresented nurses may have experienced during (and before) COVID-19. Focus group participants must have either 1) held an active Washington nursing license in 2020 AND were employed as a nurse or in a nursing-related role in 2020 in the State of Washington, OR 2) were a nursing student in Washington during 2020.

Participation was completely voluntary and respondents/participants were provided with a consent form to complete.

**Report Outline**

This report includes the following:

- **Sample Characteristics**: This includes demographic characteristics of survey and focus group samples. Because the study is based on a convenience sample and cannot be generalizable to the entire nursing population in Washington, the research team encourages readers to see this study as a preliminary snapshot of nurses’ experiences during the pandemic in 2020 and encourage policy changes that may alleviate some of the pain points illustrated in this report.

- **Department of Health Deliverables**: These findings follow 10 items requested by the Department of Health. Some items will integrate data/literature from other sources to supplement findings from this study.

- **Limitations of Current Study/Future Research**: This section will include recommendations for future areas of research for WCN based on this study.

This report also includes the following appendix:

- **Survey Questionnaire (Appendix A)**: This includes the full survey instrument used to collect data via Survey Monkey.

**Sample Characteristics**

Table 1 (next page) illustrates the demographics of survey respondents (n=418) and focus group participants (n=67). Most survey respondents (78%) and focus group participants (91%) identified as female. About half (51%) of survey respondents and 57% of focus group participants were white, while 7% of focus group participants and 24% of survey respondents identified as Hispanic.

More than three-quarters (77%) of survey respondents reported an income between $50,000 and $125,000 with 29% reporting an annual income of $75,000 to $100,000. Income reports among focus group participants were more widely distributed, and a larger portion (22%) reported income greater than $150,000. More than half of survey respondents (60%) lived in a household of three people, while 30% of focus group participants reported living in a two-person household.
### Table 1: Demographic Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Survey (n=418)</th>
<th>Focus Groups (n = 67)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>78%</td>
<td>91%</td>
</tr>
<tr>
<td>Male</td>
<td>17%</td>
<td>1%</td>
</tr>
<tr>
<td>Non-Binary/Other</td>
<td>1%</td>
<td>-</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>8%</td>
<td>-</td>
</tr>
<tr>
<td>Asian</td>
<td>9%</td>
<td>16%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>24%</td>
<td>7%</td>
</tr>
<tr>
<td>Multiracial (two or more races)</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>3%</td>
<td>-</td>
</tr>
<tr>
<td>White</td>
<td>51%</td>
<td>57%</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>3%</td>
</tr>
<tr>
<td><strong>% Hispanic</strong></td>
<td>24%</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>-</td>
<td>3%</td>
</tr>
<tr>
<td>$10,000 to $50,000</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>$50,000 to $75,000</td>
<td>24%</td>
<td>12%</td>
</tr>
<tr>
<td>$75,000 to $100,000</td>
<td>29%</td>
<td>13%</td>
</tr>
<tr>
<td>$100,000 to $125,000</td>
<td>24%</td>
<td>9%</td>
</tr>
<tr>
<td>$125,000 to $150,000</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>$150,000 or Higher</td>
<td>4%</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Number of People in Household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2%</td>
<td>12%</td>
</tr>
<tr>
<td>2</td>
<td>12%</td>
<td>30%</td>
</tr>
<tr>
<td>3</td>
<td>60%</td>
<td>16%</td>
</tr>
<tr>
<td>4</td>
<td>21%</td>
<td>22%</td>
</tr>
<tr>
<td>5 or more</td>
<td>5%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Note: Percentages may not equal 100% due to missing data/non-response.
Certified Nursing Assistants (CNAs) represented 31% of survey respondents and 10% of focus group participants, while 29% of survey respondents and 3% of focus group participants were Licensed Practical Nurses (LPNs) and 30% of survey respondents and 48% of focus group participants were Registered Nurses (RNs) (Table 2). Advanced Registered Nurse Practitioners (ARNPs) represented 11% of survey respondents and 21% of focus group participants. Additionally, 12% of focus group participants were current nursing students.

**Table 2: Nurse Licensure and Employment Sectors**

<table>
<thead>
<tr>
<th>Highest Nursing License Held</th>
<th>Survey (n=418)</th>
<th>Focus Groups (n = 67)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Nursing Student a</td>
<td>-</td>
<td>12%</td>
</tr>
<tr>
<td>CNA</td>
<td>31%</td>
<td>10%</td>
</tr>
<tr>
<td>LPN</td>
<td>29%</td>
<td>3%</td>
</tr>
<tr>
<td>RN</td>
<td>30%</td>
<td>48%</td>
</tr>
<tr>
<td>ARNP</td>
<td>11%</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Sector</th>
<th>Survey (n=418)</th>
<th>Focus Groups (n = 67)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic (K-12 Health Services)</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td>Hospital/In-Patient/Acute Care</td>
<td>39%</td>
<td>28%</td>
</tr>
<tr>
<td>Long-term Care</td>
<td>19%</td>
<td>7%</td>
</tr>
<tr>
<td>Nurse Education (Higher Ed)</td>
<td>4%</td>
<td>9%</td>
</tr>
<tr>
<td>Outpatient/Physician’s Office/Home Health</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Policy/Agency/Regulatory/Administrative</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Public Health</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>9%</td>
</tr>
</tbody>
</table>

Note: Percentages may not equal 100% due to missing data/non-response. * Nursing Students were only invited to participate in focus groups, not the survey instrument.

Table 2 also highlights participants’ employment sectors. Participants primarily worked in hospital/in-patient/acute care settings (39% of survey respondents and 28% of focus group participants). Long-term care was the second most common work environment (19%) among survey respondents, while focus group participants were more likely to work in academic/K-12 school services (21%). Survey respondents also reported working in academic/K-12 (16%) and outpatient (15%) settings. Policy/regulatory/administrative settings were least common among focus group participants (3%) and survey respondents (1%).
Department of Health Deliverables

This report is organized around DOH deliverables. Both survey and focus group findings are integrated into these sections. Additionally, where applicable, external sources are used to offer supplemental information.

**Item 1: Establish a statewide advisory committee, including representatives of diverse communities, to assist in focusing the scope of the project and to provide subject matter expertise and recommendations when needed**

The Washington Center for Nursing hosted a kick-off meeting with the Steering Committee on November 20 at 1:00 PM. WCN continued monthly Steering Committee meetings in 2021 to assist with framing research questions, data collection, racial equity discussions, ongoing research by other scholars, and updates by key stakeholders regarding COVID-19 current events (e.g., vaccinations). WCN led Steering Committee meetings and invited guest speakers to several sessions. While not all suggestions could be accommodated in one project, when possible, Steering Committee comments and suggestions for research were taken into great consideration in the development of the survey questionnaire and focus group questions. During Steering Committee meetings, brief research updates were given (when possible). Steering Committee members also helped disseminate research recruitment information. A final research presentation was conducted during the May 2021 meeting. The Steering Committee Meeting minutes are recorded and sent out by WCN after each meeting.

**Item 2: Impact study on the supply and demand of nurses in various practice areas, incorporating existing supply data for CNAs, LPNs, RNs, and ARNPs**

*I have worked in LTC (Long Term Care) for 2 years and going through the pandemic has made me consider leaving—not nursing but into a different area of nursing. (CNA, 2021)*

According to the UW Center for Health Workforce Studies (Stubbs & Skillman, 2020c) there were **90,975 RNs** with an active license in Washington State (excluding nurses with an active ARNP license). Among them, 91.5% were working as a nurse. Another 4% were unemployed and a small portion were retired, volunteering or employed in another field. The State of Washington also had **8,650 ARNPs** with an active nursing license in May 2019. Among them, 68% were employed in Washington State (Stubbs & Skillman, 2020a). Lastly, in May 2019, about **10,864 LPNs** held active licenses and about 88% were practicing as nurses in Washington (Stubbs & Skillman, 2020b). Another 8% were unemployed and about 5% were retired, volunteering, or working outside of nursing.

These counts provide a pre-pandemic snapshot of the distribution of nurses in the State of Washington and a baseline from which to compare pandemic numbers. This section highlights potential challenges of COVID-19 on nurse retention and turnover due to layoffs/furlough.
Impact of COVID-19 on Career Plans

According to the 2020 Health Workforce Council, there is a growing short-term and long-term demand in Washington State for healthcare workers in every county and in all positions. Additionally, the Council indicates a need for a qualified behavioral health workforce, identifying problems securing these workers due to “barriers to educational attainment, professional recruitment, and long-term retention” (p.14).

To contribute to an understanding of the impact of COVID-19 on the future supply/demand and retention of nurses in Washington, survey respondents and focus group participants were asked questions to assess decisions and/or plans to leave nursing, change careers, and/or retire. **Focus group participants indicated experiencing stressful situations** during the pandemic, leading some to consider changing or quitting their jobs as illustrated by the following two comments:

> I was so stressed out, and I did not receive support from my company, so I had to quit my job; I feel better. [sic] As nurses, we want to be valued, respected, and protected. Our health system should value health workers more. I found a job with less stress, more pay, and more support. (ARNP, 2021)

> I might look around for another job. I will always be a nurse; I can’t change that … I can’t turn that off. I haven’t applied for anything else; I don’t know where I would go. … I know I can do something else, but I’m too tired right now to figure out what it might be, so here I am. (Public Health Nurse, 2021)

Among survey respondents (n=418), participants typically reported they had not thought about, planned, or acted on career changes. However, **42% of survey respondents thought about or made plans to leave the field of nursing**, and one-third (33%) thought about or made plans to leave their current nursing employer for another.

As a result of the COVID-19 pandemic
- 33% thought about or planned to leave their nursing employer for another.
- 42% thought about or planned to leave the field of nursing.
- 24% retired or thought about retirement earlier than originally planned.
- 25% transitioned from one nursing unit/position/role to another.
- 35% made a career change (within nursing) for better pay or working conditions.
- 40% made a career change (out of nursing) for better pay or working conditions.
- 22% have temporarily left the nursing workforce.
- 22% have left the nursing workforce indefinitely.

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4 Missing data ranged from 3% (thought about or planned to leave current [nursing] employer for another) to 17% (transitioned from one nursing unit/position/role to another), suggesting that counts may be an underrepresentation of the impact of COVID-19 on nurses’ career paths.
Impact of COVID-19 on Career Plans, by Licensure

Table 3 below provides additional details regarding the impact of COVID-19 on career paths by licensure (i.e., CNA, LPN, RN, and ARNP). Regardless of licensure, most respondents did not express intentions or measures to leave nursing due to COVID-19. However, more than one-third of LPN (34%) and RN (37%) retired or thought about retirement earlier than originally planned. Overall, ARNPs were consistently less likely to report COVID-19 related impacts to their nursing career compared to other nurses.

Table 3: COVID-19 Impact on Nursing Career Paths, by Highest Nurse Licensure (n=418)

<table>
<thead>
<tr>
<th>As a result of the COVID-19 pandemic, I have...</th>
<th>CNA (n=130)</th>
<th>LPN (n=120)</th>
<th>RN (n=124)</th>
<th>ARNP (n=44)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thought about or planned to leave my current (nursing) employer for another</td>
<td>31%</td>
<td>27%</td>
<td>32%</td>
<td>11%</td>
</tr>
<tr>
<td>Thought about or planned to leave nursing</td>
<td>32%</td>
<td>25%</td>
<td>28%</td>
<td>15%</td>
</tr>
<tr>
<td>Retired or thought about retirement earlier than originally planned</td>
<td>25%</td>
<td>34%</td>
<td>37%</td>
<td>5%</td>
</tr>
<tr>
<td>Transitioned to another nursing unit/position/role</td>
<td>32%</td>
<td>19%</td>
<td>31%</td>
<td>18%</td>
</tr>
<tr>
<td>Made a career change (within nursing) for higher pay or better working conditions</td>
<td>34%</td>
<td>27%</td>
<td>30%</td>
<td>9%</td>
</tr>
<tr>
<td>Made a career change (out of nursing) for higher pay or better working conditions</td>
<td>22%</td>
<td>24%</td>
<td>40%</td>
<td>14%</td>
</tr>
<tr>
<td>Left the nursing workforce temporarily.</td>
<td>39%</td>
<td>24%</td>
<td>27%</td>
<td>10%</td>
</tr>
<tr>
<td>Left the nursing workforce indefinitely.</td>
<td>22%</td>
<td>29%</td>
<td>34%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Note: Percentages may not equal 100% due to missing data/non-response.

The following quote from an RN focus group participant further illustrates the challenges and considerations faced navigating work as a healthcare “essential worker” during the COVID-19 pandemic and how it has contributed to career change considerations:

Some days, I am like, I am here and helping people. Other days, I look at my partner and they are working from home and make twice as much as I do. And I am, like, at my max as to what is acceptable for me to be exposed to COVID. … My friends are not stoked about being around me either. I am like this vector. That was a really long way of saying, ‘I am really jealous of everyone else who gets to work from home’ … it’s such a privilege. Not just because I am in healthcare but all the essential workers—many make less than I am and still have PPE issues. For a second, I was like, maybe I should just go get my MBA instead [sic]. (RN, 2021)
Impact of COVID-19 on Furloughs and Layoffs

Slightly more than half of survey respondents (51%) were laid off or furloughed from one or more nursing/healthcare related jobs in 2020. Among them, 83% indicated their lay-off/furlough was a consequence of the COVID-19 pandemic.

![Figure 1: Respondents Experiencing Layoffs or Furloughs in 2020](image)

Note: Responses are based on a convenience sample and proportions may not be generalizable to all Washington Nurses.

When discussing job and/or financial security, focus group participants brought up staffing issues and layoffs. For instance, one nursing program director noted their program had a large “budget cut, and no new hires … So, lots of ‘threats’ about cuts and layoffs [sic]”. More specifically, participants regretted that, even during a pandemic, nurses were sometimes considered expendable as illustrated by the following comment:

The hospitals ... start to lay people off and they start with mid-levels. I heard of at least three nurse practitioners laid off during this time. It’s still the stigma that exists that we are cheap labor. I do not feel like it is right. We are very important functional members ... they can do whatever they want to get rid of the longevity staff members. When in an emergency, you can see the quality of the administrative team. (ARNP, 2021)

Focus group participants suggested letting nurses go and hiring freezes are not strategic during a pandemic as one school nurse noted, “It was really difficult to get people back; it’s short sighted to let people go during that time.”

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5 Reported counts are based on a convenience sample and may not be generalizable or representative of all Washington Nurses. The counts presented here warrant further investigation to identify the total impact of layoffs/furloughs on Washington’s nursing workforce.
Aside from layoffs/furloughs, several participants also expressed that the pandemic impacted their work schedules. For instance, one school nurse explained that her “school district cut [her] … hours in the spring, restored in the fall.”

**Item 3: Applicants for licensure from data provided by the NCQAC**

Figure 2 (below) and Table 4 (next page) highlight monthly counts of active nursing licenses in Washington between January 2018 and April 2021. In 2018, active licenses ranged from 113,213 (Jan 2018) to 117,383 nurses (Oct 2018). Between 2018 and 2019, monthly counts increased about three to five percent, with a minimum of 117,277 (Mar 2019) and a maximum of 122,784 (Nov 2019) active nurses reported in 2019. **The growth of Washington’s nursing workforce slowed down between July to September 2020** in comparison to previous months.

![Figure 2: Washington Nurses with Active Licenses, January 2018 - April 2021](image)

*Data were provided by the Nursing Care Quality Assurance Commission (NCQAC). NCQAC did not take part in, nor endorse, any data analysis or interpretation set forth herein. Note: Reductions in active licenses may, in part, be impacted by NCQAC’s extension allowances due to COVID-related staffing shortages and crisis responses.*

Table 4 (next page) also considers growth of Washington’s nursing workforce with active licenses including monthly counts of active licenses and monthly positive and negative growth rates between years. Between August 2018 and August 2019, the number of active nurses increased about 4.9%. On the other hand, the number of nurses with active licenses decreased 0.5% between August 2019 and August 2020.

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6 The data for this analysis were provided by the Nursing Care Quality Assurance Commission (NCQAC). NCQAC did not take part in, nor endorse, any data analysis or interpretation set forth herein.
Table 4: Comparisons of Active Nursing Licenses, 2018 to 2021, by Month

<table>
<thead>
<tr>
<th></th>
<th>Washington Nursing Licenses - Active</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
</tr>
<tr>
<td>Jan</td>
<td>113,213</td>
</tr>
<tr>
<td>Feb</td>
<td>113,376</td>
</tr>
<tr>
<td>Mar</td>
<td>113,676</td>
</tr>
<tr>
<td>Apr</td>
<td>113,836</td>
</tr>
<tr>
<td>May</td>
<td>114,161</td>
</tr>
<tr>
<td>Jun</td>
<td>114,754</td>
</tr>
<tr>
<td>Jul</td>
<td>115,683</td>
</tr>
<tr>
<td>Aug</td>
<td>116,160</td>
</tr>
<tr>
<td>Sep</td>
<td>116,567</td>
</tr>
<tr>
<td>Oct</td>
<td>117,383</td>
</tr>
<tr>
<td>Nov</td>
<td>117,123</td>
</tr>
<tr>
<td>Dec</td>
<td>117,180</td>
</tr>
</tbody>
</table>

Note: Growth percentages represent year-to-year growth for the same month.

Data were provided by the Nursing Care Quality Assurance Commission (NCQAC). NCQAC did not take part in, nor endorse, any data analysis or interpretation set forth herein.

Reductions in active licenses may, in part, be impacted by NCQAC’s extension allowances due to COVID-related staffing shortages and crisis responses.

Item 4: Examine application rates of student populations through data provided by NCQAC

Exhaustion … Constant worry about whether we are providing excellent education to our nursing students … I am so far behind … it is frustrating to constantly be thrown a curve ball every day. (Nursing Program Dean, 2021)

According to the National Forum of State Nursing Workforce Centers (2021), COVID-19 related closures of testing centers in March 2020 resulted in NCLEX testing delays between Spring and Summer 2020. Testing adjustments have included decreasing test times and removing pretest items and the special experimental section. In a video7 published by the Washington State Department of Health on March 25, 2021, testing delays occurred due to limited capacity at testing facilities in response to COVID-19. Focus group participants echoed the impact of these delays:

I am studying for the NCLEX … next month. I have heard a lot about how it’s gone. It’s getting faster now. I have heard it takes 30 days to get a testing date; last quarter it took 2-3 months [sic]. There was at least one student who flew from WA to FL to take hers. We also had an emergency bridge permit that is available here. (Nursing Student, 2021)

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7 https://www.youtube.com/watch?v=q-MSz0p4BCM
The State of Washington signed a waiver so applicants could access Pearson VUE test centers without delay. Emergency Interim Permits (EIP) are available for recent nursing graduates who apply to Washington State by examination, submit official transcripts with their degree and graduation date, and send verification of a scheduled NCLEX test date to the Nursing Commission with their EIP request.

According to NCLEX passage rates provided by the Washington Department of Health, the number of NCLEX applicants (exam takers) decreased for LPN, ADN, and BSN-GE (General Education) programs. In 2019 and 2020, graduates from 17 LPN programs, 25 ADN programs, and 11 BSN-GE programs took the NCLEX. In 2019, NCLEX exam takers included 389 LPN graduates, 1,451 ADN graduates, and 990 BSN-GE graduates. Among them, 361 (92.8%) LPN applicants, 1,319 (90.9%) ADN applicants, and 894 (90.3%) BSN applicants passed the NCLEX (Table 5).

Table 5: WA NCLEX Applicants and Passage Rates, 2019 to 2020

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>% Difference 2019-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LPN</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Exam Takers</td>
<td>389</td>
<td>333</td>
<td>-14.4%</td>
</tr>
<tr>
<td># Passed</td>
<td>361</td>
<td>308</td>
<td>-14.7%</td>
</tr>
<tr>
<td>% Passage Rate</td>
<td>92.8%</td>
<td>92.5%</td>
<td>-0.3%</td>
</tr>
<tr>
<td><strong>ADN</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Exam Takers</td>
<td>1451</td>
<td>1660</td>
<td>+ 14.4%</td>
</tr>
<tr>
<td># Passed</td>
<td>1319</td>
<td>1499</td>
<td>+ 13.6%</td>
</tr>
<tr>
<td>% Passage Rate</td>
<td>90.9%</td>
<td>90.3%</td>
<td>-0.7%</td>
</tr>
<tr>
<td><strong>BSN-GE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Exam Takers</td>
<td>990</td>
<td>934</td>
<td>-5.7%</td>
</tr>
<tr>
<td># Passed</td>
<td>894</td>
<td>852</td>
<td>-4.7%</td>
</tr>
<tr>
<td>% Passage Rate</td>
<td>90.3%</td>
<td>91.2%</td>
<td>+ 1.0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Exam Takers</td>
<td>2830</td>
<td>2927</td>
<td>+ 3.4%</td>
</tr>
<tr>
<td># Passed</td>
<td>2574</td>
<td>2659</td>
<td>+ 3.3%</td>
</tr>
<tr>
<td>% Passage Rate</td>
<td>91.0%</td>
<td>91.2%</td>
<td>+ 0.3%</td>
</tr>
</tbody>
</table>

Source: NCLEX Passage Rates obtained from the WA Department of Health

Overall, the number of graduates taking and passing the NCLEX exam increased about 3% in 2020, compared to 2019. However, there were 14% fewer LPN and 6% fewer BSN exam takers, while the number of ADN exam takers increased about 14%. In 2020, NCLEX exam takers included 333 LPN graduates, 1,660 ADN graduates, and 934 BSN-GE graduates. Among them, 308 LPN applicants (92.5%), 1,499 ADN applicants (90.3%), and 852 BSN applicants (91.2%) passed the NCLEX.

While statewide counts suggest decreases in the number of graduates taking the NCLEX, focus groups with participating deans and directors revealed that admissions challenges
differed among nursing programs in Washington State. One dean/director indicated that “applicants for Fall are not as robust.” Another suggested their applications have “remained strong” while there “wasn’t an increase.” However, the same participant indicated they were “anticipating … more applicants in the future,” highlighting that the COVID-19 pandemic may have impacted some nursing programs differently than others.

**Item 5: Impact study on clinical placements for students**

*I think that the word that I would use to describe the last year is chaos, constant change, constant adaptation, a high level of uncertainty.*

*A year of challenge. (Nursing Program Dean/Director, 2021)*

Unequivocally, the COVID-19 pandemic disrupted nursing education. For example, early in the pandemic, “practicum placements were suspended or even canceled” (HWC, 2021, p.25). Such challenges called for adaptive strategies for clinicals, and in 2020 Independent Colleges of Washington (ICW), Council of Presidents (COP), and the State Board of Community and Technical Colleges (SBCTC) made seven recommendations for nursing and nursing assistant programs in Washington State to continue education during the COVID-19 pandemic:

- “Increase simulation hours in lieu of direct-care clinicals to permit 50% use of simulation (WAC 246-840-534).”
- “Permit virtual simulation on an equivalent basis to lab-based simulations.”
- “Raise the ratio of simulation to clinical time to 1:2 (one hour of simulation equating to two hours of clinical time).”
- “Eliminate requirements for minimum number of clinical hours for pre-licensure programs leaving evaluation of student achievement of program outcomes up to the nursing program during this crisis.”
- “Enable synchronous and asynchronous online teaching of classroom theory/didactic content for all nursing assistant and nursing programs.”
- “Enable electronic transcripts for cohorts of students already enrolled in nursing assistant and nursing programs.”
- “Enable front-loading classroom theory/didactic content for all programs, and safety/emergency training for nursing assistant programs, in order to expedite student progress to degree, NA-R, and/or other expedited pathways such as nurse technician.”

CONTINUED ON NEXT PAGE
Similarly, the Undersigned Faculty Experts, Academic Leaders, and Institutions of Higher Education in the State of Washington published a report in March 2020 presenting a series of changes in nursing education in response to the pandemic. These guidelines also recommend a transition to virtual learning and clinical simulation as a replacement for face-to-face education:

- “Transition to 100% virtual clinical simulation during the COVID-19 crisis and until opportunities to return to clinical settings are readily available and considered safe for students.”
- “Consider all virtual simulation hours as sufficient to meet program outcomes, clinical course outcomes, and objectives as defined and evaluated by the nursing programs.”
- “Recognize simulation hours as intensive, interactive learning worthy of a 2:1 ratio (two hours of clinical equals one hour of simulation). All simulations will be conducted in accordance to INACSL (International Nursing Association for Clinical Learning and Simulation) Standards of Best Practice.”
- “Eliminate requirements for minimum number of clinical hours for pre-licensure programs leaving evaluation of student capacity to meet required end of program outcomes up to the nursing program.”

**Challenges with Simulation/Online Learning**

Although industry reports advocate for the transition to simulation as equivalent to in-person clinicals, participating program directors and students expressed less confidence in this transition during focus groups, suggesting that a lack of in-person training may impact their future success in nursing.

**Some students have questioned their skills and readiness for the nursing workforce** resulting from challenges associated with conducting clinicals online such as a lack of in-person experience and preparation. As one student explained, “the simulations have been a hit or miss.” This student expressed that some “really good” simulation training from Canada had live facilitators, “but the computer-generated [simulations] were not as good.”

*Simulations are just not the same as doing it in person ... We were not getting the hands-on practice that we were before. They had to cut back the number of hours we can spend in Skills Lab. They only gave us 4 practice hours for the whole quarter. (Nursing Student, 2021)*

Another student explained:

*It feels like you are getting cheated out of an education because you’re paying the same amount but it’s like all they can offer based on guidelines and restrictions. During the Fall, we were able to go back to clinicals, so we didn’t have to do sims. But we only had, like, two days to go into the lab, but we feel*
less prepared than students in the past [sic]. So, it felt really rushed, and we are grateful we got anything at all, but you feel less prepared, and you wonder how it will affect you in the long run as a nurse [sic]. (Nursing Student, 2021)

One Nursing Program Dean/Director worried about disappointed students “as it was not the nursing program they desired or expected.” Another Nursing Program Dean/Director shared a similar perspective further explaining, “we had several students last Spring but throughout the year, it’s a lot of ‘I don’t know how to do nursing online.’ … It’s been very disruptive to the students’ lives.”

Nursing students echoed concerns of disruption and of feeling behind schedule or unable to perform essential tasks:

_We missed one quarter of having any clinicals at all. All of us felt like we missed out on that patient contact. Now in the 6th Quarter, we are starting our preceptorship, but it feels like ‘gosh I shouldn’t be here yet.’ My preceptor nurse was like, ‘we can get you started on IV…’ and my instructor was like, ‘you do know that we haven’t tried on a person yet…’ That is something we learn 4th Quarter but here we are in the 6th Quarter and feeling so behind._ (Nursing Student, 2021)

**Students Access to PPE**

During focus groups, nursing students addressed some of the challenges faced during clinicals including a lack of access to protective equipment. One student described how their school “only gave us two surgical masks for the quarter for all clinicals. Since they increased our [tuition] cost, it could have been nice to have some more access to PPE.” Another mentioned they “weren’t allowed to wear more protective equipment then was regulated. We have gotten pulled from clinicals twice … Some of us have vulnerable people in our households.”

Another student added:

_We had to come [to the facility] in our own mask. Even though they were a clinical facility, they expected us to provide our own disposable clinical mask … As students, we are on a fixed income -- a couple masks for a single mom of two can add up quickly._ (Nursing Student, 2021)

**Item 6: Impact study on the health of the nursing workforce**

In a recent study, the 2020 International Council of Nurses (ICN) addresses the repercussions of the pandemic on the nursing workforce’s health indicating healthcare workers face high levels of COVID-19 infections. Among the 59 countries in the study, the United States was among the countries with the highest numbers of reported nurse deaths (ICN 2021). Additionally, because of increased responsibilities and exposure to
the virus, nurses experience an “increasing risk of burnout, post-traumatic and other stress related disorders” (ICN, 2021, p.2).

The State of Washington is making tentative efforts to mitigate the effects of health crises on healthcare workers. A 2021 Senate Bill (SB 5190) is under consideration to provide “health care workers with presumptive benefits during a public health emergency.” Although SB 5190 addresses Unemployment Insurance and Workers' Compensation, focus group participants expressed concern about health impacts due to the pandemic. This section broadly defines the health of the nursing workforce in relation to the impact of COVID-19 on nurses’ behavioral health, employer/facility support of nurses, and nurses’ home responsibilities and concerns.

**Impact of COVID-19 on Nurses’ Behavioral Health**

The COVID-19 pandemic’s unique, unprecedented conditions have taken a physical, psychological, and social toll on frontline workers worldwide. With nurses making up 50% of the global healthcare workforce (WHO, 2016) and many being frontline workers, the pandemic has been particularly impactful on nurses’ mental and physical well-being.

COVID-19’s conditions as a highly infectious disease with high mortality rates uniquely impacted frontline workers through a) a dramatic increase in the numbers and severity of sick patients; b) rapid changes in protocols; c) staff shortages; and d) reduced staff-to-patient ratios in intensive care units (Maben & Bridges, 2020; Foye et al., 2021). Frontline workers experienced heightened fears of infection and of transmitting the virus to family and friends due to direct encounters with COVID-19 – a virus that spread through human-to-human transmission and had no known successful treatment protocol (Greenberg et al, 2020; Maben & Bridges, 2020) – at work. Additionally, nurses were faced with shortages of personal protective equipment (PPEs) and often served as substitute caregivers at the end-of-life stage for patients whose families could not visit hospital wards (Ayanian, 2020, Greenberg et al., 2020; Mabon & Bridges, 2020).

Several studies have investigated the mental health effects of the pandemic on frontline healthcare workers, especially on nurses. Findings generally report higher levels of **depression, anxiety, and stress in frontline nurses** in comparison to levels reported by doctors (Greenberg et al., 2021), the general population (Sampaio, Sequeira, & Teixeira, 2020), and nurses not directly exposed to COVID-19 conditions (Sampaio, Sequeira, & Teixeira (2020). Higher levels of stress were reported by nurses who felt inadequately protected, due to a shortage of PPE, or overworked (Santone, et al.). In one study 13% of respondents, almost half of whom were nurses, reported thoughts of self-harm (Greenberg et al., 2021).
In the current study, focus group participants indicated that the COVID-19 pandemic increased their stress levels and expressed vulnerability in managing the virus in an uncertain context as illustrated by the following comments:

_The pandemic completely exploded the adaptive system ... COVID has been such a mystery; it’s been a year of being lost in the system ... it’s just been this cluster of issues ... it just felt very scattered, rules all the time, no consistency; it’s been taking a huge toll._ (Public Health Nurse, 2021)

_Self-care was very difficult in the beginning. Every day I would go in, I would be so stressed. I do not even have family here, and what will happen to my kids if I get sick? Am I sacrificing my own kids for my profession? I have my responsibility to my kids. My family overseas was so stressed. My family was like ‘you leave the job,’ and I did not. I just cannot leave it. When I would come home, I strictly made the rule that I will not bring my bag from work._ (RN, 2021)

Additionally, participants discussed self-care strategies for coping with increased stress. For instance, one registered nurse explained how therapy can help dealing with work and pandemic-related stress:

_I tried to find a therapist—I spent hours and hours and a lot of therapists are not taking additional clients. I feel like a lot of the initiatives to build resilience are not for us—like they are not going to pay you to step away from patient care for self-care like these initiatives for those who work from home._ (RN 2021)

Other examples of self-care included walks, discussions with friends, yoga and exercise, Bible study, gardening, crafts, etc. Participants also discussed the importance of community in reducing stress as a school nurse indicated: “I think it’s really important to work together and connect … taking care of ourselves knowing that we are not alone. We don’t have to reinvent the world.”

Finally, Washington nurses worked on setting boundaries between their work and their personal lives. For instance, one nurse explained how they adapted to the pandemic: “I don’t allow people to overtake my schedule, I don’t just say yes, setting boundaries, making sure I have time for myself [sic]” (RN, 2021) while another nurse described a similar approach: “Being forced to work from home was really hard for me … I had to rethink that and think about making new boundaries. It took time to adjust to that. The room became the boundary. … I don’t enter that room except during work hours” (Nursing Program Dean/Director, 2021).
Survey respondents also highlighted the impacts of COVID-19 on their mental health and capacities. Among them:

- 33% often or always felt *something serious was going to happen* unexpectedly with the pandemic.
- 26% often or always felt *unable to control important things* in their life because of the pandemic.
- 42% were often or always *nervous or stressed* about the pandemic.
- 26% were often or always *optimistic* things were going well with the pandemic.
- 36% often or always felt *unable to cope* with things they had to do to monitor for a possible infection.
- 19% often or always felt they had everything *under control* in the pandemic.
- 34% were often or always upset that things were *out of their control* in the pandemic.

Additionally, 34% of survey respondents reported their job was often or always stressful.

**Table 6: Behavioral Health Perceptions during COVID-19 (n=418)**

<table>
<thead>
<tr>
<th>During the pandemic in 2020, how often did you feel… (regarding the pandemic)</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>...something serious was going to happen unexpectedly</td>
<td>&lt;1%</td>
<td>12%</td>
<td>54%</td>
<td>32%</td>
<td>1%</td>
</tr>
<tr>
<td>... unable to control important things in life</td>
<td>8%</td>
<td>31%</td>
<td>34%</td>
<td>24%</td>
<td>2%</td>
</tr>
<tr>
<td>... nervous or stressed</td>
<td>6%</td>
<td>11%</td>
<td>41%</td>
<td>38%</td>
<td>4%</td>
</tr>
<tr>
<td>... optimistic that things are going well</td>
<td>8%</td>
<td>12%</td>
<td>54%</td>
<td>21%</td>
<td>5%</td>
</tr>
<tr>
<td>... unable to cope with the things I have to do to monitor for a possible infection</td>
<td>&lt;1%</td>
<td>17%</td>
<td>45%</td>
<td>35%</td>
<td>1%</td>
</tr>
<tr>
<td>... I have everything under control</td>
<td>10%</td>
<td>35%</td>
<td>36%</td>
<td>18%</td>
<td>1%</td>
</tr>
<tr>
<td>... upset that things are out of my control</td>
<td>3%</td>
<td>14%</td>
<td>48%</td>
<td>30%</td>
<td>4%</td>
</tr>
<tr>
<td>How often did you find your job to be stressful?</td>
<td>5%</td>
<td>21%</td>
<td>38%</td>
<td>32%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Note: Percentages may not equal 100% due to missing data/non-response.

These findings support emerging research that considers the psychological impact of COVID-19 on frontline nurses. Recommendations from these studies highlight a need for accessible education that can help increase awareness of mental health conditions among nurses. For example, nurse managers may benefit from peer support (Maben & Rogers, 2020) and from recognizing that low performance at work may be a symptom of poor mental health. Other recommendations include the following:

- Allowing frontline workers to tailor or customize the mental health care they receive (Maben & Bridges, 2020; Santarone, McKenney, Elkbuli, 2020)
- Providing services in a variety of formats (online forums, telemedicine, video chat) (Santarone, McKenney, Elkbuli, 2020)
• Frequent breaks (Maben & Bridges, 2020) and mid-shift well-being check-ins
• Reducing work shifts to no more than 16 hours (Greenberg et al. 2021)
• Peer and team support (Maben & Bridges, 2020)
• Team time, or 30 min video sessions with facilitators in “safe” spaces
• Support from nursing managers and clear communication, which is considered key
to reducing negative mental health outcomes for nurses

Health and Safety Concerns

As frontline workers navigating new challenges within the workplace, nurses faced many
changes and uncertainty that affected their lives both at work and outside of work. These
challenges ultimately impacted how healthcare workers perceived and experienced their
personal and family safety and health.

Forty-eight percent (48%) of survey respondents indicated they were moderately or
extremely concerned about their own safety, and 61% reported they were moderately or
extremely concerned about the safety of their friends and family. This was consistent with
focus group participants who suggested they understood the risks healthcare workers
face when entering the profession; nonetheless, they described feeling more concerned
about potentially infecting family members/friends. This is especially significant since
77% of survey respondents reported one or more children under the age of 18 in their
household. Additionally, 54% of survey respondents reported providing home care
without pay during 2020 (e.g., caring for elderly, persons with disabilities, home schooling,
etc.) due to the COVID-19 pandemic.

Employer Support

Employer support is central to the health of the nursing workforce. During focus groups,
nurses discussed the importance of a supportive work environment in addressing
emerging challenges and uncertainties. While acknowledging the role of employer
support at lower levels, participants also addressed the limits of said support: “I feel really
supported by my manager [but] the people who support me have absolutely no power. …
They can’t have any impact because of hierarchy and bureaucracy” (Public Health, 2021).

Participants further described some disconnect between them and their management.
One RN (2021) stated, “In general, there is a separation between those who provide care
and those in offices.”. Another noted their hospital “… is just more concerned with the
money sometimes over our health, safety, etc. [sic]” (LPN/CNA, 2021).

When asked how often they feel supported by nursing leadership/administration within
their workplace, 40% of survey respondents sometimes feel supported. Another 34% were
often or always supported by leadership while approximately one-quarter of
participants (25%) reported rarely or never feeling supported by nursing
leadership/administration (Figure 3, next page).
Survey respondents were also asked to describe the quality of relations between management and employees in their workplace. About 35% perceived management-employee relations as good or excellent, while almost one-quarter (21%) believed management-employee relations were generally poor or very poor (Figure 4).

Additionally, more than two-thirds (69%) of survey respondents reported moderate or extreme staffing concerns due to the COVID-19 pandemic.

**Item 7: Impact study on the workplace such as availability of personal protective equipment and testing**

During focus groups, participants discussed communication issues in addition to constant policy changes around sick leave, PPE, etc. Specifically, they discussed how constant policy changes negatively impacted nurses' abilities to work and understand the situation as illustrated by the following comments: “At first, if you were exposed, you
cannot come back to work for the full 14 days … now it’s 10 days; but definitely there have been people called back to work before those days. I think it’s because the whole hospital has been experiencing staff shortages” (LPN/CNA, 2021).

I think, going forward, they really need to set up actual crisis plans before the crisis happens. Instead of … clear cut policies, there were daily and sometimes hourly policy changes. We need to work on better communication channels. … crisis management failed … instead of learning from history, we just kind of waited for it to happen. (ARNP, 2021)

Focus groups participants highlighted the **inconsistent and varied availability of and guidance regarding PPE** in nursing workplace settings in 2020. As one RN reported, “In some hospitals there were masks, and you can just grab it; but others you had to sign in and request a mask and that was all you got.” In addition to variations by facility, access to PPE varied throughout the year as well. As one LPN/CNA nurse described the **rules around PPE changed based on availability**. “In the beginning, we started doing masks/gowns for everyone.” This nurse indicated there were few rules around PPE aside from wearing PPE: “Then we transitioned to strictly counting PPE and keeping everyone in their rooms and shutting down all activities.”

Another RN described how PPE availability impacted policies, procedures, and reactions:

> We all just [had] to reuse masks. We were given one N95—which we were told to put in a paper bag and pin to the paper wall of the conference room with your name on it. I think we all know how germs work—this paper is not going to disinfect my mask. So literally between April and September, we were supposed to be re-using that mask for months. I think the hospital was forthright with it—now you can use one N95 per shift. It just makes you feel—I don’t know; I feel gaslighted this entire time.” (RN, 2021)

Survey respondents also expressed concern about PPE access during 2020. A majority of respondents reported feeling moderately or extremely concerned about accessing reliable and credible information (63%), accessing adequate COVID-19 testing kits and training (60%), and accessing quality and effective PPE (58%) (Figure 5, next page).
Similarly, survey respondents reported varying frequencies of access to PPE such as gowns, N95 respirators, gloves, eye protection, etc. About 61% of respondents indicated they often or always had access to eye protection, 59% medical face masks, 57% CAPR, and 56% gloves (Figure 6, below).

**Figure 6: Frequency of Access to PPE in 2020 (n=418)**
COVID-19 Testing

A small portion of survey respondents (3%) were never tested for COVID-19, citing reasons including their employer discouraging testing, a lack of access to COVID-19 testing, or never experiencing symptoms. About half of the survey respondents (49%) reported testing positive for COVID-19 in 2020. The remaining 48% had been tested at least once but had not received a positive result.

Sixty percent (60%) of survey respondents agreed or strongly agreed that their employers considered the safety of workers a high priority in relation to the COVID-19 crisis. About half (53%) of the respondents agreed or strongly agreed that their employers provided adequate opportunities for covid testing, while almost 30% were neutral, and 18% disagreed or strongly disagreed. Only 42% of survey respondents believed their employers provided adequate quarantining for employees who may have been or were exposed to COVID-19, and almost one-third (32%) disagreed or strongly disagreed that their employer provided adequate quarantining requirements (Figure 7, below).

Figure 7: Perceptions of Employer COVID-19 Resources (n=418)

Transparency/Communication

Focus group participants indicated that, with the pandemic, filtered chains of communication and procedures affected their jobs/roles and weighed on nurses’ mental health, as expressed in the following two quotes.
A consistent problem … is that there is absence of transparency. You can talk about radical transparency—as an institution, I think it is ok to say, ‘we don’t have the information,’ but with that information going through so many different sources … it seems like there is a lack of one place to gather the information. For example, you are supposed to have this type of goggle, so people bring in their own, but then it’s not up to certain standards. So, a lot of the patients we see were screened or tested, and we approach with the most appropriate PPE that we can. Sometimes I am in the room for 2-3 hours with patients and the condensation gets gross. (RN, 2021)

Nobody really understood what was going on. We put our mask in a bag, and we were supposed to reuse them … put the mask on and off, and put it in a bag … We didn’t understand the transmission … To be in a situation where little information was known was anxiety producing. (ARNP, 2021).

Beyond uncertain communication around guidance and the pandemic, participants also discussed how communication issues made them feel less heard and valued. For instance, as one participant described,

Management would not be listening to us—the direct care workers. They were making policies impacting us but would never listen or ask us. Then there is a process to file complaints … we have enough going on. (RN, 2021)

**Item 8: Impact study on clinical practice as a result of COVID-19**

*Often, they still expect nurses to just do it for the love of caring for people... People need to stop viewing it as an expectation that healthcare workers just take it for the team. (Director of Nursing, 2021)*

The on-going pandemic led to several adjustments regarding clinical practice. In 2020, the Nursing Care Quality Assurance Commission amended the list of providers authorized to determine, pronounce, and certify death: LPNs, RNs, and ARNPs are qualified to determine and pronounce death, nursing assistant-registered and nursing assistant-certified are not. Moreover, ARNPs are qualified to certify death while RNs and LPNs are not (Nursing Care Quality Assurance Commission, 2020a). Similarly, the NCQAC (2020b, p.1) indicated that “it is within the scope of practice of the registered nurse and licensed practical nurse to provide nursing care in a supervised injection services (SIS) facility within their legal scope of practice.”

Additionally, in May 2021, the Washington State Department of Health updated the list of providers authorized to administer vaccines to include certain previously non-eligible providers, students, out-of-state license holders, and inactive or expired license holders (Washington State Department of Health, 2021). Changes also affected telehealth services. The Washington State Department of Health published a series for FAQs on
telehealth practices for nurses on their website. Because of the rapid transition to telehealth services, some problems occurred regarding staff training, access to technology, etc. (HWC, 2021). The 2020 Annual Report from the Health Workforce Council also mentioned delays in nursing education including testing, completions, and job opportunities (HWC, 2021).

**Item 9: Available data on bias or inequities either exacerbated or resulting from COVID-19 for students, practicing nurses, nursing schools and organizations**

> I lost my job because of my race/ethnicity …

> I could not work without my work extension. During the pandemic when nurses were needed, I lost my job. It was not just me. If you Googled, you will see how many females with visas lost their jobs. Things are changing but it has not stopped. (RN, 2021)

Prior to the COVID-19 pandemic, there already existed biases and inequities in healthcare in the State of Washington. According to the 2020 Health Workforce Council (2020, p.24), “Students from traditionally marginalized groups, particularly communities of color and those who are economically disadvantaged, face particular barriers to entering, and advancing in the field.” Similarly, the 2019 Advanced Registered Nurse Practitioner Workforce Survey (2020, p.2) indicated that “Hispanics and non-Whites were underrepresented among ARNP’s when compared to the overall Washington population.” This is especially prevalent for midwives in rural areas (Advanced Registered Nurse Practitioner Workforce Survey 2020). Additionally, inequities remained despite previous efforts to address the under-representation of marginalized, vulnerable, and/or disenfranchised groups as explained by the Health Workforce Council (2020, p.24): “While efforts to increase both racial and socio-economic diversity within the health workforce are ongoing, students and workers of color remain underrepresented in the majority of provider populations, outside of entry-level roles.”

The 2019 Registered Nurses Workforce Survey (2020, p.1) argued that “while the racial and ethnic diversity of RNs practicing in Washington still does not mirror the state’s overall population demographics, the percentage who identified in 2019 as Hispanic/Latino (4.4%) and White alone (81.4%) have grown closer to state population levels compared with findings from a 2007 RN survey (2.2% Hispanic/Latino and 89.8% White alone).”

In the context of the pandemic, the State of Washington is introducing regulations to mitigate the effects of bias and inequities for students, practicing nurses, nursing schools and organizations. A 2021 Senate Bill (SB 5228) is under consideration to address “disproportionate health outcomes by building a foundation of equity in medical training,” while another Senate Bill (SB 5227) is aimed at requiring “diversity, equity, inclusion, and antiracism training and assessments at institutions of higher education.”

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8 The state’s overall Hispanic/Latino population was at 13% in 2018 (Stubbs, B. A., & Skillman, S. M. 2020c).
**Diversity & Equity**

When asked about diversity and equity, focus group participants discussed the lack of diversity in the nursing field despite attempts to improve the situation. For instance, one nursing student described their program as follows: “All except two people in my class are white, and same with our instructors.” This student believed that despite the lack of diversity, instructors “do their best to try to talk about it,” and indicated they “appreciated that a psychology professor brought up … making generalizations about people.”

Participants also pointed out the lack of diversity among nursing leadership. One nursing student stated they were not sure if the pandemic impacted the lack of diversity, “but leaders should be more diverse.” As another nurse indicated, “management is usually white. For someone who is of color, it is just something I notice. I am currently in clinicals at a hospital; I have not seen a nurse of color” (CNA, 2021).

Participants also highlighted equity issues and situations where they faced discrimination. For instance, one participant described their experience in the following way:

> I don’t think diversity means equity, especially in light of this pandemic. We have been more inclusive to include [sic] more DEI and incorporate more awareness. I feel like there are those of us who feel like we have not been as respected or feel like we have to hide, like those of us who identify as gay or being a person of color. I have felt talked down to before being just a CNA and an Asian American woman. We are trying to address those things … among our patients as well — trying to provide equitable care and not equal care. I think there is a lot of work to be done. Those folks are still trying. This is my first ever non-white manager in my unit. (CNA, 2021).

Another participant further explained:

> As African American women, every day when we go to work, we take risks. I wonder how that changes our interactions with others, those who have the least access to health care they continue, they realized what the trajectory was … people of color, the ability to have these life-saving anti-bodies, you have to have the privilege to know about it … You have to deal with systemic racism, and then the pandemic, and then how people see you …[sic] (ARNP, 2021)

In discussions about systemic racism in the United States from the context of COVID-19, participants indicated how these events have affected their lives:

> Because of Trump, who called it the “Chinese virus,” I was afraid at work. Luckily nothing happened to me, but I know other people who were impacted. How can the government do that to one race? Older Asian Americans, they are afraid to go outside to get treatment. I think the government should do something. (ARNP, 2021)
I think it’s really impacted society at large with the backlash against Asian Americans. I was part of what I thought was a local medical group … and I got a little note saying, “Why don’t you go back to China? You are not a doctor.” I decided to take myself off that Facebook page … I am certainly cognizant and seeing a lot of bad incidences of racial profiling against Asians. In WA State, I call that the ugly little secret. I was told the Proud Boys have an encampment. (ARNP, 2021).

Overall, participants discussed the need for greater inclusivity and addressed the importance of a diverse nursing workforce. One nursing program director expressed that “one of the big things we need to continue to work on is support services.” They indicated that, on one campus, about 50% of their incoming students are Hispanic or Latinx and they incorporate support courses, “particularly for non-native [English] speakers” into their program.”

Another program dean/director indicated that Washington nursing programs need to do more to recruit students of color:

We need to get people who are diverse. … Equity is infused in the admission process. … admission is complicated for nurses, and it’s just very cumbersome to try to apply if you are a first-generation or [a] student of color and you try to navigate that. We made it very cumbersome. (Nursing Program Dean/Director, 2021)

Experiences of Discrimination in Nursing

As black people, we are used to persevering. That is probably why people don’t see us in pain. We are suffering in silence … We handle things so well, because we know how to endure, and the health care system doesn’t consider us. (RN, 2021)

Table 7 (next page) illustrates the racial distribution by licensure of survey respondents in this study. White nurses comprised the majority of each licensure group, while ARNPs were more likely to be white (64%) compared to CNAs (46%), LPNs (52%), and RNs (49%). Survey Information Analytics, LLC (SIA) and the Washington Center for Nursing stakeholders made a conscious effort to recruit nurses of underrepresented nursing roles and racial categories, to gain insight into experiences of discrimination. However, this preliminary exploration of the impact of COVID-19 on the Washington nursing workforce remains a convenience sample and experiences of discrimination may not be generalizable to all Washington nurses.
Table 7: Survey Respondent Demographics by Highest Licensure Held (n=418)

<table>
<thead>
<tr>
<th></th>
<th>CNA</th>
<th>LPN</th>
<th>RN</th>
<th>ARNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>5%</td>
<td>13%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Asian</td>
<td>11%</td>
<td>12%</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>33%</td>
<td>16%</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>Multiracial (two or more races)</td>
<td>2%</td>
<td>6%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>White</td>
<td>46%</td>
<td>52%</td>
<td>49%</td>
<td>64%</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>5%</td>
<td>-</td>
</tr>
</tbody>
</table>

Proportions may not equal 100% due to missing data/non-response.

Survey respondents reported their agreement regarding feelings of discrimination in their primary nursing role. Among them

- 35% agreed or strongly agreed that they experienced discrimination because of their accent or a language barrier.
- 30% agreed or strongly agreed that they experienced age-related discrimination.
- 29% agreed or strongly agreed that they experienced discrimination due to their sexual orientation.
- 21% agreed or strongly agreed that they experienced race-related discrimination.

Survey respondents were also asked to report any impacts to their nursing role they believed they experienced during 2020 as a direct result of discrimination based on their age, gender, race/ethnicity, or sexuality. Among them

- 39% felt discrimination directly resulted in their reassignment to a unit/role that did not allow them to exercise their full nursing training.
- 32% believed they were removed from direct patient care due to discrimination.
- 22% believed they received a lower salary or less flexibility with their work schedule due to discrimination.
- 18% felt they were discriminatorily laid off/furloughed during the COVID-19 crisis.

About 19% of respondents expressed they did not experience any discrimination based on their age, gender, race/ethnicity, or sexuality as described above.

As stated in a previous section, 51% of nurses participating in the survey reported they were laid-off or furloughed from one or more nursing/healthcare related jobs in 2020, and 83% reported their lay-off/furlough was COVID-19-related. Among them, **59% of participants reporting they had been laid-off or furloughed were non-white**, including Asian, Black/African American, Pacific Islander, Native Alaskan/American Indian, multi-racial, or other races. Additionally, a majority of survey respondents who were laid off or furloughed (70%) were between the ages of 30-39 years old.
Item 10: Capture innovations adopted due to COVID-19 such as telehealth, simulation, computer-based testing for nursing assistants, clinical experiences

The shift to telemedicine has been a welcome shift for many patients. (ARNP, 2021)

Transition to telehealth services has its challenges as indicated in the 2020 Health Workforce Council Annual Report (2021, p.26): “Many clinicians reported challenges in contacting clients, increased rates of ‘no-show’ sessions, lack of access to adequate telehealth technology, and gaps in digital literacy.” Yet, for many nurses and healthcare workers, telehealth became a norm in 2020.

The majority of survey respondents (84%) reported that they provided nursing services through telehealth at least sometimes during 2020. About half of survey respondents indicated that they often (43%) provided telehealth services during 2020, and 10% indicated that they always used telehealth to provide nursing services in 2020. Only 16% reported they rarely or never provided telehealth services in their nursing role (Figure 8).

**Figure 8: Frequency of Providing Telehealth Services in 2020 (n=418)**

![Figure 8: Frequency of Providing Telehealth Services in 2020 (n=418)](image)

Additionally, two-thirds of survey respondents (67%) agreed or strongly agreed that they were providing more telehealth nursing services due to the pandemic when compared with telehealth services offered pre-pandemic (Table 8).

**Table 8: Telehealth Experiences during COVID-19 (n=418)**

<table>
<thead>
<tr>
<th>Experience</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to the pandemic, I provided more telehealth services</td>
<td>&lt;1%</td>
<td>10%</td>
<td>20%</td>
<td>45%</td>
<td>22%</td>
</tr>
<tr>
<td>than pre-pandemic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I had the resources I needed to provide telehealth services</td>
<td>2%</td>
<td>17%</td>
<td>22%</td>
<td>36%</td>
<td>20%</td>
</tr>
<tr>
<td>I felt prepared to provide telehealth services</td>
<td>2%</td>
<td>3%</td>
<td>14%</td>
<td>29%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Proportions may not equal 100% due to missing data/non-response.
Respondents were somewhat divided on their opinions regarding whether they had the resources needed to provide telehealth services. About 56% agreed or strongly agreed that they had the resources needed, while 22% were neutral, and 19% disagreed or strongly disagreed (Table 8). On the other hand, more than three-quarters (76%) indicated they were prepared to provide nursing services through telehealth.

While respondents may have been somewhat divided regarding access to telehealth resources in 2020, greater agreement on their preparation to provide telehealth may be an indicator of growing innovations within healthcare, generational differences in regular use of technology, and increasing use of virtual services during the COVID-19 pandemic, and/or increased support for virtual nursing to improve the likelihood of nurses’ safety and ability to manage family needs during the pandemic. Additional research is needed to capture the impact of and support for innovative adaptations to nursing roles.

**Limitations/Future Research/Recommendations**

This mix-method study highlighted some of the many challenges that nurses faced during 2020. However, the study has several limitations. First, both survey and focus group data were based on a convenience sample of nurses. Because the pandemic is ongoing, obtaining a representative sample and high response rate for those in the health industry is very challenging. Because of time and budget constraints, this study was designed to obtain a preliminary snapshot of the experiences of nurses during COVID-19 in 2020. Additionally, using a convenience sample (and using Survey Monkey for the surveys and Zoom for focus groups) allowed nurses, who had a desire to contribute and time in their schedule, to participate amid pandemic work scheduling.

Because this study is based on a convenience sample, it may not be generalizable or representative of the entire nursing population in Washington State. Findings may vary within different nursing sectors or licensures and more detailed methodological and analytical efforts may be needed to understand each group in more detail. This study’s efforts to reach underrepresented nurses offers one preliminary approach to identifying patterns and differences among nurses.

Additionally, this study asks participants to reflect on their experience in 2020, yet the pandemic remains ongoing; consequently, other challenges might have emerged beyond December 2020 (e.g. vaccine distributions) that can provide additional insights into the role and experiences of nurses throughout Washington State during the COVID-19 pandemic. Findings in this study briefly highlight anecdotes from participants regarding changes throughout 2020, yet findings are largely reported as overall trends and do not provide detailed accounts of the ways nurses’ experiences, concerns, and challenges may have been differently reported if surveyed at multiple points in the year.
Future Research

The research team recommends that future research on the impact of COVID-19 on the nursing workforce factor in additional time and budget to develop a representative sample process. This requires access to population data. For example, some study methodologies utilize names and contacts of all potential participants in the study (e.g. all licensed nurses; all licensed RNs; etc.). From there, a representative sampling frame can be developed.

Another recommendation from the research team is to compile demographic data for the target population. Demographic data is very important for examining equity and diversity over time. Also critical to future research and efforts to improve working conditions of nurses in Washington is a critical evaluation of diversity, equity, and inclusion (DEI) within healthcare systems. Some conversations that emerged during the focus group sessions that were not highlighted in this report touched on the topic of systemic racism in the healthcare setting and racial healing/transformation. For example, one RN noted how broken the healthcare system is, stating "The healthcare system continues to marginalize vulnerable people and people of color. You are always at the back of the line ... the healthcare system should be dismantled because it’s so broken" Another focus group participant noted “With George Floyd we never get to heal. Black people, we are very proud; we feel like we have something to prove. We always try to take the high road. I would love to have a therapist who looks like me. I don’t want to explain why I feel how I feel.” These conversations merit deeper research and studies that drive policy and workplace practices so that underrepresented nurses have a voice and access to resources they need to serve diverse patients.

Other Recommendations

Below are included some actionable items Washington’s nursing workforce stakeholders may consider after reviewing the data in this report:

- **Policy implications**: Both survey and focus groups indicated a consistent theme among nurses was greater access to reliable information. Focus group participants indicated they wanted more transparency in how information around COVID-19 and PPE was disseminated. One policy recommendation that may be considered is the development of a crisis management plan with a more centralized and standard mode of communicating important information to nurses and their employers.

Similarly, the lived experiences of students and nurses should guide future crisis management plans. For instance, frontline nurses’ experience with PPE shortages and procedural/information concerns should be incorporated into future crisis plans to reduce detrimental impacts to their safety and well-being during uncertain times. As one nursing dean/director questioned, “Are we soliciting feedback from students to address curricula changes as we move forward?” Student experiences
and challenges should be factored into future academic policies to improve outcomes when schooling and clinical environments are not conducive to traditional methods.

- **WCN and its stakeholders** can use focus groups or listening sessions as a safe space for nurses to voice their concerns. Focus group participants commonly provided feedback that they were thankful for the opportunity to participate and hear stories from their colleagues that made them feel less alone. It is important that the contributions of the nurses in this study do not go unnoticed and efforts are made to remind them that they have been heard.

It is also important for stakeholders to begin preparing for the likelihood that recently graduated nurses may need additional training in their first year of work as a nurse due to COVID-related impacts to their education. Student focus group participants indicated uncertainty about their qualifications due to a lack of in-person training and patient experience through virtual/independent learning and clinical restrictions.
References

Addressing disproportionate health outcomes by building a foundation of equity in medical training. SB 5228. (2021). [Link]


Centers for Disease Control and Prevention. (2013, August 29). Quality of Worklife Questionnaire. Centers for Disease Control and Prevention. [Link]


Providing health care workers with presumptive benefits during a public health emergency, SB 5190. (2021). [Link]

Requiring diversity, equity, inclusion, and antiracism training and assessments at institutions of higher education. SB 5227. (2021). [Link].


APPENDIX A: Survey Instrument

WCN COVID-19 Impact on the Nursing Workforce

[Part I. Informed Consent/Screening]

We are asking you to be in a research study conducted by the Washington Center for Nursing (WCN). Participation is voluntary. The purpose of this form is to give you the information you will need to help you decide whether to participate. Please read the form carefully. You may ask questions about anything that is not clear. When we have answered all of your questions, you can decide if you want to be in the study or not. This process is called “informed consent.” Please print a copy of this form for your records.

- The purpose of this project is to gain a better understanding of the impact of COVID-19 on the nursing workforce.
- As a part of this study, you will be asked to answer a series of questions around your nursing licensure, employment experience, access to PPE during COVID-19, and behavioral health.
- You will be asked to focus your answer on your experience during 2020.
- The survey will take approximately 10-12 minutes.
- As a thank you for your time, you will have the option to provide an email address at the end of the survey for a $5 Amazon e-gift card incentive. This email address will never be connected to your responses.
- You may choose whether to answer certain questions or stop participating at any time by closing your browser window and your responses would be deleted.
- There are no anticipated risks for participating.

Data collected will remain confidential (your responses to the survey will never be linked to any identifying information) and will be stored securely. The Washington Center for Nursing will use aggregate data to help inform future policies/practices in the field of nursing. If you have any questions about your participation please contact the primary researcher Jenny Nguyen, PhD at info@surveyinfoanalytics.com or 360-826-2624. If you have any questions about your rights as a research participant, please contact the primary research or the Western Washington University Office of Research and Sponsored Programs (RS) at compliance@wwu.edu or 306-650-2146.

Consent to Participate:
By selecting "Next" below, I acknowledge that I am at least eighteen years old, and that I understand my rights as a research participant as outlined above and agree to participate in this study. I acknowledge that my participation is completely voluntary.

Select “Next” to Continue

1. During 2020, did you hold an ACTIVE nursing license in the State of Washington?
   - Yes.
   - No. <skip to end>

2. During 2020, were you employed in a nursing or nursing-related role in the State of Washington?
   - Yes.
   - No. <skip to end>

[Part II. Licensure/Employment]

3. Which of the following nurse license(s)/certifications did you hold in 2020? Please select all that apply. (Required)
   - Certified Nurse Assistant (CNA)
   - Licensed Practical Nursing (LPN)
   - Registered Nurse (RN)
   - Advance Registered Nurse Practitioner (ARNP)
   - Other (Please Specify):
   - None of the above <skip to end>
4. Which best describes your primary place of employment during 2020?
   - Higher Education (e.g. college/university)
   - Hospital/Inpatient/Acute Care
   - K-12 Education/School Health Services
   - Long-term Care
   - Outpatient/Physician’s Office/Home Health
   - Public Health
   - Policy, agency, regulatory, administrative services
   - Other (Please Specify):

5. Which best describes your primary nursing role in 2020?
   - Direct patient care (e.g., staff nurse, travel nurse, advanced practice nurse)
   - Indirect care (e.g., case management, quality/risk management, non-faculty research)
   - Educator (e.g., nurse faculty/instructor, academic researcher)
   - Management (e.g., nurse manager, executive)
   - Other (please specify):

6. In your primary nursing role in 2020, how often did you provide telehealth services?
   - Never
   - Rarely
   - Sometimes
   - Often
   - Always
   - Not Applicable

7. How much do you agree or disagree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree/Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to the pandemic, I provided more telehealth services than pre-pandemic.</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
</tr>
<tr>
<td>I had the resources I needed to provide telehealth services</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
</tr>
<tr>
<td>I felt prepared to provide telehealth services</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
<td>{}</td>
</tr>
</tbody>
</table>

8. During 2020, about how many hours did you work in nursing in a typical week?
   - Less than 10 hours a week
   - 11-15 hours a week
   - 16-20 hours a week
   - 21-25 hours a week
   - 26-30 hours a week
   - 31-35 hours a week
   - 36-40 hours a week
   - 41-45 hours a week
   - 46-50 hours a week
   - 50 plus hours a week

9. Were you laid off or furloughed from one or more nursing/healthcare related jobs at any time during 2020? ⁹ (Required due to skip logic)
   - Yes <GO to 9A>
   - No

9A. Was this lay-off or furlough due to COVID?
   - Yes, my lay-off or furlough was due to the COVID pandemic
   - No, this was due to other reasons

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⁹ Modified from The National Institute for Occupational Safety and Health (NIOSH) Quality of Worklife Questionnaire (https://www.cdc.gov/niosh/topics/stress/qwlquest.html) and the WSNA Healthy Workplace Survey (https://www.surveymonkey.com/r/CovidHealthyWorkplace)
[Part III. Demographics]

10. In what year were you born? (Required)
    < 4-digit numeric text (allowable range 1919-2004) >

11. Please describe your race/ethnicity: (Required)
    □ American Indian or Alaskan Native    □ White
    □ Asian                                □ Multiracial (two or more races)
    □ Black/African American               □ Other (Please specify):
    □ Pacific Islander                      □ Prefer not to answer

12. Do you identify as being of Latino/a/x or Hispanic origin? (Required)
    o Yes
    o No
    o Prefer not to answer

13. In which county was your primary place of nursing employment in Washington in 2020?
    (If home health, telehealth, etc., please select the Washington county you
    worked from most frequently.)
    < drop down menu listing Washington State counties >

14. Please select a gender you most identify with: (Required)
    o Male/Man                              o Other
    o Female/Woman                          o Prefer not to answer
    o Non-binary                            o

15. Including yourself, how many people are in your household?
    o 1                                     o 4
    o 2                                     o 5 or more
    o 3

16. How many children under 18 are in your household?
    o 0                                     o 2
    o 1                                     o 3 or more

17. During 2020, did you have to provide additional homecare without pay (e.g. caretaking of elderly,
    disabilities, homeschooling etc.) due to COVID-19?\(^\text{10}\)
    o Yes
    o No
    o N/A

18. Which category best describes your annual household income in 2020?\(^\text{11}\)
    o Less than $10,000
    o $10,000 to $50,000
    o $50,000 to $75,000
    o $75,000 to $100,000
    o $100,000 to $125,000
    o $125,000 to $150,000
    o $150,000 to $175,000
    o $175,000 to $200,000
    o Greater than $200,000

\(^{10}\) Modified from National Institute of Health Psychological Stress Associated with the COVID-19 Crisis (COVID-19 Stress) instrument (https://www.nlm.nih.gov/dr2/Psychological_Stress_Associated_with_the_COVID-19_Crisis_14.pdf)
\(^{11}\) Categories selected from NIH COVID-19 Stress instrument
[Part III. COVID-19 Questions & PPE]

19. During 2020, did you ever receive a positive COVID-19 test result? (Required)
   o Yes.
   o No, I got tested but never received a positive.
   o No, I never got tested. <GO to 19A>

19A. You mentioned you never got tested for COVID-19 during 2020. Please select all statements below that apply to you: I never got tested because...
   □ I never had symptoms.   □ My employer discouraged testing.
   □ I did not have access to testing. □ Other (Please specify):

20. Thinking about your experience in 2020, please select how much you agree or disagree with the following statements:12

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree/Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My employer(s) provided adequate opportunities for me to be tested for COVID-19</td>
<td>□</td>
<td></td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>My employer(s) required adequate quarantining for employees who may have been exposed to COVID-19</td>
<td>□</td>
<td></td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>The safety of workers during the COVID-19 crisis is a high priority where I work(ed)</td>
<td>□</td>
<td></td>
<td></td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

21. In your primary nursing role during 2020, how concerned were you regarding each of these items?13

<table>
<thead>
<tr>
<th></th>
<th>Not at All Concerned</th>
<th>Not Very Concerned</th>
<th>Somewhat Concerned</th>
<th>Moderately Concerned</th>
<th>Extremely Concerned</th>
<th>Not Applicable in My Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessing reliable and credible information about COVID-19</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Caring for COVID-19 positive patients or Persons Under Investigation (PUI)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Adequate test kits and training</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Personal safety (e.g. contracting COVID-19)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Accessing quality and effective PPE</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Safety of friends and family</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Staffing</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

12 Modified from WSNA COVID-19 Healthy Workplace Survey and NIOSH Quality of Worklife Questionnaire
22. During 2020, how often did you have access to the following personal protective equipment when providing direct care to suspected/diagnosed COVID-19 patients?¹⁴

<table>
<thead>
<tr>
<th>Personal Protective Equipment</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>N95 respirators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAPR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical facemask</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposable gown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Part IV. Behavioral Health]

23. Thinking about your experience working during the pandemic in 2020, how often did you feel?¹⁵

<table>
<thead>
<tr>
<th>Feeling</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>As if something serious was going to happen unexpectedly with the pandemic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As if you were unable to control the important things in my life because of the pandemic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nervous or stressed about the pandemic.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimistic that things are going well with the pandemic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unable to cope with the things you have to do to monitor for a possible infection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felt that I have everything under control in relation to the pandemic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felt upset that things related to the pandemic are out of your control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24. How often do you find your work stressful?¹⁶
   - Never
   - Rarely
   - Sometimes
   - Often
   - Always

25. Looking back to your work experiences in 2020, what type of resources would have helped with your stress or improve your work experience during COVID 19?
   < Open text response >

¹⁴ Questions adapted from WSNA COVID-19 Healthy Workplace Survey
¹⁵ Adapted from NIH Pandemic-Related Perceived Stress Scale of COVID-19 instrument (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7680058/)
¹⁶ Adapted from NIOSH Quality of Worklife Questionnaire
26. As a result of the COVID-19 pandemic, I have…

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thought about or planned to leave my current (nursing) employer for another</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Thought about or planned to leave the field of nursing</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Retired or thought about retirement earlier than I originally planned</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Transitioned from one nursing unit/position/role to another</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Made a career change (within nursing) for higher pay or better working conditions</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Made a career change (out of nursing) for higher pay or better working conditions</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Left the nursing workforce temporarily.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Left the nursing workforce indefinitely.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

27. If you have contemplated leaving the field of nursing or your nursing employer or have begun the process of transitioning out of nursing, please describe the factors or circumstances contributing to this. Otherwise enter ‘N/A’

< Open text response >

[Section V: Discrimination/Biases]

28. How often do/did you feel supported by nursing leadership/administration at your facility?\(^{17}\)
   - Never
   - Rarely
   - Sometimes
   - Often
   - Always

29. Thinking about your current or most recent nursing or nursing related role… In general, how would you describe relations in your workplace between management and employees?\(^{18}\)
   - Very Poor
   - Poor
   - Fair
   - Good
   - Excellent

\(^{17}\) Adapted from WSNA COVID-19 Healthy Workplace Survey
\(^{18}\) Adapted from NIOSH Quality of Worklife Questionnaire
30. Thinking about your experience at work during 2020, please select how much you agree or disagree with the following statements: I have felt discriminated in my primary nursing role because of my...

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither nor Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race or Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender or Gender Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accent or language barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

19 Modified from NIOSH Quality of Worklife Questionnaire
31. During 2020, do you believe you experienced any of the following as a direct result of discrimination based on your age, gender, race/ethnicity, or sexuality? Please select all that apply.

- Laid off or furloughed during the COVID-19 crisis.
- Reassigned to a unit/role that does not allow you to exercise your full nursing training.
- Removed from direct patient care.
- Lower salary and/or less flexibility with my work schedule.
- Other (Please Specify):
- None of the above

< Survey End >

**Incentive Instructions**

WCN is providing a $5 gift card to Amazon as a thank you for your contribution to this research. Please click <here> to enter your email address for the gift card. Your email address will not be linked to any information that you provided in this survey.

**[ Section VI. Email Incentive – This text is shown on a separate, unlinked survey]**

WCN is providing all participants with a $5 Amazon e-gift card to thank you for your contribution to this research. Gift cards will be sent electronically. To receive the gift card, please carefully input a valid email address below. Your contact information will in NO WAY be linked to the survey responses provided or shared with any additional organization.

Email Address: ___________________________

Your e-gift card will arrive in this email address in about 2-3 weeks after the survey closes. Please be sure to add @(DOMAIN ADDRESS) to your safe senders list to ensure the gift card is not sent to your spam folder. Any additional questions can be directed to: info@surveyinfoanalytics.com