

March-April 2024

# NNU Infectious Diseases Survey Final Results

Health Care Employers Across the Country  
Neglect Essential Infection Prevention Measures;  
Strong Standards and Robust Enforcement are Key to  
Protecting Health Care Workers and Patients



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National Nurses United (NNU), the largest and fastest growing labor union and professional association for registered nurses (RNs) in the United States, conducted a survey of RNs regarding infection prevention practices related to a range of infectious diseases at the facilities where RNs work.

## Key Findings

- »»» Health care employers across the country are neglecting essential elements of infection prevention, including patient screening, isolation of infectious/potentially infectious patients, provision of optimal personal protective equipment (PPE), exposure notification, source control, and paid sick leave.
- »»» Overall, RNs working in California report higher utilization of protective measures than RNs working in other states. A lower percentage of RNs working in California reported ever sustaining an infection at work compared to RNs working in other states. These results underline the importance of having strong standards with explicit requirements when it comes to protecting the health and safety of health care workers and patients. California is the only state in the nation that has an enforceable Aerosol Transmissible Diseases (ATD) Standard, which requires health care employers to protect employees from certain infectious diseases that are aerosol transmissible.
- »»» Enforcement of health and safety standards is key. There are some areas, such as patient screening and provision of PPE, where California RNs report lower levels of implementation than should be the case under ATD Standard requirements. Enforcement activities by California’s state Occupational Safety and Health Administration (OSHA) plan (Cal/OSHA) have lagged in recent years.<sup>1</sup> Robust enforcement programs are an important aspect of ensuring strong protections for workers.
- »»» A strong national infectious diseases standard with robust enforcement is necessary to protect health care workers and patients in every state across the country. NNU urges OSHA to issue an infectious diseases standard to ensure that health care workers are afforded their right to a safe and healthful workplace.

## Methodology

RN respondents were invited to complete the survey via text message, email, and social media. Final results include responses from 755 RNs who work in 45 states and DC,<sup>2</sup> including both NNU members and non-union RNs. The survey collected data between March 4 and April 19, 2024.

Results are presented below for three groups: the national sample (n=755), RNs who work in California (n=295), and RNs who work in other states (which includes all other states and DC except for California, n=409).<sup>3</sup> California is the only state in the nation that has an Aerosol Transmissible Diseases (ATD) Standard, which requires health care employers to protect employees from certain infectious diseases that are aerosol transmissible. While Cal/OSHA’s enforcement activities are insufficient, NNU’s experience, especially during the Covid-19 pandemic, is that California’s ATD Standard still provides important protections to nurses and other health care workers. This analysis allows us to examine differences in employer practices between the state that has enforceable infectious disease standard in place and other states without such standards.

## Results

### Screening and Isolation of Infectious/Potentially Infectious Patients

It is essential for health care facilities to have protocols in place to screen patients and visitors to effectively identify individuals who are or may be infectious. Accurate and timely identification of infectious/potentially infectious patients is essential to ensure isolation. Isolation of infectious/potentially infectious patients is a key part of preventing exposure and transmission to other individuals present in the health care facility, including staff and patients. Ventilation is also an essential measure to prevent transmission of infectious particles through the air, including both use of airborne infection isolation rooms (AIIRs) and providing adequate ventilation and filtration in patient care and other areas of the facility.

NNU’s survey finds that few RNs report that patients are consistently screened for respiratory infectious diseases (e.g., tuberculosis (TB), influenza, Covid, respiratory syncytial virus

**Table 1** Are patients screened for respiratory infectious diseases at the point of entry to your health care facility (e.g., TB, influenza, Covid, RSV, etc.)?

Reported frequency	All RN respondents	RN respondents who work in California	RN respondents who work in other states
<b>Always</b>	<b>12.5%</b>	<b>10.8%</b>	<b>13.4%</b>
<b>Often</b>	<b>18.2%</b>	<b>20.7%</b>	<b>17.1%</b>
<b>Sometimes</b>	<b>32.9%</b>	<b>36.3%</b>	<b>30.8%</b>
<b>Rarely</b>	<b>14.7%</b>	<b>13.9%</b>	<b>16.4%</b>
<b>Never</b>	<b>16.3%</b>	<b>14.2%</b>	<b>17.4%</b>
<b>Not sure</b>	<b>5.3%</b>	<b>4.1%</b>	<b>4.9%</b>

(RSV), etc.) at the point of entry to their health care facility and that a majority of RNs report inconsistent isolation practices at their facilities. Nearly 1 in 6 RNs report that patients are never screened (Table 1). A majority of RNs report inconsistent isolation of patients who have or might have a respiratory infectious disease at their health care facility (Table 2). Only 38.5% of RNs report that patients who have or might have a respiratory infectious disease are always isolated (Table 2). Inadequate screening and isolation of infectious/potentially infectious patients puts health care workers, patients, and visitors at increased risk of exposure to and infection with respiratory infectious diseases.

**Table 2 If a patient has or might have a respiratory infectious disease, are they isolated?**

Reported frequency	RN respondents	RN respondents who work in California	RN respondents who work in other states
<b>Always</b>	<b>38.5%</b>	<b>41.1%</b>	<b>37.7%</b>
<b>Usually</b>	<b>18.8%</b>	<b>19.0%</b>	<b>18.6%</b>
<b>Sometimes</b>	<b>22.6%</b>	<b>24.1%</b>	<b>22.2%</b>
<b>Rarely</b>	<b>11.3%</b>	<b>8.8%</b>	<b>12.2%</b>
<b>Never</b>	<b>4.5%</b>	<b>4.1%</b>	<b>4.9%</b>
<b>Not sure</b>	<b>4.3%</b>	<b>2.7%</b>	<b>4.4%</b>

When comparing results from California to other states, generally RNs who work in California report that patients are more consistently screened (67.8 percent report “always,” “often,” or “sometimes”) than in other states (61.3 percent) (Table 1). RNs who work in California also report more consistent patient isolation practices (84.2 percent report “always,” “usually,” or “sometimes”) than in other states (78.5 percent). However, these differences in patient screening and isolation practices are not large. NNU members’ experiences in California are that Cal/OSHA’s enforcement program should be strengthened in order to better protect workers in the state.

**Table 3 What types of PPE does your facility use for these common infectious diseases?**

Infectious Disease	RN respondents						
	Respirator	Surgical mask	Eye protection	Isolation gown/coveralls	Gloves	Other	Not sure
<b>Tuberculosis</b>	<b>67.2%</b>	<b>44.1%</b>	<b>48.5%</b>	<b>69.3%</b>	<b>75.6%</b>	<b>8.2%</b>	<b>8.6%</b>
<b>Measles</b>	<b>31.3%</b>	<b>37.9%</b>	<b>29.9%</b>	<b>46.1%</b>	<b>50.9%</b>	<b>4.6%</b>	<b>38.4%</b>
<b>Covid-19</b>	<b>63.3%</b>	<b>57.0%</b>	<b>67.7%</b>	<b>77.7%</b>	<b>82.9%</b>	<b>7.8%</b>	<b>3.0%</b>
<b>Influenza</b>	<b>20.0%</b>	<b>80.7%</b>	<b>33.0%</b>	<b>47.7%</b>	<b>67.5%</b>	<b>4.2%</b>	<b>5.8%</b>
<b>RSV</b>	<b>23.0%</b>	<b>68.7%</b>	<b>33.2%</b>	<b>49.3%</b>	<b>63.2%</b>	<b>5.4%</b>	<b>15.6%</b>
<b>Pertussis</b>	<b>17.2%</b>	<b>44.0%</b>	<b>24.2%</b>	<b>32.7%</b>	<b>41.6%</b>	<b>4.0%</b>	<b>44.2%</b>

## Personal Protective Equipment (PPE)

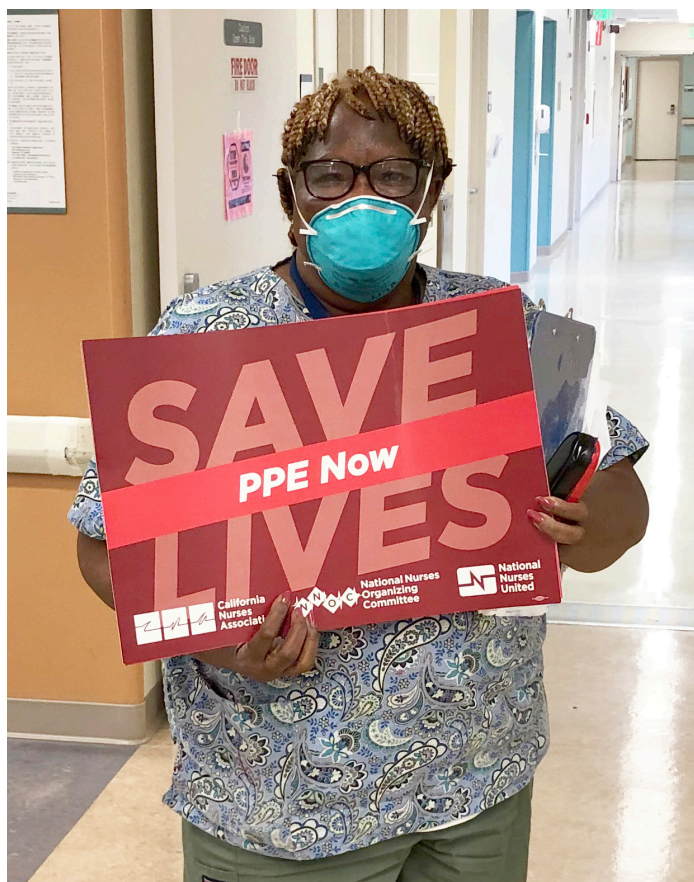
PPE, which should be used in the context of the hierarchy of controls, is an essential element of protection for health care workers. Nurses and other health care workers frequently provide hands on care to infectious/potentially infectious patients, which necessitates being in close proximity to an infectious source for long periods of time. Different types of PPE, such as respirators approved by the National Institute for Occupational Safety and Health (NIOSH), eye protection, isolation gowns, coveralls, and gloves, are used and must be selected based upon a pathogen’s transmission route(s) and an assessment of the health care worker’s exposure.

NNU’s survey data regarding the types of PPE used for different pathogens indicate significant issues in health care facilities’ current practice (Table 3). Only 67.2 percent of RNs report that their facility uses a respirator for patients with TB, even though TB is [well-recognized](#) as aerosol-transmitted and a NIOSH-approved respirator is necessary for protection. For patients with Covid-19, only 63.3 percent of RNs report that their facility uses a respirator while 57.0 percent of RNs report that their facility uses a surgical mask for patients with Covid-19. This is extremely concerning because the [evidence](#) is clear that SARS-CoV-2/ Covid-19 is aerosol-transmitted and a NIOSH-approved respirator is required to protect health care workers from exposure. A surgical mask [does not provide](#) respiratory protection.

For measles, NNU’s results find that only 31.3 percent of RNs report that their facility uses a respirator while 38.4 percent report they are not sure what type of PPE is used (Table 3). Concerningly, 37.9 percent of nurses report that their facility uses surgical masks for measles. It is scientifically clear and accepted that a respirator is needed to protect health care workers caring for patients with measles. This underlines the importance of preparation by employers for outbreak situations including ongoing education and training. While measles has been uncommonly seen in the U.S. since it was eradicated in 2000, [measles cases in the U.S.](#) have already well surpassed 2023’s annual totals in just the first few months of 2024. Preparation and awareness are key to preventing occupational exposures and transmissions when cases do arise. Health care employers must prepare to protect health care workers and patients in such situations.

For other respiratory infectious diseases like influenza and RSV, NNU's results find that a significantly higher proportion of nurses report the use of a surgical mask than a respirator at their facility (Table 3). This is concerning given the [evidence](#) that these pathogens can transmit through the air via infectious respiratory aerosols and can result in infection in health care workers. Both influenza and RSV can cause severe disease and death. Surgical masks [do not provide](#) respiratory protection and cannot be treated as such.

When it comes to differences in PPE usage in California compared to other states, there are significant differences. Significantly higher proportions of RNs working in California report usage of respirators for tuberculosis (78.0 percent vs 62.6 percent), measles (40.0 percent vs 26.9 percent), Covid-19 (74.2 percent vs 58.4 percent), and pertussis (23.7 percent vs 13.4 percent) compared to RNs who work in other states (Table 4). Across most pathogens included in the survey, higher proportions of RNs working in California report use of eye protection and isolation gowns/coveralls than RNs working in other states. A higher proportion of RNs in other states report being unsure of what type of PPE their facility uses compared to RNs in California (Table 4). The Cal/OSHA ATD Standard includes clear requirements about the types of PPE that must be utilized when a patient is suspected or confirmed to have an aerosol-transmitted disease. NNU's survey results indicate that there is substantially more PPE usage and compliance in California health care facilities than in other states, though gaps in California remain. These results underline the impact and importance of having clear, explicit requirements for health care employers and the need for ongoing and robust enforcement.



**Table 4** What types of PPE does your facility use for these common infectious diseases?

	Infectious Disease	RN respondents who work in California	RN respondents who work in other states
Respirator	Tuberculosis	78.0%	62.6%
	Measles	40.0%	26.9%
	Covid-19	74.2%	58.4%
	Influenza	23.4%	18.8%
	RSV	25.4%	22.2%
	Pertussis	23.7%	13.4%
Surgical mask	Tuberculosis	43.4%	44.7%
	Measles	38.3%	35.7%
	Covid-19	55.3%	59.4%
	Influenza	84.4%	79.0%
	RSV	73.6%	66.5%
	Pertussis	45.1%	42.8%
Eye protection	Tuberculosis	46.1%	46.9%
	Measles	35.9%	26.9%
	Covid-19	78.6%	64.1%
	Influenza	41.0%	28.6%
	RSV	42.0%	28.4%
	Pertussis	30.8%	20.0%
Isolation gown/coveralls	Tuberculosis	24.4%	66.5%
	Measles	50.5%	43.8%
	Covid-19	85.1%	74.6%
	Influenza	53.6%	44.3%
	RSV	58.0%	43.5%
	Pertussis	41.4%	26.7%
Gloves	Tuberculosis	79.0%	74.3%
	Measles	52.5%	48.7%
	Covid-19	87.1%	81.4%
	Influenza	71.2%	65.6%
	RSV	69.2%	59.7%
	Pertussis	45.8%	38.1%
Other	Tuberculosis	8.8%	8.1%
	Measles	2.7%	5.9%
	Covid-19	8.1%	8.1%
	Influenza	3.1%	5.4%
	RSV	4.7%	6.4%
	Pertussis	3.4%	4.6%
Not sure	Tuberculosis	4.1%	11.5%
	Measles	35.6%	41.8%
	Covid-19	1.0%	3.7%
	Influenza	4.4%	6.4%
	RSV	11.5%	18.1%
	Pertussis	43.7%	46.0%

## Policies for Mask Use for Source Control

Source control is an essential element of preventing transmission of infectious diseases in health care settings. In addition to screening and prompt isolation of infectious/potentially infectious patients, masks can be used for source control. There is growing [evidence](#) regarding the [effectiveness](#) of masks for reducing respiratory emissions from the wearer, especially when [universal masking](#) is employed.

NNU's results find that only a small proportion of nurses report policies requiring the use of masks for source control by patients, visitors, and/or staff in their health care facilities (Table 5). Nurses most frequently report that the use of masks for source control is voluntary for patients, visitors, and staff.

Overall, RNs report similar uses of source control in California and other states, except that policies regarding universal masking are significantly more common in California than in other states (Table 5). A significantly higher percentage of RNs working in California report that universal masking is used at all times in their facility (11.9 percent for patients, 8.8 percent for visitors, 28.1 percent for staff) compared to RNs working in other states (2.4 percent for patients, 2.9 percent for visitors, 4.4 percent for staff). A significantly higher proportion of RNs working outside California reported that masking is voluntary only for staff (40.6 percent) compared to RNs working in California (27.1 percent).

## Exposure Tracking and Notification

Notification of exposures is important because it enables monitoring for infection, which can be key for preventing onward transmission to others. Tracking infectious disease exposures is an essential part of evaluating the effectiveness of an employer's infection prevention program. Exposure notification is also essential to enabling workers to tie infections to occupational exposures, which can enable access to workers compensation and other benefits and supports.

NNU's survey finds that a very low proportion of nurses (15.4 percent) report that they are always notified of exposures to infectious diseases in a timely fashion (Table 6). About one in five (17.9 percent) report they are always notified of exposures but after a delay. Delays in exposure notification can undermine efforts to prevent onward transmission. About one in ten nurses (11.2 percent) report they are never notified of exposures by their employer.

Overall, higher proportions of RNs who work in California report exposure notification happening at least sometimes (68.1 percent) than in other states (60.7 percent) (Table 6). A higher proportion of RNs working in other states (13.2 percent) report that

**Table 5 Does your facility use masks for source control?**

Answer choices	All RN respondents	RN respondents who work in California	RN respondents who work in other states
Universal masking at all times	<b>PATIENTS</b> 6.8%	11.9%	2.4%
	<b>VISITORS</b> 5.7%	8.8%	2.9%
	<b>STAFF</b> 14.2%	28.1%	4.4%
Universal masking during surges or periods of high transmission	<b>PATIENTS</b> 18.5%	14.9%	19.6%
	<b>VISITORS</b> 14.7%	12.9%	14.2%
	<b>STAFF</b> 20.5%	16.6%	21.5%
Masking in specific units at all times	<b>PATIENTS</b> 4.9%	6.1%	3.4%
	<b>VISITORS</b> 4.4%	5.1%	3.4%
	<b>STAFF</b> 7.5%	8.8%	6.1%
Masking in specific units during surges or periods of high transmission	<b>PATIENTS</b> 12.8%	8.5%	15.2%
	<b>VISITORS</b> 8.7%	7.1%	9.5%
	<b>STAFF</b> 15.7%	12.9%	18.1%
Voluntary only	<b>PATIENTS</b> 47.3%	47.1%	48.2%
	<b>VISITORS</b> 58.6%	57.3%	59.7%
	<b>STAFF</b> 34.5%	27.1%	40.6%
Not sure	<b>PATIENTS</b> 2.2%	2.9%	2.0%
	<b>VISITORS</b> 3.4%	3.1%	3.4%
	<b>STAFF</b> 0.9%	1.0%	0.5%
Other	<b>PATIENTS</b> 7.6%	7.5%	7.3%
	<b>VISITORS</b> 4.5%	3.7%	4.6%
	<b>STAFF</b> 6.7%	5.1%	7.8%

**Table 6 Does your employer identify and notify staff of exposures to infectious diseases?**

Frequency	All RN respondents	RN respondents who work in California	RN respondents who work in other states
<b>Always</b>	33.3%	35.2%	30.6%
<b>Often</b>	9.5%	9.2%	9.3%
<b>Sometimes</b>	21.8%	23.7%	20.8%
<b>Rarely</b>	15.1%	14.6%	15.9%
<b>Never</b>	11.2%	8.8%	13.2%
<b>Not sure</b>	9.0%	8.1%	9.5%

exposure notification never happens compared to RNs working in California (8.8 percent). Cal/OSHA's ATD Standard requires notification to employees of certain exposures that occur at work. These results indicate that having clear standards regarding exposure notification can improve compliance, though California would benefit from additional enforcement.

## Tuberculosis Testing

TB testing remains an important aspect of exposure monitoring and prevention. [Research](#) has found that patients have an average of 3.89 health care visits representing missed opportunities for diagnosis. TB cases [rose](#) in 2023 compared to the prior year. This indicates that unidentified occupational exposures to TB remain commonplace in the U.S.

Regular TB testing remains an important tool to identify latent TB infections (LTBI) among health care workers to trace unidentified exposures, enable assessment of the effectiveness of the employer's infection prevention program, and enable health care workers to access prompt treatment. NNU's results find that only about half of nurses (50.6 percent) report that their employer provides annual TB testing after pre-hire screening (Table 7).

More than twice the proportion of RNs report TB testing at least annually in California compared to other states. A significantly higher proportion of RNs working in other states report TB testing is only available after an exposure (16.4 percent) or is never available (13.7 percent) compared to RNs working in California (3.1 percent, 1.7 percent). A significantly higher proportion of RNs working in other states report they are not sure about their employer's TB testing practices (18.3 percent) compared to RNs working in California (5.4 percent). Cal/OSHA's ATD Standard is the only standard in the nation that continues to require that health care employers offer access to TB testing at least annually and after exposure to employees. These results underline the importance of having clear standards that require these measures. These results also underline the importance of robust enforcement, which continues to be needed in California.

**Table 7 Does your employer provide TB testing after pre-hire screening? If so, how often?**

Answer choices	All RN respondents	RN respondents who work in California	RN respondents who work in other states
Yes, annually	50.6%	73.9%	32.3%
Yes, every other year	3.8%	3.1%	3.9%
Yes, every three years	1.1%	1.4%	0.7%
Only upon request	5.4%	3.1%	6.8%
Only after exposure	10.9%	3.1%	16.4%
Never	8.9%	1.7%	13.7%
Other	7.1%	7.8%	7.3%
Not sure	12.3%	5.4%	18.3%

**Table 8 Have you ever sustained any infectious disease from work (including common cold, influenza, Covid-19, MRSA, etc.)?**

Answer choices	All RN respondents	RN respondents who work in California	RN respondents who work in other states
Yes	64.9%	60.7%	68.2%
No	19.5%	20.3%	17.8%
Not sure	15.5%	18.6%	13.2%

## Work-Related Infections and Time Off Work to Recover

When health care employers fail to implement protective measures, such as patient screening and isolation, PPE, source control, and exposure notification, health care workers are placed at increased risk of exposure and infection to a variety of infectious agents. NNU's results find that a majority of RNs (64.9 percent) report that they have sustained at least one infection from work, such as the common cold, influenza, Covid-19, methicillin-resistant *Staphylococcus aureus* (MRSA), TB, other respiratory illnesses, shingles, norovirus, and other infections (Table 8).

Notably, a higher proportion of RNs working in other states report work-related infections (68.2 percent) compared to RNs working in California (60.7 percent). Cal/OSHA's ATD Standard is in effect only in California and requires health care employers to implement exposure control plans to protect health care workers from aerosol transmissible diseases. While enforcement continues to be necessary, it is likely that having the ATD Standard has resulted in improved infection prevention measures in health care facilities, thus protecting health care workers from work-related infections in California.

Of the nurses who reported ever having sustained an infection at work, the vast majority required at least one day off work to recover (Table 9). A significant proportion required multiple days or even multiple weeks off work to recover. Time off work did not differ substantially for RNs working in California compared to other states.

For nurses who reported sustaining an infection from work, NNU's results find that a majority reported using their own paid sick time or paid time off (PTO) while recovering (Table 10). Only 10.0 percent of nurses reported that their employer provided paid time to recover from the work-related infection separate from their own vacation/sick time.

There were significant differences between RNs working in California and other states in terms of the type of paid time they utilized when recovering from a work-related infection. A higher proportion of RNs working in California reported using sick time while a higher proportion of RNs working in other states report utilizing a PTO bank or vacation time. Similar proportions of RNs in California and other states reported utilizing employer-provided paid time (such as workers compensation or other paid leaves) (Table 10).

**Table 9 (if yes to #8) About how long did you require off work to recover? If you have sustained multiple infections at work, please provide an average amount of time you required to recover.**

Answer choices	All RN respondents	RN respondents who work in California	RN respondents who work in other states
<b>0 days</b>	<b>6.2%</b>	<b>4.5%</b>	<b>6.8%</b>
<b>1-2 days</b>	<b>9.5%</b>	<b>7.9%</b>	<b>11.1%</b>
<b>3-4 days</b>	<b>17.4%</b>	<b>18.0%</b>	<b>17.5%</b>
<b>5-6 days</b>	<b>23.1%</b>	<b>18.0%</b>	<b>25.4%</b>
<b>1-2 weeks</b>	<b>27.5%</b>	<b>33.7%</b>	<b>24.6%</b>
<b>More than 2 weeks</b>	<b>11.2%</b>	<b>12.4%</b>	<b>10.7%</b>
<b>Other</b>	<b>3.1%</b>	<b>2.2%</b>	<b>3.2%</b>
<b>Not sure</b>	<b>2.1%</b>	<b>3.4%</b>	<b>0.7%</b>

**Table 10 (if yes to #8) Did your employer provide paid time while you recovered?**

Answer choices	All RN respondents	RN respondents who work in California	RN respondents who work in other states
<b>I had to use my own paid sick time.</b>	<b>35.8%</b>	<b>40.0%</b>	<b>32.3%</b>
<b>I had to use my own PTO (paid time off) bank.</b>	<b>34.1%</b>	<b>28.4%</b>	<b>38.7%</b>
<b>I had to use my own vacation time.</b>	<b>4.2%</b>	<b>2.3%</b>	<b>4.7%</b>
<b>My employer provided paid time to recover from the work-related infection, separate from my own vacation/sick time.</b>	<b>10.0%</b>	<b>9.1%</b>	<b>10.4%</b>
<b>Other</b>	<b>12.5%</b>	<b>11.9%</b>	<b>12.2%</b>
<b>Not sure</b>	<b>3.5%</b>	<b>6.3%</b>	<b>1.8%</b>

## Endnotes

- 1• Occupational Safety and Health Administration, "California FAME Reports," 2022, <https://www.osha.gov/stateplans/famereport/CA> (Accessed May 9, 2024).
- 2• RN respondents work in the following states: AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, TN, TX, UT, VA, WA, WI, WV.
- 3• Note that a small number of RNs did not report a state where they work so these numbers cannot be summed.