



**University of  
New Hampshire**  
Institute on Disability

# Prepare for Flu Season

## Lessons Learned from the Pandemic Impacts on the Workplace

Liu Yang, Nate Thomas, Karla Armenti

**NH** Occupational  
Health  
Surveillance Program

# Disclaimer

*This project was supported by Cooperative Agreement # U60 OH 010910, funded by the CDC, National Institute for Occupational Safety and Health (NIOSH). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC/NIOSH.*

# Disclosure

*The researchers do not have any Conflict of Interest to disclose.*



# Today's Presentation

---

- Context/Background of vaccination data from various national and state resources during the COVID pandemic
- Results of focus group interviews of NH local small businesses
  - Impacts on business/economy
  - Workers' experiences
  - Protections in the workplace
  - Policy changes post-pandemic
- Recommendations



# COVID Vaccination Summary in the US – Results from Pulse survey

By August 2022 **84.4%** of the working population was vaccinated (**15.6%** was not).

**Workers at home** (those able to work remotely) were **85.7%** vaccinated.

**Young workers** (age 18-20) were only **74.0%** vaccinated with those working in ag./forestry/fishing/hunt only **36.0%** vaccinated!

**Please encourage workers (particularly those interacting with the public) to continue to get vaccinated!**

## Top 3 Vaccinated Work “Essential” Settings

“Essential” Work Settings	% (StdErr)
Higher Education / Instructional	92.9% (0.3%)
Healthcare	92.1% (0.2%)
K-12 Schools	90.2% (0.3%)

## Bottom 3 Vaccinated Work “Essential” Settings

“Essential” Work Settings	% (StdErr)
Correctional Facilities	75.8% (2.8%)
United States Postal Service	69.6% (2.1%)
Agriculture, forestry, fishing, or hunting	63.2% (1.7%)



# COVID Vaccination Summary in the NH – Results from Pulse survey

By August 2022 **86.9%** of the working population was vaccinated (**13.1%** was not).

**Workers at home** (those able to work remotely) were **89.3%** vaccinated.

**Workers with a disability** were only **82.4%** vaccinated, indicating there may be a gap in access.

Compared to their national counterparts, NH **Food Manufacturing** workers were **10%** less likely to be vaccinated, **Healthcare** workers were **3.5%** less likely to be vaccinated and **Hispanic** workers were **8.7%** less likely to be vaccinated!

## Top 3 Vaccinated Work “Essential” Work Settings

“Essential” Work Settings	% (StdErr)
Death care (e.g. funeral homes etc.)	100.0% <sup>2</sup> (-)
Higher education / Instructional	97.5% (1.6%)
K-12 Schools	95.4% (1.9%)

## Bottom 3 Vaccinated Work “Essential” Work Settings

“Essential” Work Settings	% (StdErr)
Agriculture, forestry, fishing, or hunting	73.4% (10.0%)
Food manufacturing	70.8% (13.2%)
Correctional facilities	44.4% (22.0%)



<sup>1</sup>Bureau, U. S. C. (2022, December 28). Household pulse survey: Measuring social and economic impacts during the coronavirus pandemic. Census.gov. Retrieved January 13, 2023, from <https://www.census.gov/programs-surveys/household-pulse-survey.html>

<sup>2</sup>Based on only 9 total survey respondents.

# COVID Vac. By Industry and Occupation in NH – Results from Granite State Poll 2021

Top 3 Vaccinated Work Occupations

Industry	% (StdErr)
Educational Instruction and Library Occ.	96.6% (2.4%)
Management Occ.	95.0% (2.2%)
Office and Admin. Support Occupations	90.0% (4.2%)

Top 3 Vaccinated Work Industries

Industry	% (StdErr)
Public Administration	98.1% (2.4%)
Educational Services	96.7% (1.9%)
Health Care and Social Assistance	94.6% (1.9%)

Bottom 3 Vaccinated Work Occupations

Occupation	% (StdErr)
All Other Occupations	83.6% (2.5%)
Business and Financial Operations Occ.	82.4% (5.3%)
Sales and Related Occupations	77.8% (6.2%)

Bottom 3 Vaccinated Work Industries

Occupation	% (StdErr)
Prof., Scientific, and Technical Services	92.5% (3.2%)
Finance and Insurance	90.7% (6.9%)
All Other Industries	79.0% (2.9%)



# For more information on OH and Emp. -

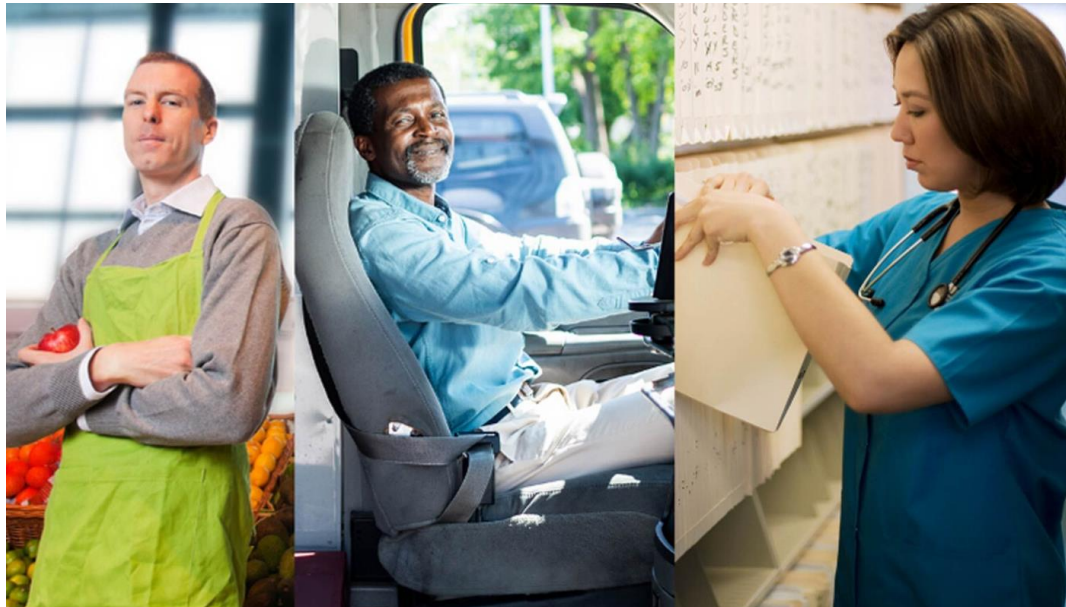
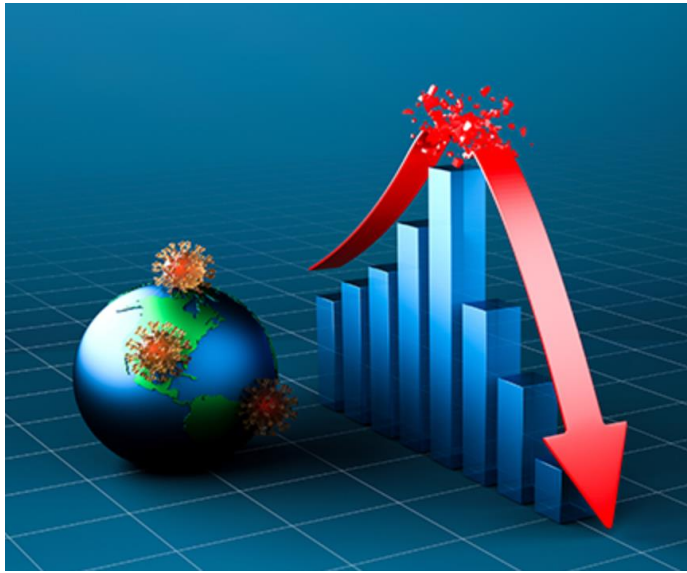
Please visit the NH OHSP data portal at

<https://iod.unh.edu/nhohsp/data-portal>, for employment statistics, deep dive info on Covid vaccination in demographic groups, and

<https://iod.unh.edu/nhohsp/publications> for publications on occupational health related topics impacting workers in NH



# COVID-19 pandemic had massively impacted businesses and workplaces







12



22

# Interviews with local small businesses and workers

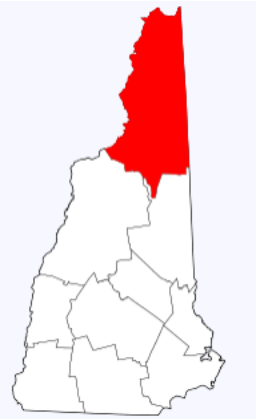
First : 10/22/22 Last: 5/24/23



For **Employer**: 7 session (20 participants)  
For **Employee**: 6 session (14 participants)

## Industry

Health Care and Social Assistance	8
Other (e.g., Public Administration)	6
Manufacturing	5
Professional, Scientific, and Technical Services	5
Accommodation and Food Services	4
Other services	4
Retail Trade	2



All but Coos County

10-24 Employees



24-49 Employees

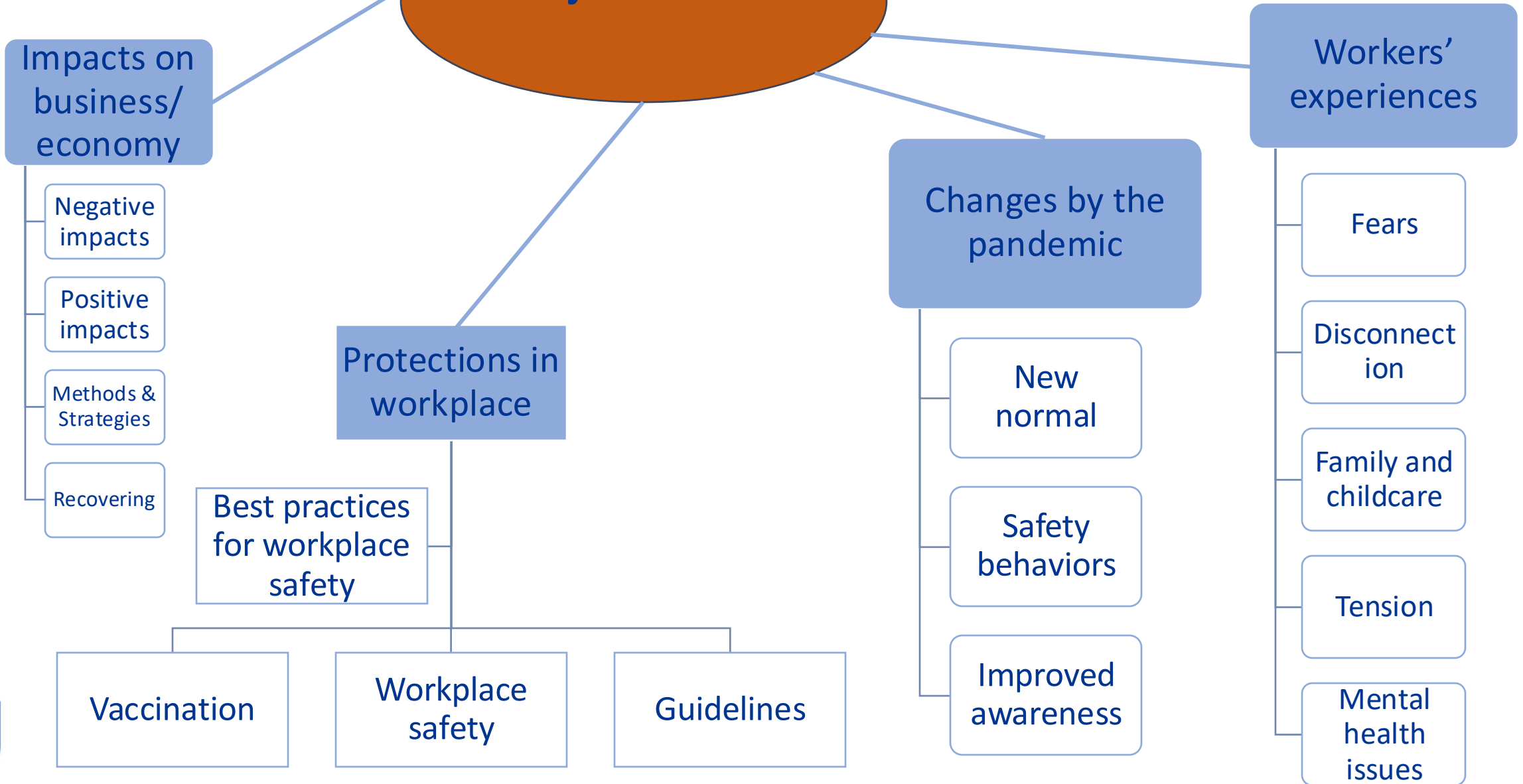


50-99 Employees



# NIOSH COVID Supplemental Funds

# Major Themes



# New Hampshire small businesses faced difficulties

**Financial constraints, employee loss & staff shortage, reduced demands due to consumer confidence, and supply chain disruptions**

- In-person service businesses including restaurant, retail trade, entertainment, and service industries
- Particularly those with business relating to things discontinued during the COVID-19 pandemic.
- Companies with 25 or more employees, and industries with elevated risk of COVID exposure, such as healthcare services and restaurants, had the most employee loss and staff shortages

*“About half our business went away because ... relates to things like trade shows, conferences, activities that were discontinued during COVID”*

A business owner  
in manufacturing

*“The first 2 months were very, very difficult, as you can imagine, when you go from major production, to almost go-stop.”*

An employer  
representative



# Small businesses showed resilience embarking on a path to recovery

By adopting new business models, new methods, and new products and services

*“There’s a lot of changes that have come with telehealth. The way in which we do billing has changed, the way in which we capture our sessions has changed. ...”*

An employer participant in mental health care services

*“We adapted by switching our programming model to outdoor programming so that we had the nice outdoor air”*

An employer representative from entertainment and recreation sectors

*“...in many ways it was a pretty difficult period, as we were trying to transition from a brick and mortar store to an online store”.*

A manager in a bookstore



# Health inequity existed among small businesses and their workers statewide

## Inequities in workplace safety and wellness

- Without paid sick leave, employees were compelled to come to work even when feeling ill
- Absence of free testing or PPE heightened anxiety and fear in workplace
- No safety benefits – more likely in manufacturing, in-person services such as retail, accommodation, and food services
- Further exacerbated by staffing shortages and the need to prioritize immediate business survival

*“We don’t offer paid time off to part-time staff members, you know, a bookstore is not a place that you come to get rich at!”*

A bookstore manager

*“...there wasn’t a remuneration being offered for us to go get tested. They were not encouraging us to not be at work to go get tested.”*

A worker in a grocery store



# Significant toll on workers' mental wellbeing

From heightened stress and anxiety due to health concerns and economic uncertainty to feelings of isolation and loneliness resulting from remote working arrangements

## Burnout

- Frontline healthcare workers and workers in many other industry sectors
- Exacerbated due to staffing shortages, increased workloads, and prolonged periods of uncertainty

*“Some of us truly did get sick. You know, you have people who got sick, or that my kid was sick, or you know, so you couldn't... How would you do all the work with so few employees...”*

A worker in a non-profit organization

*“Rather than on the anxiety level, I think it was more of a burnout that we saw with some of our staff because we were constantly pivoting to do new things or working on new things... , just because of the amount of time and dedication and brain power that was being put into solutions”*

An employer representative



# Significant toll on workers' mental wellbeing

## Increased fear and stress

- Workers without safety benefits (paid sick leave, free testing, PPE)
- Significantly higher risk in in-person services such as healthcare, food, and retail services faced
- Errors due to lack of safety knowledge and awareness

*"They fired me because people stopped coming to restaurants. He was a local businessman and so he didn't have money to pay us...I have four members of my family. It was very hard for me in that time, oh my god. ... We are new, we just came one year before and we are immigrants, so I didn't have any idea"*

An immigrant worker in a restaurant

*"... And then you just get this message that somebody else got it, and obviously they had been in the store before they realized they had it, so it was a little nerve wracking. Not pleasant, that's what I would say."*

A worker in a grocery store



# Significant toll on workers' mental wellbeing

## Isolation and loneliness

- Social distancing and virtual contact
- Blurring of boundaries between remote work and home life
- Difficulties with childcare, disrupted daily routines.

*“We do have a certain number of people who are struggling with mental health issues, and I don’t know what to do about that. I would love some [help]. I think this is going to go on for a while and I think we have some tough times ahead of us.”*

A business owner in in-person services





# When the COVID-19 vaccine became available, vaccination options, decisions, and mandates added stress to businesses and workers

What drove employers' decisions on workplace COVID-19 vaccination (e.g., mandate)?

Any barriers to workplace COVID vaccination?

What led to high vaccination acceptance - mandate or no mandate, or other factors?

**Best Practices**  
to inform  
workplace  
infectious diseases  
prevention



# Workplace vaccination policies

Policy	# Businesses (%)
Mandate	13 (41%)
No mandate but encouraged	12 (38%)
No mandate and no encouragement	7 (22%)

*“Very much my philosophy is individual employee experiences and really making your employees feel valued ... having those conversations, talking to them, helping them come up with a way to make it comfortable for them and safe for them, and feel supported.”*



# What drove employers' decisions on mandate?

"We are a public health agency, so we do have a vaccine mandate for all our staff, ..."

**Healthcare services**

"if we're giving people the vaccine, I felt ... very hypocritical for us not to require the vaccine..."

"we are manufacturers, safety is a really paramount aspect of our business, and so it's safety, like non-stop here."

**Safety first**

"I told my community that we're doing this for business reasons."

**Business operation**

"if you didn't have a vaccine and you work for a Federal entity, ... you either got the vaccine or you were gone."

"it was Medicare guided. So in order for our agency to get paid for Medicare services, we have to do that. ... it kind of took the decision out of our hands."

**Follow requirements**

"We kind of maxed out everything that you can do - a vaccine mandate and all of that."



## What drove employers' decisions on no mandate?

"We were fearful we would lose employees. I mean, that's the honest truth"

"That's easy - people would quit work if we made it mandatory"

**Labor force concerns**

"it's the same as it is for anything else health related you know- it's between you and your doctor, your family, your faith. "

"... they all felt that that was an invasion of their privacy, so it dropped. "

**Personal choice**



## Push-back and barriers?

“we had a lot of vocal push back sometimes ... if people thought we were being too cautious. ... lot of difference in opinion, ... it actually got a little bit heated at some points ...”

“I had an employee who came and was ... “you can't force me to...”

“I've had people come in and say, “if you require it, I'm out of here”.”

**Push back**

“... in terms of religion, I was so skeptical, and number two, I did microbiology. I knew a lot about biology and also my immune system, how very complex it is, and that's what made me wait.”

**Hesitancy**

“when the vaccination first came out, I wasn't really on board with getting it and I was not comfortable”

“I have a good health, my family's healthy ... all the community is healthy, even though you didn't get a vaccine.”



# Is mandate the best way?

## Policy type & %businesses with $\geq 90\%$ vax rate, by industry type

Industry	Mandate	Encouraged but no mandate	None
Overall	78%	80%	33%
Healthcare services	100%	100%	0%
In-person retail & services	100%	0%	0%
Professional services	33%	100%	100%
Manufacturing	100%	67%	N/A



\* Calculated from employers' responses

# Other strategies may work

## Communication

**“We kept having conversations that surrounded the fact that ... the symptoms will certainly be less. And once everybody was on board with that ... everybody migrated towards getting it.”**

**“... we only had about 2 people out of 50 who didn't choose to get vaccinated after ... one on one prodding, ”**

## Sharing information

**“ We provide updates on when and where vaccines are being offered but we do not require them. ”**

## Encourage responsibility

**“we tried to make it ... very simple and highly encourage it ... It's a responsible thing, and we were fortunate that people were very responsible. “**

**“For the most part, everybody I work with, um, was in line with protecting others and protecting themselves”**



## Other strategies may work

**Incentives (e.g., paid off time, monetary)**

**“when the vaccine became available, .. we comped their time for that as well. So that was helpful. ”**

**“For some people it did (work), but if they were politically against it, 100 bucks wasn't enough to change their mind.”**

**Positive peer pressure**

**I feel like some of it is peer pressure and if you have positive peer pressure, it can work just as well as negative peer pressure can.**





# Conclusions

---

Business owners:

- Embraced new technologies and methods for delivery services
- Implemented diverse measures to protect employee safety and health
- Demonstrated their commitment to H&S through range of benefits and resources
- Fostered a collective responsibility towards support and well-being



# Recommendations – Basic Precautions for All Work Activities

<https://www.osha.gov/seasonal-flu/healthcare-employers>

- Encourage workers to get vaccinated
- Encourage sick workers to stay home
- Monitor flu activity
- Develop a policy for ill workers and consider additional medical surveillance and screening
- Promote hand hygiene and cough etiquette
- Keep the workplace clean
- Train and educate workers



# Employer Guidance - Reducing Healthcare Workers' Exposures to Seasonal Flu Virus

<https://www.osha.gov/seasonal-flu/healthcare-employers>

- CDC's Prevention Strategies for Seasonal Influenza in Healthcare Settings at: [https://www.cdc.gov/flu/hcp/infection-control/healthcare-settings.html?CDC\\_AAref\\_Val=https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm](https://www.cdc.gov/flu/hcp/infection-control/healthcare-settings.html?CDC_AAref_Val=https://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm)
- Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers at: [https://www.osha.gov/sites/default/files/publications/OSHA\\_pandemic\\_health.pdf](https://www.osha.gov/sites/default/files/publications/OSHA_pandemic_health.pdf)



## Additional Resources/Information

NIOSH Podcast Addresses Infectious Diseases in the Workplace (lot of good links)

<https://www.aiha.org/news/niosh-podcast-addresses-infectious-diseases-in-the-workplace>

Article - Implementation of an Awareness Level Training to Prepare the Workforce for Future Infectious Disease Outbreaks at:

<https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/implementation-of-an-awareness-level-training-to-prepare-the-workforce-for-future-infectious-disease-outbreaks/DA0FAD7A8CC18FAE877F9E188CDEF9B1>

APHA – Policy Statements: Preventing Occupational Transmission of Globally Emerging Infectious Disease Threats at <https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2015/12/08/15/22/preventing-occupational-transmission-of-globally-emerging-infectious-disease-threats>



**How can we  
help?**

---

