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ANNOUNCEMENT for WOEMA Guidance on Workplace COVID-19 Outbreaks

February 8, 2021

The Western Occupational and Environmental Medical Association (WOEMA*) is pleased to announce the publication of **“Workplace COVID-19 Outbreaks: Suggested Actions by Employers and Workers’ Compensation Carriers”** -- a new and detailed set of recommendations designed to assist employers in controlling COVID-19 in workplaces.

This document summarizes steps employers can take, when faced with an “outbreak” of COVID-19 in their places of business, and lists helpful resources and approaches, if they find that more and more of their workers have contracted COVID-19. Said WOEMA President, Dr. Scott Krasner, “Employers facing COVID-19 outbreaks need a user-friendly playbook about ending viral spread in their workplaces. Our WOEMA experts are delighted to provide this brief and useful guide, showing how California businesses, both large and small, can collaborate with their workers, and with medical providers, insurers, and government agencies in finally crushing this pandemic.”

Over the past year, thousands of outbreaks, or clusters, of COVID-19 cases have occurred in workplaces across California and the nation, affecting hundreds of thousands of workers, killing many hundreds of employees, and representing an urgent challenge for public health and for the field of occupational medicine. In recent months, a number of government agencies have issued updated regulations and recommendations for control of COVID-19 in workplaces, including the recently adopted Cal/OSHA Emergency Temporary Standard for COVID-19,ⁱ detailed guidance from the California Department of Public Health,ⁱⁱ and a new guidance statement by Federal OSHA, promulgated pursuant to an Executive Order of the Biden Administration.ⁱⁱⁱ

Why a new and separate guidance document from WOEMA? In part, we anticipate that this guidance will answer questions about the applicability of previous rules and recommendations to California workplaces, and in part we recognize that previous guidance documents have not specifically addressed the problem of ongoing workplace outbreaks. We hope that readers of this publication will find it helpful in implementing additional COVID-19 control measures in many types of workplaces. We also encourage workers’ compensation carriers to assist employers with many

of these measures.

Among the recommendations in this document that go beyond the recent Federal OSHA guidance on COVID-19 are the following: importance of a written COVID-19 control plan, early engagement of a licensed health care provider with expertise in occupational medicine or public health, implementation of EAP programs to assist affected workers and their families, cooperation with the local health officer in contact tracing, and collaboration in vaccinating workers against COVID-19.

Finally, while our document focuses on California, we hope these recommendations may serve as a model for employers around the nation who face the all-too-common threat of ongoing occupational transmission during the COVID-19 pandemic.

** WOEMA is a professional medical association representing five western states, whose members comprise more than five hundred physicians and other health providers in the field of occupational and environmental safety and health. WOEMA champions healthy workers, safe workplaces, and healthy and sustainable environments.

ⁱ Cal/OSHA, Emergency Temporary Standard, at 8 CCR 3205 ff; available at <https://www.dir.ca.gov/dosh/coronavirus/ETS.html>

ⁱⁱ California Department of Public Health, see <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Workplace-Outbreak-Employer-Guidance.aspx> (last updated October 7, 2020)

ⁱⁱⁱ US Occupational Safety and Health Administration, Protecting Workers: Guidance on Mitigating and Preventing the Spread of COVID-19 in the Workplace, January 29, 2021. Available at: <https://www.osha.gov/coronavirus/safework>



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Workplace COVID-19 Outbreaks: Suggested Actions by Employers and Workers' Compensation Carriers

February 3, 2021

What should employers do when more and more of their workers contract COVID-19?

Contents:

EXECUTIVE SUMMARY	Page 2
DEFINITIONS and ABBREVIATIONS	Page 3
BACKGROUND: COVID-19	Page 5
OCCUPATIONAL TRANSMISSION	Page 5
POTENTIAL EMPLOYER LIABILITY	Page 6
SUGGESTED ACTIONS BY EMPLOYERS AND CARRIERS	Page 7
Appendix 1 - SUMMARY TABLE OF PROPOSED ACTIONS	Page 11
Appendix 2 - BUSINESS CASE	Page 12
Appendix 3 – Daily Screening for COVID-19 Risks	Page 13
Appendix 4 – Why Employers Should Engage OEM Physicians	Page 14
Appendix 5 – Example of a COVID-19 workplace outbreak	Page 15
References	Page 17

Workplace COVID-19 Outbreaks: Suggested Actions by Employers and Workers' Compensation Carriers

What should employers do when more and more of their workers contract COVID-19?

EXECUTIVE SUMMARY

Workplace outbreaks of COVID-19 have occurred in many kinds of industries, including hospitals and other health care settings, nursing homes and other long-term care facilities, prisons, meat-packing plants, and others. In many such outbreaks, occupational transmission has often continued to occur even after employers have attempted to implement a basic hierarchy of COVID-19 controls as currently recommended by CDC, OSHA, and other agencies.

This document lists a suite of control measures that employers can, and in some cases must, take when faced with continued workplace transmission of COVID-19. (See Appendix 1 below.)

Faced with an COVID-19 outbreak, employers and/or their carriers should perform or implement the following measures:

1. Assess the risk of ongoing workplace transmission
2. Prepare a written COVID-19 control plan
3. Implement engineering and other source controls, including face coverings, physical barriers, physical distancing, and ventilation upgrades
4. Implement administrative controls, including arrangements for working from home if possible, staggered shifts, worker health checks for symptoms and fever, and establish HR policies for isolation, quarantine, safe return-to-work, and other personnel matters
5. Cooperate with local health departments, including reporting of a COVID-19 "outbreak"
6. Train employees about how to protect themselves from COVID-19, and about the employer's control plan and HR policies on COVID-19
7. Provide as-needed informational and emotional support of workers, via knowledgeable staff, equivalent to EAP services
8. Engage occupational medical experts, (equivalent to hiring or contracting with a knowledgeable PLHCP), for help with decisions on fitness-for-duty, return-to-work, and contact tracing
9. Consider deploying PPE, including face shields, eye protection, and possibly respirators
10. Initiate testing of workers for SARS-CoV-2 infection (NAAT / PCR or antigen test)
11. Initiate contact tracing, using a knowledgeable PLHCP or other medical staff
12. Consider vaccination of staff and contractors, and their families
13. Consider temporary workplace closure or workforce reduction if new cases continue to arise, at a rate significantly higher than local community rates of transmission.

WOEMA also urges public health authorities to provide research funding, to better understand the efficacy of these measures in controlling transmission of COVID-19 within workplaces, and between workplaces and the surrounding community

DEFINITIONS and ABBREVIATIONS

ATD (*Aerosol Transmissible Disease*) *standard, by Cal/OSHA* – A set of rules to control the risk of occupational transmission of airborne infectious diseases, applicable to health care workers, first responders, and other higher-risk occupational groups. (Available at: <https://www.dir.ca.gov/title8/5199.html>)

CCP - COVID-19 control plan, as mandated by the Cal/OSHA Emergency Temporary Standard (ETS) on COVID-19. (See <https://www.dir.ca.gov/title8/3205.html>)

CDPH – California Department of Public Health.

Close Contact – remaining within 6 feet of a person known to have COVID-19 over a cumulative duration of 15 minutes in any 24-hour period, without use of a respirator, but without regard to face coverings.

COVID-19 – A novel pandemic disease arising in late 2019, caused by infection with the SARS-CoV-2 virus

Diagnostic tests for COVID-19 - There are three main types of COVID-19 tests:ⁱ

- 1) Nucleic acid amplification test (NAAT) such as a PCR (polymerase chain reaction) test, obtained via oropharyngeal or nasopharyngeal swabs, with a typical turnaround time of 1 to 10 days, looking for evidence of current infection;
- 2) Antigen tests, performed on a saliva or naso/oropharyngeal sample, with a typical turnaround time of 15 to 60 minutes, looking for evidence of current infection;
- 3) Antibody tests, performed on blood, looking for evidence of prior infection.

EEOC – Equal Employment Opportunity Commission.

ETS - emergency temporary standard on COVID-19, by Cal/OSHA – effective 11/30/2020 through 10/1/2021. (Available at <https://www.dir.ca.gov/title8/3205.html>)

Incubation Period for COVID-19 – the time interval between exposure to COVID-19 and the development either of symptoms, or of infectivity with shedding of infectious virus; approximately 3 to 14 days.

Isolation period for COVID-19 exposure, duration – 10 days or more, with avoidance of contact with other persons, while preferably staying at home, following confirmation of COVID-19 disease;ⁱⁱ

- 1) for most persons with COVID-19 illness, isolation and precautions can generally be discontinued 10 days after symptom onset, and resolution of fever for at least 24 hours, without the use of fever-reducing medications, and with improvement of other symptoms;
- 2) For persons with severe illness, isolation may be needed for up to 20 days after symptom onset; may consider repeat testing for SARS-CoV-2 RNA;
- 3) For persons who never develop symptoms, isolation and other precautions can be discontinued 10 days after the date of their first positive RT-PCR test for SARS-CoV-2 RNA.

OEM – Occupational and Environmental Medicine, a medical specialty certified by the American Board of Preventive Medicine, with a primary focus on the impact of work on health, and health on work.

Outbreak in the workplace – Different states and agencies have different definitions for a “workplace outbreak”; in California the following apply:

- For purposes of California Workers’ Compensation rules governing “presumptive” work-related causation, an outbreak is said to occur:
 - a) For workplaces with 100 employees or fewer, when 4 or more COVID-19 cases arise within a rolling 14-day period;
 - b) For workplaces with more than 100 employees, when at least 4% of the employees in a work area contract COVID-19 within a rolling 14-day period.
- For purposes of compliance with certain provisions of the Cal/OSHA COVID-19 ETS, an outbreak is said to occur when there are 3 or more COVID-19 cases arising in “an exposed workplace” over a rolling 14-day period. A “major outbreak” is said to occur if there are 20 or more COVID-19 cases in “an exposed workplace” over a 30-day period. The outbreak is said to be over if no additional COVID-19 cases arise over 14 consecutive days.

Quarantine Period for COVID-19 exposure, duration – 10 to 14 days, with avoidance of contact with other persons, while preferably staying at home, following a “close contact” with a person known to have COVID-19. If there are no symptoms by day 10, one may resume activities, but should wear a face covering and continue to monitor for symptoms. Note that “day 1” = the day after the exposure. Current CDC guidance suggests that in some cases the duration of quarantine could be shortened to 7 days, with diagnostic testing on day 5 or 6.ⁱⁱⁱ

PCR - polymerase chain reaction, a diagnostic method for testing for COVID-19 infection and the presence of viral genetic material.

PLHCP – Physician or other licensed health care professional, required for health surveillance activities under certain OSHA standards.

PPE – Personal protective equipment, including gloves, face shields, eye protection, and respirators.

SARS-CoV-2 – A novel RNA virus in the beta-coronavirus family, causing the disease COVID-19.

Temperature check – A COVID-19 temperature check is considered “positive” if 100.4 degrees F, or higher; health care settings may choose a lower temperature (100.0 degrees) as the cut-off.^{iv}

BACKGROUND: COVID-19

COVID-19 is a novel viral disease first reported in 2019, characterized by systemic infection whose severity ranges from asymptomatic or very mild upper respiratory disease to acute respiratory failure and death which spreads easily from person to person.^v The source of the illness has been reported to be a food market where exotic animals were sold in the city of Wuhan, China.

The infectious agent is a novel coronavirus, an RNA virus, called SARS-CoV-2. Current infection can be definitively confirmed by a positive test for the virus.^{vi} Common symptoms of COVID-19 disease include fever, cough, shortness of breath, fatigue, body aches, headache, and loss of taste or smell. Many asymptomatic people who are infected with COVID-19 can nonetheless spread the virus to others via respiratory droplets or aerosols for many days during their period of infection.^{vii}

OCCUPATIONAL TRANSMISSION

This paper will focus primarily on COVID-19 transmission in non-healthcare workplaces, for which our understanding of the mechanism of COVID-19 transmission remains somewhat limited, despite the publication of numerous case studies (e.g., in meat-packing plants, correctional institutions, agricultural operations, group retail establishments, and others).^{viii} A recent study estimates that in Italy, 19.4% of all COVID-19 cases arose because of workplace exposures.^{ix} A British study of over 120,000 mid-career workers found that certain occupational groups (e.g., social service workers and transportation workers), had double the risk of acquiring COVID-19, with minority workers at highest risk.^x Some public health agencies have tabulated the number of COVID-19 workplace outbreaks in their jurisdiction. Los Angeles County has listed 384 workplaces in the County which have experienced an outbreak (defined in Los Angeles as three or more cases within a 14-day period).^{xi}

The non-scientific literature has also seen many accounts of workplace outbreaks involving thousands of workers, with several types of industries predominating, including poultry processing,^{xii} meat packing,^{xiii} other food processing facilities,^{xiv,xv} and warehouses and distribution centers.^{xvi} In some areas, it appears plausible that workplace outbreaks have preceded, and perhaps triggered, widespread community transmission (see Appendix 5). A study in six Asian countries early in the pandemic concluded that workplace transmission was responsible for nearly 50% of the early cases of COVID-19 in affected communities, and about 15% of total cases.^{xvii} In other areas, it appears likely that community transmission, especially among young persons (less than 24 years of age) has been a driver of COVID-19 spread.^{xviii} It is also likely that non-workplace association among workers, including group housing and group transportation, plays a role in COVID-19 transmission among workers.

In many workplace outbreaks, transmission has continued to occur even after employers attempted to implement a number of COVID-19 controls as recommended by many governmental agencies. This document proposes to list the steps that employers can, and in some cases must, take when occupational transmission continues to occur in their workplace.

POTENTIAL EMPLOYER LIABILITY, resulting from workplace COVID-19 outbreaks

Employers face several different kinds of legal liability, related to the risk of COVID-19 infection in employees, including the following:

1. *Federal OSHA and Cal/OSHA* - From the start of 2020 through December 10, 2020, Federal OSHA has issued 273 citations against employers for violations related to COVID-19 risks, with total assessed penalties of \$3,646,228.^{xxix} In California through November 30, 2020, Cal/OSHA has issued 58 citations to California employers related to COVID-19 risks, with fines ranging from a few hundred dollars up to about \$55,000 per violation.^{xxx} Most of these Cal/OSHA citations have been based on alleged violations of the Injury and Illness Prevention Standard (8 CCR 3203), for an employer's failure to assess and/or control identified COVID-19 risk factors in the workplace.

More recently, effective November 30, 2020, Cal/OSHA adopted an emergency temporary standard for employers who are not otherwise covered under the Aerosol Transmissible Disease standard (8 CCR 5199), related to control of COVID-19 transmission in workplaces.^{xxxi} This new standard requires specific control measures, particularly when a workplace outbreak has been identified, as will be discussed below.

2. *California Workers' Compensation* - For non-federal employers in California, the number of filed Workers' Compensation claims related to COVID-19 reached 66,899 as of 12/14/2020, with 336 fatality claims.^{xxii} To date in California, claims related to COVID-19 comprise about 12% of all Workers' Compensation claims filed this year. Pursuant to a recently passed California law (SB 1159), cases of COVID-19 in a specific work area are rebuttably presumed to be work-related if there is an "outbreak" of COVID-19 in that work area. The statute defines an "outbreak" differently for workplaces with 100 or fewer employees compared to those with more than 100 employees. For smaller workplaces, an "outbreak" is established if 4 or more persons develop COVID-19 infection within a rolling 14-day period. For larger workplaces, an "outbreak" is established if 4% or more of the workforce in that area develop COVID-19 infection within a rolling 14-day period.^{xxiii} Appendix 2 of this paper contains additional information about how and why workers' compensation carriers might choose to initiate a variety of loss control activities, related to COVID-19.
3. *EEOC Considerations* - The Equal Employment Opportunity Commission (EEOC) has published guidance, updated December 16, 2020, about how employers may deal with COVID-19 cases among their employees, including in some cases mandating COVID-19 vaccination of employees.^{xxiv} In brief, employers have a duty to understand whether their employees may be infected with COVID-19. Accordingly, employers are permitted, and in some cases encouraged, to perform symptom and temperature screening. Employers may exclude individuals from the workplace if they are known to have COVID-19, or symptoms associated with COVID-19. Further, employers may bar entry of workers who refuse to answer questions about current symptoms or recent potentially risky exposures. For example, an employer may ask whether an employee has likely had contact with anyone known to have a diagnosis of COVID-19 or to have associated symptoms.

Of importance, EEOC recently determined that employers may require employees to be vaccinated against COVID-19, provided that they can establish that the requirement for vaccination is "job-related and consistent with business necessity." All such information about COVID-19 diagnoses that the employer may obtain must be kept confidential. So far, we are aware of no lawsuits based on EEO violations related to COVID-19.

SUGGESTED ACTIONS BY EMPLOYERS AND CARRIERS to control workplace outbreaks of COVID-19

As noted above, across the nation by mid-year 2020, there were multiple reports of workplace outbreaks continuing over weeks, and in some cases months, despite employers' assertions that they had complied with current CDC guidance on such measures as requiring face masks, social distancing, hand washing, and surface cleaning. It has become clear that these actions alone may too often be inadequate to control workplace outbreaks, particularly in high-risk industries. (See Appendix 1 for a Tabular List of proposed measures.)

Recognizing the need for stronger action, in June, 2020 the California Department of Public Health (CDPH) published a guidance document about COVID-19 transmission in workplaces.^{xxv} The document, which was intended for California employers not otherwise covered under the Cal/OSHA Aerosol Transmissible Disease standard (8 CCR 5199), was updated on September 18, 2020, to include the requirement that employers must notify the local health department about cases of COVID-19 occurring among their employees, in addition to notifying Cal/OSHA when an employee is hospitalized for COVID-19 or died of a suspected work-related infection. Then, as of November 30, 2020, Cal/OSHA enacted an Emergency Temporary Standard (ETS) on COVID-19, superseding most of the previous CDPH recommendations in California.

Accordingly, employers faced with an ongoing outbreak of COVID-19 in their workplace will often need to initiate more detailed and complex interventions, as listed below.

1. Assess the likelihood of occupational transmission and current transmission risk - The employer, with the assistance of the Workers' Compensation carrier or other consultant, should determine whether an "outbreak" or "major outbreak" has occurred in the workplace, and whether it is reasonably likely that occupational transmission is occurring at a rate exceeding local community transmission. The employer will repeat this step as frequently as needed, but at least monthly (ETS standard, at 8 CCR 3205.1(e)(2)), to determine if occupational transmission is continuing. Of note, the Cal/OSHA ETS requires employers to "develop COVID-19 policies and procedures to respond effectively and immediately . . . to prevent or reduce the risk of transmission of COVID-19 in the workplace" (8 CCR 3205(c)(2)).
2. Prepare a written COVID-19 control plan (CCP) – Under the Cal/OSHA Emergency Temporary Standard (ETS) such a plan must be in writing, be prepared with input from representative worker groups, and identify the safety officer or other individual responsible for implementing the plan. Of note, CDC has recently updated its guidance about how employers should plan for COVID-19 outbreaks.^{xxvi}

The written COVID-19 control plan should include the following elements:

- a) **Communication:** How the employer will communicate key information to employees about the employer's policies regarding employee reporting of COVID-19 symptoms or a positive diagnosis, and personnel policies related to a possible COVID-19 illness, in order to incentivize employees' reporting of illness and not coming to work when sick;

- b) **Risk Identification:** How the employer will identify various risks of COVID-19 transmission in the workplace, the frequency of such workplace risk assessments, and how employees arriving at work will be screened for possible COVID-19 infection;
 - c) **Notification:** How the employer will respond to reports of COVID-19 illness among employees, including how the employer will notify other potentially exposed employees and their labor representatives (if any) while maintaining confidentiality, and how the employer will offer COVID-19 testing to exposed employees;
 - d) **Correction Plans:** How the employer will correct identified unsafe conditions discovered during risk assessments or following reports of an employee’s COVID-19 diagnosis;
 - e) **Controls:** A list of the engineering and administrative controls and the types of PPE to be deployed;
 - f) **Agency Coordination:** How communications with the local health officer will be carried out, in case an “outbreak” of COVID-19 is identified among employees in a particular work area;
 - g) **Training:** How employee training will be implemented, and how the effectiveness of that training will be assessed;
 - h) **Other Measures:** What further steps the employer may have chosen to implement if necessary, including COVID-19 testing and contact tracing, and cessation of work operations.
3. Implement source controls and other engineering controls – These will include providing physical barriers to air flow between workstations, optimizing the ventilation system to increase air exchanges, arranging for physical distancing between employees, frequent cleaning of surfaces with multi-person contact, and enforcement of the use of face coverings by employees and visitors.
 4. Implement administrative controls – These may include arranging for employees to work from home if possible, staggered shift start-times, staggered breaks, symptom and temperature screening of staff and visitors prior to entry, updated workers’ compensation and other personnel policies to incentivize employee reporting of symptoms and illnesses suggestive of COVID-19, implementation of flexible and non-punitive sick leave policies following illnesses and exposures, and tracking of current COVID-19 cases. (See Appendix 3 for suggested procedures for screening workers for symptoms and fever, along with suggested return-to-work and other follow-up actions.)
 5. Notify and cooperate with the local health department - The Cal/OSHA ETS requires the employer to contact the local health department (in the jurisdiction where the workplace is located, usually the county health department) “immediately but no longer than 48 hours after the employer knows, or with diligent inquiry would have known, of three or more COVID-19 cases” (8 CCR 3205.1). The employer is also to provide contact information for infected employees.
Thereafter, the employer must notify the local health department about any new infected employee, until at least 14 days has elapsed since the last known infection. CDPH guidance recommends that employers also notify the local health department where the employee lives, if different from the workplace location. By contrast, current national guidance from CDC states simply that employers may wish to notify local health officers about workplace outbreaks.
 6. Train employees - Appropriate training and education of workers will include an overview of the employer’s written COVID-19 control plan and personnel policies related to COVID-19, how employees can protect themselves and others from COVID-19 exposure, and what to do if they experience an illness consistent with COVID-19 or an have an unprotected exposure to a person known to have COVID-19.

7. Provide as-needed informational and emotional support for workers – Workers and their families may need additional support during the COVID-19 pandemic, particularly when they or co-workers have been infected or are required to quarantine.^{xxvii} Employers should consider offering services, equivalent to EAP (employee assistance program) services to employees and their families. Some professional associations have helpful resources for this purpose.^{xxviii}

8. Engage an occupational medicine professional - Employers dealing with a COVID-19 outbreak among their employees will often face complex confidentiality challenges, particularly when carrying out such tasks as screening employees for symptoms and risk factors, assessing fitness-for-duty and return-to-work, prescribing the duration of isolation and quarantine for exposed employees, tracing contacts of infected persons, and cooperating with the local health department. Records reflecting an employer’s decisions about work fitness during an outbreak will generally need to be kept separate from the employee’s personnel files. Coordination among key management tasked with complying with Cal/OSHA rules and other guidance will generally benefit from the knowledge and experience from an occupational medicine professional.
 Accordingly, WOEMA strongly recommends that employers facing a COVID-19 outbreak engage an occupational medicine professional. Of note, employers are already required by other OSHA regulations to engage a physician or other licensed healthcare professional (PLHCP) for evaluating employee exposures to many other kinds of occupational health risks and to help manage these complex compliance problems. **Appendix 4** of this paper contains more information about the tasks that an occupational medicine physician or other professional might be assigned during a workplace COVID-19 outbreak.

9. Deploy PPE - The Cal/OSHA ETS requires employers to “consider” the use of PPE, including gloves, face shields, eye protection, and respirators, in order to protect workers from COVID-19 exposure. Consideration of respirator deployment is important, because it is now clear that aerosol transmission of COVID-19 can be an important route of infection.^{xxix} The ETS mandates that employers consider deploying respirators under two conditions: (a) when physical distancing of 6 feet is not feasible, and (b) during a “major outbreak.”

10. Initiate testing of workers for COVID-19 infection (NAAT or antigen test) – The Cal/OSHA ETS requires that workers potentially exposed to COVID-19 during an identified outbreak be offered COVID-19 testing at least weekly, until the outbreak is over. During a “major outbreak,” potentially exposed workers must be tested at least twice per week. Such testing, when mandated by Cal/OSHA, must be carried out at times and places convenient for the employee (on the clock), and at no cost to employees. The CDPH guidance document recommends that employers collaborate with the local health department on other details of a COVID-19 testing schedule. At this time, public health authorities have conceded that COVID-19 testing remains scarce in many parts of California and elsewhere in the nation.

11. Initiate contact tracing within the workplace: Because local health departments often have not had the resources to carry out contract tracing for COVID-19 cases, employers may often want to initiate their own contact tracing activities among workers and contractors, while safeguarding confidential information about employees. Key steps in carrying out contact tracing will include hiring trained public health investigators and establishing a separate confidential record-keeping system.^{xxx} In these and related activities, guidance and support from occupational medicine professionals can be helpful.

The CDPH guidance document encourages employers to undertake contact tracing if other control measures have failed to end an outbreak. By contrast, the Cal/OSHA ETS does not require employers to conduct contact tracing. Other Cal/OSHA rules require employers to record certain identified COVID-19 cases on the OSHA-300 log.^{xxxi}

12. Consider COVID-19 vaccination of workers and their families - At this time, CDC and other stakeholder organizations are still considering how to prioritize certain non-healthcare workgroups (group 1b) for vaccination with one of the COVID-19 vaccines. Employers who choose to provide vaccination for their workers will need to face complex and partly unanswered questions, including whether adverse reactions to the vaccine will be regarded as work-related injuries, and what disclosures should be included on an informed consent form.

As noted above, EEOC recently determined that after careful considerations of business necessity, employers can legally mandate that employees be vaccinated in order to perform certain job tasks.²⁰ WOEMA further recommends that “essential” workgroups that have experienced workplace outbreaks of COVID-19 be prioritized for vaccination in group 1b.^{xxxi} Because workers’ families and other household members can spread COVID-19 into the community, strong consideration should be given to vaccinating household members along with at-risk workers.

13. Consider temporary workplace closure or workforce reduction - The CDPH guidance document and the Cal/OSHA ETS indicate that employers should consider complete cessation of work operations at locations with ongoing occupational transmission, if the above interventions have failed to end a COVID-19 outbreak. Before taking this step, employers will want to consider how infection rates in the workplace compare with rates in the surrounding community. For community spread of COVID-19, the efficacy of mitigation measures is fairly well established, but not for workplace transmission, apart from plant closure.^{xxxiii}

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**APPENDIX 1 - SUMMARY TABLE OF PROPOSED ACTIONS by employers and carriers,
To control occupational spread of COVID-19**
(Intended for California employers NOT COVERED under the Cal/OSHA ATD standard)

Proposed Control Action	Agency*			Comment
	CDC	CDPH	Cal/OSHA	
1. Assess likelihood of workplace transmission, and current transmission risk	+	+	!	
2. Prepare written COVID-19 control plan	+	?	!	
3. Implement source / engineering controls	+	+	!	Incl. face coverings, distancing, barriers
4. Implement administrative controls	+	+	!	Incl. staggered shifts, personnel policies, screening of workers for symptoms, temperature, or risk factors
5. Report to and cooperate with local health department	+	+	!	Reporting of “outbreaks” to the local health department
6. Train employees	+	+	!	
7. Provide as-needed informational and emotional support of workers, via knowledgeable staff (equivalent to EAP)	+	?	?	
8. Engage occupational medical experts (equivalent to hiring or contracting with a knowledgeable PLHCP), for consideration of fitness-for-duty and return-to-work	?	+	?	See Appendix 4
9. Consider PPE, including face shields, eye protection, and possibly respirators	+	?	!	Except for exposures in healthcare workers, CDC and CDPH have not recommended respirators or other PPE. Cal/OSHA requires employers to consider respirator use during a “major outbreak” or when 6-ft distancing between workers is not feasible.
10. Initiate testing of workers for COVID-19 infection (PCR or antigen test)	+	+	!	
11. Initiate contact tracing, using knowledgeable PLHCP	+	+	?	
12. Vaccinate staff and subcontractors and their families	+	?	?	At this time prioritization of vaccination for higher-risk workgroups remains uncertain
13. Consider plant closure if new cases continue to arise, at a rate significantly higher than local community rates of transmission.	?	+	+	

* Agency positions: “+” means RECOMMENDED; “!” means REQUIRED; “?” means UNCERTAIN

APPENDIX 2 – Business Case for Workers’ Compensation Carriers to Promote Suggested Actions for Workplace Management of COVID-19

Background: Worker’s Compensation carriers insure employers for the liability and expense caused by work-related injuries and illnesses, including cases COVID-19 deemed to be work-related. Approximately 15% to 20% of COVID-19 cases progress to severe disease and require hospital care.^{xxxiv,xxxv} The average cost of COVID-19 inpatient care is \$35,000 to \$45,000 depending on age and other factors.^{xxxvi} Added to this direct cost, costs from long-term COVID 19 sequelae are likely to be high. For example, 25% of hospitalized COVID 19 patients experienced heart problems, some of which appear to persist for months,^{xxxvii} and up to one third of COVID 19 patients have long-lasting neurological symptoms.^{xxxviii}

Direct Costs to Carriers: These direct medical costs to insurance industry carriers and employers increase the dollar amount paid in direct medical costs by the insurer (or by the employer if self-insured), increase wage-replacement/indemnity costs, and increase the dollar reserves the insurance companies are required to set aside for future medical expenses, claim settlements, legal costs, and other related expenses. With adoption of the effective programs and practices such as those in this document, the rate paid by employers may potentially be reduced (favorable experience modification [ExMod] treatment by underwriters), although at this time rates for California employer do not depend on costs incurred for COVID-19 cases.

Indirect Costs to Carriers: Other expenses incurred are indirect but have significant dollar impact on insurance carriers. A major indirect cost is brand deterioration if a carrier is seen as poorly managing their COVID cases. Conversely, loss control activities during a COVID-19 outbreak could be a brand asset if done well.^{xxxix} More directly, the impact of COVID-19 on total employment has been significant,^{xl} and premiums paid to insurers paid for their Worker’s Compensation services are typically in direct proportion to the number of employees insured. Ill-managed COVID-19 outbreaks can necessitate major layoffs, thus decreasing insurance carrier revenues. Having a lower amount of incoming premium increases insurance companies’ operating costs relative to the number of employees insured, thus leading to higher operating margins. Finally, underwriting uncertainty, particularly with respect to long-term/persistent impact of COVID-19 health costs, may necessitate increasing rates for client companies which can drive away business with associated loss in revenue. Here, a thoughtful communication strategy can preserve brand integrity.^{xli}

Suggested Carrier Actions: *All of the above direct and indirect costs can be mitigated by the control measures recommended in this document.* Insurance companies and their client employers therefore have a mutual self interest in promoting the suggested actions for workplace management of COVID-19 to the companies that they insure. Certain actions might be considered by these insurance carriers in light of this. Such actions might include (but not be limited to) some of the following:

- Sharing this document and the suggested actions contained in it with their client employers;
- Collecting information to assist client companies in implementing their written COVID-19 control plans;
- Maintaining information on employees’ COVID-19 test results and contract tracing activities.

Conclusion: To protect their brand, their reputation for competency, and their financial stability, it is in the interest of insurance carriers and their client employers to prevent and mitigate COVID 19 infections in the workplace. This document assists this goal and insurance carriers are strongly encouraged to utilize it as suggested above.

Appendix 3 – Daily Screening of Workers for COVID-19 Risks

Employers have a duty to keep workplaces safe from the risk of SARS-CoV-2 infection, and accordingly should implement a system of daily health checks for employees, contractors, and other persons entering a work location when there is an appreciable risk of COVID-19 transmission in a work location. Several states have mandated such workplace health checks, including California, Colorado, Louisiana, Maryland, Michigan, Minnesota, Nevada, New Jersey, New Mexico, New York, Ohio, and Pennsylvania.^{xlii} Daily health checks for COVID-19 should include screening for: recent close contact with persons known or suspected to have COVID-19, recent travel history, symptoms consistent with COVID-19, and temperature.

Of note, symptom screening or temperature checks alone will often fail to identify currently infected workers.^{xliii} A significant percentage of COVID-19 infections produce no symptoms at all.^{xliiv} In addition, for workers who eventually develop symptoms, the two days before symptom onset to be most contagious period. Of course, workers should be trained and appropriately incentivized to notify the employer promptly if they learn that they have contracted COVID-19.

- (1) History of recent close contact with persons known or strongly suspect to have COVID-19: Workers known to have had “close contact” with a person known or strongly suspected to have COVID-19 will require quarantine.
- (2) History of recent travel: Current guidance recommends asking whether workers have visited a country with epidemic transmission, or a healthcare facility with confirmed cases.^{xliv} One study has suggested that as few as 25% of travelers reliably self-report recent travel risks.^{xlvi} Given the widespread prevalence of COVID-19 infection throughout the world, the details of travel history are probably less important, but as the pandemic comes under control may become more useful in future.
- (3) Symptom screening: Symptoms consistent with COVID-19 infection include fever, chills, cough and shortness of breath, as well as include fatigue, muscle and other body aches, headache, new loss of taste or smell, fatigue, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea.^{xlvii}
- (4) Temperature screening: A temperature of 100.4 degrees or higher (forehead or other method) should be viewed as a positive screen. Temperature checks alone are not a reliable screening tool, since fever is a late sign of COVID-19 infection, and user errors can produce a high false negative rate.

Pre-shift electronic reporting is preferred to onsite screening, because it prevents sick workers from arriving at work. Workers with fever or symptoms of COVID-19 should be immediately triaged and separated from others, preferably in a well-ventilated facility permitting distancing at least 6 feet from other individuals.

Ideally, a positive screen would trigger an automatic referral for a diagnostic test, to identify and isolate infected workers quickly. The employer should also consider initiating contact tracing to identify other exposed workers who might require quarantine, and to identify possibly contaminated work areas that may require cleaning. In all of these cases, a knowledgeable health care provider should advise the employer about when a period of isolation and quarantine can be lifted.

Appendix 4 -

Why Employers Should Engage Occupational Medicine Physicians or other Experienced Providers, For Help in Controlling a Workplace COVID-19 Outbreak

Occupational and Environmental Medicine (OEM) physicians are specialty providers of preventive services in the workplace, including pandemic response planning. Pandemic response requires a medical team consisting of various health professionals, including public health and governmental agencies, infectious disease specialists, and OEM physicians.

- *Public Health Officials and governmental agencies* provide guidance to maintain a safe and health workplace. They also are the main entity for reporting workplace data concerning individual infections and/or outbreaks in employee populations.
- *Infectious Disease physicians* are subject matter experts for how viral or bacterial pathogens interact with human physiology. They counsel on how these pathogens are transmitted, identified, and treated. Infectious disease specialty knowledge is crucial to inform the design of individual and population-based strategies for the mitigation of infectious disease.
- *OEM physicians* have skill sets and training that make them uniquely suited for pandemic planning and business continuity assistance as their clinical practice and training focuses on several essential components including:
 - Clinical management of injured workers – OEM physicians treat injured workers.
 - Return to work and disability management
 - Hands-on clinical treatment of occupational injuries and illnesses
 - Public health measures and strategy for mitigation of workplace hazards – OEM physicians are expert in the implementation of programs and practices to prevent injury and illness from infectious, physical, and chemical hazards in the workplace
 - Population health management
 - Health and productivity management expertise
 - Medical surveillance
 - Epidemiology training
 - Emergency preparedness and disaster management experience

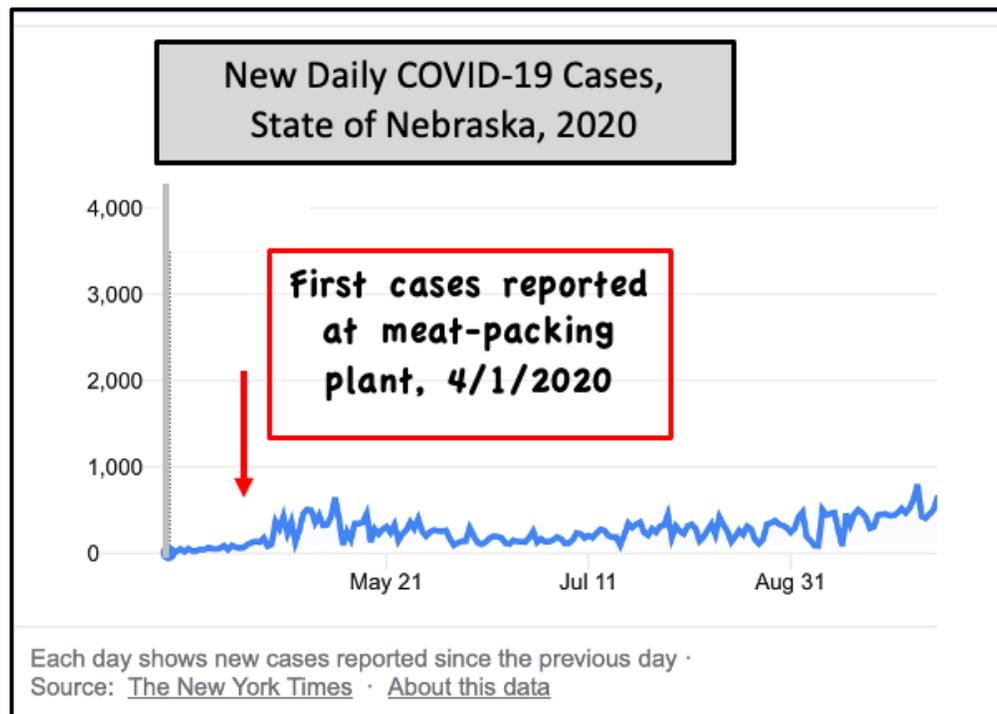
OEM physicians practice in such diverse settings as hospital and clinic physicians, as medical directors with large employers, and as consultants for workers' compensation insurance carriers, health systems, academia, and governmental regulatory bodies such as OSHA and local public health departments. Through their multidisciplinary skill set and network of colleagues in a variety of practice settings, the OEM physician is well-positioned to serve as a liaison between the medical community and workplaces during a pandemic response.

**APPENDIX 5 -
Illustrative example of a workplace outbreak of COVID-19,
affecting the surrounding community**

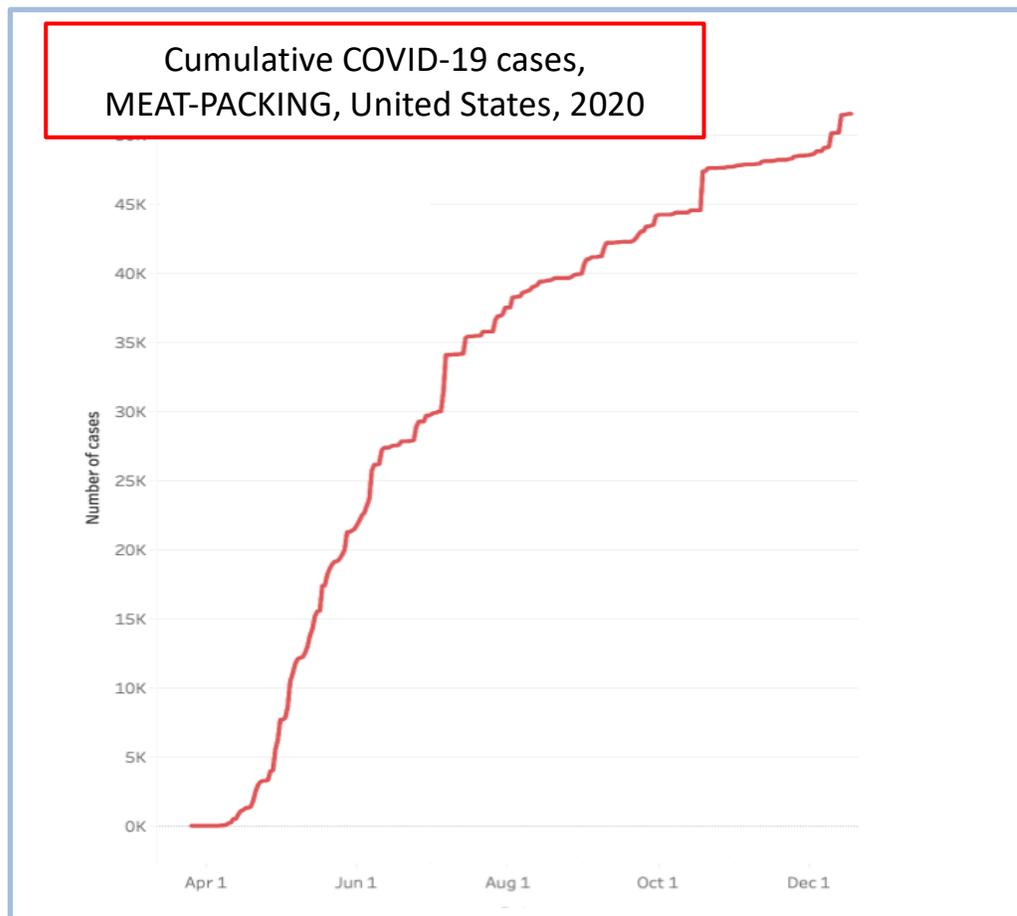
In late March, 2020, in a medium sized city (50,000 residents) in Nebraska, an emergency room physician began noticing that multiple newly diagnosed COVID-19 patients all worked at a nearby meat-packing plant, the largest meat-packing plant in the state, employing 3,600 workers. On April 3, 2020, the local health department announced that 10 employees there had tested positive for COVID-19. Soon afterward the local health officer petitioned the governor to shut down the plant for two weeks but was initially refused. Over the next few weeks, the company implemented a number of safety practices including masks and plastic barriers. Nonetheless, by April 21, 237 workers had tested positive and 7 had died. In the surrounding community, an additional 353 cases of COVID-19 were reported. At that point, infections among plant workers accounted for 40% of all cases in the community. Subsequent interviews with employees indicated that many workers were told by management to continue coming to work, even if they had tested positive for COVID-19.

Over the next two weeks, cases in the surrounding areas exploded, with a total of about 1,200 cases reported among local residents by May 7, 2020, including 37 deaths.

The graph below indicates the increase in COVID-19 cases statewide over the subsequent 6 weeks. The data are consistent with the hypothesis that this workplace outbreak in the early spring of 2020 was the key driver of further community transmission in Nebraska during these two months.



The following chart shows the total number of COVID-19 cases among US meat-packing workers during 2020:



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