Update from the California Department of Public Health’s Occupational Health Branch

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Chief, Occupational Health Branch

California Industrial Hygiene Council
December 7, 2015 – San Francisco
Overview

- Intro to the Occupational Health Branch
- Support for Cal/OSHA standards setting
  - Lead
  - Sexually transmitted infections
- Emerging issue: Avian influenza
- Highlights of 2015 projects
- How you can stay in touch & use our resources
Promoting safe and health workplaces across California

Occupational Health Branch

- Hazard Evaluation System & Information Service (HESIS)
- Occupational Health Surveillance & Evaluation Program
- Occupational Lead Poisoning Prevention Program
- California Safe Cosmetics Program
NIOSH Sponsored State Occupational Health & Safety Surveillance Program

Fundamental Program:
- Georgia
- Iowa
- Maryland
- Minnesota
- Mississippi
- Montana
- New Jersey
- New Mexico
- Tennessee
- Texas
- Wisconsin

Fundamental-Plus Program:
- Colorado
- Connecticut
- Florida
- Illinois
- Louisiana
- North Carolina
- Nebraska
- New Hampshire

Expanded Program:
- California
- Kentucky
- Massachusetts
- Michigan
- New York
- Oregon
- Washington

Fatality Assessment & Control Evaluation:
- California
- Kentucky
- Massachusetts
- Michigan
- New York
- Oregon
- Washington

Respiratory Diseases Projects:
- California
- Massachusetts
- Michigan
- New York
- Washington

Other and Pesticides Projects:
- California
- Massachusetts
- Michigan
- Washington

Footnotes:
1 Date updated: 2015.
2 26 Awards.
3 Includes workers compensation surveillance award.
Promoting safe & healthy workplaces

Tracking & using data

Addressing emerging hazards

Investigating hazards, illness & injury

Promoting health-protective policies

Providing info & assistance
OHB support for Cal/OSHA standard setting:

Lead in general industry, 5198 & construction, 1532.1

http://www.cdph.ca.gov/programs/olppp/Pages/LeadStdRecs.aspx
OLPPP’s mandated activities

- Track blood lead levels (BLLs) in CA workers
- Provide information, training & technical assistance
- Investigate worker & take-home lead poisoning
- Make prevention recommendations

*Phlebotomist draws blood sample for lead test*
New attention on health effects of lead

- Lead standards based on toxicity data from 1978
- Evidence* of effects at lower, chronic BLLs; goal: BLLs < 10 ug/dL
  - Hypertension
  - Kidney dysfunction
  - Cognitive dysfunction
  - Adverse reproductive effects

*Environ Health Perspectives 115(3), March 2007
Building the case for better standards

- Reviewed data on low-level health effects
- Convened panel to revise medical management guidelines
- 2007 Environmental Health Perspectives article
- 2009 OLPPP guidelines for health professionals
Getting the word out

**New Health Dangers from Lead**
Levels of lead once thought harmless now shown to be toxic

**If you work with lead you need to:**
- Find out how much lead is in your blood.
- Talk to your doctor about lead and your health.
- Take steps to protect yourself at work.

**What health damage can low levels of lead cause?**
Studies in recent years show that low levels of lead in adults can:
- Increase blood pressure—may increase your chances of having a heart attack or stroke.
- Decrease brain function—making it more difficult to think, learn, and remember.
- Decrease kidney function—making it more difficult to get rid of toxic waste products through the urine.
- Harm the physical and mental development of your baby before it's born.
- Increase chances of having a miscarriage.

**OLPPP Occupational Lead Poisoning Prevention Program**

**What Employers Should Know**
Levels of lead once thought harmless now shown to be toxic

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**Your business could be using or disturbing lead if you:**
- Make or repair radiators
- Make or recycle batteries
- Recycle scrap metal or electronics
- Melt, cast, or grind lead, brass, or bronze
- Make or glaze ceramics
- Operate a shooting range
- Remove or disturb paint or coatings
- Remodeled homes and buildings
- Tree down buildings, bridges, or tanks
- Cut, weld, or saw lead-containing metal
- Use solder

This is not a complete list. Check the Material Safety Data Sheet (MSDS) or the chemical composition sheet for the products and materials you use.
Taking the next steps

2010/2011: Key recommendations to Cal/OSHA

- Workers removed at BLLs 20 - 30 µg/dL
- Increased frequency of blood lead testing
- BLL testing based on presence of lead hazard, not air monitoring
- Lower PEL
Toward a new PEL

• November 2013 symposium
  ➢ Chronic health effects
  ➢ Modeling air/blood lead relationship

• CDPH health-based PEL recommendation
  ➢ 0.5 – 2.1 µg/m³
  ➢ To keep 95% of workers’ BLLs under 5 – 10 µg/dL

http://www.cdph.ca.gov/programs/olppp/Pages/leadStdRecs.aspx
Cal/OSHA advisory committee meetings

- February 2011
- January 2012 – medical requirements
- June 2014
- April 2015 – general industry
- May 2015 -- construction
- November 2015
Key features of discussion drafts

- Medical Removal Protection level reduced:
  1. BLL $> 30$ or 2 BLLs $> 20$ mg/dL
- More frequent BLL testing
- BLL testing triggered by lead use/disturbance or trigger tasks OR exposure $> AL$
- PEL of 10 mg/m$^3$; AL of 2 mg/m$^3$
- Hygiene measures at all exposure levels
- Special considerations for battery manufacturing & abrasive blasting

http://www.dir.ca.gov/dosh/DoshReg/5198Meetings.htm
What now?

- Cal/OSHA submits “standards package” to Occupational Safety and Health Standards Board
- Board takes public comments and issues a revised standard
Which industries will be most affected by revised standards?
### Industries with largest # workers tested, 2014 (draft numbers)

<table>
<thead>
<tr>
<th>Industry</th>
<th>% &gt;10 µg/dL</th>
<th># Workers</th>
<th># Employers</th>
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<tbody>
<tr>
<td>Storage battery manufacturing</td>
<td>42%</td>
<td>866</td>
<td>9</td>
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<tr>
<td>Remediation services</td>
<td>2%</td>
<td>838</td>
<td>113</td>
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<td>Firing ranges</td>
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<tr>
<td>Sheet metal work manufacturing</td>
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<tr>
<td>Other aircraft parts manufacture</td>
<td>58</td>
<td>31</td>
<td>4</td>
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<td>42</td>
<td>869</td>
<td>10</td>
</tr>
<tr>
<td>Industrial building construction</td>
<td>28</td>
<td>92</td>
<td>3</td>
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<tr>
<td>Other metal valve and pipefitting manufacture</td>
<td>22</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>Painting contractors</td>
<td>14</td>
<td>501</td>
<td>51</td>
</tr>
<tr>
<td>Commercial and institutional bldg. construction</td>
<td>12</td>
<td>161</td>
<td>31</td>
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OHB support for Cal/OSHA standard setting:

Sexually transmitted infections, 5193.1 (adult film industry)

http://www.dir.ca.gov/OSHSB/Sexually_transmitted_infections.html
Lack of condom use poses risks

Condom use by random sample of 50 heterosexual and 50 male homosexual films (2005–2006):

- Penile-vaginal: 3%
- Heterosexual penile-anal: 42%
- Homosexual penile-anal: 80%

(Grudzen et al., AJPH, 2009, 99Suppl1:S152–6)
New HIV infection in a CA adult film performer who had recently tested negative

25 y.o. M

12 sexual partners

No condoms

Film production #1

Film production #2
Green √: Cleared for work.

Red X: NOT cleared for work.

Negative test within past 14 days?

YES

NO
“Window period” for HIV testing

Day 5

Infection cannot be detected

Infection can be detected

Date of infection

DAY

0

5

10

15
Performer’s infection was not detectable
Work and non-work-related partners exposed to HIV

Date of infection

Date of HIV-test

Infection cannot be detected

Infection can be detected

Non-work-related partners:

Film production #1

Film production #2
One work & one non-work-related partner infected
Contact tracing

LETTING PARTNERS KNOW

HIV genetic analysis
Adult film trade association: HIV transmission was not work-related
OHB: Yes it was
Adult film performers Jessica Drake, left, and Mary Sodi, inset in Los Angeles for a panel discussion on the passage of Measure B.

**Condoms In Porn: Common Sense Or Overreach?**

In August of 2011, the adult film industry in Southern California voluntarily shut down production when a performer tested positive for HIV.

Less than a week later, more tests showed that the performer did not contract the often-fatal disease, but the HIV scare gave momentum to a long-simmering movement to require all porn films in Southern California to use condoms.

At the beginning of this year, Los Angeles Mayor Antonio Villaraigosa signed into law a mandate that all adult film productions shot within city limits be required to use condoms. The law went into effect on Monday, although there are still questions about how enforceable it is.

The movement to require condom use in adult films has also gone county-wide, as the AIDS Healthcare Foundation collects petition signatures for a ballot measure that would expand the law across Los Angeles County. A recent update from February shows that the foundation is more than halfway there to collecting enough signatures to put the measure on the November 2012 ballot.

The condom use reform definitely has its critics. City Attorney Carmen Trutanich filed a lawsuit against the city-wide effort, saying it...
Performers are exposed to potentially infectious materials.
Performers are employees, not independent contractors.

A. The performers were employees, not independent contractors.

The Act holds employers responsible who have or exercise sufficient control over employees affected by a regulated condition, and which condition the cited employer has the ability to abate at the work site. (The Office Professionals, Cal/OSHA App. 92-604, Decision After Reconsideration (Jun. 19, 1995); Petroleum Maintenance Company, Cal/OSHA App. 81-594, Decision After Reconsideration (May 1, 1985).) The California Occupational Safety and Health Act of 1973 (the Act), Labor Code Section 6304 provides that the definition of “Employer” has the same meaning as in labor Code Section 3300. Section 3300(c) states that “every person . . . which has any natural person in

Participants are “employees” not “independent contractors”

TIM maintains that the participants are not “employees” but are “independent contractors”. TIM does not dispute that the production crew are employees. To sustain the citation, the Division must prove that a relationship of employer/employee existed between TIM and the worker exposed to the
Worker protection is not optional
Other Cal/OSHA standards in the works

- Workplace violence prevention in healthcare
- Housekeeping in the hotel and hospitality industry
- Antineoplastic drugs in healthcare
- Process safety management in refineries
- PPE for firefighters
- Airborne contaminant PELs?
Emerging issue:
Avian influenza in CA poultry industry
Current and future concerns about the transmission of avian influenza virus (H5 N1)
CA avian influenza poultry outbreaks in 2015

- January 22, 2015: influenza A virus subtype H5N8
  - Commercial turkey flock
  - Stanislaus County

- February 12, 2015: influenza A virus H5N8
  - Broiler chickens and ducks
  - Kings County

- March 17, 2015: influenza A virus H7N3
  - Commercial turkey flock
  - Merced County
Worker risk for Avian Influenza

ATD-Zoonotic Standard, 5199.1

• “Exposed” = direct contact with sick birds, carcasses, feces, litter from potentially infected poultry

• Those who handle, cull (kill), transport, or dispose of birds, or clean/disinfect areas with birds or waste

• Poultry farmers, cullers, veterinarians
CA poultry industry locations

Source: CA Department of Food & Agriculture
Poultry outbreak: Multi-employer emergency response

- USDA / CDFA Animal Health Emergency Response
- Incident Commander and Safety Officer
- Employers
  - Farm or poultry producer
  - Farmer’s contractors
  - USDA contractors
  - CDFA, local responders
Farm biosecurity

- Isolation
- Traffic control
- Sanitation
PPE examples

- Safety glasses
- Safety goggles
- Face Shield
- Nitrile gloves
- N-95 respirator
- ½ face APR
- Full face APR
- PAPR

Level C PPE with Tyvek splash suit and APR respirators
Follow-up of exposed workers

- Overseen by local or state health dept.
- Reasons for follow-up
  - Symptom surveillance
  - Specimens for testing
  - Timely notification of results
  - Monitor delivery of antiviral therapy
  - Note unusual clinical presentations or complications
- Follow-up period
  - Throughout exposure plus 10 days
Highlights of other 2015 projects
Total Worker Fatalities by Year, California, 2010-2014

<table>
<thead>
<tr>
<th>Year</th>
<th># of Fatalities</th>
</tr>
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<tbody>
<tr>
<td>2010</td>
<td>326</td>
</tr>
<tr>
<td>2011</td>
<td>390</td>
</tr>
<tr>
<td>2012</td>
<td>375</td>
</tr>
<tr>
<td>2013</td>
<td>396</td>
</tr>
<tr>
<td>2014</td>
<td>334</td>
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</table>
Fatalities in Landscaping Industry, California, 2010-2014

# of fatalities

year

2010 2011 2012 2013 2014

7 12 11 25 28
Preventing Worker Drownings  Digital Story

http://www.cdph.ca.gov/programs/ohb-face/Pages/Stories.aspx
Safer, effective cockroach control for buses & trains

Fragrances and work-related asthma

Fragrances and Work-Related Asthma: Information for Employers

Perfumes and fragrances used in personal care products, cleaning products, and air fresheners in the workplace can cause or trigger asthma. They contain many different chemicals, including several known to cause asthma, even in people who have never had asthma before.

What is work-related asthma?

Asthma is a chronic lung disease where the flow of air is decreased, making it hard to breathe. Asthma is work-related when it is caused or made worse by something at work. Symptoms can start right after an employee breathes in a substance, or hours after leaving work. Sometimes a person can suddenly develop work-related asthma from substances they have worked around for years. An employee experiencing wheezing, chest tightness, cough, shortness of breath, or difficulty breathing, should be seen by a doctor. The employee should tell the doctor if exposures at work seem to increase or cause the symptoms. Work-related asthma can be serious. The earlier the exposure is stopped, the more the person's asthma can improve.

Work-related asthma in California

The Work-Related Asthma Prevention Program (WRAPP) tracks information about California workers with asthma and helps workers avoid getting asthma from their jobs. WRAPP has found over 250 work-related asthma cases from fragrance exposures in many indoor work settings - including schools, hospitals, offices, and manufacturing.

Case Report - Use of air freshener sent a fellow employee to the emergency room

A 25-year-old woman with asthma worked at a child care center doing data entry. Her workplace had meetings about not spraying chemicals in the office, but did not have a written fragrance-free policy. A co-worker sprayed air freshener in the office. The data entry clerk immediately began having severe asthma symptoms and had to go to the emergency room. She also had to take oral steroids to control her asthma. The data entry clerk reported that other co-workers had asthma symptoms as a result of air freshener use.

Case Report - A security guard had to leave his job because of fragrance use

A 50-year-old man with asthma worked as a security guard for 9 years. Whenever anyone at work was wearing strong cologne or used a product with fragrance, it triggered his asthma. He didn't want to tell people not to wear scented products, and his asthma just kept getting worse. A fellow employee got scented lotion on the guard's jacket, which worsened his asthma symptoms and gave him hives. He went to the emergency room 6 times before he finally had to leave his job.

Stay in touch with OHB

E-newsletter: Occupational Health Watch

Subscribe: OHW@cdph.ca.gov
Use our resources & services

- OHB website: www.cdph.ca.gov/programs/OHB
- Workplace hazard helpline: 1-866-282-5516 (toll-free in CA)
- Invite us to speak at your events
- Call/email me if interested in working at OHB

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- **Pesticides & asthma:** Justine Weinberg, CIH, Jennifer Flattery, John Beckman