

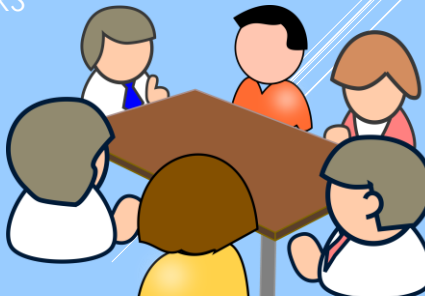
# OCCUPATIONAL HEALTH AND SAFETY: WHERE DO WE GO FROM HERE?

Mildred Randolph, DVM, DACLAM  
Adjunct Professor, Director of Seed Program  
University of Arkansas for Medical Sciences

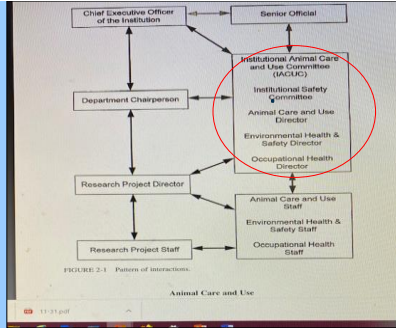


OCCUPATIONAL HEALTH AND SAFETY PROGRAMS CONTINUE TO BE CHALLENGING

# INSTITUTIONAL STAKEHOLDERS



WHERE DO WE START?



THESE PROGRAMS CAN HAVE LOTS OF MOVING PARTS AND STAKE HOLDERS!

**1970**

14,000 workers were killed on the job – about 38 every day

**Occupational Safety and Health Act** was signed on December 29, 1970

OSHA has helped transform America's workplaces in ways that have significantly reduced workplace fatalities, injuries, and illnesses

**PRESIDENT NIXON'S ADMINISTRATION**

**OHSP: The Basics**

OHS PROGRAMS ARE AN INSTITUTIONAL RESPONSIBILITY



PROTECTING THE HEALTH AND SAFETY OF EMPLOYEES WHO CARE FOR, USE AND COME IN CONTACT WITH RESEARCH ANIMALS

**REQUIRES THAT INSTITUTIONS THAT RECEIVE FEDERAL FUNDS MUST PROVIDE AN OHSP**

- Public Health Service Policy on Humane Care and Use in Lab Animals

Each institution must establish and maintain an occupational health and safety program (OHSP) as an **essential** part of the overall Program of animal care and use (CFR 1984g; DHHS 2002; PHS 2002).

### The Guide



► An Effective Program requires coordination

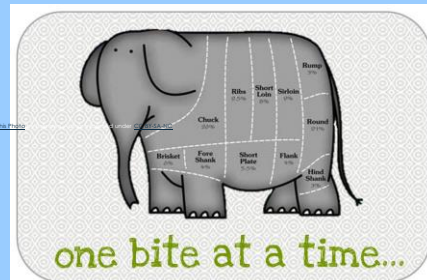
- Investigators or researchers
- AV, IO and IACUC
- Health and Safety staff
- Occupational Health Services
- Administration



Guide, pg. 17

"A SAFETY COMMITTEE *MAY* HELP FACILITATE COMMUNICATION"

Occupational Health and Safety Programs can seem daunting



- ▶ **Hazard Identification**
- ▶ Controlling Exposures
- ▶ Training
- ▶ Establishing Guidelines
- ▶ Consistency
- ▶ Monitoring
- ▶ Institutional Commitment and Coordination

HISTORICAL ELEMENTS OF AN  
**EFFECTIVE** OHSP PROGRAM

Provision of a safe working environment along with reviewing hazards associated with research protocols

IACUC INVOLVEMENT



**Hazard Identification**  
Protocol Review



RISK ASSESSMENT



Defines nature and extent of exposure

- Position, duties, or role in research, institutional affiliation
- Workplace environment
- Species
- Known hazards
- PPE used
- Possible exposure types



RISK ASSESSMENT  
QUESTIONNAIRE



- ▶ Dogs
- ▶ Macaques\* Cercopithecine herpesvirus 1
- ▶ Farm or Agricultural Animals
- ▶ Non-domesticated species
- ▶ Wildlife and Field Studies

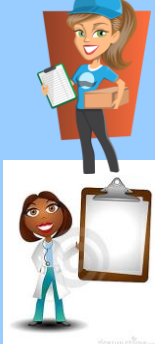


**HAZARD IDENTIFICATION-CAN BE SPECIES SPECIFIC**

- ▶ **Rats and then mice** are among one of the most common sources of hazard exposure
- ▶ Urine is a major source of rodent allergens
- ▶ Minimize contact with rodent waste/litter

**CONTROLLING MOST LIKELY EXPOSURES**

- ▶ **75% of all institutions** -staff which developed allergic symptoms to rodents
- ▶ 10% of all lab workers will develop **occupational-related asthma**
- ▶ Allergies most often develops over a period of 1-2 year exposure
- ▶ Have the right Occupational Professionals involved in the risk assessment process



**HAZARD IDENTIFICATION-RODENT SPECIFIC**

## CAUSES OF WORKPLACE OR OCCUPATIONAL ASTHMA

| Irritant                         | Examples   | Type of occupations/ environments at risk  |
|----------------------------------|--|--|
| <b>Chemical dusts and vapors</b> | Isocyanates, trimellitic anhydride, phthalic anhydride             | Manufacturers of foam mattresses and upholstery, insulation, packaging materials, plasticizers, and polyurethane paint |
| <b>Animal substances</b>         | Bacterial dusts, dander, hair, mites, protein dusts, small insects | Farmers, animal handlers, kennel workers, jockeys, and veterinarians   |

Do you ever have patients presenting with the following symptoms?



### Allergic Symptoms

Rashes where animals are in contact with the skin  
Nasal congestion and sneezing  
Itchy eyes  
Asthma (cough, wheezing, and chest tightness).

## SYMPTOMS OF LAB ANIMAL ALLERGIES

## CONTROLLING EXPOSURES

ELIMINATE OR SUBSTITUTION  
ENGINEERING  
ADMINISTRATIVE  
PPE



## Training and Establishing Guidelines

### Safety Starts with Training

OSHA requires employers to provide training to workers who face hazards on the job. OSHA also creates training materials, distribute training grants to nonprofit organizations, and provide training through authorized education centers.





How to safely load rack washer?



- Zoonosis
- Chemical, Physical and Biological Hazards
- Hazards associated with Experimental Protocols**
- Personal hygiene
- PPE
- Precautions during Pregnancy, Illness or Immunosuppression

**REQUIRED TRAINING: THE GUIDE**

**Training and Establishing Guidelines**

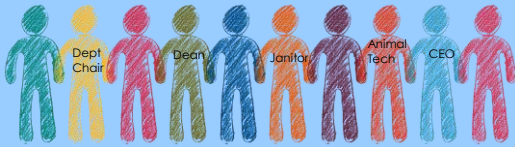
- #1 Objective of OHSP
- Communicate hazard training to those who need to know
- Identify staff at risk of exposure and TRAIN them

**IACUC, IBC AND SAFETY STAFF APPROVALS SHOULD BE COORDINATED**

### Monitoring and Consistency

Application of the Rules  
Enforcement

From the Chancellor to the Janitor



### Institutional Coordination and Commitment

A CEO must understand that they are ultimately responsible

All Stakeholders must be educated and trained on what is required from them to have a successful program

For example \*Human Resources Department is frequently not included in establishing an effective program

Human Resources should know the nuances of your department/jobs being done there

### HR should know who should be screened by OHS professionals

Animal Care or Research Staff that handle/exposed animals should be enrolled in OHSP

Re-evaluated on a regular basis or if they have a change in health status

I have read the above statements and decline participation in the \_\_\_\_\_ Occupational Health and Safety Program

I certify that I am enrolled in an occupational health and safety program for animal exposure at my primary workplace. I understand this may be verified by \_\_\_\_\_.

### OHSP WAIVER

Contact Name for Occupational Health Verification



WE HAVE ALL EXPERIENCED A CATASTROPHIC, LIFE-CHANGING, **MULTI-YEAR PANDEMIC** THAT HAS CHANGED (AND IS CONTINUING TO CHANGE) US FOREVER.



“The pandemic represents a rare but narrow window of opportunity to reflect, reimagine, and reset our world.”

Klaus Schwab  
Founder and Executive Chairman, World Economic Forum



How has/was your program been impacted over the past few years while dealing with Covid?

What adjustments were made?

**HOW HAS THE WORKPLACE CHANGED?**



Workplace Respiratory Illness Policy

- \*Masking vs Isolation
- \*Testing
- \*Quarantine

**WORKER HEALTH POLICY**

morning



afternoons



85°F

INTENSITY OF WORKLOADS

**Millennials will make up  
75% of the workforce by  
2025.**

Source: Deloitte

TODAYS WORKFORCE SEES THE WORK-WORLD  
DIFFERENTLY IN THIS POST COVID ERA



Current or Updated Trends in OHSP  
AND A Healthy Workplace

Top Down Leadership is required to make a cultural shift in  
OHS programs

Comprehensive non-compensation perks like holistic  
**wellness** programs to attract the best talent

Foster engagement, performance, and well-being within your  
team

Training and opportunities for individual growth

► **Benefits of Employee Wellness Plans**

- **Health and Wellness Programs** are associated with employee satisfaction rates
- Decreased Stress
- Improved Health and Productivity
- Improved recruitment and retention



- Aggression
- Work-family stress
- Job demands from workplace intensification
- Stress associated with lack of control
- Low workplace support
- Less meaningful work
- Job insecurity
- Non-work responsibilities and quality of life

PSYCHOSOCIAL HAZARDS ARE KEY COMPONENTS TO SOME OHSP

2019, 58% of companies offer wellness benefits to support their employees and reduce workplace stress.

DURING THE PANDEMIC, 30% OF AMERICANS SHOWED SYMPTOMS OF ANXIETY, DEPRESSION, OR BOTH.

National Institute for Occupational Safety and Health (NIOSH) 2011  
**TOTAL WORKER HEALTH PROGRAM**

Moving from focusing on individual behaviors where workplace is simply a venue to facilitate individual behavioral change. The new focus was placed on providing a healthy environment in the workplace

Research environments will have to decide what this looks like for us

**FUTURE OF OHSP**

## WHY DO OHS PROGRAMS FAIL?



## OHSP FAILURE PITFALLS

- ▶ Health/Medical Official resistant
- ▶ Researchers\* contribution is not appreciated
- ▶ Veterinary Staff takes an overly exuberant role
- ▶ Human Resources being bypassed
- ▶ Administrator or CEO does not prioritize OHS Program

- ▶ FAILURE TO FAMILIARIZE OCC MEDICINE STAFF WITH WORK ENVIRONMENT, FACILITY HAZARDS AND RISKS
- ▶ FAILURE TO SHARE LITERATURE AND GUIDANCE DOCUMENTS
- ▶ FAILURE ESTABLISH AN APPROPRIATE BASE-LINE HISTORY/ HEALTH STATUS

**OCCUPATIONAL MEDICINE PHYSICIAN OR NURSE HAS TO BE A MAJOR DRIVER OF THE PROGRAM**

- ▶ Monitor and Evaluate OHS Program
- ▶ Representative from SEHS
- ▶ Monitoring (Documenting Non-compliance)
- ▶ Consequences for Non-compliance

**FAILURE OF IACUC TO ASSUME RESPONSIBILITY  
USE THE PROGRAM REVIEW- SEMI-ANNUAL ASSESSMENT**

## LETS DISCUSS SOME SCENARIOS



- ▶ After 1-2 years, allergies with respiratory signs
  - ▶ Where can I work safely?
- ▶ Pregnant worker
  - ▶ Where can I work safely?
- ▶ Epilepsy
  - ▶ Where can I work safely?



AFTER YOU IDENTIFY PROBLEMS...THEY MUST BE MANAGED.

### Dr K. OHS' Issue

- ▶ Well funded investigator
- ▶ Developed severe allergic reactions to rodents
- ▶ Was not cleared by SEHS
- ▶ Facility Access denied
- ▶ IACUC signature page made the PI responsible
- ▶ Protocol tabled



IF YOU DON'T GO TO THE FACILITY HOW CAN YOU TAKE RESPONSIBILITY?

### Employee fails random drug test

- ▶ AALAS certified (LAT); lead tech role
- ▶ Failed a random drug test after being employed several years
- ▶ HR Options: a) Dismissal b) Employee Assistance Program



▶ **Failed** to involve Occ Health Representative

- ▶ Recommended counseling with rehabilitation professionals
- ▶ Risk Assessment for job duties
  - ▶ Isolated areas not recommended
  - ▶ Warned about potential hazards of isoflurane

### FAILURE TO INVOLVE OHS PROFESSIONALS



### DISCOVERED TO BE ABUSING ISOFLURANE



GREAT ADVANCES IN BIOMEDICAL RESEARCH: TOTAL NIH (2022) BUDGET APPROX. 33 BILLION; APPROX. 40% BASED ON ANIMAL MODELS YET. SURPRISINGLY THERE HAS BEEN MUCH LESS NEW INFORMATION GENERATED ON PROTECTING THE PEOPLE WHO CARE FOR THESE ANIMALS



### Anonymous Reporting Animal Staff Welfare Concerns

Did you know that **animal** staff welfare concerns can be reported anonymously? **Anonymous Compliance Hotline 1-888-511-3969.** **Animal** Staff Welfare concerns will be passed on without retribution to the **Research Compliance** Occupational Health and Safety Office, who will then investigate these concerns. **Remember—in order to continue the pursuit of excellence in UAMS research programs, we need to work together to create a culture of compliance and prioritizing animal staff welfare**



