



# Establishing & Maintaining Worker Health Programs

Student Guide

2012



GLOBAL BIORISK MANAGEMENT CURRICULUM

***Worker Health Programs***

***Welcome & Introductions***



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## Introductions

- Instructors
- Students
  - Your name?
  - Where are you from?



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# Action Plan

By the end of this lesson, I would like to:

KNOW		FEEL		BE ABLE TO DO	
<i>Your learning doesn't stop with this lesson. Use this space to think about what else you need to do or learn to put the information from this lesson into practice.</i>					
What more do I need to know or do?		How will I acquire the knowledge or skills?		How will I know that I've succeeded?	How will I use this new learning in my job?

## Worker Health Programs



### Key Messages

- A well planned occupational health system is a pivotal preventive and protective measure.
- The scope of occupational health includes workers, co-workers, family members, employers, customers and the community.
- Defining core occupational health components such as prevention, protection, surveillance, liaising and treatment.

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## Welcome & Introductions



### Key Messages, continued

- The organization shall have access to appropriate occupational health expertise.
- An occupational health program should be commensurate with the activities and risks of the facility.
- The information from this course may be useful in a variety of laboratory settings and procedures.

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**Please note. . .**

- This is NOT a course on medicine!
- This course is intended to provide points for consideration for the management and leadership of an organization to assure that they are providing appropriate support and resources for worker health in a biorisk management setting.
- Specifics on medical responses within the biorisk management setting must be acquired elsewhere.

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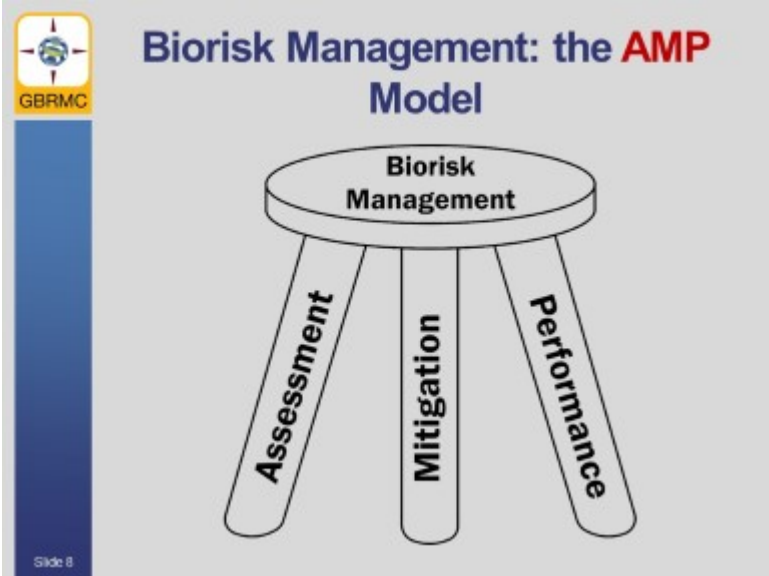
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**Worker Health Programs**

**Biorisk Management**



Review the AMP model for Biorisk Management.

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## Worker Health Programs

## Biorisk Management



### Key Components of Biorisk Management

- **Biorisk Assessment**
  - Process of identifying the hazards and evaluating the risks associated with biological agents and toxins, taking into account the adequacy of any existing controls, and deciding whether or not the risks are acceptable



Slide 8

Define Assessment:

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## Worker Health Programs

## Biorisk Management



### Key Components of Biorisk Management

- **Biorisk Mitigation**
  - Actions and control measures that are put into place to reduce or eliminate the risks associated with biological agents and toxins



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Define Mitigation:

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## Worker Health Programs

## Biorisk Management



### Key Components of Biorisk Management

- **Biorisk Performance**
  - Improving biorisk management by recording, measuring, and evaluating organizational actions and outcomes to reduce biorisk.



Define Performance:

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## Worker Health Programs



### A Brief History of Occupational Medicine

*Medici munus plebios curantis est  
interrogare quas artes exerceant*

**“In dealing with the workman the doctor  
must think of the dangerous trades”**

- Bernardino Ramazzini, 1633-1714  
Professor of Medicine at Padua  
Father of Occupational Medicine

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## Challenges to Worker Health



### Occupational Injuries & Illnesses

**In 2002:**

- 5,524 deaths caused by work-related injuries reported in the U.S. (~15 deaths/day)
- Over 4.7 million new nonfatal injuries and illnesses reported in the private industry alone
  - 4,406,100 injuries
  - 294,500 illnesses
- Occupational injuries and illnesses are estimated to cost:
  - \$45.8 billion - direct costs
  - \$137.4 - \$229 billion - indirect costs

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## Laboratory-Acquired Infections (LAIs)

**Laboratory-Acquired Infections** are acquired from pathogens used or encountered **in a laboratory or research environment.**

- For some pathogens, lab workers are at higher risk of being infected than the general public
- Vastly under-reported
- Over 80% of laboratory-related illnesses are unable to be tracked to a specific source or incident (Harding & Byers, 2006)

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## Worker Health Programs




### Healthy Workers, Healthy Workplace

#### Group Exercise

**Question:**  
What are the benefits to being healthy for:

- The worker?
- The manager?
- Biorisk management



**In your groups**, please spend **5 minutes** to discuss this question. Write your answers in your **workbook**. Be prepared to share your answers with the class.

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## Challenges to Worker Health

- The Worker:
  
- The Manager:
  
- Biorisk Management:


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## Challenges to Worker Health

**Group Exercise**

**Question:**  
What materials in a laboratory setting can be harmful to a worker's health?

In your groups, spend **5 minutes** to discuss this question. Write each answer on a separate **sticky note** and place them on your **flipchart**.



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## Worker Health Programs

## Components of a Worker Health Program



### CWA 15793:2011

#### 4.4.4.6 – Worker Health Programme

- The organization shall ensure that **risk to worker health**, and that of other personnel could be directly impacted by exposure to biological agents and toxins, **is managed effectively including prevention and protection measures.**
- The requirements of the health surveillance programme shall be determined by a defined health **hazard identification** and **risk assessment** process involving all relevant personnel.

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### Worker Health Program

In general, worker health programs, also called occupational health programs, focus on three aspects:

- 1. Health Screening**
- 2. Prophylaxis**
  - Prevention of disease or control of its possible spread
- 3. Incident Medical Response**

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## Worker Health Programs

## Components of a Worker Health Program



### Health Screening

- Physical capability for job or tasks
- Underlying medical conditions
  - Impacted **by** work environment
  - Impact **to** the work environment
- Emerging medical conditions
- Ongoing surveillance for possible exposures
- Screening after known exposures

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## Worker Health Programs

## Components of a Worker Health Program



### Prophylaxis

- **Disease prevention**
  - Vaccination
  - Monitoring (overlaps with screening)
- **Control of spread (in person and in community)**
  - Post-exposure measures

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 **Incident Medical Response**

Incidents requiring medical response:

- **Workplace Exposure**
- **Workplace Illness**
- **Workplace Injuries**



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## Worker Health Programs

## Components of a Worker Health Program



### Challenges to Worker Health

**Group Exercise**

**Question:**  
What type of medical response is appropriate?

**In your groups**, spend **5 minutes** to look at your **sticky notes** on potentially harmful things. Write the chart headings below on your **flipchart** and put an **X** in the column for the appropriate medical response for each hazard.

Hazard	Screening	Prophylaxis	Incident Response

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## Worker Health Programs

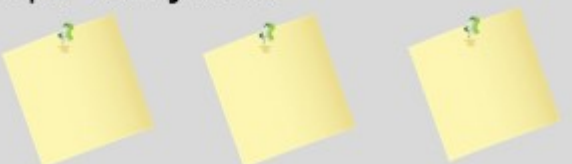
## Components of a Worker Health Program



### Worker Health Programs

**Group Exercise:**

**In your groups**, spend **5 minutes** to list all the roles that provide input and feedback into a worker health program in a biorisk management system. List one role per **sticky note**.



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## Worker Health Programs

## Components of a Worker Health Program



### Worker Health Programs

#### Class Exercise

Post each role under the functional area which best describes the type of input or feedback they provide. If the role provides more than one input, duplicate the **sticky note**.

Service (i.e. medical)	Information	Capacity & Infrastructure

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## Worker Health Programs

## Examples of Worker Health Programs



### Scenarios – Screening & Prophylaxis

#### Group Exercise

Each group will be assigned **one** of the following scenarios. With your scenario in mind, complete the worksheet in your workbook identifying **roles** and **specific functional areas** supplied by each role. We will look at *pre-employment screening* as an example.

- *Pre-employment screening*
- Screening for potential exposure during work
- On-going screening and prophylaxis to keep workforce healthy
- Prophylaxis for known risks of work
- Termination screening

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## Worker Health Programs

## Examples of Worker Health Programs



### Example: Pre-Employment Screen

Role	Service(s) Provided	Information Provided	Capacity/Infrastructure Provided
Medical provider	Pre-employment screening examination	To worker: precautions based on the worker's health combined with the lab risk To lab director: any work restrictions or concerns	
Worker		Medical and prior work history	
Laboratory Director		Hazards and procedures used; history of incidents and LAIs (for agent and for lab); facilities & equipment	(service fee); abide by pre-employment policies
Top Mgmt			Contract with licensed medical provider(s); space and supplies for medical offices and recordkeeping

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Role	Service(s) Provided	Information Provided	Capacity/Infrastructure Provided

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## Worker Health Programs

## Examples of Worker Health Programs



### Scenarios – Incident Response

#### Group Exercise

Each group will be assigned **one** of the following scenarios. With your scenario in mind, complete the worksheet in your workbook identifying **roles** and **specific functional areas** supplied by each role.

- Worker illness – no known exposure
- Worker exposure (no injury)
- Worker injury – no known exposure
- Worker injury – with exposure

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Role	Service(s) Provided	Information Provided	Capacity/Infrastructure Provided

## Worker Health Programs

## Examples of Worker Health Programs



### Agent - Specific Scenarios

#### Group Exercise

Each group will be assigned **one** of the following agents. With your scenario in mind, complete the worksheet in your workbook considering what **screening, prophylaxis, incident response,** and outside **notification** might be prudent for various phases of research with your agent.

- SARS CoV
- Influenza
- HIV
- *Salmonella* spp.
- TB

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Phase	Screening	Prophylaxis	Incident Response	Notifications
Pre-screening				
Ongoing screening				
Worker illness – no known exposure				
Worker exposure – no injury or illness				
Worker exposure – with illness				

Agent:

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### **Collaboration & Coordination**

- Occupational Health providers often sit on IBCs and IACUCs
- (Bio)safety experts often participate in Occupational Health meetings to discuss trends in injuries and illnesses
- Training is collaborative
- Exposure evaluation & response is conducted in multidisciplinary teams
- Even broader collaboration is necessary when public or animal health may be threatened – establishing networks prior to incidents is prudent (e.g. SARS-CoV, etc.)

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## Worker Health Programs


## Coordination & Communication



### Communication

- **Work**
  - What is being done
- **Workforce**
  - Who is doing the work (or is impacted by the work)
- **Risks**
  - What can go wrong
- **Record**
  - Near-misses, incidents, injuries, illnesses, accidents
- **Environment**
  - Facilities, equipment

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### Communication, continued

- **Who is involved** in the communication of information relevant to worker health programs?
- **Who takes the lead** in communication regarding worker health?
  - Worker?
  - Lab Director?
  - Medical Professional?
  - Organizational Leadership?
  - Public Health Official?
  - Other?

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## Worker Health Programs



### Recordkeeping

Why are good records particularly important in worker health programs?



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## Coordination & Communication



### Confidentiality & Privacy

- Tricky to collect private health information relative to workplace exposures
- Privacy laws necessitate very close collaboration between biorisk management and health professionals

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## Worker Health Programs

## Review & Wrap-Up



### Review

To wrap-up, let's discuss what we learned about **Worker Health Programs** in terms of biorisk management.

What did we learn?      What does it mean?      Where do we go from here?

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## Worker Health Programs



### Key Messages

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## Review & Wrap-Up



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# Action Plan

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What more do I need to know or do?	How will I acquire the knowledge or skills?	How will I know that I've succeeded?	How will I use this new learning in my job?

*Use space on back, if needed*