GBRMC

Biorisk Mitigation Strategies

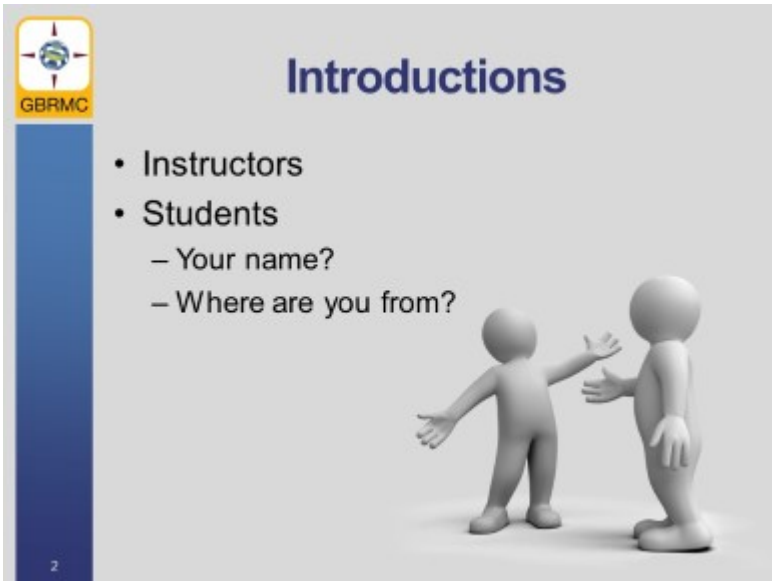
Student Guide

2016

GLOBAL BIORISK MANAGEMENT CURRICULUM

Biorisk Mitigation Strategies

Welcome & Introductions



Action Plan

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KNOW		FEEL		BE ABLE TO DO	

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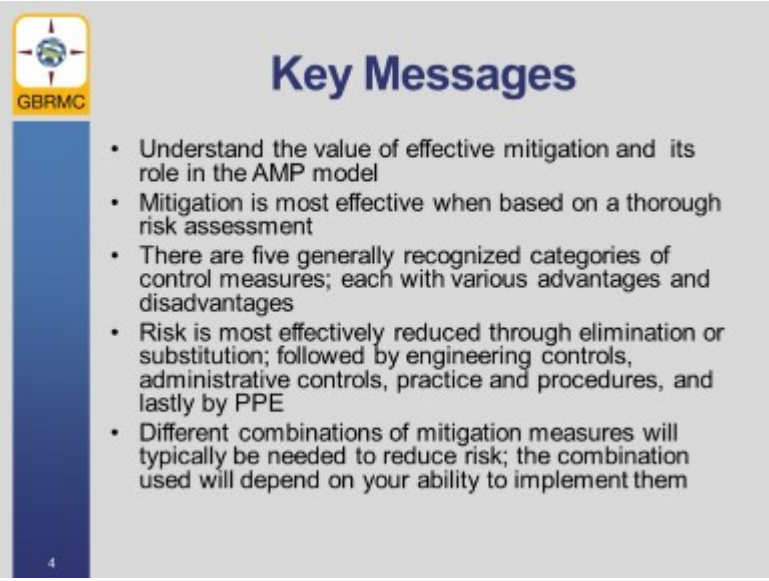
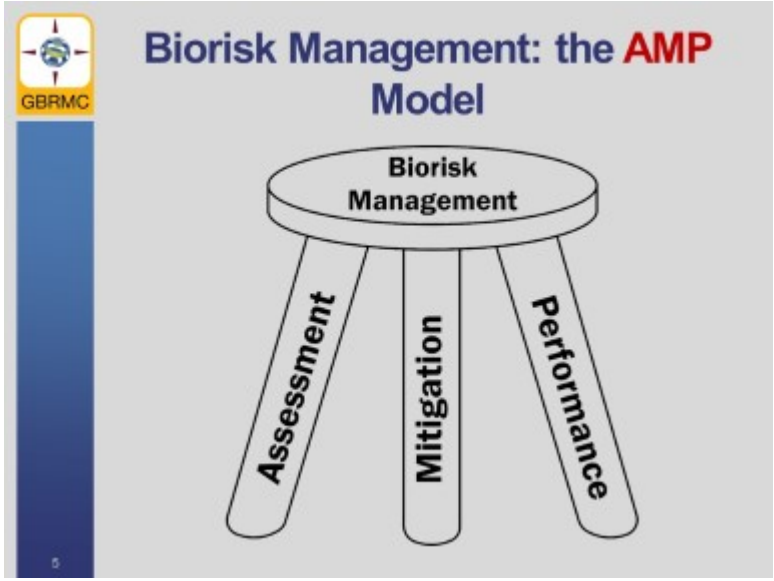
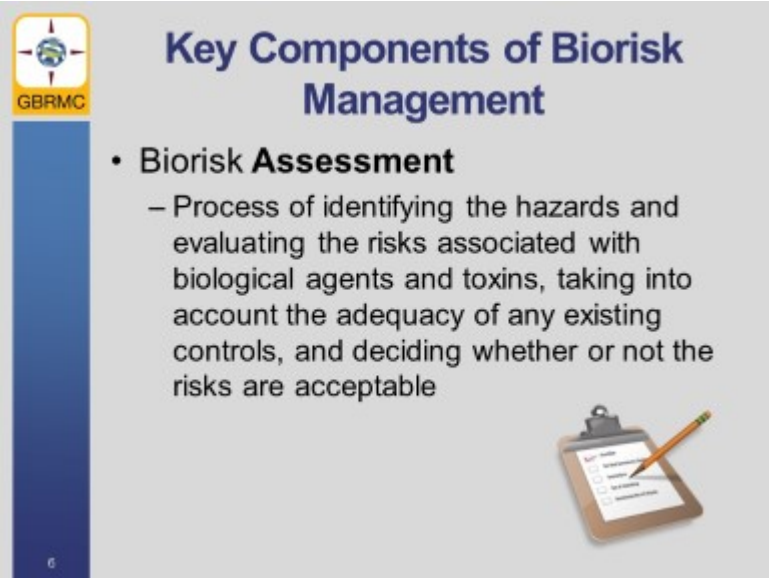
Biorisk Mitigation Strategies



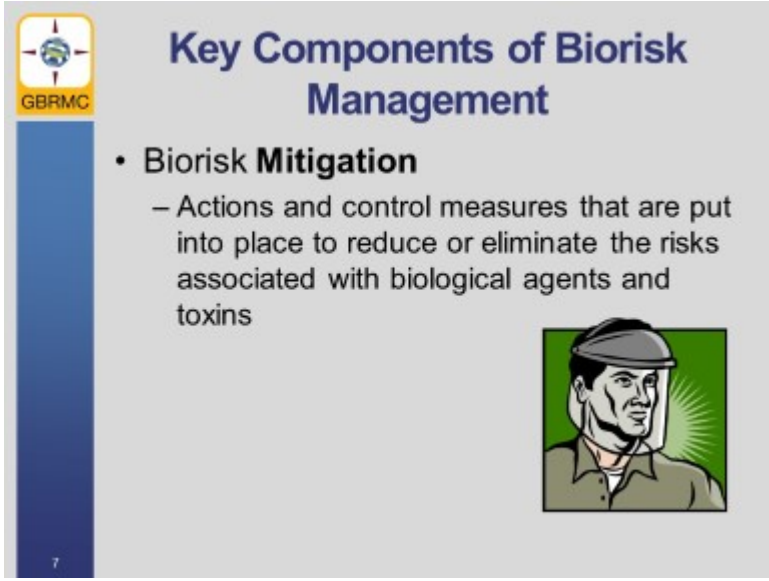
Biorisk Management

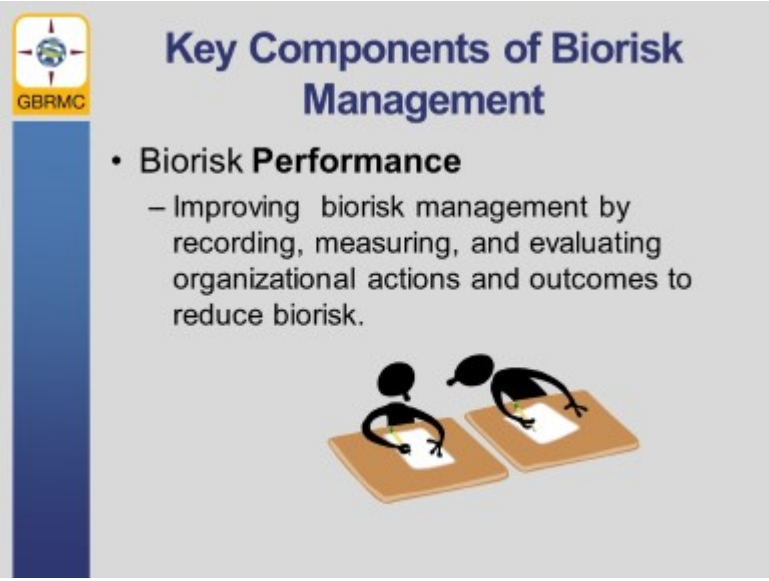


Biorisk Mitigation Strategies



Biorisk Management

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Key Components of Biorisk Management
• Biorisk **Performance**
– Improving biorisk management by recording, measuring, and evaluating organizational actions and outcomes to reduce biorisk.


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Biorisk Mitigation
Group Exercise:
In your groups, please spend 5 minutes identifying 5 examples of Mitigation measures and discuss how each mitigates the risk.
Based on your discussion, write your examples on sticky notes and place on your flip-chart.
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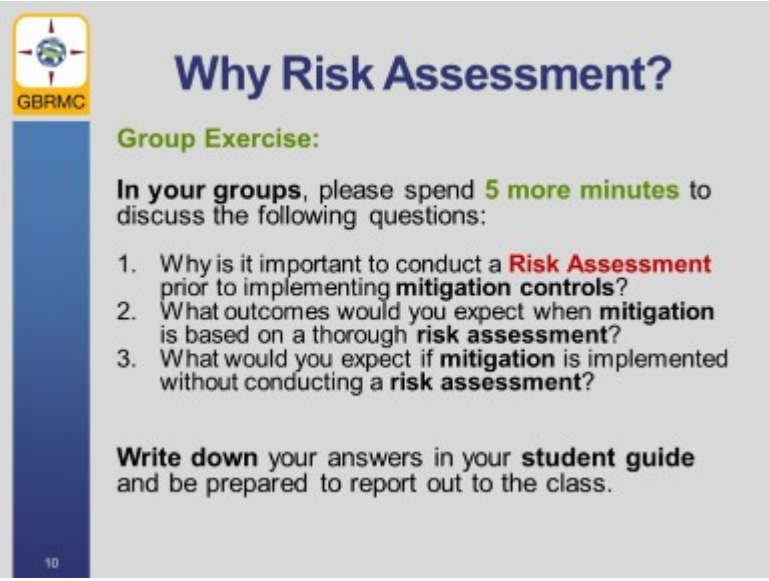


Why is it important to conduct a Risk Assessment prior to implementing mitigation controls?

What outcomes would you expect when mitigation is based on a thorough risk assessment?

What would you expect if mitigation is implemented without conducting a risk assessment?

Biorisk Mitigation Strategies

Biorisk Mitigation

List risk mitigation measures:

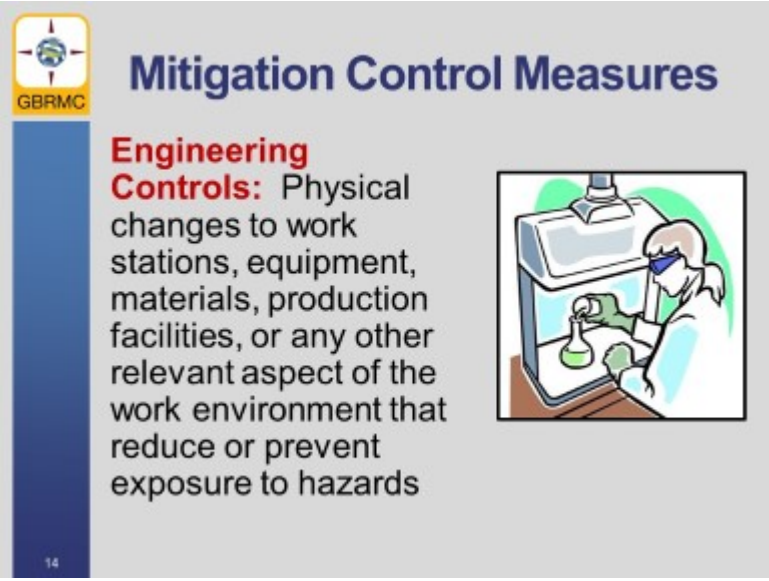
Safety mitigation measures:

Security mitigation measures:

Mitigation Control Measures

Think about how the risk mitigation strategies you just identified fit into these categories of control measures.

Examples of Elimination or Substitution:



Mitigation Control Measures

Examples of Engineering Controls:

Mitigation Control Measures

Examples of Administrative Controls:

Mitigation Control Measures

Examples of Practices and Procedures:

Mitigation Control Measures

Examples of Personal Protective Equipment:

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Mitigation Control Measures

Categorize your risk mitigation measures. Did you cover each category?

Mitigation Control Measures

Use the worksheet on the next page to record your answers.

Advantages and Disadvantages

Control Measure	Advantages	Disadvantages
Elimination or Substitution		
Engineering		
Administrative		
Practices & Procedures		
PPE		

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Advantages and Disadvantages

Control Measure	Advantages	Disadvantages
Elimination or Substitution	Immediate reduction of risk	Not always available or possible
Engineering	Efficient, contains hazard	Cost, Complexity, training, maintenance
Administrative	Management communication of expectations	Indirect approach, primarily addresses the human factor
Practices & Procedures	SOP based (standardized approach)	Training and supervision requirements
PPE	Ease of use, relative cost	Does not eliminate hazard, PPE fails exposure happens, uncomfortable, limits ability, only protects the user, training

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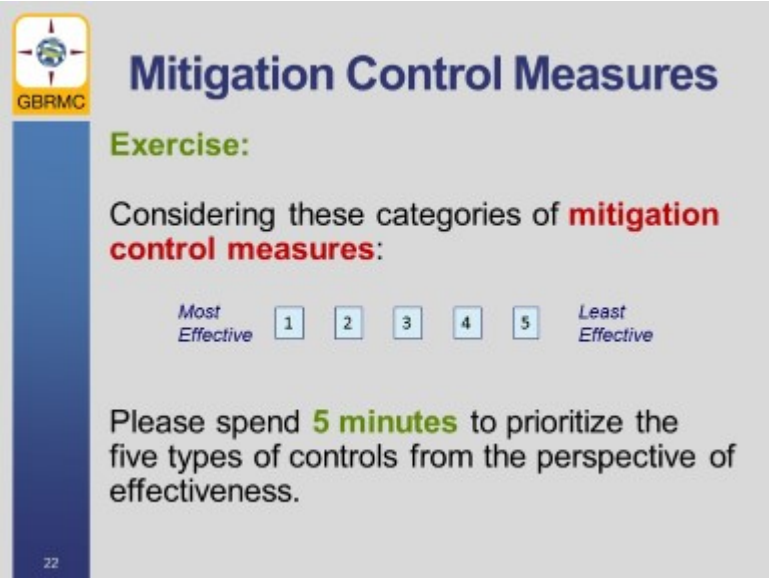


Mitigation Control Measures

Prioritize the mitigation control categories from most effective to least effective:

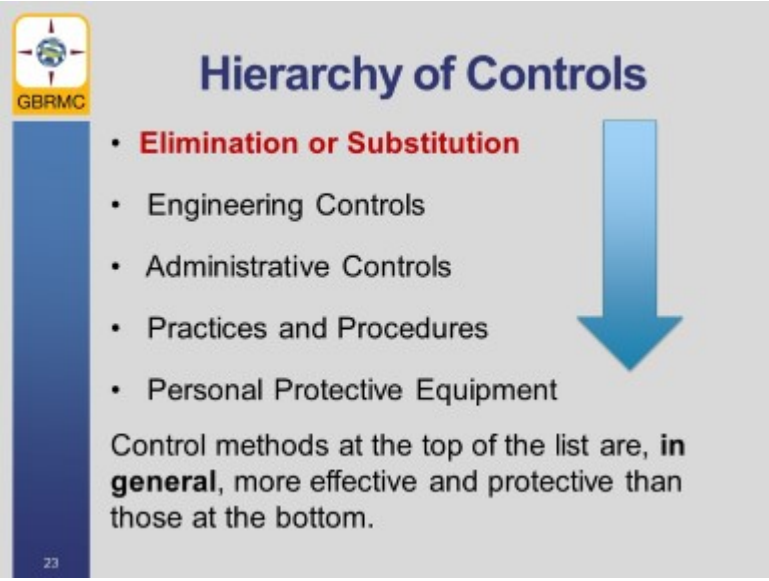
Elimination or Substitution

Engineering Controls

Administrative Controls

Practices and Procedures

Personal Protective Equipment



Hierarchy of Controls

Notes:

Hierarchy of Controls

In this example, a car would provide more protection than PPE. Is there an example where PPE would provide more protection?

Identifying Controls

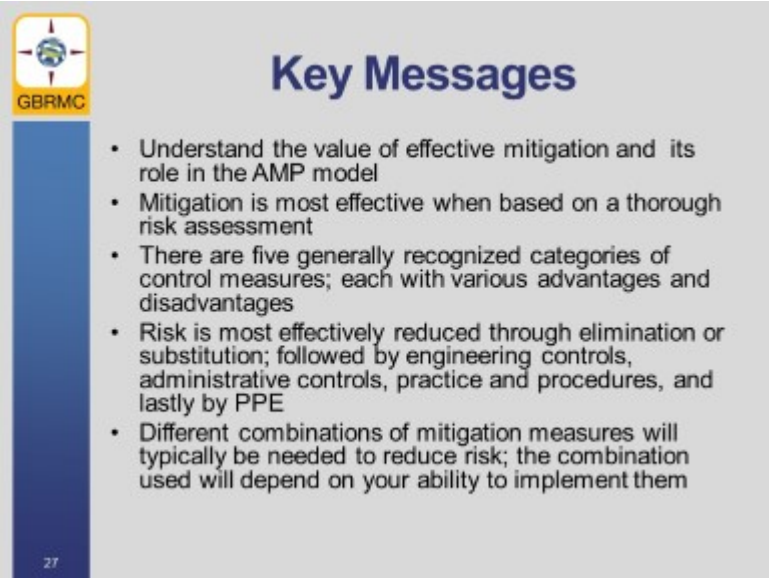
List all the mitigation measures. Assign them to one of the five categories of controls.

Review

What did we learn?

What does it mean?

Where do we go from here?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Key Messages
• Understand the value of effective mitigation and its role in the AMP model
• Mitigation is most effective when based on a thorough risk assessment
• There are five generally recognized categories of control measures; each with various advantages and disadvantages
• Risk is most effectively reduced through elimination or substitution; followed by engineering controls, administrative controls, practice and procedures, and lastly by PPE
• Different combinations of mitigation measures will typically be needed to reduce risk; the combination used will depend on your ability to implement them
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Notes:

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Use space on back, if needed