



Biorisk Management

SAND2011-0753P

Summary

Biorisk Management

**Biorisk Management =
Assessment, Mitigation, Performance**



In Groups

- Agree on five key messages from this workshop
- Use post-it notes for each message and place on flip chart



Individual Reflection

- ✿ How will you describe this course to your professional colleagues back home?
- ✿ What will you tell your boss about this course?
- ✿ What will be your 'elevator speech?'



Encompasses both biosafety and biosecurity

- ✿ **Biosafety**: prevent unintentional exposure to pathogens and toxins, or their unintentional release
- ✿ **Biosecurity**: prevent the loss, theft, misuse, diversion, or intentional release of pathogens and toxins



Risk

Likelihood and **consequences** of an undesired event specific to a certain hazard or threat

$$R = f(L, C)$$



Risk Assessment

Risk Identification

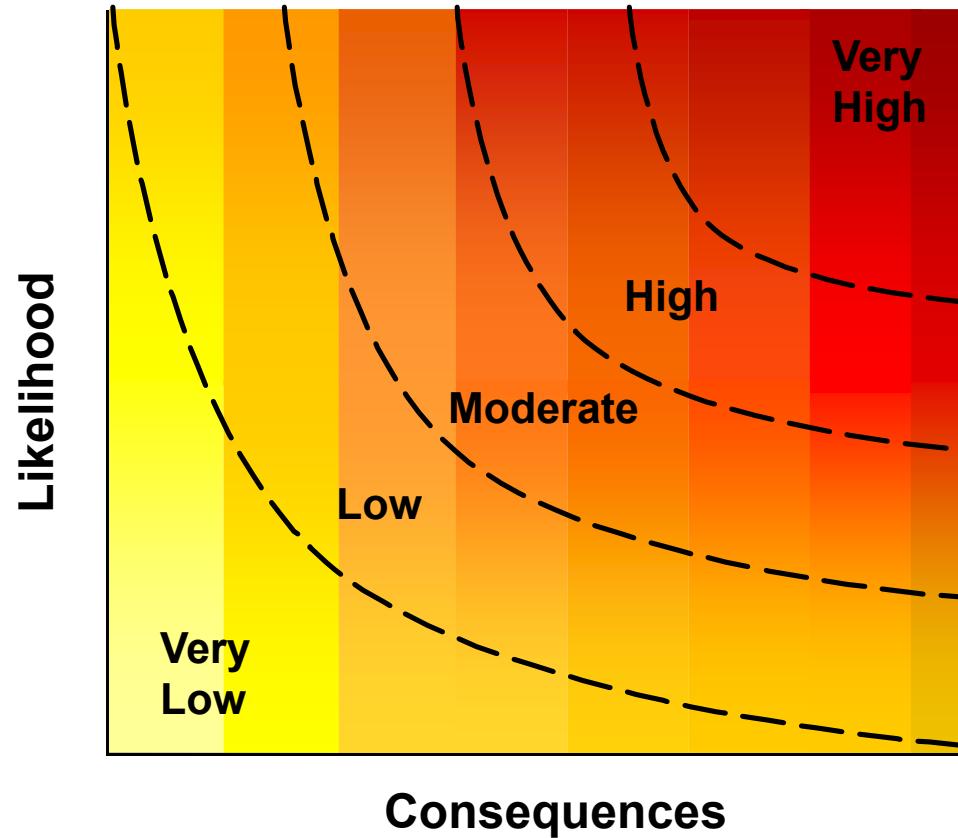
Hazard and/or threat identification

Evaluation of likelihood

Evaluation of consequences



Risk Graph





Benefits of a Robust Risk Assessment

- Facilitate risk assessment process;
repeatable/reproducible
- Facilitate risk mitigation decisions
- Provide quality control documentation



Various Types of Controls to Mitigate Risk

- ☣ Elimination or Substitution
- ☣ Engineering Controls
- ☣ Administrative Controls
- ☣ Practices and Procedures
- ☣ Personal Protective Equipment

Advantages/disadvantages of each?

Which one most reduces biorisks?



- ❖ Knowing your assessment is adequate
- ❖ Knowing your mitigation measures work
- ❖ Knowing your programme is viable and sustainable

Components of performance

- ❖ Control
- ❖ Assurance
- ❖ Improvement



CEN Biorisk Management Standard

⌚ CWA 15793:2008

⌚ Based on a PDCA framework (plan, do, check, act)





Continuous PDCA at every step of AMP

✿ Assessment → PDCA

✿ Mitigation → PDCA

✿ Performance → PDCA



Biorisk Management = Assessment, Mitigation, Performance



Risk identification
Hazard/threat identification
Likelihood evaluation
Consequences evaluation



Elimination or Substitution
Engineering Controls
Administrative Control
Practices and Procedures
Personal Protective Equipment



Control
Assurance
Improvement

