Introducing an Analytical Approach to Strengthen Global Capacity for Pathogen Biosafety and Biosecurity

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Biosafety and Biosecurity Analytical Approach

• In 2014, as part of the Global Health Security Agenda (GHSA), Canada made a commitment to help build capacity in the area of national program development for pathogen biosafety and biosecurity as related to the implementation of the International Health Regulations (2005).

• Canada is a co-lead for the Action Package Prevent 3 - Biosafety and Biosecurity (APP3) to help build biosafety and biosecurity capacity in the area of national program regulatory development.

• With financial support from Global Affairs Canada’s Weapons Threat Reduction Program, the Public Health Agency of Canada was able to develop and pilot the Analytical Approach.
The Analytical Approach

INTRODUCTION AND CONTEXT
Explains the context for the Analytical Approach and helps with how it might be used.

STAKEHOLDER ENGAGEMENT
How you consult with those who will be impacted by your framework to increase the changes that what you develop will be realistic, practical, and accepted.

INTERNATIONAL COMPARISON
How to identify frameworks already in place that may work in your country/region (e.g., for ideas and to assess draft framework).

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| 1 | IDENTIFY THE CURRENT SITUATION  
How to develop a picture of where, how, and who are using pathogens in a target country or region, and what controls exist. |
| 2 | ISSUE IDENTIFICATION, RISK ASSESSMENT AND PRIORITIZATION  
Analysis of the situation and regulations in place—what works well, what does not work, who contributes to the issues, and where action needs to be taken. |
| 3 | SCOPE AND OBJECTIVES FOR NEW OVERSIGHT INSTRUMENTS  
How to make choices on what risks to address, how much impact the national biosafety and biosecurity system will have, and by when. |
| 4 | POLICY INSTRUMENTS  
An exploration of policy instruments, their pros, and cons. |
| 5 | COMBINE POLICY INSTRUMENTS INTO NATIONAL SYSTEM OPTIONS  
How to combine policy instruments into coherent national oversight system options. |
| 6 | IMPLEMENTATION APPROACH  
Consider how your framework might be set up in your country/region and the role that senior decision-makers have in this process. |
| 7 | PERFORMANCE MEASUREMENT AND EVALUATION  
How you can assess the impact of your final framework. |
The tool is currently being adapted into an online course that will be available in English and French, Summer 2019.
Refining the Analytical Approach

• The 1\textsuperscript{st} Edition of the Analytical Approach was completed in January 2017 and piloted in volunteer countries over the next year to gather feedback and improve the methodology.

• Workshops were conducted with the governments of Mali (March 2017), Trinidad & Tobago (July 2017), Laos (November 2017), and Sierra Leone (February 2018).

• The 2\textsuperscript{nd} edition of the Approach incorporates feedback from the pilot workshops, external consultations, and internal feedback.
  – Clarity of language
  – Practical real life examples
  – Underscore the importance in considering security and health together
Benefits of the Analytical Approach

- Identifying the most urgent needs within their biosafety and biosecurity systems.
- Encouraging the development of solutions to address local biosafety and biosecurity issues that are practical and sustainable.
- Prioritizing opportunities for enhanced preparedness, response and action.
- Enhancing and strengthening capacity for countries who wishes to increase their World Health Organization (WHO) Joint External Evaluations (JEE) scores for Indicators 6.1 and 6.2, pertaining to national biosafety and biosecurity systems.
- Addressing requirements for countries working to achieve compliance with biosafety and biosecurity requirements under the Biological Weapons Convention (BWC) or the United Nations Security Council Resolution (UNSCR) 1540.
The International Experts Group of Biosafety and Biosecurity Regulators (IEGBBR)

• Formed in 2007, IEGBBR is a group of biosafety and biosecurity regulatory officials from 11 countries:

![Flags of 11 countries]

• Coordinates and leads concurrent projects related to the international alignment, strengthening, and advancement of biosafety and biosecurity regulatory oversight mechanisms.

• IEGBBR contributions provide input, expertise, and lessons learned from countries with established regulatory regimes, that are shared with the global community, resulting in the strengthening of international biosafety and biosecurity.

• Development of a Compendium of International Biosafety and Biosecurity Oversight Systems; a detailed descriptions of the national biosafety and biosecurity oversight approaches among the 11 IEGBBR member countries.

• This reference tool will be available as a mobile application.
Biosafety Resource Package for Teachers

• With the increased accessibility to life sciences research, many students are experimenting with microbiology-based projects at a younger age.

• As part of the Public Health Agency of Canada’s commitment to developing a culture of biosafety, we are encouraging primary and secondary school teachers to introduce biosafety in the classrooms to ensure teachers and students work with microorganisms safely.

• We have developed a biosafety resource package for distribution to teachers that will serve as an incentive to easily incorporate biosafety in their classrooms through lesson plans designed to fit specific grade levels.
E-learning Portal on Laboratory Biosafety and Biosecurity

- The Agency’s e-learning portal offers free online biosafety learning resources and is continuously updated
- 28 courses on different biosafety topics
  - Introduction to Biosafety
  - Introducing Biosecurity
  - And many more!
- 3 instructional videos
  - Biosafety 101
  - Containment Level 2 Laboratories
  - Containment Level 3 Laboratories
- 5 downloadable posters
- 1 interactive game on biocontainment
- Coming soon!
  - Analytical Approach
  - Insider and Outsider Threat

www.publichealth.gc.ca/training
Thank you!

Need more information?

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