

Key Takeaways from “Anticipating Biological Risk: A Toolkit for Strategic Biosecurity Policy”

This report describes the steps that result in harmful outcomes and corresponding safeguards for biological risks from pathogens and toxins, regardless of whether or not they are enhanced or enabled by artificial intelligence (AI). It presents a range of governance tools and mitigation measures to counter biological threats, including those from malicious actors who intentionally cause harm and those from unintentional laboratory accidents during legitimate scientific research.

Gaps and Opportunities

- Some safeguards apply to both intentional misuse and legitimate scientific research, while others are specific to one scenario.
- Research oversight mechanisms are more robust for federally funded research than for non-federally funded research.
- Biosafety, biosecurity, and biodefense responsibilities span government missions, departments, and agencies, and require increased coordination.
- Effective oversight would benefit from a biological risk framework that clearly and specifically defines concerning outcomes.

Takeaways and Future Considerations

The options presented throughout this report are part of a comprehensive toolkit to mitigate biological harm from a variety of sources, including the AI-relevant concerns that are the focus of considerable current attention. Considerations as the United States strengthens its defense against new and emerging threats include:

- Layering safeguards across multiple steps can more effectively address a variety of both AI-enhanced and AI-agnostic threats.
- Risk reduction strategies are useful tools that should not be discounted solely because they do not totally remove all potential risks.
- Safety measures may hinder legitimate research, and such tradeoffs should be carefully considered.
- Future researchers and stakeholders should think more broadly about many types of potential biological harms, beyond human pathogens and toxins.

For more information:

- Download the report: <https://cset.georgetown.edu/publication/anticipating-biological-risk-a-toolkit-for-strategic-biosecurity-policy/>
- Contact us: cset@georgetown.edu