

US APP3 SECRETARIAT: BIOSAFETY AND BIOSECURITY MESSAGING

INTRODUCTION:

- Diseases know no boundaries and with globalization, they can spread quicker than ever before. Disease outbreaks can devastate the health of populations, overwhelm economies, destabilize political environments, and threaten national security.
- Disease outbreaks are usually natural occurrences; however we still have to prepare for the less likely, but potentially devastating, scenarios when the outbreak is caused by an accidental release of dangerous pathogens or an intentional dissemination of lethal agents.
- It is important to ensure that especially dangerous pathogens are safe from accidental release or from misuse by those intending to cause harm.

APP3 BIOSAFETY AND BIOSECURITY IN THE CONTEXT OF OTHER GHSA ACTION PACKAGES	
<ul style="list-style-type: none"> • Action Package Prevent 3 (APP3) “Biosafety and Biosecurity” is a cross-cutting target of the GHSA. Ten other action packages intersect with the priorities of APP3. 	
<ul style="list-style-type: none"> • Biosafety and biosecurity are fundamental to human health, animal health, and environmental health. It is critical to employ biosafety and biosecurity in hospital and in healthcare settings; food and agriculture; research and development; drug and pharmaceutical; and even trade and transport industries. Consequently, the two are indispensable to Global Health Security. 	
<ul style="list-style-type: none"> • Biosafety and biosecurity are not only cross-cutting across the GHSA action packages, but also cross-sectoral and impact the building blocks of functioning societies. 	
Action Package Specific Points	
AP1.	A pathogen’s Antimicrobial Resistance (AMR) profile dictates the effectiveness of antibiotic interventions against hazardous exposures to the pathogen and thus factors into the biosafety measures that should be taken to safely handle the pathogen.
AP2.	Control of zoonotic disease relies on biosafety and biosecurity culture within communities.
AP4.	The success of immunization campaigns in animal and human populations relies on biosafety, biosecurity and quality control procedures at the time of vaccine production, and during the secure distribution and safe delivery.
AP5.	National laboratory systems promote biosafety and biosecurity by encouraging the safe and secure practice of biological research and operations. This includes adopting culture-free methods for disease diagnosis, reducing the risks involved in sample transport across a laboratory network, and consolidating and securing collections of especially dangerous pathogens.
AP6.	Biosafety and biosecurity in the field is intrinsic to active syndromic and event-based epidemiological surveillance programs.
AP7.	Timely and accurate disease sampling, diagnosis and reporting require proper biosafety and biosecurity measures to prevent hospital- and laboratory-acquired infections or potential loss or misuse of infectious material.
AP8.	Workforce development of first responders, human and animal healthcare providers, and scientists and technicians is incomplete without strong training in biosafety and biosecurity concepts and practices.
AP9.	Emergency Operations Centers and Rapid Response Teams cannot safely and effectively mitigate disease dissemination without observing biosafety and biosecurity procedures during emergency management.
AP10.	Biosafety and biosecurity protect joint criminal and epidemiological investigators in the event of suspected biological incidents of deliberate origin.
AP11.	Personnel deployment in and out of countries experiencing health emergencies requires strong biosafety and biosecurity knowledge and expertise to mitigate risk and disease propagation by global travel.

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APP3 CAN CONTRIBUTE TO BIOSAFETY & BIOSECURITY INITIATIVES IN GHSA MEMBER COUNTRIES
<ul style="list-style-type: none"> • The global understanding of biosafety and biosecurity will be standardized through the adoption of APP3 objectives. APP3 can clarify the distinctions between biosafety, biosecurity, and biocontainment.
<ul style="list-style-type: none"> • A whole-of-government approach to national biosafety and biosecurity frameworks is a key step towards this standardization.
<ul style="list-style-type: none"> • Biosafety and biosecurity needs differ across countries. The GHSA, through the APP3, can help countries customize and prioritize approaches to biosafety and biosecurity integration into public and animal health enterprises.
<ul style="list-style-type: none"> • Biosafety and biosecurity often require monetary investments, APP3 adoption can focus these investments to be sustainable with long-term returns.
<ul style="list-style-type: none"> • Multisector coordination is needed to ensure that implementation of biosecurity and biosafety measures is scaled to the needs of a country and not duplicated across sectors to support sustainable approaches.
<ul style="list-style-type: none"> • APP3 can provide a framework for compliance with international standards for laboratory accreditation (e.g., ISO 35001); international treaties for multilateral confidence building and collaboration (e.g., Biological Weapons Convention), international trade agreements (e.g., SPS Agreement), and international transportation regulations (e.g., IATA DGR).
<ul style="list-style-type: none"> • Implementation of a comprehensive, sustainable, and legally-embedded national program for biosafety and biosecurity is APP3's ultimate goal.
THE IMPORTANCE OF BIOSAFETY & BIOSECURITY
<ul style="list-style-type: none"> • Biosafety and biosecurity have related but distinct objectives. Biosafety aims to prevent accidental exposure of individuals and the environment to potentially hazardous biological agents, while biosecurity aims to prevent unauthorized access, loss, theft, or deliberate release, or misuse of hazardous biological agents, and associated research-related information.
<ul style="list-style-type: none"> • Biosafety is protecting people (and the surrounding community and environment) from accidents associated with dangerous pathogens and biosecurity is the protection of pathogens from dangerous people intending to cause harm.
<ul style="list-style-type: none"> • Biosafety and biosecurity share common components. Both are based upon biorisk assessment and biorisk management methodology; personnel responsibility; material and information control and accountability; access control elements; material transfer protocols; training and expertise; and emergency planning.
BIOSAFETY & BIOSECURITY IN THE CONTEXT OF SCIENTIFIC PROGRESS
<ul style="list-style-type: none"> • Biosafety and biosecurity are intrinsic to biotechnological advancement and the dialogue on dual-use technologies and responsible conduct of research.
<ul style="list-style-type: none"> • National government and institutional oversight helps ensure that the dialogue on biosafety and biosecurity is taking place continuously, in the relevant fora and in line with scientific advancements.
<ul style="list-style-type: none"> • The global increase in the numbers of high containment laboratories presents a growing biosafety and biosecurity challenge; without robust biosafety and biosecurity practices and procedures these labs may generate serious nonproliferation concerns.
<ul style="list-style-type: none"> • Laboratory staff that have access to pathogens of concern can prevent accidental or intentional release through appropriate training in handling pathogens and a shared culture of responsibility.
<ul style="list-style-type: none"> • By enhancing a nation's ability to prevent and respond to health emergencies, biosafety and biosecurity practices help counter natural and manmade biological threats to domestic and global health security and safety while fostering scientific progress.
<ul style="list-style-type: none"> • An example of this ability to counter biological threats is rapid and culture-free diagnostics. The replacement of conventional culture-based techniques with increasingly sophisticated DNA-based techniques has significantly improved safety and security of disease diagnostics.