APP3 Statement on Biosecurity and Biosafety During the COVID-19 Pandemic

Issued by Members of the Global Health Security Agenda Action Package Prevent-3 on Biosafety and Biosecurity

The Global Health Security Agenda Action Package Prevent-3 (APP3) on Biosafety and Biosecurity recognizes that strong, whole-of-government biosafety and biosecurity systems enable countries to protect populations and counter biological threats, regardless of origin – natural, accidental, or intentional - while also fostering scientific progress and improving health security through international collaboration.

On March 11, 2020 the World Health Organization (WHO) declared the outbreak of the novel coronavirus disease (COVID-19) caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) a global pandemic. As of June 24th, more than 9 million cases have been confirmed across 215 countries and territories with most national authorities relying on stringent lockdown measures as part of their response so as not to overwhelm fragile healthcare systems. SARS-CoV-2 diagnostics and research activities have rapidly increased worldwide thereby repurposing laboratories that were previously not adequately equipped for working with high risk pathogens to meet the demands.

The APP3 maintains that upholding robust biosafety and biosecurity systems and practices remains a critical priority for the global community, especially in responding to the COVID-19 pandemic. Safety and security should be key considerations as countries rapidly bolster their laboratory and disease surveillance surge capacities to combat COVID-19. In the absence of sufficient biosafety and biosecurity, there remains an increased risk of accidental or deliberate infections and releases of SARS-CoV-2. These capacity limitations, either due to preexisting gaps or a lapse occurring due to the mounting pressure on the system, are detrimental to safety, security, and operational efficiency. This increased risk, along with the potential for deliberate misuse of SARS-CoV-2, other dangerous pathogens, advanced technologies, and information could complicate the response efforts during the current crisis and negatively impact preparedness activities against future public and animal health emergencies. Moreover, as the scientific community accelerates vital SARS-CoV-2 research, this is also the time to enhance safety and security strategies, using a One Health[1] approach, to prevent inadvertent and deliberate harmful outcomes— both now and into the future.

The Global Health Security Index, released in 2019 before the COVID-19 pandemic emerged, found that 66% of countries lacked adequate policies for biosafety, 81% of countries lacked adequate policies for biosecurity, and only 1% of countries had appropriate oversight for potential dual-use life science research with especially dangerous pathogens. Because the global community entered this crisis with significant vulnerabilities, the health security community must be especially vigilant about safety and security challenges related not only to SARS-CoV-2, but also other dangerous pathogens, including the zoonotic ones.

The APP3 commends the work of international bodies such as the WHO for providing timely, risk-based SARS-CoV-2 biosafety guidance, which is adaptable to a variety of settings including those with limited resources and little access to advanced equipment. The APP3 also commends the biosafety and biosecurity guidance issued by World Organisation for Animal Health (OIE) in support of the public health response to COVID-19. The APP3 members

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[1] 'One Health is defined as a collaborative, multisectoral, and transdisciplinary approach—working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment' – *One Health Commission, 2020,* https://www.onehealthcommission.org/en/why_one_health/what_is_one_health/. *Accessed June 9, 2020.*

encourage laboratories or other facilities working with SARS-CoV-2 to implement this guidance, to the extent practicable, and call on leadership to make available the resources to protect workers, the environment, and the general population from accidental or deliberate releases of SARS-CoV-2.

While existing COVID-19 biosafety guidance incorporates some aspects of biosecurity such as adherence to packaging and shipment best practices, biosecurity practices are not fully addressed. To address this insufficiency and other biosecurity and biosafety vulnerabilities as the global community responds to the COVID-19 pandemic, the APP3 recognizes the paramount importance of the following in both responding to the current threat and preparing for future health emergencies, and thus seeks to:

1. Support any multisectoral initiatives of WHO, OIE, and FAO and other institutions whereby system-wide biosecurity guidance may be developed, including during the COVID-19 pandemic. The APP3 will support WHO, OIE and FAO in efforts to explore biosecurity guidance and training that includes specific biosecurity awareness and prevention measures, personnel reliability, transport security, information security, accountability for materials, notification mechanisms and emergency response plans, management, and physical security that may apply to SARS-CoV-2, as well as future biological emergencies. Guidance should also include recommendations on appropriate sample destruction to avoid "orphaned" samples spread across multiple potentially unsafe and unsecure facilities and locations. The APP3 also offers any appropriate aid to these international bodies as they engage with appropriate security and defense stakeholders as well as international professional associations in the development process.

2. Encourage countries and regional organizations to develop standardized screening guidance that would detail how, where, and under what conditions pathogens (or component parts thereof) can be safely and securely synthesized to support accelerated research on medical countermeasures and detection tools for COVID-19 and other global public health emergencies. The APP3 also encourages progress toward a cost-effective, transparent, and sustainable global screening mechanism to prevent illicit practices and misuse.

3. Support national, regional, and global efforts to protect against potential information hazards in scientific publications that could enable the misuse of information. These efforts could be conducted through partnerships between governments and other stakeholders, such as national academies, research funders, academic institutions, and publishers of scientific journals to decrease the risk of misuse while still ensuring timely information is shared with the international community.

The Action Package Prevent-3 (APP3) Biosafety & Biosecurity is a collection of experts and leaders from countries and nongovernmental organizations that seek to advance global biosafety and biosecurity capacity under the auspices of the Global Health Security Agenda (GHSA), in support of various international instruments including the International Health Regulations, the Biological Weapons Convention, and United Nations Security Council Resolution 1540. The APP3 will continue to facilitate effective integration of multisectoral and multi-stakeholder work in achieving sustainable and measurable results toward common targets for biosafety and biosecurity both during the current COVID-19 pandemic and into the future.

The GHSA serves as a catalyst for attaining a world safe and secure from global infectious disease threats and seeks to elevate global health security as a national and international leader-level priority. The GHSA is a collaborative multi-sectoral initiative, bringing together nearly 70 countries representing nearly six billion people, regional and international organizations, and non-governmental and private sector partners to build and strengthen health security capacity. The GHSA seeks to: Prevent and reduce the likelihood of outbreaks – natural, accidental, or intentional; Detect threats early to save lives; Respond rapidly and effectively using multi-sectoral international coordination and communication.