Global Health Security Agenda
Action Package Prevent 3 (APP3) - Biosafety & Biosecurity

Community Corner

Issue No. 8 (July 2021)

The Action Package Prevent-3 (APP3) on Biosafety & Biosecurity is a community of experts and leaders from countries and non-governmental 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 and agreements including the International Health Regulations, the Biological Weapons Convention, and United Nations Security Council Resolution 1540.

➢ For more information about APP3 and to explore additional resources, messages, and information, see the APP3 webpage. Also, check out the APP3 Statement on Biosecurity and Biosafety during the COVID-19 Pandemic.

➢ Missed last month’s meeting? Check out the June 2021 meeting recording

➢ For information on joining APP3, email the Chair at GHSA.APP3@gmail.com

➢ GHSA Newsletter: https://ghsagenda.org/category/ghsa-newsletters/

KEY RESOURCES

Biological Risk Assessment General Considerations for Laboratories

Biosafety and Biosecurity Aspects of SARS-CoV-2

OIE Guidelines for Responsible Veterinary Research

UPCOMING EVENTS

• Monthly APP3 Teleconference; July 29, 2021 at 13.00 GMT. Details to follow by email

• Interested in joining or Chairing APP3 in 2022? Consider filling out an Expression of Interest Form or reaching out to the current APP3 Chair at GHSA.APP3@gmail.com.
“APP3 offers a unique platform for collaboration, engagement, and awareness raising. My personal opinion is that the greatest benefit of APP3 participation is the balance the group keeps on addressing both biosafety and biosecurity, and its holistic approach to these areas including in the context of IHRs, BWC, and UNSCR 1540. There has been much progress made by APP3 this year in engaging and creating synergies with multilateral partners and I hope this will continue in the years to come.”

Dana Perkins, PhD
U.S. Department of Health and Human Services
Dr. Zalini Yunus is the Deputy Director General of the Science and Technology Research Institute for Defence, Ministry of Defence, Malaysia. STRIDE is the lead technical agency for the Biological and Toxin Weapons Convention (BTWC) in Malaysia and Dr. Zalini Yunus also serves as the National Contact Point for the BWC. Dr. Zalini Yunus is a strong advocate of biosecurity and has continuously worked with national stakeholders in strengthening national measures to fulfil Malaysia’s obligations to the BWC. Key areas of focus include capacity building programs in biosecurity and biorisk management, intersectoral coordination in deliberate bio-incident response and joint investigations. She is a founding member of the Malaysian Biosafety and Biosecurity Association which has developed into a successful association. She has served as the Chair of the Technical Committee for Drafting of Malaysia’s BTWC Bill and Regulations; and the Chair of the Policy Development Committee for the National Policy on BTWC Implementation.

Dr. Zalini Yunus noted that recent years has seen a growing trend of women in Malaysia venturing into science, technology, engineering, and mathematics (STEM) fields especially in life sciences. Therefore, she firmly believes that women play a major role in countering biological threats to ensure health security especially in the field of biosecurity.

Dr Zalini Yunus also emphasized the needs to increase leadership roles among women in security decision-making particularly in areas addressing biological weapons non-proliferation, biosecurity, preparedness and response. To this end, Dr. Zalini Yunus asserts that informal and formal role models, mentoring programs and networks in national and international institutions can positively support and encourage leadership roles and active participation of women in the field of biosecurity and biological weapons non-proliferation.

*** To highlight in future issues of GHSA APP3 Community Corner newsletter any initiatives, data, and/or profiles of individuals leading change in this field, send your contributions to Dr. Dana Perkins at dana.perkins@hhs.gov ***
Celebrating 10 years of global freedom from Rinderpest

Dr. Mariana Marrana, Programme Manager, Preparedness and Resilience Department, World Organisation for Animal Health (OIE)

The eradication of Rinderpest was a milestone in the fight against infectious diseases. Ten (10) years ago, history was made when global freedom was declared during the 79th OIE General Session. Although tremendous progress has been done in the post-eradication phase, the threat of Rinderpest re-emergence still looms.

Rinderpest, an infectious viral animal disease, was not just like any animal disease. Its name means “cattle plague” and its impact on the livelihoods and economies of African, Asian and European countries was devastating. Repeated outbreaks caused the death of millions of cattle, buffalo, yak, and wildlife across continents. The burden that Rinderpest caused to pastoralist communities, farmers, and communities relying on cattle for food, work, and transport was immense; its consequences spurred the concerted efforts of international organizations and governments, as well as of farmers, community animal health workers, professional associations, the pharmaceutical industry, research centers, donors, and others to tackle the challenge of Rinderpest control and, further down the road, its eradication.

However destructive it was, Rinderpest was also a catalyst for health and development. It prompted the creation of the world’s first veterinary schools, national and regional veterinary laboratories, and national veterinary services in many countries where they did not exist before. Rinderpest’s spread throughout Europe was the reason for the foundation of the OIE in January 1924. The institutions and initiatives established to control and eradicate Rinderpest laid the foundations for the animal health systems of today and greatly contributed to the fields of animal health and vaccinology.

In the post-eradication era, OIE and FAO are mandated by their respective Members to safeguard global freedom from Rinderpest. The main activities are led by the two organisations under a Joint Advisory Committee and include the destruction of Rinderpest virus containing materials (RVCM), their safe transfer into one of the FAO-OIE designated Rinderpest Holding Facilities (RHF), oversight of the RHF network, assessment of essential research proposals, and awareness raising.

At present, Rinderpest virus no longer spreads among domestic animals and wildlife populations are not a reservoir. The principal threat to maintenance of global freedom comes from the stocks of RVCM held outside RHF around the world. In 2011, stocks of RVCM existed in 44 laboratories in 36 countries; today, they are present in only 7 laboratories in 6 countries, in addition to being safely kept in 7 FAO-OIE designated RHF in 6 countries, where the highest biosafety and biosecurity standards are observed. Although progress made in the last 10 years is remarkable, Rinderpest remains a threat due to the risk of escape or deliberate release of the virus from institutes inadvertently holding RVCM. FAO and OIE emphasise preventive measures for potential re-emergence. Rinderpest vaccine reserves for global use provide a safety net and are a central element of the Global Rinderpest Action Plan.

The work done in the post-eradication era was possible thanks to the generosity of Canada, the European Union, France, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.
**ANNOUNCEMENTS**

**Dual-Use Quickscan**

The Biosecurity Office developed a web-based Dual-Use Quickscan (www.dualusequickscan.com) that can be used periodically by researchers working with microorganisms to assess potential dual-use risks by answering a set of fifteen questions. The questions for the tool were extracted from scientific literature and reports, and categorized into three themes: characteristics of the biological agent, knowledge and technology about the biological agent, and consequences of misuse. All fifteen questions are provided with an explanation and literature examples for better understanding of the question. The questions are formulated in such a manner to stimulate discussion and increase awareness concerning possible dual-use aspects of scientific research. The results of the Quickscan provide the researcher with an indication of possible dual-use potential of the research and can be used as a basis for further discussion with a Biorisk Management Advisor. The Dual-Use Quickscan can be embedded in a broader system of biosecurity and dual-use monitoring and awareness within organizations.

During the development of the Dual-Use Quickscan, the Biosecurity Office was assisted by an expert group consisting of researchers, biological safety officers and safety experts from academia, industry and government. If you need further information or if you have any questions please send an email to biosecurity@rivm.nl or visit the website www.bureaubiosecurity.nl/en.

The Netherlands Biosecurity Office organized a free webinar “Laboratory Research: Biosecurity and Dual-Use implications” on Monday June 21st, 2021. The webinar was specifically for researchers and laboratory staff working with (high-risk) pathogens, either human, animal or plant pathogens. We had an overwhelming audience with over 270 active participants from all over the globe. If you missed the webinar, you can now view the webinar recording.

**Detect 1: Regional Public Health Laboratory Network**

In collaboration with WHO SEARO, the 4th Edition of WHO Laboratory Biosafety Manual was introduced by Professor Stuart D Blacksell, Senior Principal Research Scientist, Centre for Tropical Medicine and Global Health, Nuffield Department of Medicine, University of Oxford, United Kingdom.

The 2-hours technical session (Video Conference Link) was well received by more than 100 participants from countries members of RPHL Network and representatives of the following networks including ASEAN Lab Director Forum (ALDF), Caribbean Public Health Agency (CARPHA), animal health laboratories, GHSA Chair (Thailand), and key development partners.
Merrick’s VP of Life Sciences, Ryan Burnette, has recently published his second book, Applied Biosecurity: Global Health, Biodefense, and Developing Technologies. After significant experience in the applications and implementation of biosecurity, Ryan describes biosecurity as a set of practices and principles to be augmented out of the constrained laboratory environment, and applied to larger efforts, such as international threat reduction and biological incident management. Contributing authors from Merrick’s Biosafety and Biosecurity Team include Samantha Dittrich, Lauren Richardson, Brittany Linkous, and Nick Dunaway. For more information on the book, please visit here.

On July 29, the International Working Group on Strengthening the Culture of Biosafety, Biosecurity, and Responsible Conduct in the Life Sciences will host Ms. Jennifer Lasley, MPH, Sustainable Laboratories Programme Manager in the Preparedness and Resilience Department of the World Organisation for Animal Health (OIE) for a virtual presentation on “The Global Laboratory Leadership Programme (GLLP) and its contributions to strengthening the culture of biosafety and biosecurity”. If you are interested in attending this presentation and/or joining this group, contact Dr. Dana Perkins at dana.perkins@hhs.gov.

The discussion on June 30th, 2021 addressed recent initiatives to improve women’s meaningful participation in the BWC, as well as research on sex-specific and gendered impacts of biological weapons. Panelists took stock of how gender perspectives are already being incorporated into BWC discussions and, in view of the forthcoming Ninth BWC Review Conference, how they can be further promoted and strengthened in future BWC work programmes. The event will also mark the launch of a new factsheet by the Disarmament Impact Group on “Gender and Biological Weapons”. Watch the recording of the event here.
Global Emerging Pathogens Treatment Consortium: 7th Conference on One Health & Biosecurity – 27-29 October, 2021

Call for Abstracts by 30 July 2021 through this submission link: https://getjournal.org/conference-2021-abstract-submission/

The Global Emerging Pathogens Treatment Consortium (GET) was established in 2014 as a direct response to the 2014-16 Ebola virus disease outbreak in West Africa and ongoing outbreaks of Lassa Fever, Meningitis, Multidrug resistance (MDR) enteric fevers and Yellow Fever across the sub region. There was clearly a need to create an African-led multidisciplinary forum of experts capable of working together with international partners to strengthen Africa’s preparedness and resilience in tackling such infectious disease outbreaks caused by emerging pathogens, public health emergencies and pandemics.

Global Partnership Against the Spread of Weapons and Materials of Mass Destruction: Newsletter

Newsletter #4: June Issue

A Message from the United Kingdom – 2021 Global Partnership President

As the UK’s G7 presidency of the Global Partnership enters the second half of 2021, this newsletter provides an update on the UK’s activities to date and a flavour of plans for the remainder of what is shaping up to be another busy year. Despite the continuing challenges of COVID-19, such as national/international restrictions and virtual meetings, the GP is continuing to advance important initiatives, all of which underline the GP’s essential role in delivering on WMD counter-proliferation objectives.

London Metropolitan University Releases Cartoons to Engage Life Scientists

"A variety of efforts have been made to find efficient and effective ways of improving biological security awareness and education amongst life scientists in different countries, so innovative methods are always needed. Taking advantage of scientists’ familiarity with illustrative material – graphs, flow charts, and even graphical abstracts of papers in key journals - these cartoons were produced (with a little humour) in order to provide a means by which life scientists themselves could become better engaged with helping to improving biological security.” Read more at: https://www.londonmet.ac.uk/news/spotlight/heightened-risk-of-disease-as-a-means-of-terrorism-say-international-security-experts/
VIRTUAL EVENTS

**BWC Meeting of Experts International Webinars**

BWC Meetings of Experts together with the ISU are organizing a second series of webinars following the first series in October/November 2020. The following webinars have taken place so far (click the links for more information):

- **International webinar on “Cooperation and Assistance, with a Particular Focus on Strengthening Cooperation and Assistance under Article X” (MX1)** on 22 June 2021. The event was moderated by Mr. Kimmo Laukkanen of Finland, MX1 Chairperson, and discussions included cross-regional cooperation and assistance initiatives, capacity-building initiatives in Africa, and global youth biosecurity networks.
- **International Webinar on “Review of Developments in the Field of Science and Technology Related to the Convention” (MX2)** on 29 June 2021. The event was moderated by Mr. Kazuhiro Nakai of Japan, MX2 Chairperson, and discussions included codes of conduct for scientists, as well as different proposals related to science and technology review mechanism.
- **International webinar on “Strengthening National Implementation” (MX3)** on 7 May 2021. The event was moderated by Mr. Arman Baissuanov of Kazakhstan, MX3 Chairperson, and discussions included proposals related to the Confidence-Building Measures (CBMs), as well as the role of National Contact Points for the BWC (NCPs) and a proposal for regulating.

**CARPHA Biosafety/Biosecurity Webinar Series on the WHO 4th Edition Laboratory Biosafety Manual**

CARPHA in collaboration with the US CDC WHO Collaborating Center for Biosafety and Biosecurity successfully launched a new webinar series on the New WHO Laboratory Biosafety Manual 4th Edition (LBM4) on June 10th 2021 with more than 300 participants from 45 countries including 19 of the 26 CARPHA Member States. Dr. Joy St. John, Executive Director, CARPHA in her opening remarks noted that “the series forms part of the capacity building component of CARPHA’s Laboratory Biosafety and Biosecurity Programme which aims to “expand the regional cadre of biorisk management experts” and promote the use of “sustainable biological risk management practices using common educational materials”, to improve local capacities in this critical aspect for sustainable, resilient national health systems”. Dr. Kaz Kojima, WHO HQ and Dr. Jean-Marc Gabastou, PAHO Advisor for Laboratory Systems and Networks, also congratulated CARPHA on the initiative to help the regional and global communities of laboratory and biosafety/biosecurity professionals implement the guidance document which uses the risk-based approach in their local setting. The sessions will be delivered by a team of international subject matter experts who collaborated on the development of the WHO LBM4.

**Session #2: Risk Assessment** on June 29, 2021 reached more than 237 participants from 42 countries including 13 CARPHA Member States explored the core principles, methodology and scenarios associated with local risk assessments. Dr. Christina Scheel, US CDC led the session, supported by Dr. Catherine Makison-Booth and Dr. Rica Zinsky from the World Health Organization, through an interactive discussion with participants about implementing risk assessments in their facilities under varying local conditions. Stay tuned for more information on **Session 3: Laboratory Design and Maintenance; BSCs and other Primary Containment Devices**. Click here to view the presentations and recordings of previous sessions.