

# Reinforcing GHSA Objectives, GSSHealth Facilitates Joint MOH-MOD Laboratory Biosafety and Biosecurity Workshop in Togo



Figure 1. Photos from the July 2017 BS&S training in Togo.

From July 31 to August 4, 2017 in Lomé, Togo, **GSSHealth** facilitated a laboratory biosafety and biosecurity (BS&S) training that was co-sponsored by the US Centers for Disease Control and Prevention (CDC) and US Department of Defense HIV/AIDS Prevention Program (DHAPP) with support from the Togolese Ministry of Health (MOH) and Ministry of Defense (MOD). The training, implemented in the context of the Global Health Security Agenda (GHSA), gathered 24 MOH and MOD workshop participants to participate in a competency and capacity-building workshop geared to prepare participants to implement BS&S programs in their laboratory facilities. **GSSHealth** is an implementing partner of programs for both CDC GHSA and DHAPP in Togo.

Laboratory biosafety (the prevention and mitigation of the unintentional release or exposure to biological agents) and biosecurity (the prevention and mitigation of the intentional misuse or release of biological agents) practices are critical to ensuring the safety of laboratory personnel, community members, and the environment. By learning to minimize contamination risks and prevent the accidental or deliberate release of protected biological materials, laboratory professionals are able to protect public health and security, in addition to improving quality and safety in their own facilities.

During the MOH-MOD BS&S training, which an extension of collaborative BS&S efforts initiated in 2016 by the CDC in Togo, **GSSHealth** facilitators and training participants engaged in hands-on, demonstrative and didactic sessions on biorisk assessment and reduction (See Figure 2), decontamination procedures, hand-washing, personal protective equipment (PPE), sample management and transport, and biosecurity.

## Why are Biosafety and Biosecurity Important to GHSA?

“Prevent 3: Biosafety and Biosecurity” is one of 11 Action Packages created by GHSA and entails a five-year target to achieve a whole-of-government BS&S system in participating countries. BS&S training and educational outreach for government-employed laboratory personnel are essential to achieve the GHSA BS&S target and achieve a country-wide culture of responsibility for BS&S in Togo.

Find out more at:

<https://www.ghsagenda.org/packages>



Figure 2. Assessment, mitigation and performance are three key elements of biorisk assessment and reduction.

MOH participants included a newly appointed National Biosafety Coordinator and staff members from 10 institutes. This joint training of MOH and MOH personnel expanded on previous work to broaden and strengthen laboratory BS&S knowledge in Togo.

The BS&S training resulted in the naming of a cadre of nascent BS&S experts that possess the skills, knowledge, and resources necessary to train others in their respective institutions and create laboratory BS&S plans across MOH and MOD facilities. This training developed from the previous establishment of Biosafety Advocates to serve as laboratory safety focal points as they receive successive trainings, eventually qualifying them to be appointed as Biosafety Officers.

The 2017 training showed clear successes in the implementation of the program, including an increase in baseline biosafety knowledge (shown by comparisons of theoretical pre-test and post-test scores) and enhanced practices, documentation and training in the laboratories (See Figure 3). MOH has organized formal training sessions at their own training facility to further disseminate BS&S skills, using training and reference materials the GSSHealth provided to all training participants via USB flash drive (See Figure 4).



Figure 3. Example of good biosafety signage.

## Presentations

- Module 1 – Introduction and Expectations (French)
- Module 2 – Laboratory Hazards and Risks (French)
- Module 3 – Facilities (French)
- Module 4 – BS&S Management (French)
- Module 5 – Good Microbial Techniques and Waste Management (French)
- Module 6 – Personal Protective Equipment (French)
- Module 7 – Emergency Response (French)
- Module 8 – Sample Transportation (French)
- Module 9 – Biosecurity and Biorisk (French)
- Module 10 – Risk Assessment

## References

- BMBL 5th edition.pdf (English)
- WHO Laboratory Biosafety Manual (English)
- WHO Laboratory Biosafety Manual (French)
- WHO Guide to transportation of Infectious Materials (French)

## Tools and Templates (All in French)

- Dilutions of Bleach cheat sheet
- Spill Clean Up template SOP
- Laboratory Ethics Document Examples
- AMP model flow chart
- Laboratory Introduction Training Template
- Laboratory Good Practices Document examples
- WHO recommended laboratory door sign
- Field hand washing guide
- Laboratory hand washing guide
- Removal of gloves guide
- Training record sheet
- WHO SLIPTA assessment checklist
- FAO Laboratory Mapping Tool – Biosafety Assessment module
- Example Log Sheets (All French)
- Laboratory Visitor Log
- Laboratory Equipment Log
- Sample Storage Log
- Temperature log sheet
- Daily cleaning checklist
- Weekly/monthly cleaning checklist

Figure 4. List of resources provided to participants.