

GLOBAL HEALTH SECURITY AGENDA CAMEROON ROADMAP

Overview and Context

The purpose of this document is to develop a roadmap for ongoing and planned Global Health Security Agenda (GHSA) activities in support of the 12 GHSA targets through 2019. The goal is to ensure coordination and partnership across all organizations to ensure that targets are met and sustainable systems and networks are established. The roadmap is organized by specific capacities under the Prevent, Detect, Respond framework, and provides a snapshot of all activities planned to support GHSA implementation in Years One (2015) to Five (2019). This will be a living document that will change over time to reflect shifts in priorities and/or resources. This template is designed as a resource for GHSA planning and should ultimately be adapted as countries articulate how best to meet their needs for GHSA planning and implementation. This document is intended to inform and complement annual country-specific work plans.

Other contextual issues that will be addressed in this roadmap include:

- Relevant country history with GHSA
- Presence and role of donors
- Prior relevant policy and program efforts with World Health Organization (WHO) International Health Regulations (IHRs) and World Organization for animal Health (OIE) World Animal Health Information System (WAHIS) reporting
- International Organizations' presence and programs
- Regional Organizations' presence and programs (e.g. African Union)
- Non-state organizations of relevance (e.g. Institute Pasteur)
- Other key issues and sensitivities

Note

The information contained in this document is meant for planning and discussion purposes between the host-country and other GHSA partners. All activities will be carried out in a manner that is consistent with organizations requirements, budget authorities, and missions of host countries and GHSA partners. All GHSA partner country foreign assistance is subject to availability of funds and appropriations by the governmental processes of GHSA partner countries.

Global Health Security Agenda Overarching Activities

Within the context of Prevent/Detect/Respond, this overarching implementation roadmap should reflect by target the following:

- Cameroon's institutional structures and responsibilities, roles, responsibilities (*under host government activity*)
- U.S. Departments and Agencies providing technical assistance or support (*under US Government Activity*)
- Other donors' programs, support, etc. (*under other activity*)
- Non-state organizations' activities. (*under other activity*)
- Coordination mechanisms

Prevent

Antimicrobial Resistance

GHSa Goal	GHSa Objective	GHSa 5-Year Target		
Prevent Avoidable Epidemics	Preventing the emergence and spread of antimicrobial drug resistant organisms and emerging zoonotic diseases and strengthening international regulatory frameworks governing food safety.	Support work being coordinated by WHO, FAO,OIE to develop an integrated and global package of activities to combat antimicrobial resistance, spanning human, animal, agricultural, food and environmental aspects (i.e. a one-health approach), including: a) each country has its own national comprehensive plan to combat antimicrobial resistance; b) strengthen surveillance and laboratory capacity at the national and international level following agreed international standards developed in the framework of the Global Action plan, considering existing standards and; c) improved conservation of existing treatments and collaboration to support the sustainable development of new antibiotics, alternative treatments, preventive measures and rapid, point-of-care diagnostics, including systems to preserve new antibiotics.		
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals, etc.)
Year 1	<ul style="list-style-type: none"> • Scope capacity for AMR surveillance and testing within existing networks • Encourage the development of an AMR National Policy and Strategy for animal and human health; priority AMR pathogens for humans/animals identified • Infection prevention control (IPC) measures are assessed and action plan developed 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • National Program for Zoonoses • Others (To Be Confirmed (TBC)) 	<ul style="list-style-type: none"> • WHO • FAO/OIE • Others (TBC)
Year 2	<ul style="list-style-type: none"> • Encourage the operationalization of the AMR National Policy and Strategy for animal and human health at selected pilot sites: <ul style="list-style-type: none"> ○ Multi-sectorial plan for AMR 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • National Program for Zoonoses 	<ul style="list-style-type: none"> • WHO • FAO/OIE • Others (TBC)

	<p>surveillance established</p> <ul style="list-style-type: none"> ○ Establish laboratory technical capacity to test and report on at least 3 of the 7 WHO priority AMR pathogens ● Healthcare workers are trained in priority facilities on IPC ● Assessment of national consumption and prescription patterns for antibiotics in humans and livestock completed 		<ul style="list-style-type: none"> ● Others (TBC) 	
Year 3	<ul style="list-style-type: none"> ● Understanding of reporting structures, requirements and needs in order to establish a database to improve lab capacity and quality assurance ● Continuous access to IPC materials through strengthening the supply chain is achieved 	<ul style="list-style-type: none"> ● CDC ● USAID 	<ul style="list-style-type: none"> ● MINSANTE ● MINEPIA ● National Program for Zoonoses ● Others (TBC) 	<ul style="list-style-type: none"> ● WHO ● FAO ● Others (TBC)
Year 4	<ul style="list-style-type: none"> ● National laboratory database for AMR is established ● Standards for safe and appropriate use of antibiotics in livestock husbandry are established ● Disease burden for cholera and other priority diseases is reduced. 	<ul style="list-style-type: none"> ● CDC ● USAID 	<ul style="list-style-type: none"> ● MINSANTE ● MINEPIA ● National Program for Zoonoses ● Others (TBC) 	<ul style="list-style-type: none"> ● WHO ● FAO ● Others (TBC)
Year 5	<ul style="list-style-type: none"> ● Review and evaluation of the AMR National Policy and Strategy conducted ● Evaluate database system for its ability to improve lab capacity and quality assurance 	<ul style="list-style-type: none"> ● CDC ● USAID 	<ul style="list-style-type: none"> ● MINSANTE ● MINEPIA ● National Program for Zoonoses ● Others (TBC) 	<ul style="list-style-type: none"> ● WHO ● FAO ● Others (TBC)

Zoonotic Diseases

GHSA Goal	GHSA Objective	GHSA 5-Year Target		
Prevent Avoidable Epidemics	Preventing the emergence and spread of antimicrobial drug resistant organisms and emerging zoonotic diseases and strengthening international regulatory frameworks governing food safety.	Adopted measured behaviors, policies and/or practices that minimize the spillover of zoonotic diseases from lower animals into human populations.		
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)
Year 1	<ul style="list-style-type: none"> • Prioritized list of top five (5) joint-ministry zoonotic diseases established • The National Program for the Fight Against Emerging and Reemerging Zoonoses (National Program for Zoonoses) is strengthened to prioritize government multi-sectoral coordination needs and to operationalize the One Health National Strategy • Universities in Cameroon supported to join One Health university network to promote OH pre-service training agenda across stakeholder schools (SPH, MS, NS, VS, ES) 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINFOF • MINEPIA • MINEPDED • National Program for Zoonoses • Others (TBC) 	<ul style="list-style-type: none"> • WHO • FAO/OIE • Others (TBC)
Year 2	<ul style="list-style-type: none"> • Established and updated national plan for five (5) priority zoonotic diseases • Initial characterization and 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINFOF • MINEPIA • MINEPDED 	<ul style="list-style-type: none"> • WHO • FAO/OIE • Others (TBC)

	<p>mapping of zoonotic pathogens and risk assessment for likelihood of cross-over events conducted</p> <ul style="list-style-type: none"> • Initiate priority livestock policy reforms • Universities review existing curriculum and training strategies across participating schools to align with OH teaching core competencies 		<ul style="list-style-type: none"> • National Program for Zoonoses • Others (TBC) 	
Year 3	<ul style="list-style-type: none"> • Encourage the development of policy recommendations/specific interventions for human and animal sectors (national to sub-national level) based on mapping exercises/risk assessments (i.e. vaccination, risk communication materials, behavior change, etc.) • High risk human/animal interfaces (i.e. "value chains," land use change, etc.) mapped • Continued support to the National Program for Zoonoses to coordinate cross-sectoral engagement and to advance the One Health National Strategy • Curriculum and training strategies for pre-service across participating schools are aligned with OH teaching core competency needs and integrated into university programs 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINFOF • MINEPIA • MINEPDED • National Program for Zoonoses • Others (TBC) 	<ul style="list-style-type: none"> • WHO • FAO/OIE • Others (TBC)
Year 4	<ul style="list-style-type: none"> • Encourage the adoption of policies and practices (across levels of government) that mitigate cross-over events 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINFOF • MINEPIA • MINEPDED 	<ul style="list-style-type: none"> • WHO • FAO/OIE • Others (TBC)

	<ul style="list-style-type: none"> • Priority zoonotic diseases included in country surveillance system with links to rapid response • Package of One Health risk reduction measures targeting high risk practices and behaviors that enable spillover validated and made ready for implementation 		<ul style="list-style-type: none"> • National Program for Zoonoses • Others (TBC) 	
Year 5	<ul style="list-style-type: none"> • Coordinated and fully functional GCR multi-ministry system for rapid detection and timely response to outbreaks of zoonotic pathogens (including emerging pathogens) in place • Reduction in prevalence of prioritized zoonotic diseases • OH workforce trained in accordance with One Health National Strategy 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINFOF • MINEPIA • MINEPDED • National Program for Zoonoses • Others (TBC) 	<ul style="list-style-type: none"> • WHO • FAO/OIE • Others (TBC)

Biosafety & Biosecurity

GHSA Goal		GHSA Objective		GHSA 5-Year Target	
Prevent Avoidable Epidemics		Promoting national biosafety and biosecurity systems.		A whole-of-government national biosafety and biosecurity system is in place, ensuring that especially dangerous pathogens are identified, held, secured and monitored in a minimal number of facilities according to best practices; biological risk management training and educational outreach are conducted to promote a shared culture of responsibility, reduce dual use risks, mitigate biological proliferation and deliberate use threats, and ensure safe transfer of biological agents; and country-specific biosafety and biosecurity legislation, laboratory licensing, and pathogen control measures are in place as appropriate.	
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> Multi-sectoral Biosafety and Biosecurity (BS&S) technical working group created at the national level with representation at the sub-national level Identification and documentation of dangerous pathogens for animal and human health completed at targeted facilities University OH networks established to promote BS&S pre-service training as part of OH education across stakeholder schools (SPH, MS, VS, ES) 	<ul style="list-style-type: none"> CDC DoD USAID 	<ul style="list-style-type: none"> MINSANTE Others (TBC) MINEPIA 	<ul style="list-style-type: none"> WHO Others (TBC) 	
Year 2	<ul style="list-style-type: none"> Evaluation and monitoring program for the BS&S for priority biological pathogens developed and implemented or enhanced if exists 	<ul style="list-style-type: none"> CDC DoD USAID 	<ul style="list-style-type: none"> MINSANTE MINEPIA Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	

	<ul style="list-style-type: none"> • BS&S infrastructure improvements initiated/completed (i.e. enhanced-Biosafety Cabinets (BSC) certification/physical security/transport security, waste management, etc.) in compliance with WHO and OIE standards • Universities review existing curriculum and training strategies for BS&S across participating schools to align with OH teaching core competencies 			
Year 3	<ul style="list-style-type: none"> • Harmonization of the curriculum for professional training across all services (e.g., laboratory technicians at human and animal labs, physicians, hazardous waste disposal, etc.) in biosafety and biosecurity, and harmonized with WHO and OIE standards. • BSC Certification needs assessment conducted and approach developed • Curriculum and training strategies for pre-service BS&S training across participating schools are aligned with OH teaching core competency needs and integrated into university programs 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 4	<ul style="list-style-type: none"> • Each laboratory has an established point-of-contact for BS&S with established B&S program requirements • Routine mentoring and supervision for BS&S program developed 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 5	<ul style="list-style-type: none"> • System for ensuring that lab meets 	<ul style="list-style-type: none"> • CDC 	<ul style="list-style-type: none"> • MINSANTE 	<ul style="list-style-type: none"> • WHO

	<p>fully functional biosafety conditions and best practices in place, agents are identified, licensed, transported, secured, monitored, and disposed of in a minimum number of facilities with BS&S best practices is in place</p> <ul style="list-style-type: none"> • BS&S system evaluation conducted • Pre-service laboratory workforce trained in accordance with BS&S needs • Lab BS&S capacities in animal labs in accordance with OIE standards and consistent with national needs met 	<ul style="list-style-type: none"> • USAID 	<ul style="list-style-type: none"> • MINEPIA • Others (TBC) 	<ul style="list-style-type: none"> • Others (TBC)
--	---	---	---	--

Immunization

GHSA Goal		GHSA Objective		GHSA 5-Year Target	
Prevent Avoidable Epidemics		Reducing the number and magnitude of infectious disease outbreaks.		A functioning national vaccine delivery system – with nationwide reach, effective distributions, and access for marginalized populations, adequate cold chain, and ongoing quality control – that is able to respond to new disease threats.	
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> • Routine immunization coverage for DPT3 vaccines among children is increased by 2% • Immunization coverage for routine childhood vaccines among refugees increased by 5% • Polio immunization reinforced • Routine immunization coverage for first dose of Measles Containing Vaccine (MCV1) is increased by 5% as compared to previous year baseline (and eventually the introduction of the second dose (MCV2)) • Health officials at the national, regional and district levels are trained on oral cholera vaccines (OCV) 	<ul style="list-style-type: none"> • CDC 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • GAVI • UNICEF • WHO • Others (TBC) 	
Year 2	<ul style="list-style-type: none"> • Impact of rotavirus vaccine evaluated • DPT3 vaccines is increased by 3% among children aged 12, as compared to previous year baseline • Cold chain supply maintenance plan developed 	<ul style="list-style-type: none"> • CDC 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • GAVI • UNICEF • WHO • Others (TBC) 	

Year 3	<ul style="list-style-type: none"> • DPT3 vaccines increased by 5% among children aged 12, as compared to previous year baseline • Routine monitoring of newly introduced vaccine adverse events • Country strategy for vaccine administration for disease of epidemic potential (i.e. pandemic influenza, meningitis, etc.) is developed • OCV are effectively utilized 	<ul style="list-style-type: none"> • CDC 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • GAVI • UNICEF • WHO • Others (TBC)
Year 4	<ul style="list-style-type: none"> • Routine immunization coverage is increased by 8% among children aged 12, as compared to previous year baseline (using the traditional DPT3 coverage indicator) • Vaccine preventable disease (VPD) incidence rate is decreased by 50% as compared to the GHSA identified baseline • VPDs included in disease surveillance platform/activities 	<ul style="list-style-type: none"> • CDC 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • GAVI • UNICEF • WHO • Others (TBC)
Year 5	<ul style="list-style-type: none"> • Routine immunization coverage for vaccines among children meets or exceeds target(80% DPT3 or 95% MCV (or introduction of second dose in routine Immunization)) • Vaccination registry database established • VPD surveillance linked to initiate rapid response targeted vaccination activities 	<ul style="list-style-type: none"> • CDC 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • GAVI • UNICEF • WHO • Others (TBC)

Laboratory Systems

GHSA Goal		GHSA Objective		GHSA 5-Year Target	
Detect Threats Early		Developing and deploying novel diagnostics and strengthen laboratory systems.		Real-time biosurveillance with a national laboratory system and effective modern point-of-care and laboratory-based diagnostics.	
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> • Consultative Lab Technical Working Group (LTWG) established • Instituted quality assurance (QA) measures to the regional level of the laboratory public health system • Existing specimen transport networks, protocols, and diagnostics for cholera and other priority infectious diseases are assessed • National Public Health Laboratory (NPHL) renovation is complete • Animal labs identified for strengthening of diagnostic capacities against agreed upon list of priority zoonotic diseases 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC) 	
Year 2	<ul style="list-style-type: none"> • Standardization of equipment and diagnostic testing protocols to meet Quality Management Systems (QMS) across the lab tiered system is complete • Expansion of the NPHL capacity for coordination, specimen containment, and specimen 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC) 	

	<p>transport networks has been initiated</p> <ul style="list-style-type: none"> Selected and implemented laboratory information management system (LIMS) at NPHL NPHL will have the capacity to identify at least 3 of the 7 WHO priority AMR pathogens (as determined by the GRC) using standardized modern diagnostics Accreditation/certification of NPHL and regional laboratories launched Continued strengthening of diagnostic capacities of animal labs against agreed upon list of priority zoonotic diseases 			
Year 3	<ul style="list-style-type: none"> Expansion of National Public Health Laboratory (NPHL) capacity to cover both human and key animal health disease National Public Health Lab Network supporting a national policy is developed National laboratory system is integrated with IDSR specifically for cholera Two heavily-affected regions are able to screen, transport to regional referral laboratories for cholera confirmation Supply chain management and quality assurance systems introduced in animal labs 	<ul style="list-style-type: none"> CDC USAID 	<ul style="list-style-type: none"> MINSANTE Others (TBC) 	<ul style="list-style-type: none"> WHO FAO/OIE Others (TBC)
Year 4	<ul style="list-style-type: none"> National policies and guidelines for clinical laboratories across the 	<ul style="list-style-type: none"> CDC USAID 	<ul style="list-style-type: none"> MINSANTE Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC)

	<p>NPHL network are enforced</p> <ul style="list-style-type: none"> • Supply chain management and quality assurance systems in place 			
Year 5	<ul style="list-style-type: none"> • Accreditation/certification of NPHL and Regional laboratories has started • Nationwide laboratory network formalized and established • Lab quality management system (QMS) and Quality Assurance towards certification across all levels of the NPHL system and in animal health labs 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)

Surveillance Systems

GHSA Goal		GHSA Objective		GHSA 5-Year Target	
Detect Threats Early		Launching, strengthening and linking global networks for real-time biosurveillance.		Strengthened foundational indicator- and event-based surveillance systems that are able to detect events of significance for public health, animal health and health security; improved communication and collaboration across sectors and between sub-national, national and international levels of authority regarding surveillance of events of public health significance; improved country and regional capacity to analyze and link data from and between strengthened, real-time surveillance systems, including interoperable, interconnected electronic reporting systems. This can include epidemiologic, clinical, laboratory, environmental testing, product safety and quality, and bioinformatics data; and advancement in fulfilling the core capacity requirements for surveillance in accordance with the IHR and the OIE standards.	
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> Capacity of current IDSR/SIMR disease surveillance system assessed Implementation of IDSR/SIMR is established for all priority diseases/syndromes for indicator-based and at least 3 priority disease/syndrome for event-based public health surveillance at national level and 20% of regional health districts Regional Centers for Disease Control and Prevention (CERPLE) capability is strengthened through regular trainings of staff in IDSR methodologies and migration pathways Finalize a national disease plan that addresses steps for detecting, 	<ul style="list-style-type: none"> CDC USAID DoD 	<ul style="list-style-type: none"> MINSANTE MINEPIA Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	

	<p>preventing and responding across GHSA tracks (e.g., a National Cholera Plan that is finalized that addresses several cutting themes GHSA)</p> <ul style="list-style-type: none"> • Capacities and gaps in current animal health surveillance system identified and plan for strengthening agreed upon with national authorities 			
Year 2	<ul style="list-style-type: none"> • Strengthen the on-going implementation of the IDSR/SIMR framework by adding at least one additional disease/syndrome to event-based surveillance at national level and 50% of regional health districts • Epidemiological surveillance and laboratory surveillance systems linked to improve data exchange • Priority communities and geographic areas identified; community event-based surveillance initiated in these communities for at least two priority diseases/syndromes (one of which is cholera) • Public health agreement between Cameroon and neighboring countries for cross border public health information sharing, specimen sharing, and cross border transport. • OH national surveillance strategy is agreed upon by all stakeholders 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)

Year 3	<ul style="list-style-type: none"> Strengthen the on-going implementation of IDSR/SIMR for cholera and at least one additional disease/syndrome for event-based surveillance at national and 100% of regional health districts Enhance IDSR/SIMR indicator and event-based surveillance data quality (timeliness, completeness, accuracy and consistency) Procedures and protocols for cross-border coordination and information sharing established In-service surveillance teams trained and deployed in accordance with OH national strategy 	<ul style="list-style-type: none"> CDC USAID 	<ul style="list-style-type: none"> MINSANTE MINEPIA Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC)
Year 4	<ul style="list-style-type: none"> Evidence of improved electronic surveillance data collection at community level (e.g., decreased time between detection and reporting) In-service surveillance teams trained and deployed in accordance with OH national strategy 	<ul style="list-style-type: none"> CDC USAID 	<ul style="list-style-type: none"> MINSANTE MINEPIA Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC)
Year 5	<ul style="list-style-type: none"> Integrate multi-sectoral surveillance data into one resource accessible by contributing sectors for improved analysis, reporting, dissemination and decision making Categorize pathogens at the animal/human interface 	<ul style="list-style-type: none"> CDC USAID 	<ul style="list-style-type: none"> MINSANTE MINEPIA Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC)

Reporting

GHSA Goal		GHSA Objective	GHSA 5-Year Target		
Detect Threats Early		Strengthening the global norm of rapid, transparent reporting and sample sharing in the event of health emergencies of international concern.	Timely and accurate disease reporting according to WHO, OIE, and FAO requirements.		
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> Assessment of existing capability to report outbreaks including PHEICs (and animal event equivalent) using IHR and OIE reporting guidelines Developed a toolkit of best practices, model procedures, reporting templates, training material, which will include the OIE international standards (notification obligations) Evaluation of reporting requirements at national level conducted 	<ul style="list-style-type: none"> CDC USAID DoD 	<ul style="list-style-type: none"> MINSANTE MINEPIA Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	
Year 2	<ul style="list-style-type: none"> Working group identified to facilitate collaboration between various national data sources that contribute to public health and animal health reporting requirements (i.e. IHR and PVS) Plan of action established for timely and accurate disease reporting based on IHR evaluation report 	<ul style="list-style-type: none"> CDC USAID DoD 	<ul style="list-style-type: none"> MINSANTE MINEPIA Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	
Year 3	<ul style="list-style-type: none"> Protocols that strengthen two-way reporting of diagnostic results in wildlife, livestock, and people 	<ul style="list-style-type: none"> CDC USAID DoD 	<ul style="list-style-type: none"> MINSANTE MINEPIA Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	

	<p>developed</p> <ul style="list-style-type: none"> • Routine sharing of biological and behavioral surveillance data with in-country stakeholders across all sectors ongoing 			
Year 4	<ul style="list-style-type: none"> • Reporting protocols updated/ revised based on current best practices, IHR, and OIE to improve data quality (timeliness, completeness, accuracy) 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 5	<ul style="list-style-type: none"> • Reporting protocols updated/ revised based on current best practices, IHR, and OIE to improve data quality (timeliness, completeness, accuracy) • Exercise conducted to assess reporting capability in real-time environment 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)

Workforce Development

GHSA Goal		GHSA Objective		GHSA 5-Year Target	
Detect Threats Early		Training and deploying an effective biosurveillance workforce.		A workforce including physicians, veterinarians, biostatisticians, laboratory scientists, and at least 1 trained field epidemiologist per 200,000 population, who can systematically cooperate to meet relevant IHR and Performance of Veterinary Services (PVS) core competencies.	
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g. NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> • First and second cohort of FETP Advanced identified and enrolled in training • Nine regional rapid intervention teams are trained in emergency preparedness • Assessment of the existing human resource tracking system is completed • The creation of a regional ethical committee • Shared vision among national leadership and key stakeholders for One Health workforce needs for early detection of possible zoonotic disease threats 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • MINFOF • MINEPDEP • National Program for Zoonoses • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC) 	
Year 2	<ul style="list-style-type: none"> • First cohort of FETP basic identified and enrolled in training • A technical working group with representation from across sectors is established to discuss workforce needs and/or how to bridge gaps • Develop and pilot training tools and resources and implement training for environmental health 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • MINFOF • MINEPDEP • National Program for Zoonoses • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC) 	

	<ul style="list-style-type: none"> • Core-competencies and Composition of a one health workforce to prevent, detect, and respond to threats identified and agreed upon • Universities review existing pre-service education strategies across participating schools to align with OH core competencies • Cadres of animal and human health professionals provided in-service training in requisite one health skills 			
Year 3	<ul style="list-style-type: none"> • Leadership/management transition of the FETP program to MINSANTE is initiated • Environmental training program is adopted • Encourage the harmonization of national policies and regulations for One health workforce Core-competencies and Composition 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • MINFOF • MINEPDEP • National Program for Zoonoses • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 4	<ul style="list-style-type: none"> • FETP Basic trainings conducted at regular interval • FETP Advanced trainings are conducted at regular intervals • Curriculum and training strategies for pre-service across participating schools are aligned with OH teaching core competency needs and integrated into university programs • Animal and human health professionals provided in-service training in requisite one health skills 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • MINFOF • MINEPDEP • National Program for Zoonoses • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)

Year 5	<ul style="list-style-type: none"> • FETP basic and advance students (both current and graduates) fully integrated into disease response activities • 300 epidemiologist trained in FETP Basic • 54 epidemiologist enrolled or graduated in FETP Advanced • Rollout of OH Education across participating schools ongoing • Animal and human health professionals provided in-service training in requisite one health skills 	<ul style="list-style-type: none"> • CDC • USAID • DOD 	<ul style="list-style-type: none"> • MINSANTE • MINEPIA • MINFOF • MINEPDEP • National Program for Zoonoses • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
--------	---	---	--	---

Respond

Emergency Management

GHSA Goal		GHSA Objective		GHSA 5-Year Target	
Respond Rapidly and Effectively		Developing an interconnected global network of EOCs and multi-sectoral response to biological incidents.		Every country will have a public health Emergency Operations Center (EOC) functioning according to minimum common standards; maintaining trained, functioning, multi-sectoral rapid response teams (RRTs) and “real-time” biosurveillance laboratory networks and information systems; and trained EOC staff capable of activating a coordinated emergency response within 120 minutes of the identification of a public health emergency.	
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> Public health emergency management authority to the MINSANTE Emergency Operations Center (EOC) policy established MINSANTE EOC design completed Multi-sectoral Risk communications strategy for public health emergency events developed Enrollment into Public Health Emergency Management Fellowship program Initial assessment of rapid response capability conducted for cholera and other priority diseases Public health threat and hazard identification and risk assessment (THIRA) An outline of the operational plans for the MINSANTE EOC is developed National capacity for disaster preparedness strengthened 	<ul style="list-style-type: none"> CDC DoD USAID 	<ul style="list-style-type: none"> MINSANTE Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	

	<ul style="list-style-type: none"> • One Health preparedness framework for a multi-sectoral rapid response capabilities in EOCs developed 			
Year 2	<ul style="list-style-type: none"> • Encourage the development of Policies, Plans, protocols and SOPs • Construction and equipping of MINSANTE EOC is completed • The operational plans for the MINSANTE EOC is completed • One Health preparedness framework for a multi-sectoral rapid response to reports of disease outbreaks implemented 	<ul style="list-style-type: none"> • CDC • DoD • USAID 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 3	<ul style="list-style-type: none"> • Training of staff on incident management through the MINSANTE EOC is conducted • MINSANTE EOC plans and procedures are exercised • Linkages established for disease surveillance to feed into MINSANTE EOC database 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 4	<ul style="list-style-type: none"> • Test, validate, and improve MINSANTE EOC plans and procedures • FETP graduates incorporated into EOC staff planning and activities • Sustained OH preparedness for multi-sectoral rapid response to reports of disease outbreaks 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 5	<ul style="list-style-type: none"> • Assess MINSANTE EOC performance to coordinate response during actual disease outbreaks or during outbreak exercise. • National capacity for One Health preparedness in place 	<ul style="list-style-type: none"> • CDC • USAID • DoD 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)

Linking PH and Law Enforcement

GHSA Goal		GHSA Objective	GHSA 5-Year Target		
Respond Rapidly and Effectively		Developing an interconnected global network of EOCs and multi-sectoral response to biological incidents: Promote establishment of public health EM programs, including EOCs; trained, functioning, multi-sectoral rapid response teams, with access to a real-time information system; and capacity to attribute the source of an outbreak.	In the event of a biological event of suspected or confirmed deliberate origin, a country will be able to conduct a rapid, multi-sectoral response, including the capacity to link public health and law enforcement, and to provide and/or request effective and timely international assistance, including to investigate alleged use events.		
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> Engagement meeting with CDC in-country staff, U.S. Embassy personnel, and country public health and law enforcement authorities Current capacity of Yaoundé Nsimalen International Airport (NSI) is assessed Develop/improve public health emergency response plan for responding to cholera and other infectious diseases that meets International Civil Aviation Organization and International Health Regulations requirements Population movement patterns across borders mapped in order to identify high-volume entry points 	<ul style="list-style-type: none"> CDC USAID Assistance for EM Action Package also applies to LPH 	<ul style="list-style-type: none"> MINSANTE GCR law enforcement related Ministries Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	
Year 2	<ul style="list-style-type: none"> Ministries and/or agencies begin to work together in response to a biological event of suspected or 	<ul style="list-style-type: none"> CDC USAID Assistance for EM Action 	<ul style="list-style-type: none"> MINSANTE GCR law enforcement related Ministries 	<ul style="list-style-type: none"> WHO Others (TBC) 	

	<p>confirmed deliberate origin (International Joint Investigations)</p> <ul style="list-style-type: none"> • Develop and execute training based on Yaoundé Airport’s public health emergency response plan 	<p>Package also applies to LPH</p>	<ul style="list-style-type: none"> • Others (TBC) 	
Year 3	<ul style="list-style-type: none"> • Coordinating ministry or commission is selected • Best practices toolkit for training is developed • Coordination and communication across implicated sectors enhanced • Develop and execute an exercise based on Yaoundé Airport’s public health emergency response plan • Health messaging for in-bound and out-bound travelers improved 	<ul style="list-style-type: none"> • CDC • USAID Assistance for EM Action Package also applies to LPH 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • Others (TBC)
Year 4	<ul style="list-style-type: none"> • Coordination Ministry develops joint protocol to guide joint investigations 	<ul style="list-style-type: none"> • CDC • USAID Assistance for EM Action Package also applies to LPH 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 5	<ul style="list-style-type: none"> • With relevant Protocol exercised partners and an evaluation of lessons-learned/recommendations is captured for policy refinement prior to full implementation 	<ul style="list-style-type: none"> • CDC • USAID Assistance for EM Action Package also applies to LPH 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • Others (TBC)

MCM and Personnel Deployment

GHSA Goal		GHSA Objective	GHSA 5-Year Target		
Respond Rapidly and Effectively		Improving global access to medical and non-medical countermeasures during health emergencies.	A national framework for transferring (sending and receiving) medical countermeasures and public health and medical personnel among international partners during public health emergencies.		
	Key Milestones	US Government Activity	Government of Cameroon Activity	Other Entities in Cameroon With Activity (e.g., NGO, other governments, multilaterals)	
Year 1	<ul style="list-style-type: none"> Existing policies/frameworks for receipt, use and approval of medical countermeasures (MCM), and receipt/deployment of medical personnel assessed Policy development and training is initiated National preparedness plans for use of non-medical countermeasures involving zoonotic disease (available through regional stockpiles) developed 	<ul style="list-style-type: none"> CDC USAID 	<ul style="list-style-type: none"> MINSANTE Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	
Year 2	<ul style="list-style-type: none"> Existing workforce and relevant resources (medical and non-medical countermeasures) inventory conducted Recommendations for emergency resource stockpile at regional level are developed Deployment clearance process system established Capacities and skills required for implementation of National preparedness plans for use of non-medical countermeasures involving zoonotic disease (available through regional 	<ul style="list-style-type: none"> CDC USAID 	<ul style="list-style-type: none"> MINSANTE Others (TBC) 	<ul style="list-style-type: none"> WHO Others (TBC) 	

	stockpiles) strengthened			
Year 3	<ul style="list-style-type: none"> • Initial draft of regional agreements for rapid cross border deployment of personnel and material • Regional caches of supplies and equipment established to enable regional deployment • Encourage the development of draft policies for receipt/deployment of MCM and personnel • MCMs are procured to support two heavily affected or high-risk areas for cholera • Capacities and skills required for implementation of National preparedness plans for use of non-medical counter-measures involving zoonotic disease (available through regional stockpiles) sustained 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 4	<ul style="list-style-type: none"> • Encourage the development of a draft policy for “emergency use” type authorization for both donated and donated experimental MCM • Capacities and skills required for implementation of National preparedness plans for use of non-medical counter-measures involving zoonotic disease (available through regional stockpiles) sustained 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)
Year 5	<ul style="list-style-type: none"> • Finalized regional agreements for rapid cross border deployment of personnel and material 	<ul style="list-style-type: none"> • CDC • USAID 	<ul style="list-style-type: none"> • MINSANTE • Others (TBC) 	<ul style="list-style-type: none"> • WHO • Others (TBC)

	<ul style="list-style-type: none">• National framework for sending and receiving medical countermeasure and public health and medical personnel from and to international partners during health emergencies is established• Capacities and skills required for implementation of National preparedness plans for use of non-medical counter-measures involving zoonotic disease (available through regional stockpiles) in place			
--	--	--	--	--